

Sustainability in Accounting Education Given by Turkey Higher Education Institutions¹

Filiz Yüksel²

Abstract

Nowadays, sustainability and sustainable development objectives should become the focus of all operations. As a result of this requirement, the roles expected from the professional accountant and the competencies required by the professional accountant have changed. It is stated that professional accountants have important roles in creating value, maintaining value and reporting for all capital elements. In order to carry out these roles successfully, professional accountants should be trained in sustainability issues. In this study, it is aimed to examine the existence, number and intensity of courses related to sustainability in accounting curricula of higher education institutions in our country. For this purpose, criterion words related to sustainability themes were determined and accounting curricula were subjected to content analysis with Maxqda 2020 program using criterion words. According to the results of the analysis, it can be said that the number of courses related to sustainability has a very low percentage of the total number of courses in the curriculum.

Keywords: *Accounting education of Turkey, sustainability, environment, social*

¹ The ethical committee permission is not required in this study since the data were gathered before 2020.

² Assist. Prof. Dr., T.C. Kütahya Dumlupınar University, Domaniç Hayme Ana MYO, Banking and Insurance Programme, filizyüksel@windowlive.com, <https://orcid.org/0000-0002-7654-7665>

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Türkiye Yükseköğretim Kurumlarında Verilen Muhasebe Eğitiminde Sürdürülebilirlik

Öz

Günümüzde, sürdürülebilirlik ve sürdürülebilir kalkınma amaçları tüm faaliyetlerin odak noktası haline gelmiştir. Bunun bir sonucu olarak, muhasebe meslek mensubundan beklenen roller, muhasebe meslek mensubunun sahip olması gereken yetkinlikler de değişmiştir. Muhasebe meslek mensuplarının tüm sermaye unsurları için değer yaratma, yaratılan değeri sürdürme ve raporlamada önemli rolleri olduğu ifade edilmektedir. Bu rollerin başarıyla yürütülmesi için muhasebe meslek mensuplarının sürdürülebilirlik konularında da eğitim alması gerekmektedir. Bu çalışmada, Ülkemizde yükseköğretim kurumları muhasebe müfredatlarında sürdürülebilirliğe ilişkin derslerin varlığı, sayısı ve yoğunluğunun incelenmesi amaçlanmıştır. Bu amaç doğrultusunda, sürdürülebilirlik temalarına ilişkin ölçüt kelimeler belirlenmiş, muhasebe müfredatları belirlenen ölçüt kelimeler kullanılarak Maxqda 2020 programı ile içerik analizine tabi tutulmuştur. Analiz sonuçlarına göre, sürdürülebilirliğe ilişkin ders sayısının müfredatta bulunan toplam ders sayısının çok düşük bir yüzdesine sahip olduğu söylenebilir.

***Anahtar Kelimeler:** Türkiye’de muhasebe eğitimi, sürdürülebilirlik, çevre, sosyal*

Introduction

Professional accountant is defined as

“an individual who achieves, demonstrates, and further develops professional competence to perform a role in the accountancy profession and who is required to comply with a code of ethics as directed by a professional accountancy organization or a licensing authority” (IFAC-IAESB, 2017: 21).

In order for a person to be a professional accountant, she/he must complete her/his vocational education and have professional competence. According to International Federation of Accountants-International Accounting Education Standards Board (IFAC-IAESB) (2017), professional knowledge, professional skills and professional values, ethics and attitude should be gained in accounting education.

In Turkey, the conditions for being a professional accountant has regulated by The Professional Law Numbered of 3568. In Article 4 of the Law No. 3568 (Law), general conditions for being a profession, special conditions for being a free accountant and financial advisor in Article 5, and provisions on internship in Article 6 are regulated. According to those, in order to become a professional accountant (certified public accountant), it is necessary to graduate from the law, business, economics, accounting, banking, public administration and political sciences undergraduate or graduate departments of universities, to be successful in the starting an internship examination that is done by the Basic Education and Internship Center (Temel Eğitim ve Staj Merkezi-TESMER), to have received the certified public accountant license after the exam that has been done after at least 3 years of internship. According to Article 2 of the Law, certified public accountant regulate the books, documents and declarations of enterprises, establish and develop accounting systems, organize accounting, finance, financial legislation, and provide consultancy on these matters, and can inspect and control all these issues. According to the 9th article of the law, at least 10 years of professional accountant with the title of freelance accountant can be a certified accountant on condition that they pass the exam and get a license. Chartered accountants can perform the duties of independent accountant financial advisor, other than keeping books. However, “chartered accountants cannot keep accounting books, cannot open an accounting office and cannot be partners in accounting offices” (Law No. 3568, Article 2).

Ayboğa (2003) emphasized the importance of the accounting profession as follows:

“The accountancy profession is an institution that needs to be emphasized because it is the only element that will provide reliable information in determining the resources, especially for the countries at development level, and it is the only way to expand the audit function nationwide” (Ayboğa, 2003: 341).

Increased in the risk of exhaustion of scarce resources due to globalization has caused the concepts of sustainability and sustainable development to be the focus of all activities. In other words, today, effective distribution and use of scarce resources have become the most important issue for the whole world. Therefore, creating long-term value, and more importantly, creating net positive value should be the main objective for all capital elements used and affected by the business.

