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#### Article

# Accountants' Competencies for Sustainability Reporting: An Exploratory Study

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# Accountants' competencies for sustainability reporting: An exploratory study

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## Abstract

**Research Question:** What is the perception of various groups about the accountants' competencies in relation to sustainability reporting?

*Motivation*: Extant research provides conflicting views on the role of accountants in sustainability reporting, their competencies and the role of various actors in developing the necessary skills.

*Data:* We employed an online questionnaire-based survey that was administered to various professional groups, including students, accountants, non-accountants and professors. The final sample comprised 168 responses.

*Tools:* Cross-sectional analyses were further used to statistically analyze the data. Cross-sectional analyses aimed to indicate the differences between sub-groups of respondents.

**Findings:** We test the perceived importance of the expected competencies for the accounting profession (IFAC, 2023) and find that the order of decreasing importance is traditional technical accounting competencies, soft skills and finally sustainability-related competencies. Respondents expect that all three actors investigated, i.e. universities, professional associations and employers to play a very important role in forming the competencies accountants need to possess in nowadays' environment, with professional associations expected to play a significant role. Surprisingly, professors perceive that all categories of skills are more important, compared to other categories and particularly to accountants. Non-accountants attach a lower importance than other groups to the need of soft skills and sustainability related skills in the accounting profession.

*Contribution:* Our study contributes to the literature on the role of accountants in sustainability accounting and reporting by incorporating the recent developments in the profession and by offering a more recent view of professionals. Moreover, we investigate the

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perception of various groups (students, accountants, non-accountants and accounting academics), which offers a richer perspective than studies focused on one group.

*Research limitations*: Limitations are related to the inherent constraints associated with employing surveys, including small sample size, and limited generalizability.

Keywords: sustainability reporting, competencies, accounting profession, survey

#### JEL Codes: M41

#### **1. Introduction**

Sustainability is a new professional task that recently emerged as an addition to the traditional roles and responsibilities of the accounting profession, initially as a result of voluntary sustainability reporting and then as a consequence of regulatory developments. As such, European countries are subject to the Non-Financial European Directive 2014/95/EU, which brought the non-financial reporting requirements into the scope of the accounting profession (Krasodomska *et al.*, 2020). This Directive has been replaced by the Corporate Sustainability Reporting Directive (CSRD) 2022/2464/EU, which is a stronger catalyst for sustainability reporting (SR). In this context, professional associations call for a stronger involvement of accountants in SR (Ascani *et al.*, 2021; IFAC, 2023).

Much of the prior literature has been concerned with organizational SR practices. Organizations respond to the expectations of various occupational communities, but the organizational response is shaped by its functional competencies and cultural frames (Hoffman, 2001). In this paper we study the perception of various groups (students, accountants, non-accountants and accounting academics) regarding accountants' involvement in sustainability accounting and reporting and the needed competencies, through surveys as means to observe the respondents' perception.

Our study responds to recent calls to investigate in various contexts the accounting professions' responses to the recent SR developments (Özsözgün Çalışkan, 2014; Krasodomska *et al.*, 2020; Ascani *et al.*, 2021; Halari and Baric, 2023). Our results show that all categories of respondents support the extension of accountants' tasks towards sustainability reporting, with non-accountants displaying the lowest support, while prior studies in the same setting (e.g., Albu *et al.*, 2024) find that in some cases the accounting profession fulfills the central role in SR, but in most of these cases the reporting is rather superficial. This finding highlights the challenges the accounting profession has in obtaining legitimacy for this position. Moreover, our results highlight the essential role that education plays in shaping the accounting profession, with universities, professional associations and employers being important in forming the competencies. Professional associations are perceived to be

Vol. 23, No. 2

more important than the other actors in forming most competencies needed by accountants. This finding provides support for the professional associations' actions and resources in SR. However, the results also raise the question if this strong role is assigned particularly because professional associations, particularly the global ones (IFAC, 2023) are very vocal in developing the profession towards sustainability-related tasks.

