LEVEL UP! THE AI ACCOUNTING COMPETENCY MATRIX. A PROPOSAL FOR DEVELOPING THE SKILLS OF MODERN ACCOUNTING PROFESSIONALS

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Abstract: *This article explores the key skills needed for the effective integration of artificial intelligence (AI) into accounting. Against the backdrop of digital transformation, accounting professionals need to develop technical and analytical skills to capitalize on the opportunities offered by AI. Following rigorous qualitative research, a comprehensive competence matrix has been developed serving as a potential guide for accounting practitioners in the process of AI implementation at the level of the accounting system. In the first stage of the qualitative research, a content analysis of online publications belonging to IFAC and Big4 companies was conducted, focused on investigating the profile of AI skills needed in modern accounting. As a result of this analysis, twelve competencies were found, of which five were technical, five were soft, and two were related to legal compliance and management. The results of the qualitative investigation of IFAC and Big4 publications revealed that advanced data analysis, critical thinking, and adaptability are unanimously recognized as fundamental pillars in the development of AI competencies in accounting and financial reporting. In the second research stage, based on the content analysis of the aforementioned publications, an integrated competence matrix was developed which encompasses the key competencies required for adopting and leveraging AI in accounting. The integrated matrix is structured on four levels and contains fifteen competencies. This matrix, built on four levels of competencies, fundamental, technical, psycho-socio-emotional, and strategic, synthesizes the fundamental directions of professional development and outlines a conceptual framework for the adaptation of accounting professionals to new technological challenges. This integrated approach allows for a clear understanding of how these competencies interconnect and support each other in the successful implementation of artificial intelligence in accounting.*

Keywords: *artificial intelligence; accounting; skills; digital transformation; accounting professionals.*

JEL Classification: *M41; O33; C88.*

1. Introduction

Digital transformation has become an essential process in all economic fields, including accounting. The integration of artificial intelligence (AI) allows for the automation of repetitive tasks, the reduction of errors, and the optimization of decision-making. However, this transition requires the development of specific technological skills among professional accountants and also a consolidation of other soft competencies. Competencies are a complex and dynamic set of individual attributes such as theoretical and practical knowledge, facts, concepts, and principles relevant to a specific field. This complex set also includes the abilities to apply knowledge in practice, to use tools and techniques, to solve problems, and to make decisions. At the same time, competencies also include the way of thinking, feeling, and behaving, including values, beliefs, motivations, and personality traits that influence performance. These three components are interconnected and influence each other, forming a unique competency profile for each individual. Competencies can be developed through education, training, experience, and practice, and represent what we know, can, and are capable of doing in various professional or personal situations (Badicu, et al., 2024; PWC, 2024).

In the context of rapid technological evolution, the integration of AI into accounting represents an important step in transforming the way professionals in this sector conduct their work. The skills required to successfully navigate this ever-changing landscape are varied and complex, including both technical skills and a deep understanding of regulations and ethical issues. The integration of AI into accounting brings both challenges and significant opportunities. While the potential benefits are clear, the lack of a formal, global competency matrix makes it difficult to develop a clear professional profile for accountants of the future. Various prestigious organizations, such as Deloitte, PwC, EY, and KPMG, have significantly contributed to shaping the technological skills required for integrating AI in the field of accounting. These companies (Big4) have developed numerous guides and resources that explore essential aspects, such as programming skills, data analysis, and understanding of advanced algorithms. These materials highlight the importance of professionals adapting to new technological demands by providing clear directions for developing relevant skills. However, these resources are not structured in a way that facilitates a systematic and coherent approach, such as through the use of a skills matrix. The lack of such a structure limits the ability of professionals and organizations to assess and strategically plan for the development of the skills needed to implement AI. Therefore, an integrated matrix of key competencies would provide an organized and detailed framework, allowing the correlation of needed competencies with existing ones and the identification of gaps. In this study, we aim to identify whether such a need exists and, if so, how it could be designed and used for the benefit of accounting professionals.

This study aims to identify the key competencies needed for the effective use of AI and other emergent technologies in accounting and to propose a conceptual framework in the form of an integrated skills matrix. In this respect, first, a content analysis of IFAC and Big4 online publications focused on AI competencies in accounting and financial reporting was employed seeking to find the dominant key skills unanimously agreed upon by the aforementioned organizations followed by a

proposal for an integrated competencies matrix as a conceptual framework that that could guide accounting professionals in the process of adapting to the implementation of emerging technologies in the accounting information system.