According to International Federation of Accountants (IFAC) (2019a), the main trends today are long-term success and performance in terms of multiple capital elements, risk management for multiple capital elements, technology and sustainability-based business models that will provide more value to customers and stakeholders at low cost. In order to catch up with these trends and to be successful, professional members should “change their path from balance sheet accounting to business and value creation accounting” (IFAC, 2019a: 10). The transition from balance sheet accounting to business and value creation accounting expressed by IFAC (2019a) is given in Figure 1.



Figure 1. The journey from accounting for the balance sheet to accounting for the business and value creation

Source: IFAC, 2019a: 10

As seen in Figure 1, the concept of accounting for the business refers to the execution and reporting of business activities focused on creating and maintaining value. “Value creation, the process that results in increases, decreases or transformations of the capitals caused by the organization’s business activities and outputs” (International Integrated Reporting Council-IIRC, 2013: 33). In today's world where sustainable development concept and goals are extremely important, value creation should not be evaluated only in terms of financial capital. It is an inevitable fact that in order to achieve business goals and be successful, it should be focused on creating value for social capital, human capital and natural capital, which are referred to as non-financial capital elements, as well as financial capital, intellectual capital and produced capital.

There are certain roles assigned to professional accountants to achieve the goal of creating value in terms of all capital elements. According to IFAC (2019c), the professional accountants have seven important roles in increasing their contribution to strong, sustainable businesses, financial markets and economies, including co-pilot role, navigator role, brand protector role, storyteller role, digital and technology enabler role, process and control expert role, trusted professional. According to IFAC (2011), the roles of professional accountants are the roles of creating sustainable value, providing sustainable value, preserving sustainable value and reporting sustainable value.

The differentiation of the roles and competencies expected from professional accountants will also lead to differences in the job and positions of professional accountants. The Chief Value Officer (CVO) proposed by Mervyn King and Jill Atkins, the sustainability accounting manager position proposed by Institute of Management Accountants-IMA (2018) is one of the most important examples of differentiation in the job and positions of the professional accountant. According to King (2017), the chief financial officer (CFO) must be reshaped and must be the Chief Value Officer (CVO), as they provide the real change in the business.

Proposing these new competencies, jobs and positions is an indication that information production on non-financial issues is expected, as well as generating financial information from the accounting profession. These developments naturally require some changes and developments in the education of the professional accountant. Sustainability issues should also be considered in the education of professional accountants.

Based on this, the purpose in this study is examine to presence, number and intensity course related to sustainability courses in accounting curriculum in the higher education institutions in Turkey which providing training in associate degree, bachelor degree, master degree and doctoral degree. For this purpose, in this study, the curriculum of accounting education in Turkey higher education institutions will be subjected to content analysis with analysis program in Maxqda 20.

Literature Review

There are studies in the literature that examine the relationship between accounting education and sustainability. Some of these studies have been examined in here.

Chulian (2011) aimed to investigate whether the addition of a sustainability accounting course in business curriculums influences students' perceptions of sustainable development. To this end, students were asked questions at the beginning and end of the course period. In line with the answers received from the students, it was observed that there was a difference in students' perceptions of sustainable development at the beginning and end of the course period.

In their study, Mburayi and Wall (2018) conducted a literature review to determine to what extent and how sustainability is included in the accounting and finance curriculums in business schools. As a result of their work, they concluded that accounting and finance lag behind when compared to other management disciplines, and that corporate loyalty is the strongest obstacle in integrating sustainability into accounting curricula.

Peyrovan (2019) conducted a survey study in order to reveal the views of accounting students about sustainable development and how sustainable development relates to their future, and the inclusion of sustainable development in accounting curricula. As a result of the survey, it was revealed that the students have positive perceptions towards sustainable development, but they do not have a positive attitude towards the inclusion of sustainable development in the accounting curricula.

Onyango et al. (2018) conducted their studies to determine the relationship between social reporting, environmental reporting and sustainability accounting. As a result of their studies, they stated that universities should include sustainability issues in their curricula.

Zulkifli (2011) investigated the perspectives of accounting educators in social and environmental accounting elements and roles in Malaysia and their interest in social and environmental accounting. As a result of the research, it has concluded that accounting educators have a positive attitude towards the elements that are used to develop moral awareness on social and environmental issues, and that they see social and environmental accounting education as an appropriate tool to raise awareness.

Güney and Damar (2016) tried to examine the concept of sustainability in terms of accounting profession and its place in accounting education.

Boyce et al. (2019) aimed to determine the degree of liberality and sociability in their accounting curricula as part of the educational reform carried out at Australian and New Zealand universities. For this purpose, they analyzed the websites of 39 universities and analyzed the frequency of ethical, social, environmental and sustainability words in their accounting curriculum with NVIVO analysis program.

Hazelton and Haigh (2010) wrote the results of their efforts to include sustainable development principles in their accounting curricula. They stated that they have achieved some success as a result of their efforts to include sustainable development principles in their accounting curricula. However, they stated that their attempts were blocked since a continuous change is not wanted by professional student societies and the curriculum consists of many lessons for the development of professional skills.