The remainder of this paper is structured as follows. We first provide an overview of the literature investigating the involvement of accountants with and perception of SR. Next, we present our methodological approach and our empirical findings. Finally, we discuss the results and present the main contributions and conclusions.

## 2. Literature review

Each year, a growing number of large companies publish sustainability reports, which they disseminate to their stakeholders. This "instrument of transparency" (Wagenhofer, 2024: 1) can bring about new responsibilities for organizational members and a new emerging role for accountants. Regulatory developments, such as the CSRD and actions of professional associations, but also universities, represent calls and drivers for a higher involvement of accountants in sustainability-related activities (Ascani *et al.*, 2021). But for accounting professionals this entails a change in skills and knowledge (Hao *et al.*, 2023) and a shift in the mindset, from solely reporting financial indicators to providing and interpreting nonfinancial information.

Prior studies have presented conflicting narratives in the context of accountants' role in sustainability initiatives. One strand of research mentions several contributions that accountants may bring to corporate sustainability, due to their management accounting skills and knowledge of information systems (Albelda, 2011; Scarpellini et al., 2020; Ascani et al., 2021). In their current form, accounting information systems are designed to measure, observe, and evaluate the financial aspects of the business, while sustainability "encompasses all forms of life that share the world, regards them as mutually interrelated and aims to embody a multidimensional perspective" (Özsözgün Çalışkan, 2014, p.262). Accountants can make sustainability metrics more reliable and accurate (Wilmshurst & Frost, 2001). In addition, they may act as facilitators between the management and the board by promoting sustainable development targets and strategies within an organization (Parker, 2001) and by guiding decision making to gain corporate legitimacy (Mistry et al., 2014). They can also act as drivers of accurate and meaningful reporting (Egan & Tweedie, 2018), playing an active role in enabling the information flow in organizations (Schaltegger & Zvezdov, 2015).

Another strand of research suggests that accountants are not yet prepared for sustainability reporting, be it in terms of knowledge or experience (Schaltegger & Zvezdov, 2015; Williams, 2015; Krasodomska *et al.*, 2020; Bakarich *et al.*, 2023; Halari & Baric, 2023). This limitation can be addressed by developing new skills

Vol. 23, No. 2

and competencies through studying and obtaining certifications (Caron & Fortin, 2014; Bakarich *et al.*, 2023). Despite the growing demand for nonfinancial information, universities are not keeping peace with market demands as accounting graduates lack a sufficient understanding of the concept of sustainability (Botes *et al.*, 2014; Boulianne *et al.*, 2018).

In this view, attention should be paid first to universities' role, as they can further evaluate their curriculum to provide the skills needed for a solid foundation in sustainability accounting (Chulián, 2011; Laine, 2013; Leal Filho *et al.*, 2018; Chebeň *et al.*, 2020; Krasodomska *et al.*, 2020; Bakarich *et al.*, 2023). At present, accounting courses support the idea that shareholders hold primary importance as the key stakeholders whose interests must be addressed. In addition, they are focused on the acquisition of accounting techniques. By integrating social and environmental perspectives in the mainstream financial reporting, management accounting and auditing courses, aspiring professionals can reevaluate their implicit understanding of business practices and better assess their future role within the society (Chulián, 2011). This can further change the current perspective on the environment, as a mere source of resources used for achieving financial success (Gray *et al.*, 1996, cited by Chulián, 2011).

In addition, this educational approach can instil awareness among students, as they will learn that their future decisions will impact the rights of various stakeholders, other that shareholders (McPhail, 2001). The role that universities may play in the sustainability agenda was further documented by Imbrişcă and Toma (2020). The authors demonstrate that students' personal values and social environment are the main drivers for sustainability initiatives. However, to redesign the courses, academics should adopt a collaborative and interdisciplinary approach, to better address the link between theory and practice (Tilbury, 2011; Leal Filho *et al.*, 2018) as students need improved training in gathering, reporting and auditing non-financial information (Krasodomska *et al.*, 2020).