2. Background of the study

The literature emphasizes the importance of acquiring technological skills to enable the effective integration of artificial intelligence (AI) in accounting. Competencies represent the set of knowledge, skills, and abilities necessary to cope with professional and personal demands (Badicu et al., 2024; PWC, 2024). In this context, preparing accounting professionals for the transformations brought by AI is a hot topic, given the significant impact of new technologies on the financial sector (Bunget & Lungu, 2023). In an era where automation and data analytics are booming, the accounting profession is going through a period of fundamental transition. Adapting to these changes is essential for maintaining the relevance and efficiency of accounting activity (Grosu et al., 2023). Recent studies indicate that AI can optimize financial processes by automating repetitive tasks and improving data analytics. Machine learning algorithms allow massive volumes of financial data to be examined to identify patterns and trends, thus facilitating strategic decision-making. For example, a report by the World Economic Forum (2025) shows that more than 60% of accounting tasks can be automated with the help of AI. To substantiate the research, we analyzed the main trends in the literature related to the topic, and five such trends were identified.

The Impact of AI on Accounting Processes. Artificial Intelligence promises a revolution in accounting (Fülöp et al., 2023). Automating tasks such as recording financial transactions, reconciling data, or generating accounting reports can lead to increased efficiency and reduced human error (Bhimani & Willcocks, 2014). This transformation frees up accountants' time for value-added activities such as detailed analysis of financial data, forecasting economic indicators, and strategic consulting. Accountants need to learn new skills to interact with AI effectively. In addition to using specialized software, they must understand advanced data analysis techniques to extract relevant information from large financial data sets. Continuing education and training play a crucial role in this regard (Bunget and Lungu, 2023), and vocational training can no longer be considered an occasional process, but a constant necessity for maintaining competitiveness in the market.

Transforming the role of accountants in the age of AI. The use of AI and other intelligent systems is driving profound changes in the traditional structure and roles in the field of accounting (Ștefan et al., 2024). Although many repetitive tasks are automated, functions related to advice, strategic evaluation, and customer relationship management remain essential. Thus, accountants must develop interdisciplinary skills, combining technical knowledge with communication, critical analysis, and problem-solving skills (Morandini et al., 2023). Artificial intelligence and other advanced technologies do not replace professional accountants, but amplify and diversify their role, providing them with tools to bring value in areas that require fine human judgment and complex economic and financial understanding. A crucial aspect of the use of AI is ethical responsibility (Ahmad, 2024; Chao et al.,

2023; Vărzaru, 2022). Accountants need to be aware of the legal and ethical implications of AI, especially in terms of data protection (Stoica and Ionescu-Feleagă, 2024), algorithmic transparency, and the fairness of automated decisions. Current and future regulations will need to be rigorously complied with to protect clients' interests and ensure professional integrity (Solaimani et al., 2020; Jackson et al., 2023).

The need to redefine accounting skills. Preparing accounting professionals for the AI era is not only an opportunity to improve accounting processes but also a challenge in terms of adapting to new technological realities. Accountants need to redefine their role, integrating technological skills while retaining fundamental analytical and strategic advisory skills (Morandini et al., 2023). The AI revolution does not eliminate the need for accountants, but transforms their work (Deliu and Olariu, 2024), providing them with the necessary tools to face the challenges of the modern economy. The implementation of AI algorithms requires a deep understanding of fundamental concepts, like mathematics, programming, and data analysis, but also a careful approach to ethical aspects and regulations specific to the field (Tambiama, 2024). Mathematics and statistics are essential for the correct interpretation of AI algorithms. Machine learning is based on principles of linear algebra, probability, and statistics, which enable the processing and analysis of financial data. In addition to this knowledge, programming skills become indispensable. Languages such as Python and R, along with dedicated AI libraries, are widely used for the implementation of advanced models (Ding et al., 2020; Kumar et al., 2024; Bertomeu, 2014). In addition, advanced techniques such as deep learning enable the development of solutions capable of analyzing images, processing natural language, and detecting financial fraud (Cho et al., 2020).