Methodology

Purpose of the Study

In order to adapt to the requirements of the age, professional accountants and candidates must increase their technological knowledge and skills. Another requirement is that professional accountants and candidates have the competence to create and report on sustainable value in

order to protect the rights of future generations to meet their needs. Accounting education has an important role in the training of professional accountants with these competencies.

According to the 5th article of the Law No. 3568, one of the special conditions of being certified public accountant is to be a graduate in law, business, economics, accounting, banking, public administration and political sciences. Those who have a bachelor's degree from other disciplines may have one of the special conditions of being a profession if they complete their postgraduate education in one of these disciplines. It should be stated that those who have graduated at the associate degree level in our country can enter the Vertical Transfer Exam held by the Turkish Student Selection and Placement Center (T.C.Öğrenci Seçme ve Yerleştirme Merkezi-ÖSYM) and pass their undergraduate programs related to their departments.

In line with these explanations, the aim of this study is to examine the existence, number and intensity of the courses related to sustainability in the curricula of higher education institutions that provide accounting education at associate, undergraduate and graduate levels in our country.

Participants and Data Collection Instruments

In this study, higher education institutions that provide accounting education in associate, undergraduate, graduate degree in Turkey was selected as research universe. As of December 2019, information on the universities that provide accounting education at the undergraduate and graduate levels that constitute the research universe is given in Table 1. YÖK Atlas, which was put into service by the Higher Education Institution (Yükseköğretim Kurumu-YÖK), was used to determine the research universe seen in Table 1.

According to information obtained from the YÖK Atlas, "Accounting and Tax Applications" program in associate degree from 96 universities' vocational schools in Turkey are 288. When these programs are analyzed, it is seen that some universities have standardized their accounting curricula in vocational schools. Therefore, standardized accounting curricula are included in the study as a single curriculum, and 129 curricula at the associate degree were examined. Also in this study, 13 program curricula at undergraduate level, 35 program curriculum at graduate level and 13 program curriculum at doctorate level were examined. Information on the courses

forming the curriculum was obtained from the information package available on the universities' websites.

Table 1

Accounting programs curriculum that examined within the scope of the research

Program Degree	University	Faculty / Academy	Curriculum	Number of Curriculum Reviewed	Number of Courses
Associate		Vocational High Schools	288 "Accounting and Tax Applications" program curriculum	129	7461
	Uşak	School Of Applied Sciences	Accounting Information Systems		381
	İstanbul Okan	Faculty of Business and Administrative Sciences	Accounting and Auditing		51
	İzmir Ekonomi	Faculty of Business	Accounting and Auditing		80
	Kayseri	School Of Applied Sciences	Accounting and Financial Management		54
	Necmettin Erbakan	School Of Applied Sciences	Accounting and Financial Management		71
	Başkent	Faculty of Commercial Sciences	Accounting and Financial Management		75
Undergraduate	İstanbul Aydın	Faculty of Economics and Administrative Sciences	Accounting and Financial Management	13	77
	Burdur Mehmet Akif Ersoy	Bucak Zeliha Tolunay School of Applied Technology and Business	Accounting and Financial Management		57
	Muğla Sıtkı Koçman	Bucak Zeliha Tolunay School of Applied Technology and Business	Accounting and Financial Management		86
	İstanbul Arel	School of Applied Sciences	Accounting and Financial Management		64
	Afyon Kocatepe	Bolvadin School of Applied Sciences	Accounting		73
	Trakya	Uzunköprü School of Applied Sciences	Accounting		286
	Girne Amerikan	School of Applied Social Sciences	Accounting		59
	Afyon Kocatepe	Institute of Social Sciences-Business Administration-Thesis	Accounting Finance		22
	Ağrı İbrahim Çeçen	Institute of Social Sciences-Business Administration	Accounting Finance		49
	Akdeniz	Institute of Social Sciences-Business Administration-thesis and non-thesis	Accounting Finance	35	40
Master	Altınbaş	Institute of Graduate Studies-Department of Business Administration-thesis and non-thesis	Accounting Auditing		12
	Anadolu	Institute of Social Sciences-Department of Business Administration-Thesis	Accounting Finance		16