Other scholars support the idea that measuring sustainability may be beyond accountants' capabilities (Adams, 2002) as they are unable to change (Khan & Gray, 2016). They are perceived as having a narrow focus on numbers, inflexibility in their approach and a lack of motivation to change (Larrinaga-Gonzalez & Bebbington, 2001; Jeacle, 2008; Carnegie & Napier, 2010; Egan & Tweedie, 2018). However, Halari and Baric (2023) show that these negative perceptions have a detrimental impact on accountants' involvement within sustainability initiatives:

accountants were placed in restrictive roles that prevented them from engaging with CE [n.a. circular economy], despite their transferable skills and competence, which were widely recognised by sustainability and CE experts as well as the representatives of accounting bodies and accountants themselves (p. 437).

Vol. 23, No. 2

When it comes to the differences between accounting professionals, some studies support the idea that younger generations express greater concern for sustainability initiatives and tend to advocate for a change in the roles and responsibilities of accountants (Bakarich *et al.*, 2023). However, other studies find that the attitude towards sustainability does not differ between female and male accountants or between accountants at the beginning of their career path and the more experienced ones (Krasodomska *et al.*, 2020).

In summary, extant research provides conflicting views on the role of accountants in sustainability reporting. The attitude, role and involvement of accountants vary over time and from one setting to another, due to the differences in regulatory settings (mandatory or voluntary), culture, education and professionalization initiatives (Özsözgün Çalışkan, 2014; Bakarich *et al.*, 2023). Therefore, even if literature is emerging on this topic, much is yet to be investigated (Özsözgün Çalışkan, 2014; Ascani *et al.*, 2021; Halari & Baric, 2023). As such, our study aims to address this issue by analysing perceptions on accountants' competencies within the sustainability arena.

## **3. Research methodology**

#### 3.1 Research context

Our research setting is Romania, a country in which there are conflicting pressures on accountants and their role in sustainability reporting. On the one hand, prior regulations in this area were issued as a complement to financial reporting regulations, and therefore were perceived by some as an indication that sustainability reporting is part of the accountants' activities (Albu *et al.*, 2024). On the other hand, similar to other settings (Schaltegger & Zvezdov, 2015; Williams, 2015; Bakarich *et al.*, 2023), the accounting profession has various barriers, including cultural (Albu *et al.*, 2021), knowledge-based and organizational ones, to be involved in sustainability reporting.

Prior studies on Romania generally document that the accountants are heavily influenced by the communist past, which combined with the hardship of the postcommunist transition set the ground for a limited role in organizations (Albu *et al.*, 2021). Therefore, accountants are mainly involved in external reporting, mainly directed towards the state. However, sustainability-related activities slowly make room in the tasks of accountants (Albu *et al.*, 2011, 2024).

#### 3.2 Research approach

This is an exploratory study, given that SR is a recent challenge for the accounting profession, and therefore discussions around the accountants' role, activities and competencies are emerging. Surveys represent an appropriate methodological approach to investigate issues related to the accounting profession and accounting

Vol. 23, No. 2

education (Williams, 2015; Douglas & Gammie, 2019; Bakarich *et al.*, 2023). Therefore, we employed an online questionnaire-based survey that was administered between 23 February and 8 March 2024 (a reminder has been sent 5 days before the deadline). We targeted various professional groups, including students, accountants, non-accountants and professors. We employ a convenience and purposive sampling approach, given the difficulties to collect data in this setting and given the need to ensure responses in all targeted categories.

The survey instrument comprised questions developed in line with the topics under debate in the profession (IFAC, 2023) and prior literature on the subject (Mistry *et al.*, 2014; Williams, 2015; Krasodomska *et al.*, 2020; Bakarich *et al.*, 2023; Halari & Baric, 2023). The survey was pre-tested with 10 people who covered all the categories of respondents (Nazari *et al.*, 2006). As a result of the pre-test minor changes were made to questions to ensure their clarity. Table no. 1 describes our sample.