The importance of data processing and ethical regulations. Data processing is a critical step before the application of AI algorithms. Financial data must be cleaned, transformed, and structured properly to achieve valid results. A lack of solid data management skills can lead to wrong or distorted results, affecting financial decisions. At the same time, professionals need to be aware of the ethical implications of using AI, especially in terms of data privacy and avoiding algorithmic bias (Tiron-Tudor et al., 2024).

Developing a competency matrix. The competency matrix is an essential tool for identifying, analyzing, and planning the competencies needed within an organization (Lacurezeanu et al., 2020). It provides a visual representation of the key competencies assigned to different professional roles. Although, there is currently no official competency matrix for the use of AI in accounting, existing studies highlight the importance of developing technological competencies in this area (Gușe & Mangiuc, 2022). Various international organizations, such as Deloitte, PwC, EY, and KPMG, have published guidelines on the technological skills needed to integrate AI, but have not developed a detailed matrix. It highlights the need for a clear competence framework for the accountants of the future to ensure effective adaptation to the professional requirements of the AI era.

3. Data and methodology

In this work, a qualitative investigation was conducted based on data publicly available online, disclosed through various publications by Big4 companies and IFAC on the topic of AI skills and abilities in accounting and financial reporting. The research methodology used in this study followed a systematic approach, structured in two major stages. In the first phase, a comprehensive review of the literature was carried out, including publications, articles, and reports prepared by Big4 companies and IFAC, focusing on the skills needed to use artificial intelligence in the field of accounting. Subsequently, a content analysis was employed on selected publications and the five recurring competencies within the analyzed works were identified and extracted, for each mentioned company. Following this step, a synthesis of the skills identified for each company was carried out, to determine the common and relevant skills for all the analyzed entities. Further on, based on the collected data we proceeded to design a competency matrix, structured on several levels as an original contribution meant to complement the existing works in the literature. As an outcome of the qualitative content analysis, we proposed an integrative framework for the competency matrix which facilitates a rigorous comparative analysis and synthesis of research results, providing a clear insight into the essential skills for the use of artificial intelligence in accounting.

4. Results and discussion

The Big4 companies (Deloitte, PwC, EY, KPMG) have contributed significantly to defining the competencies for integrating AI into accounting and finance, by developing guides and resources that explore programming skills, data analysis, and advanced algorithms. These materials highlight the importance of adapting professionals in the field to new technological requirements, providing clear directions for the development of relevant skills. Integrating AI into accounting requires varied and complex skills, including both technical skills and a deep understanding of regulations and ethical issues. Professional accountants need to develop strong digital skills. These require not only fundamental knowledge of AI-based technology but also familiarity with specialized software and platforms that are used for financial data analysis (Jackson et al., 2023; Stoica & Ionescu-Feleagă, 2024). Another significant aspect is the development of competencies in data analysis. Professional accountants must have the ability to interpret and analyze large amounts of financial information, using AI-specific algorithms. By applying these technologies, accountants can uncover subtle patterns and relationships in financial data, providing valuable insights for accurate forecasting and predicting financial trends. The use of AI in accounting involves ethical and regulatory challenges, requiring ethical skills to protect integrity and transparency. According to the legislation in force and the fundamental principles of the accounting profession, professionals must be familiar with the regulations and ethical standards that govern the use of advanced technologies in this field. Accounting organizations are investing in the continuous training of professionals, with a focus on AI-related skills. The first part of the research examines the Big4 and IFAC publications to

identify the skills needed to implement AI in accounting and auditing. Within this section of the research, the aim was to qualitatively examine the relevant official publications of the last few years of the Big4 and the International Federation of Accountants (IFAC). Thus, relevant documents were identified and analyzed that explicitly addressed the skills needed for the successful implementation of artificial intelligence in the field of accounting, financial reporting, and auditing.

Over the past five years, rapid technological developments and transformations in the financial sector have imposed a profound change in the way accounting and auditing professionals conduct their work. During this transition period, artificial intelligence (AI) has become an indispensable tool, and its effective integration into accounting processes requires a specific set of skills. As a leader in the field, KPMG stressed the importance of developing these skills to respond to the challenges and opportunities generated by technology (KPMG, 2024). In this context, a holistic approach is required that includes fundamental, technical, psycho-socio-emotional, and strategic skills, each of which plays an essential role in the success of AI implementation.