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Atılım	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting and Auditing	23
Balıkesir	Institute of Social Sciences- Thesis	Accounting Finance	19
Başkent	Institute of Social Sciences- Department of Business Administration-Thesis and Non- thesis	Accounting and Finance	24
Beykent	Institute of Social Sciences- Department of Business Administration-Thesis and Non- thesis	Accounting Finance	25
Burdur Mehmet Akif Ersoy	Institute of Social Sciences- Department of Accounting and Finance-Thesis	Accounting and Finance	35
Uludağ	Institute of Social Sciences- Department of Business Administration-Thesis and Non- thesis	Accounting and Auditing	38
Dokuz Eylül	Institute of Social Sciences- Department of Business Administration-Thesis and Non- thesis	Accounting	15
Ege	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting	22
Hacettepe	Institute of Social Sciences- Thesis	Accounting Finance	16
Işık	Institute of Social Sciences- Thesis and Non-thesis	Accounting and Auditing	11
İnönü	Institute of Social Sciences- Thesis	Accounting Finance	32
İstanbul Arel	Institute of Social Sciences- Thesis and Non-thesis	Accounting Auditing	24
İstanbul Aydın	Institute of Graduate Studies- Thesis	Accounting Auditing	9
İstanbul Bilgi	Institute of Graduate Studies- Non-Thesis	Accounting Auditing	25
İstanbul Okan	Institute of Social Sciences- Thesis and Non-thesis	Accounting Auditing	25
İstanbul	Institute of Social Sciences- Thesis	Accounting	11
İzmir Demokrasi	Institute of Social Sciences- Thesis	Accounting Finance	30
Kayseri	Institute of Graduate Studies- Department of Accounting And Finance Management -Thesis	Accounting	22
Kırıkkale	Institute of Social Sciences- Thesis	Accounting Finance	25
Kocaeli	Institute of Social Sciences- Thesis	Accounting Finance	30
Dumlupınar	Institute of Social Sciences- Thesis	Accounting Finance	19
Celal Bayar	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting Finance	23
Marmara	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting Finance	21
Muğla Sıtkı Koçman	Institute of Social Sciences- Thesis	Accounting Finance	36

	Osmaniye Korkut Ata	Institute of Social Sciences- Thesis and Non-thesis	Accounting Finance		43
	Pamukkale	Institute of Social Sciences- Department of Business Administration-Thesis and Non- thesis	Accounting Finance		22
	Sakarya	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting Finance		24
	Süleyman Demirel	Institute of Social Sciences- Department of Business Administration-Thesis	Accounting Finance		75
	Trakya	Institute of Social Sciences- Thesis and Non-thesis	Accounting Auditing		33
	Yeditepe	Institute of Social Sciences- Thesis	Accounting Finance		21
	Anadolu	Institute of Social Sciences- Department of Business Administration	Accounting		16
	Atatürk	Institute of Social Sciences- Department of Business Administration	Accounting Finance		16
	Balıkesir	Institute of Social Sciences	Accounting Finance		22
	Başkent	Institute of Social Sciences- Department of Business Administration	Accounting Finance		17
Doctorate	İnönü	Institute of Social Sciences	Accounting Finance	13	35
	İstanbul Aydın	Institute of Social Sciences	Accounting Auditing		17
	İstanbul	Institute of Social Sciences	Accounting		12
	Kırıkkale	Institute of Social Sciences	Accounting Finance		25
	Kocaeli	Institute of Social Sciences	Accounting Finance		32
	Celal Bayar	Institute of Social Sciences	Accounting Finance		37
	Muğla Sıtkı Koçman	Institute of Social Sciences	Accounting Finance		29
	Niğde Ömer Halisdemir	Institute of Social Sciences	Accounting Finance		29
	Sakarya	Institute of Social Sciences	Accounting Finance		18

In the curricula of the accounting programs analyzed, words representing sustainability topics were determined in order to examine the existence, number and intensity of courses related to sustainability. These words are given in Table 2. In order to determine the presence, number and density of the criterion words given in Table 2, the curricula within the scope of the sample were subjected to content analysis with Maxqda 2020 analysis program, and interactive citation matrix and word clouds were prepared.

Table 2
Criterion words used in the research

Sustainability Theme Reviewed	Criteria Words
Social	Sosyal
	Toplumsal
	Toplum
	İnsan
	Eşitlik
Ethic	Etik
	Etığı
	Değer
	Ahlak
	Çevre
Environment	Doğa
	Yeşil
	İklim
	Ekoloji
Sustainability	Sürdürülebilirlik
	Sürdürülebilir

Findings

In 129 associate degree accounting curricula examined within the scope of the research, the frequency and percentage of the total number of courses representing social, ethical, environmental and sustainability themes are given in Table 3. As seen in Table 3, the frequency of social themed words is 191, the frequency of ethical-themed words is 110, and the frequency of environmental themed words is 64. It is seen that sustainability themed words are not included in the curriculum examined. In addition, in the curriculum examined, social-themed words constitute 2.56% of the total number of courses, ethical-themed words constitute 1.47% of the total number of courses, and environmental-themed words constitute 0.86% of the total number of courses.

Table 3
Number of courses on sustainability themes in associate curriculum

Sustainability Theme	Frequency	%	Total Number of Courses	% of Total Number of Courses
Sosyal	191	52,33	7461	2,56
Etik	110	30,14	7461	1,47
Çevre	64	17,53	7461	0,86
Sürdürülebilirlik	0	0,00	7461	0
Total	365	100,00		

Universities providing accounting education at the undergraduate level, the frequency of the criterion words representing the social, ethical, environmental and sustainability themes and the percentage of the total number of courses are given in Table 4. As seen in Table 4, compared to other curricula, there are more courses on social, ethical, environmental and sustainability in Uşak University School of Applied Sciences Accounting Information Systems curriculum. Looking at the total number of accounting curricula that are trained at the undergraduate level, social-themed words 4.66% of the total number of lessons, ethical-themed words 1.41% of the total number of lessons, environmental-themed words 1.62% of the total number of lessons and sustainability-themed words 0.3% of the total number of lessons constitutes the reputation.