Demographic category		Stu	Students tudents and accountants		Accountants		Non- accountants		Professors		Total		
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Studies	Highschool	48	96	39	84.8	2	12.4	8	25	0	0	97	57.7
completed	Bachelor	1	2	5	10.9	7	43.8	14	43.8	3	12.5	30	17.9
	Master	1	2	2	4.3	7	43.8	10	31.2	21	87.5	41	24.4
Sex	Female	40	80	39	84.8	9	56.3	13	40.6	21	87.5	122	72.6
	Male	10	20	7	15.2	7	43.7	19	59.4	3	12.5	46	27.4
Age	18-21	43	86	35	76	0	0	5	15.6	0	0	83	49.4
	22-25	7	14	9	19.6	2	12.5	3	9.4	2	8.3	23	13.7
	26-40	0	0	0	0	6	37.5	11	34.4	9	37.5	26	15.5
	Over 41	0	0	2	4.4	8	50	13	40.6	13	54.2	36	21.4
Total		50	29.8	46	27.4	16	9.5	32	19	24	14.3	168	100

Table 1. Demographic characteristics of respondents

We collected 168 responses. More than half of the responses come from students. However, we distinguish in our analysis between students with (27.4% of the sample) and without work experience (29.8% of the sample), because those working have been exposed to organizations in a way comparable to employees. Nevertheless, they have less work experience than accountants (9.5% of the sample). We also targeted non-accountants (19% of the sample), to have a counterpoint to those studying and working in the accounting field. Finally, accounting professors represent 14.3% of the sample. The sample is also diverse in terms of age. The gender distribution is quite similar to the composition of the accounting profession in Romania (which is predominantly a feminine profession).

#### Vol. 23, No. 2

We used two-tailed Mann–Whitney tests to check for non-response bias, on the first and last 20 respondents in each category. No significant differences were obtained at the conventional level of 1%. Cross-sectional analyses were further used to statistically analyze the data. Cross-sectional analyses aimed to indicate the differences between sub-groups of respondents. This analysis was conducted using the Mann–Whitney U test, a non-parametric test appropriate for small samples (Krasodomska *et al.*, 2020), and it is appropriate for the topic investigated and is regularly employed in studies on the same topic (Williams, 2015; Douglas & Gammie, 2019; Krasodomska *et al.*, 2020; Bakarich *et al.*, 2023).

#### 4. Results

Our study is focused on the importance of various competencies for accountants, given the increasing importance of sustainability accounting and reporting. We investigate the competencies that accountants need to possess in light of the developments in the accounting profession, including the sustainability accounting developments (Douglas & Gammie, 2019; IFAC, 2023; Williams, 2015). We analyze 14 competencies, including technical and soft skills. We first investigate the importance of various competencies. Results are reported in Table 2.

	Mean	St. dev.	% of responders indicating high or very high importance	Rank (based on mean)
Comply with accounting and tax laws	4.72	0.64	94.64	1
Financial reporting	4.55	0.72	90.48	2
Ethics – respect professional standards	4.54	0.71	91.67	2 3
Analytical thinking	4.50	0.73	90.48	4
Measure, analyze and interpret financial information	4.39	0.98	90.48	5
Professional judgement and skepticism	4.39	0.76	85.71	5
Flexibility and agility	4.36	0.79	88.09	6
Critical thinking	4.26	0.88	76.19	7
Communication and team work	4.25	0.91	80.95	8
Ethics – respect social equity and environmental protection principles	4.24	0.86	80.95	9
Evaluate financial risk	4.22	0.71	86.31	10
Evaluate sustainability risk	3.86	0.83	69.64	11
Measure, analyze and interpret non-financial information	3.79	0.82	63.69	12
Non-financial reporting	3.79	0.88	64.29	12

Vol. 23, No. 2

Table 2 reports that the competencies investigated are all important (with mean values above 3.79), with the order of importance mainly being traditional technical accounting competencies, soft skills and finally sustainability-related competencies. While developing an ethical behavior is crucial in the accounting profession (Manea & Albu, 2023), we report that our respondents perceive ethics as being important, with ethics as respect for (traditional) professional standards ranking on the third place, and with ethics as respecting social equity and environmental protection principles ranking higher than non-financial reporting-related tasks.