4.1. The AI competence matrix in accounting. The Big4 and IFAC perspective

To determine the profile of the skills needed to implement AI in accounting, a qualitative content analysis of published articles, newsletters, and reports on the websites of IFAC and the largest audit firms (PwC, KPMG, Deloitte, and EY) was carried out. Deloitte states that AI is more than an emerging technology, it is a catalyst for redefining labor relations and the way auditing and accounting are done. In a recent study, Deloitte highlighted that eight out of ten global leaders anticipate that AI will fundamentally transform their organizations in the next three years (Deloitte, 2024). In an ever-changing landscape, the future of the accounting and audit profession is closely linked to the interconnected understanding of advanced technologies and human skills. KPMG promotes a continuous professional skills development model that combines technical skills with soft skills (KPMG, 2024), like empathy, creativity, and the ability to work in diverse teams. These skills will be essential to build trusting relationships with clients and to effectively respond to future challenges, such as the rapid adoption of new technologies and the management of emerging risks. Integrating AI into accounting and auditing requires a combination of advanced technical skills, soft skills, and a strategic vision for the future. KPMG emphasizes that success in using AI depends not only on the technology itself but also on the continuous development of professional skills and the adaptability of professionals in the field to new challenges and opportunities. PwC, one of the world's leading consulting firms, highlights the growing relevance of skills related to the use of AI in the finance and accounting sector. PwC's 2024 Global AI Jobs Barometer report highlights a 3.5% faster growth in demand for AI skills jobs compared to other jobs (PWC, 2024). PwC emphasizes that as AI technologies evolve, financial professionals must become strategic partners, capable of combining technological analysis with a deep understanding of the economic and regulatory context (PwC, 2024). Our analysis aimed to identify the essential skills promoted by these organizations, necessary for the successful implementation of AI-based solutions in accounting processes. According to the EY Upskilling Survey Romania 2024 (EY, 2024), reskilling and developing professional

skills are essential to remain competitive in the labor market. The study highlighted a convergence of views on skills essential for professional development over the next decade. Cybersecurity, digital skills, and green technologies were identified as the most sought-after, reflecting current labor market trends (EY, 2024). In parallel, analytical skills, such as data analysis and critical thinking, have strengthened their position, highlighting the importance of informed decision-making in an increasingly complex environment. Also, interpersonal skills like emotional intelligence and leadership have maintained their relevance, indicating that professional success still depends on the ability to collaborate and influence. Finally, the interest in AI and innovation indicates a desire to master cutting-edge technologies and contribute to the development of innovative solutions.

The integration of AI in accounting is redefining the skills needed for professional accountants. The International Federation of Accountants (IFAC) emphasizes the importance of adapting to new technological requirements and highlights the essential role of education and continuous professional development in this transformation. The accounting profession is undergoing accelerated digitalization, and understanding advanced AI technologies is becoming essential. The current analysis aimed to identify the hard-core skills promoted by these organizations, necessary for the successful implementation of AI-based solutions in the accounting processes. Thus, as a result of the focus-oriented content analysis, a competency matrix was built, presented in Table 1, which allowed us to identify the intersections between these competency profiles and highlight the most demanded skills in the industry.

Table 1. The AI competence matrix. Big4 and IFAC perspective

Nr.crt.	Competence	KPMG	PwC	EY	Deloitte	IFAC
1.	Advanced data analytics	1	1	1	1	1
2.	Critical thinking	1	1	1	1	1
3.	Process automation	1	0	0	1	0
4.	Predictive analytics	1	1	1	0	0
5.	Risk management	1	0	0	1	0
6.	Compliance with current regulations	1	0	0	0	0
7.	Creativity	0	1	0	1	0
8.	Adaptability	0	1	1	1	1
9.	Digital skills	0	0	1	0	1
10.	Ethics	0	0	0	0	1
11.	Foreign languages	0	0	1	0	0
12.	Cybersecurity	1	1	0	0	1

Source: own projection following content analysis of Big4 and IFAC publications

Note: In designing the matrix, the presence of competence in a published article was coded with the value 1, while its absence was represented by the value 0.

The competency matrix provides a multidimensional perspective on the competency profile in terms of the skills needed in a dynamic and complex professional environment. In the current context presented, the analysis of the skills prioritized by internationally recognized firms, as KPMG, PwC, EY, and Deloitte, together with IFAC, reveals not only convergences but also significant differences in their approach. This matrix constitutes a systematic model for organizing information, with a structure that facilitates the identification and comparison of critical competencies depending on the entity that promotes them.