Table 4
Number of courses on sustainability themes in undergraduate curriculum

University	Sosyal	Etik	Çevre	Sürdürülebilirlik	Total Number of Courses	% of Total Number of Courses			
						Sosyal	Etik	Çevre	Sürdü.
Uşak	20	5	15	3	381	5,25	1,31	3,94	0,79
İstanbul Okan	0	1	0	0	51	0	1,96	0	0
İzmir Ekonomi	3	3	1	0	80	3,75	3,75	1,25	0
Kayseri	1	1	0	0	54	1,85	1,85	0	0
Necmettin Erbakan	2	1	0	0	71	2,82	1,41	0	0
Başkent	1	1	0	0	75	1,33	1,33	0	0
İstanbul Aydın	1	1	0	0	77	1,29	1,29	0	0
Burdur Mehmet Akif Ersoy	0	1	0	0	57	0	1,75	0	0
Muğla Sıtkı Koçman	1	1	0	0	86	1,16	1,16	0	0
İstanbul Arel	2	1	1	0	64	3,125	1,56	1,56	0
Afyon Kocatepe	2	1	1	0	73	2,74	1,37	1,37	0
Trakya	8	2	5	1	286	2,79	0,69	1,75	0,35
Girne Amerikan	2	1	0	0	59	3,39	1,69	0	0
Total	43	20	23	4	1414	4,66	1,41	1,62	0,3

Interactive citation matrix prepared for undergraduate accounting curricula is given in Table 5, and word clouds on social, ethical, environmental and sustainability themes are given in Figure 2. As seen in Table 5, social responsibility, communal responsibility, environment and sustainability courses are included in some of the undergraduate degree accounting curricula, while it is seen that ethics theme includes accounting ethics or professional ethics courses.

Table 5
Interactive citation matrix for undergraduate level curricula

University	Sosyal	Etik	Çevre	Sürdürülebilirlik
İstanbul Okan		Muhasebe Mevzuatı ve Etik		
Trakya	Güncel Sosyal Politika Sorunları; Sosyal Güvenlik Sisteminde Gelişmeler; Sosyal Devlet-Sosyal Siyaset Sosyal Hukukta Güncel Sorunlar; Türkiye ve AB'nin Karşılaştırmalı Sosyal Yapısı; Sosyal Ağ Analizi; Toplumsal Cinsiyet Eşitliği; Sosyal Sorumluluk Uygulamaları	Meslek Etiği Bilişim Etiği	Güncel Çevre Sorunları; Çevresel Sürdürülebilirlik; Çevre Koruma; Çevre Tasarımında Katılım; Ekoloji ve Çevre Bilimi	Çevresel Sürdürülebilirlik
Kayseri	Sosyal Sorumluluk ve İş Ahlakı	Sosyal Sorumluluk ve İş Ahlakı		
Muğla Sıtkı Koçman	Mesleki Sorumluluk ve Etik	Mesleki Sorumluluk ve Etik		
İstanbul Aydın	Sosyal Sorumluluk ve Etik	Sosyal Sorumluluk ve Etik		
İzmir Ekonomi	Akademik ve Sosyal Oryantasyon; İnsan ve Toplum; Toplumsal Bilinç ve Etik Değerler	Toplumsal Bilinç ve Etik Değerler; Muhasebe Etiği Projesi; İşletme Etiği	Perakende Çevresi	
İstanbul Arel	İş ve Sosyal Güvenlik Hukuku; Sosyal Sorumluluk ve Topluma Hizmet Uygulaması	Mesleki Sorumluluk ve Etik	Çevre Koruma; İş Sağlığı ve Güvenliği	
Necmettin Erbakan	Toplumsal Sorumluluk; İş ve Sosyal Güvenlik Hukuku	Muhasebe Meslek Hukuku ve İş Etiği		
Girne Amerikan	Sosyoloji; Kamu ve Sivil Toplum Kuruluşları Muhasebesi; Sivil Toplum Örgütleri	Meslek Etiği		
Burdur Mehmet Akif Ersoy		Muhasebe Meslek Hukuku ve İş Etiği		
Başkent	İş ve Sosyal Güvenlik Hukuku	Muhasebe Meslek Mevzuatı ve Etiği		
Afyon Kocatepe	Çevre Sorunları ve Toplumsal Sorumluluk; İş ve Sosyal Güvenlik Hukuku	Meslek Hukuku ve İş Etiği	Çevre Sorunları ve Toplumsal Sorumluluk	
Uşak	Sosyal Sorumluluk ve Topluma Hizmet Uygulaması; Gündemin Sosyolojisi; Sosyal Sorumluluk Bilinci; Kent, Toplum ve Kültür; Toplumsal Cinsiyet ve Eğitim; Sosyal Eşitsizlik ve Sosyal Değişme; Sosyal Eşitsizlik ve Sosyal Değişme; Günlük Hayat ve Toplum; Sosyal Pazarlama; Sosyal Medya ve Gündem; İnsan, Toplum ve Davranış; Türkiye'de Kırsal Sosyolojisi Araştırmaları; Sosyal Pazarlama; Toplumsal Cinsiyet ve Teknoloji; Toplumda Cinsiyet Eşitliği; Toplumsal Sağlık ve Egzersiz; Sosyal Teori; Günümüz Toplumunda Stres ve Çene Sistemi Üzerine Etkileri; Sporun Sosyal Tarihi; Medya ve Toplumsal Cinsiyet	Etik Karar Verme; Karakter ve Değerler Eğitimi; Muhasebe Meslek Mevzuatı ve Meslek Etiği; Etik; Tarihi ve Turistik Değerleri İle Uşak	Enerji Üretimi ve Çevresel Sorunlar; Madencilik Faaliyetleri ve Çevresel Etkileri; Enerji ve Çevre; Çevre Bilinci ve Doğayı Koruma; Çevre Koruma; Ekolojik Tarım; Ekolojik Okuryazarlık; Spor ve Çevre; Enerji ve Çevre; Çevre Sağlığı; İklim Değişikliği ve Tarım; Çevre Muhasebesi; Eski Çağ'da Uşak ve Çevresi; Kentleşme ve Çevre; Çevremizdeki Canlılar	Tekstilde Sürdürülebilirlik; Sürdürülebilir Enerji Kaynakları; Sürdürülebilir Tarım