We next investigate the importance of various actors in forming these competencies. Table 3 reports the results.

and employers in forming competencies								
		Actors		Difference in means				
	Universities (1)	Professional associations (2)	Employers (3)	(1)-(2)	(2)-(3)	(1)-(3)		
Comply with accounting and tax laws	4.60 (0.69)	4.70 (0.62)	4.57 (0.76)	-0.10	0.13	0.03		
Measure, analyze and interpret financial information	4.41 (0.77)	4.58 (0.68)	4.29 (0.87)	-0.17***	0.28***	0.12		
Measure, analyze and interpret non-financial information	4.07 (0.89)	4.18 (0.87)	4.07 (0.91)	-0.11	0.11	0.00		
Financial reporting	4.51 (0.73)	4.63 (0.62)	4.34 (0.86)	0.12	0.29***	0.17**		
Non-financial reporting	4.04 (0.91)	4.20 (0.87)	4.08 (0.90)	-0.16**	0.12	-0.04		
Evaluate financial risk	4.46 (0.77)	4.52 (0.69)	4.40 (0.83)	-0.06	0.12	0.06		
Evaluate sustainability risk	4.22 (0.88)	4.32 (0.79)	4.23 (0.87)	-0.10	0.09	-0.01		
Professional judgement and skepticism	4.44 (0.75)	4.51 (0.76)	4.22 (0.90)	-0.07	0.29***	0.22**		
Analytical thinking	4.47 (0.72)	4.42 (0.77)	4.30 (0.87)	0.05	0.12	$0.17^{*}$		
Critical thinking	4.32 (0.82)	4.30 (0.86)	4.20 (0.91)	0.02	0.10	0.12		
Communication and team work	4.44 (0.77)	4.32 (0.92)	4.54 (0.73)	0.12	-0.22**	-0.10		
Flexibility and agility	4.47 (0.75)	4.31 (0.91)	4.34 (0.85)	0.16**	-0.03	0.13**		

 
 Table 3. The role of universities, professional associations and employers in forming competencies

Vol. 23, No. 2

#### Accounting and Management Information Systems

		Difference in means				
	Universities (1)	Professional associations (2)	Employers (3)	(1)-(2)	(2)-(3)	(1)-(3)
Ethics – respect professional standards	4.52 (0.73)	4.57 (0.73)	4.40 (0.85)	-0.05	0.17***	0.12
Ethics – respect social equity and environmental protection principles	4.36 (0.84)	4.42 (0.83)	4.34 (0.85)	-0.06	0.08	0.02

very high extent. The significant statistical differences between means are reported (significant differences at 1, 5, and 10% are reported as \*\*\*, \*\*, and \*, respectively).

Table 3 reports that all three actors investigated, i.e. universities, professional associations and employers play a very important role (all mean values above 4 on a 5-point Likert scale) in forming the competencies accountants need to possess in nowadays' environment. Professional associations are expected to play a more important role than other actors in forming the competencies to measure, analyze and interpret financial information, financial reporting, non-financial reporting, professional judgement and skepticism, and ethics. Universities are expected to play an important role in forming flexibility and agility, and employers in forming communication and teamwork.

We further investigate the importance of competencies in the nowadays environment as perceived by various professional groups. We classified competencies into three categories: accounting, sustainability-related and soft skills. Results are reported in Table 4 reports the results.