By examining the data, it can be seen that advanced data analysis and critical thinking are unanimously recognized as essential by all entities, reflecting the importance of analytical skills in an environment characterized by an increased volume of information. Instead, process automation is a top priority for KPMG and Deloitte, highlighting these firms' focus on operational efficiency and the use of emerging technologies. Predictive analytics, a skill that involves using advanced statistical models to predict trends, is considered important by KPMG, PwC, and IFAC, but is not promoted by EY or Deloitte. This aspect reflects a diversity in organizational priorities, influenced by the specifics of the services offered. Another area of focus is creativity and adaptability, considered fundamental for PwC, EY, and IFAC, but absent from the KPMG list. Creativity, along with adaptability, is essential to respond to the challenges generated by the rapid changes in the global economic environment. In the same direction, digital skills and cybersecurity appear as priorities for certain entities, such as EY, Deloitte, KPMG, and IFAC, which reflects the increasing dependence on digital solutions in consulting and auditing activity. The ethical dimension is highlighted exclusively by IFAC, emphasizing the role of this organization in promoting global professional standards. At the same time, foreign language, a skill necessary for operating in an international environment, is only mentioned by EY, emphasizing intercultural communication skills. In terms of risk management and regulatory compliance, these competencies are essential for KPMG and Deloitte, indicating a constant concern for compliance with the regulatory framework. Therefore, this AI competency matrix provides a clear insight into the various priorities of the analyzed organizations. This approach allowed for an in-depth exploration of the perspective of these key actors on the key skills profile required in the context of the implementation of AI in the accounting profession.

4.2. The integrative AI competency matrix in accounting. A proposed framework

Starting from the previous focus-oriented content analysis of Big 4 and IFAC publications, an own matrix was developed, reflecting an integrated vision of the hard-core competencies needed for the adoption and capitalization of AI and other advanced technologies in the field of accounting and financial reporting. This matrix, detailed in Table 2, summarizes the fundamental directions of professional development and outlines a reference framework for the updating process of accounting professionals to the new technological challenges.

Table 2. The integrative AI competency matrix in accounting

Level	Competence	Short description
Fundamental	Basic accounting knowledge	Understanding the basic principles of accounting, its methods, techniques, and objectives.
	Accounting law, accounting, and tax regulations knowledge	Knowledge and understanding of accounting, tax regulations, and legislation in the field to comply with the rules in the use of AI in accounting processes.
	Professional ethics	Skills of knowing and considering the ethical implications of AI implementation, including data protection and automated decisions.
Technical	Machine Learning (ML) for Automation	Knowledge of the use of machine learning algorithms to automate accounting processes (e.g. recognition of financial documents, validation of transactions).
	Natural Language Processing (NLP)	Ability to apply NLP techniques for interpreting and extracting information from accounting texts, such as invoices or contracts.
	Big Data and Data Analytics	Ability to analyze and interpret large volumes of financial data to support financial forecasting and risk analysis.
	Accounting Robotic Process Automation (RPA)	Using Robotic Process Automation (RPA) to perform repetitive tasks and improve the efficiency of accounting processes.
	Integrating AI with ERP systems	Configuring and optimizing AI-integrated ERP systems to improve accounting workflows and financial reporting.
Psycho-socio-emotional	Ability and flexibility	Ability to accept and manage change, openness to continuous learning and innovation, and resilience in the face of uncertainty and technological challenges.
	Emotional intelligence	Self-knowledge, stress and anxiety management related to digital transformation, empathy towards colleagues and clients affected by technological changes.
	Leadership and influence	Ability to lead digitalization initiatives. Inspiring and motivating the team to adopt new technologies. Ability to manage resistance to change
Strategic	Digital change management	Ability to manage organizational transitions and ensure the endorsement of AI technologies in accounting departments, including staff training.
	Strategic thinking	Ability to develop an AI deployment strategy that aligns technology with the company's financial and operational goals.
	Interdisciplinary collaboration	Collaborate effectively with IT, software development, and AI teams to implement innovative solutions in accounting.
	Risk and fraud management	The application of AI for the detection and prevention of financial risks, including identification of fraudulent or criminal activities, as well as anomalies in accounting data.