Figure 2. Word clouds on undergraduate degree social, ethical, environment and sustainability themes

In universities that offer accounting education at the master's degree, the frequency of the words on social, ethical, environmental and sustainability themes and their percentage in the total number of courses are given in Table 6 and word clouds related to social, ethical, environmental and sustainability themes are given in Figure 3. As seen in Table 6, the number of socially themed courses in master's accounting programs whose curriculum is examined constitutes 0.44% of the total number of courses, ethical themed courses constitute 3.44% of the total number of courses, environmental themed courses constitute 0.33% of the total number of courses, and sustainability themed courses constitute 0.22% of the total number of courses. However, it has been observed that there are no courses on social, environmental, ethical and sustainability themes in master degree accounting curricula that are trained in Afyon Kocatepe, Balıkesir, Beykent, Burdur, Dokuz Eylül, İnönü, İstanbul Aydın, İstanbul Okan, Kayseri, Kocaeli, Işık, Marmara and Pamukkale universities.

Table 6

Number of courses on sustainability themes in master degree curriculum

University	Sosyal	Etik	Çevre	Sürdürülebilirlik	Total Number of Courses	% of Total Number of Courses			
						Sosyal	Etik	Çevre	Sürdürüle.
Sakarya	0	0	0	1	24	0	0	0	4,17
Ağrı İbrahim Çeçen	1	2	1	0	49	2,04	4,08	2,04	0
Akdeniz	0	2	1	0	40	0	5	2,5	0
Afyon Kocatepe	0	0	0	0	22	0	0	0	0
Altınbaş	0	1	0	0	12	0	8,33	0	0
Anadolu	0	2	0	0	16	0	12,5	0	0
Atılım	0	2	0	0	23	0	8,69	0	0
Balıkesir	0	0	0	0	19	0	0	0	0
Başkent	1	2	0	0	24	4,17	8,33	0	0
Beykent	0	0	0	0	25	0	0	0	0
Burdur Mehmet Akif Ersoy	0	0	0	0	35	0	0	0	0
Celal Bayar	0	1	0	0	23	0	4,35	0	0
Dokuz Eylül	0	0	0	0	15	0	0	0	0
Dumlupınar	0	2	0	0	19	0	10,52	0	0
Ege	0	1	0	0	22	0	4,55	0	0
İzmir Demokrasi	1	3	0	0	30	3,33	10	0	0
İnönü	0	0	0	0	32	0	0	0	0
İstanbul Arel	0	1	0	0	24	0	4,17	0	0
İstanbul Aydın	0	0	0	0	9	0	0	0	0
İstanbul Bilgi	0	2	0	0	25	0	8	0	0
İstanbul Okan	0	0	0	0	25	0	0	0	0
İstanbul	0	1	0	0	11	0	9,09	0	0
Işık	0	0	0	0	11	0	0	0	0
Kayseri	0	0	0	0	22	0	0	0	0
Kırıkkale	0	1	0	0	25	0	4	0	0
Kocaeli	0	0	0	0	30	0	0	0	0
Marmara	0	0	0	0	21	0	0	0	0
Muğla Sıtkı Koçman	0	2	0	0	36	0	5,56	0	0
Osmaniye	0	1	0	0	43	0	2,33	0	0
Pamukkale	0	0	0	0	22	0	0	0	0
Süleyman Demirel	1	1	1	1	75	1,33	1,33	1,33	1,33
Trakya	0	1	0	0	33	0	3,03	0	0
Uludağ	0	2	0	0	38	0	5,26	0	0
Yeditepe	0	1	0	0	21	0	4,76	0	0
Toplam	4	31	3	2	901	0,44	3,44	0,33	0,22



Figure 3. Word clouds on master degree social, ethical, environment and sustainability themes

The interactive citation matrix prepared with Maxqda 2020 regarding the analyzed curricula of universities providing accounting education at master's level is given in Table 7. As seen in Table 7, within the scope of accounting education at master's level, the number of courses related to ethical criterion is higher compared to other sustainability criteria. In addition, there are courses on natural resources economics within the scope of environmental criteria at Sakarya University, and environmental accounting courses at Süleyman Demirel University. It is noteworthy and positive situation that there is a Sustainable Business course in Sakarya University graduate accounting curriculum, and integrated reporting, which is a relatively new corporate reporting approach, is included within the scope of Süleyman Demirel University graduate accounting curriculum.