Table 4. Importance of competencies as perceived by various professional groups								
-	Overall necessity	Students	Students and accountants	Accountants	Non- accountants	Professors		
Comply with	4.72	$4.84^{*}$	4.96***	4.56	4.19 <sup>*</sup>	4.83*		
accounting and tax	(0.64)	(0.37)	(0.21)	(0.63)	(1.09)	(0.38)		
laws								
Measure, analyze	4.39	4.30	4.59	4.31	4.03	4.75**		
and interpret	(0.98)	(0.68)	(0.54)	(0.60)	(0.82)	(0.44)		
financial information	. ,		· /		· /			
Financial reporting	4.55	4.48	$4.76^{*}$	4.38	4.19	$4.88^{**}$		
	(0.72)	(0.68)	(0.57)	(0.62)	(0.99)	(0.34)		
Evaluate financial	4.22	4.16	4.33	4.38	4.06	4.29		
risk	(0.71)	(0.71)	(0.73)	(0.62)	(0.76)	(0.62)		
Ethics - respect	4.54	4.58*	4.67 <sup>**</sup>	4.31	4.19	4.83 <sup>***</sup>		
professional	(0.71)	(0.61)	(0.56)	(0.60)	(1.06)	(0.38)		
standards	· · · ·	( )	· /	· · ·	· /	× ,		
Accounting-related	4.49	4.47	4.66	4.39	4.13	4.72**		
5	(0.54)	(0.46)	(0.32)	(0.53)	(0.84)	(0.26)		

Vol. 23, No. 2

Accountants' competencies for sustainability reporting: An exploratory study

	Overall necessity	Students	Students and accountants	Accountants	Non- accountants	Professors
Measure, analyze	3.79	3.60	3.78	3.81	3.69	4.33**
and interpret non- financial information	(0.82)	(0.81)	(0.81)	(0.75)	(0.82)	(0.70)
Non-financial	3.79	3.72	3.80	4.00	3.34**	4.33
reporting	(0.88)	(0.90)	(0.78)	(0.73)	(1.00)	(0.64)
Evaluate	3.86	4.04	3.83	3.94	3.50**	4.00
sustainability risk	(0.83)	(0.73)	(0.77)	(0.77)	(1.02)	(0.78)
Ethics - respect	4.24	4.30	4.28	4.25	3.78***	4.67 <sup>**</sup>
social equity and environmental protection principles	(0.89)	(0.76)	(0.86)	(0.68)	(1.21)	(0.57)
Sustainability-	3.92	3.92	3.92	4.00	3.58*	4.33*
related	(0.68)	(0.60)	(0.56)	(0.65)	(0.90)	(0.53)
Professional	4.39	4.54*	4.41	4.25	$3.97^{*}$	4.67*
judgement and skepticism	(0.76)	(0.65)	(0.68)	(0.68)	(1.03)	(0.56)
Analytical thinking	4.50	4.62	4.54	4.38	4.13	$4.75^{*}$
	(0.73)	(0.57)	(0.66)	(0.62)	(1.07)	(0.44)
Critical thinking	4.26	4.28	4.22	4.25	$4.00^{*}$	4.67**
	(0.88)	(0.88)	(0.89)	(0.68)	(1.05)	(0.57)
Communication and	4.25	4.44**	4.26	4.13	3.72***	4.63**
team work	(0.91)	(0.88)	(0.86)	(0.81)	(1.09)	(0.58)
Flexibility and	4.36	4.46**	4.57**	4.06	3.72**	4.83***
agility	(0.79)	(0.58)	(0.58)	(0.68)	(1.14)	(0.38)
Soft skills	4.35 (0.64)	4.47 (0.45)	4.40 (0.53)	4.21 (0.56)	3.91* (0.92)	4.71 <sup>***</sup> (0.37)

**Note**: Competencies of accountants are assessed on a 5-point Likert scale, where 1 = not at all; 5 = very high extent. The significant statistical differences between means (accountants compared to other groups) are reported (significant differences at 1, 5, and 10% are reported as \*\*\*, \*\*, and \*, respectively).

Respondents generally perceive that accounting and soft skills are perceived as being important to very important (mean value 4.49 and 4.35) and sustainability-related skills important (mean value 3.92). These results are in line with other studies that emphasize the importance of new skills for accountants (Ascani *et al.*, 2021). There are some differences in perception between groups.

First, professors perceive traditional accounting competencies as being more important than other professional groups, particularly accountants (there are significant differences for 4 out of the 5 competencies investigated). Surprisingly, accountants and non-accountants perceive the lowest importance of these competencies. Students who also work resemble more in their responses to unemployed students (and professors) than to accountants.