Source: own projection

The four levels of the integrative competency matrix – *fundamental, technical, psycho-socio-emotional, and strategic* – are so named because each level reflects a distinct set of skills and knowledge required at different levels of implementation and use of artificial intelligence (AI) in the field of accounting.

Fundamental or hard-core competencies are the first, vital level of competencies. These skills are basic to understand and navigate correctly in the context in which AI will be implemented. They provide a solid foundation for compliance with accounting and legal regulations. Without these competencies, the risks of non-compliance with the rules and creating dysfunctions in internal processes are high. In addition, these skills are essential to understand the overall impact of AI on accounting activities and to anticipate possible compliance challenges. Without these competencies, we can no longer talk about the competencies regarding the implementation of AI in accounting.

Technical skills are the second level of the integrative competency matrix and here are the specific skills related to AI technology and other systems and how it can automate and optimize accounting processes. Technical skills include the ability to use AI to process accounting documents, analyze financial data, and integrate AI solutions into existing systems, such as ERPs. It is also important for professionals to understand how to implement and maintain technological solutions so that they bring a real benefit to the efficiency and accuracy of accounting processes.

Strategic competencies are level three. These are important to ensure the long-term integration of AI into the organization's accounting structures and to create a coherent vision of how AI can support business objectives. These competencies focus on change management and developing an effective framework for implementing and adopting AI in all accounting processes. They are necessary to ensure a sustainable and adaptable use of AI, which contributes to the long-term success of the business and accounting teams.

In the current era, characterized by accelerated technological dynamics, *psycho-socio-emotional skills* become fundamental for successfully adapting to the profound changes imposed by digital transformation. The ability to navigate uncertainty, accept and manage change, as well as openness to continuous learning and innovation, are critical. Emotional intelligence, manifested through self-knowledge, stress management, and empathy, facilitates effective interactions with colleagues and customers, while leadership and influence are needed to drive digitalization initiatives and motivate teams to adopt new technologies. The ability to overcome resistance to change and inspire innovation are also key elements to ensure a smooth and efficient transition to a digital future. The integrative levels of competencies are presented in Figure 1.

Figure 1. Levels of competence. Proposed framework
Source: own processing

The choice of colors to represent the main categories of competencies is based on their psychological meanings and the visual impact associated with each domain. Blue was selected for fundamental skills because of its association with stability, confidence, and conceptual clarity, essential for building a solid foundation. Gray represents technical skills, reflecting neutrality, precision, and analytical rigor, fundamental characteristics for the application of technology in accounting. For psycho-socio-emotional skills, green is the optimal choice, symbolizing balance, empathy, and emotional harmony, essential in managing interpersonal relationships and adapting to change. At the strategic level, purple is considered more appropriate, being associated with strategic thinking, leadership, and innovation, reflecting the complexity of decisions and the vision required for the implementation of AI in the accounting profession. This color scheme provides a logical and visually coherent progression of skills needed in the digital transformation process (Elliot & Maier, 2013, Hatos, 2024; Haryati et al., 2024).

Further on, we employed a competency analysis by importance using a simplified mathematical model by employing a weighted scoring system. In this respect, first, we defined the fifteen competencies identified previously structured on four levels, we assigned weights for each competency, to each competency received the weight reflecting its perceived importance, these weights sum to 100%, and using a 7-point scale (where 7 is the highest importance) we rated each competency based on its impact and significance. In the last step, we determined the weighted scores by multiplying each competency's score by its weight, and we considered this value as the overall or general score. Figure 2 captures the competency analysis by importance.

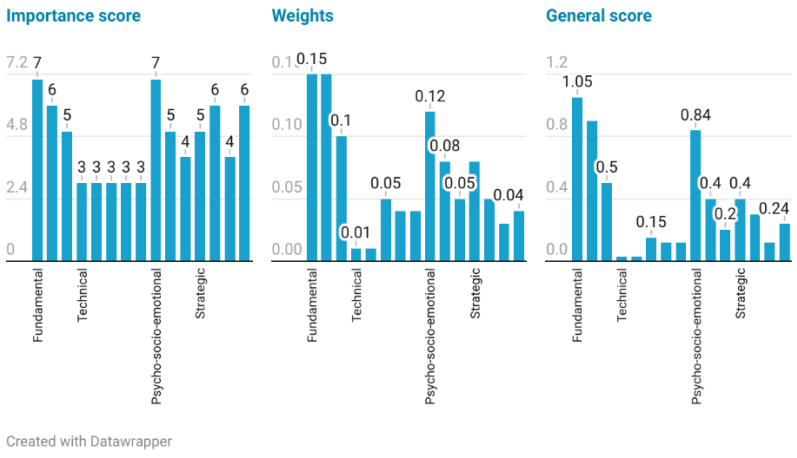

Figure 2. Competency analysis by importance
Source: own processing using *Datawrapper*