Table 7
Interactive citation matrix for master's level curricula

University	Sosyal	Etik	Çevre	Sürdürülebilirlik
Sakarya Ağrı İbrahim Çeçen	Örgüt Sosyolojisi	Bilimsel Araştırma Yöntemleri ve Yayın Etiği Dersi Değerler Eğitimi	Doğal Kaynaklar Ekonomisi	Sürdürülebilir İşletmeler
Akdeniz		Bilimsel Araştırma Yöntemleri ve Yayın Etiği Dersi Değerler Eğitimi	Doğal Kaynaklar Ekonomisi	
Altınbaş Anadolu		Araştırma Yöntemleri ve Bilimsel Etik Bilim Etiği ve Araştırma Teknikleri Meslek Hukuku ve Etik		
Atılım		Bilim Eğitim ve Etik Bilimsel Araştırma Yöntemleri ve Yayın Etiği		
Başkent	İş ve Sosyal Güvenlik Hukuku	Araştırma Yöntemleri ve Araştırma Etiği Mesleki Etik ve Bağımsızlık		
Celal Bayar Dumlupınar		Bilimsel Araştırma Yöntemleri ve Yayın Etiği Bilimsel Araştırma ve Etik Finansal Muhasebe ve Etik		
Ege İzmir Demokrasi	Kurumsal Sosyal Sorumluluk ve Etik	Bilimsel Araştırma Yöntemleri ve Etik Bilimsel Araştırma Yöntemleri ve Yayın Etiği Muhasebe Mesleği ve Etik Kurumsal Sosyal Sorumluluk ve Etik		
İstanbul Arel İstanbul Bilgi İstanbul Kırıkkale Muğla		Meslek Mevzuatı ve Etik Araştırma Yöntemleri ve Etik Bilimsel Araştırma Teknikleri ve Yayın Etiği Bilimsel Araştırma ve Yayın Etiği Bilimsel Araştırma Teknikleri ve Yayın Etiği Muhasebe Meslek Etiği		
Osmaniye Süleyman Demirel	İş ve Sosyal Güvenlik Uygulamaları	Muhasebede Etik Muhasebe Kültürü ve Etiği	Çevre Muhasebesi	Entegre Raporlama
Trakya Uludağ		Araştırma ve Yayın Etiği Araştırma Teknikleri ve Yayın Etiği Denetimde Etik		
Yeditepe		Araştırma Yöntemleri ve Etik		

In universities that offer accounting education at the doctorate degree, the frequency of the words on social, ethical, environmental and sustainability themes and their percentage in the total number of courses are given in Table 8 and word clouds related to social, ethical, environmental and sustainability themes are given in Figure 4. As seen in Table 8, the number of socially themed courses in doctorate degree accounting programs whose curriculum is examined constitutes 0.79% of the total number of courses, ethical themed courses constitute 2,63% of the total number of courses, environmental themed courses constitute 0.26% of the total number of courses, and sustainability themed courses constitute 0.79% of the total number of courses. However, it was observed that there are no courses on social, environmental, ethical and sustainability themes in the doctorate degree accounting curricula that are trained at Balıkesir, Başkent and İnönü universities.

Table 8
Number of courses on sustainability themes in doctoral curricula

University	Sosyal	Etik	Çevre	Sürdürülebilirlik	Total Number of Courses	% of Total Number of Courses			
						Sosyal	Etik	Çevre	Sürdürülebilirlik
Anadolu	0	0	0	1	16	0	0	0	6,25
Atatürk	0	1	0	0	16	0	6,25	0	0
Balıkesir	0	0	0	0	22	0	0	0	0
Başkent	0	0	0	0	17	0	0	0	0
İNönü	0	0	0	0	35	0	0	0	0
İstanbul Aydın	1	1	0	0	17	5,88	5,88	0	0
İstanbul	0	1	0	0	12	0	8,33	0	0
Kırıkkale	0	2	0	0	25	0	8	0	0
Kocaeli	0	1	0	0	32	0	3,125	0	0
Celal Bayar	0	1	0	0	37	0	2,70	0	0
Muğla Sıtkı Koçman	0	1	0	0	29	0	3,45	0	0
Niğde Ömer Halisdemir	0	1	0	0	29	0	3,45	0	0
Sakarya	1	0	0	1	18	5,56	0	0	5,56
Süleyman Demirel	1	1	1	1	75	1,33	1,33	1,33	1,33
Toplam	3	10	1	3	380	0,79	2,63	0,26	0,656



Figure 4. Word clouds on doctorate degree social, ethical, environment and sustainability themes

The interactive citation matrix prepared with Maxqda 2020 regarding the curricula at universities that provide accounting education at doctoral level is given in Table 9. As seen in Table 9, within the scope of accounting education at doctoral level, the number of courses related to ethical criterion is higher compared to other sustainability criteria. In addition, Sakarya University has social accounting approaches course within the scope of social criteria, and Süleyman Demirel University has environmental accounting course within the scope of environmental criteria. In addition, it is remarkable and positive situation that there is a sustainability reporting course in Anadolu University's doctorate accounting curriculum, sustainable businesses course in Sakarya University doctorate accounting curriculum.