Second, in terms of sustainability-related competencies, it seems that professors of all categories perceive these competencies as being more important (mean value 4.33), and non-accountants as being the least important (mean value 3.58). In this respect, the responses from accountants, students and employed students are similar.

Vol. 23, No. 2

These results point, first, to the role of professors in advancing the sustainability reporting agenda and competencies, and second, to the mistrust from other professional groups in the accountants to play an important role in this area.

Finally, while the soft skills are perceived to be important by all groups, the same discrepancy is noted, with professors attaching a higher and non-accountant a lower importance to these skills for accountants. Moreover, it is surprising to see that the perceived need in the profession is lower than within students (with 3 out of 5 competencies being perceived as more important by students compared to accountants). Students employed and accountants seem to share mostly similar views on these competencies.

# 5. Conclusion

In this paper we investigate the perception of various groups on the accountants' competencies in relation to sustainability reporting. Overall, we find high support (around 4 out of 5 on a 5-point scale) for sustainability-related competencies and activities. The perception of our respondents is congruent with the recent calls from professional associations (IFAC, 2023) regarding the needed competencies and activities in the profession. This high need recognized for sustainability-related competencies creates fertile ground for additional educational initiatives. These results are important for universities and professional associations, in designing appropriate educational programs.

It was surprising to find a high importance attached to sustainability-related skills, given the general traits of the Romanian accountants (Albu *et al.*, 2024). This might be due to the recent discussions (in universities, professional associations, and in the media) around the expanding role of the accounting profession. Our result is much in line with the professional initiatives (IFAC, 2023), advocating for "a development in the accountants' role, connecting financial and sustainability-related information" and skills that are "transferable and adaptable" (Ramanauskaite *et al.*, 2023). Therefore, this result might support the requested professionalization of accountants. However, the understanding of sustainability and sustainability reporting has not been tested, and therefore we can only emphasize that while it is important for accountants to broaden their skills and competencies related to sustainability (Ascani *et al.*, 2021), it is crucial to have a deeper understanding of sustainability (Laine, 2013; Williams, 2015). Future research is needed in this area, both in terms of perceptions and actual operationalization in practice.

Moreover, our results offer more nuances to the varied results regarding the differences in the involvement in sustainability accounting based on age and gender (Krasodomska *et al.*, 2020; Bakarich *et al.*, 2023), by advancing the analysis based on various professional groups. While the literature based on perceptions (surveys, interviews) emerges, it is important to understand the sources of variation in

Vol. 23, No. 2

responses. It is important to see that accountants perceive many competencies as being less important in the profession, compared to other professional groups, and also that students employed resemble both. While informative, these results open the room for more research on the influence of various personal characteristics on professional perceptions and actions, from various theoretical angles.

Concluding, our study contributes to the literature on the role of accountants in the sustainability accounting and reporting (e.g., Krasodomska *et al.*, 2020; Ascani *et al.*, 2021) by incorporating the recent developments in the profession (IFAC, 2023) and by offering a more recent view of professionals. Moreover, we investigate the perception of various groups (students, accountants, non-accountants and accounting academics), which offers a richer perspective than studies focused on one group. However, the study also has limitations, related to the inherent constraints associated with employing surveys, including small sample size, and limited generalizability. Nevertheless, our study opens the room for more research, employing various sources of data and theoretical lenses.

More research is needed about the competencies needed for SR, but also about how these competencies are developed, and how open accountants are in this respect, to build up literature on this topic (Caron & Fortin, 2014; Egan & Tweedie, 2018; Bakarich *et al.*, 2023). Moreover, the role of universities, professional associations and employers needs further investigation. Exposure to training is important for the overall perception of SR (Krasodomska *et al.*, 2020), and professional associations are quite active in this area (IFAC, 2023). However, organizational roles are decided at the employers' level, and more is needed about the professional groups involved in the SR. Finally, we draw attention to the locally constructed role of professionals (Albu *et al.*, 2021), and call for contextualized research on the accountants' roles and competencies.

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Vol. 23, No. 2

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Vol. 23, No. 2

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Vol. 23, No. 2

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Vol. 23, No. 2