This competency analysis by importance allows a ranking of the fifteen selected AI skills in accounting and financial reporting based on the weighted scores or the general score obtained for each competence. The competencies ranking is shown in Figure 3.

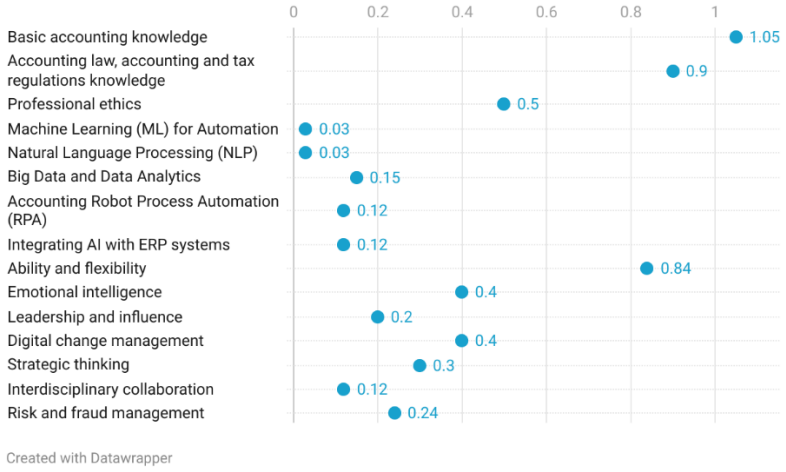

Figure 3. Ranking of competencies by importance
Source: own processing using *Datawrapper*

As can be seen from Figure 3 the first five positions in the hierarchy of competencies are occupied by basic accounting knowledge, accounting and tax regulations, ability and flexibility, professional ethics, emotional intelligence, and digital change management. Although AI skills occupy the last positions, it does not mean that they should not be acquired and developed, but rather the competency matrix should be analyzed in an integrated way, meaning that these AI skills in correlation with other skills like strategic thinking, interdisciplinary collaboration, and digital change management, as well as with the skills in levels one and three provide a holistic and modern perspective. The integrative competency matrix designed in four levels represents a coherent and homogenous framework and can be successfully adopted in the accounting practice. Moreover, this integrative approach allows for a clear understanding of how these skills interconnect and support each other in the process of AI and advanced technologies implementation in accounting and financial reporting.

5. In conclusion

Competencies are key items in updating professional accountants to the AI and advanced technologies revolution, as they combine hard-core knowledge with technical knowledge, practical skills, and ethical values. The permanent development of these skills is significant for integrating new technologies into

practice, ensuring an effective transition to a financial environment transformed by AI systems. The focus-oriented content analysis of Big4 and IFAC online publications revealed a strong consensus on the key competencies needed for the successful implementation of AI and advanced technologies in accounting and financial reporting. It turned out that advanced data analytics, critical thinking, and adaptability are unanimously recognized as fundamental pillars. Thus, these skills underline the need for a strategic and flexible approach to technological transformations, ensuring a smooth and efficient transition to a digital future in accounting. Although AI automates many accounting processes, human input remains indispensable in strategic analysis and complex decision-making. In this context, continuing education and training become fundamental pillars for accounting professionals' development in an era marked by fast technological transformations.

The present study contributes to enriching knowledge on the topic of AI skills needed in accounting for a modern evolution of professionals by proposing a framework in the form of an integrative matrix that reveals the interconnectivity between skills stratified into four levels and ensures a holistic approach. The implications of the study are two-way. The results of the analyses may represent premises for more in-depth or niche academic research, and the practical implications concern the possibility of creating a managerial tool or adapting an existing one by implementing the integrative competency matrix. The limitations of the study concern the data used but also create a bridge to future research that aims to expand the analysis of the integrative matrix of AI competencies in accounting in the context of using a larger volume of data and involving real subjects in the study.

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