Table 9
Interactive citation matrix for doctorate degree curricula

University	Sosyal	Etik	Çevre	Sürdürülebilirlik
Anadolu				Sürdürülebilirlik Raporlaması
Atatürk Balıkesir Başkent Celal Bayar		Bilim Eğitim ve Etik		
İnönü		Bilimsel Araştırma Yöntemleri ve Yayın Etiği		
İstanbul Aydın	Sosyal Bilimlerde Araştırma Yöntemleri ve Etik	Sosyal Bilimlerde Araştırma Yöntemleri ve Etik		
İstanbul		Bilimsel Araştırma Teknikleri ve Yayın Etiği		
Kırıkkale		Bilimsel Araştırma ve Yayın Etiği Muhasebede Meslek Etiği		

Kocaeli		Muhasebede Etik	
Muğla Sıtkı		Bilimsel Araştırma	
Koçman		Teknikleri ve Yayın Etiği	
Niğde Ömer		Bilimsel Araştırma	
Halisdemir		Teknikleri ve Yayın Etiği	
Sakarya	Sosyal Amaçlı Muhasebe Yaklaşımları		Sürdürülebilir İşletmeler

Discussion and Conclusion

The accounting profession has emerged in order to report the assets and resources of individuals or institutions by recording their income and expenses, thereby meeting the information needs of the related parties. Today, although the accounting profession continues to exist for this purpose, there are some developments and changes that have led to the addition of new expectations from the accounting profession. The necessity to pay attention to the concept of sustainability and technological advances are the leading ones. These developments and changes have created the expectation that the professional accountant will fulfill the roles of creating and maintaining financial value related to business activities and operating results, as well as creating, maintaining and reporting roles for non-financial capitals. In order to fulfill these roles expected from the professional accountant, some changes must be made in the accounting education of the professional accountant and professional accountant candidates. According to Federation of European Accountants-FEE (2008), professional accountant can help create a sustainable environment by developing itself in strategy development, process improvement and performance measurement. In this regard, “*sustainability issues should be integrated into accounting education curricula*” (FEE, 2008: 8).

In this study, it is aimed to examine the existence, number and intensity of the courses related to sustainability in higher education institutions in our country. For this purpose, information on associate, undergraduate and graduate accounting programs and curricula were obtained from YÖK Atlas and websites of universities. In this program curricula, criterion words related to sustainability themes have been determined in order to locate sustainability. In order to determine the presence, frequency and density of criterion words in the curricula, the information obtained from the accounting curricula of the universities were subjected to content analysis with the Maxqda 2020 program, and the number of courses related to sustainability, the percentage of the total number of courses, interactive citation matrix and word clouds were

created. It is possible to express the general evaluations made as a result of the analysis as follows:

- At each educational level, the number of courses on sustainability is a very small percentage of the total number of courses in the curriculum.
- In master's and doctorate degree programs, it is seen that there are no sustainability courses in some universities' accounting curricula.
- In some curricula, the student has the opportunity to choose courses from elective courses of other departments where education is given in the relevant unit or elective courses of other units where education is given in the university. Providing the opportunity to take elective courses from other departments or units caused high number of courses related to sustainability in the curriculum of the program.
- In the curriculum review conducted in this study, all compulsory and elective courses in the curriculum are included in the review. Considering that elective courses are opened in line with Bologna ECTS values, it is not possible to open all elective courses in the curriculum as semester courses. Therefore, in order to achieve more accurate results, it is necessary to know whether these courses are opened in the semester as well as the existence and number of courses related to sustainability. This situation can be described as the constraint of this research.
- Most of the courses on ethics that represent the sustainability theme consist of accounting ethics, professional ethics, scientific research and publication ethics.
- In the accounting curricula examined, some lessons were found that can be said to be important in terms of sustainability in accounting education. These include:

University	Program Degree	Courses
Anadolu University	Doctorate	Sürdürülebilirlik Raporlaması
Süleyman Demirel University	Master	Çevre Muhasebesi Entegre Raporlama
Sakarya University	Master Doctorate	Sürdürülebilir İşletmeler
	Doctorate	Sosyal Amaçlı Muhasebe Yaklaşımları
Uşak University	Undergraduate	Çevre Muhasebesi

In line with these reviews and evaluations, it may be suggested to increase the number of courses related to sustainability in accounting curricula and to include sustainability and sustainable development objectives in all course contents.

Statements of ethics and conflict of interest

"I, as the Corresponding Author, declare and undertake that in the study titled as "*Sustainability in Accounting Education Given by Turkey Higher Education Institutions*", scientific, ethical and citation rules were followed; Turkish Online Journal of Qualitative Inquiry Journal Editorial Board has no responsibility for all ethical violations to be encountered, that all responsibility belongs to the author/s and that this study has not been sent to any other academic publication platform for evaluation. "

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