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Ranking the Expected Utilities of Practical Training in the Employment of Qualified Workforce in The Field of Accounting with Fuzzy Swara

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Abstract

To overcome the challenges encountered in today's business world, a workforce with only professional and technical knowledge is not enough. For this reason, the business world needs a qualified workforce that has sufficient professional and technical knowledge as well as some personal competencies. Having a workforce with many competencies is a high preference for employers as it will help them cope with the various challenges of business life. In this framework, the basic indicator of the quality of education provided in higher education institutions depends on the fact that graduates are suitable for the demands of the business world and can be employed as qualified workforce in their fields. However, it is known that the accounting education given in the undergraduate programs of faculties of economic and administrative sciences in Turkey remains largely theoretical and does not meet the expectations of the business world. In this context, the benefits expected from practical training in accounting field should be identified and implemented in all higher education institutions.

This study aims to identify the priorities of the business world by ranking the expected benefits of practical training for final-year university students from the practical training program in the field of accounting based on factors. The expected utilities are determined by a literature review and face-to-face interviews conducted with the managers responsible for the students in their workplaces. The data obtained from the interviews were analyzed with the fuzzy SWARA method and the expected utilities were listed based on identified factors. According to the results the most important expected benefit, with a weight of 20.44%, is “Improving the

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ability to master legal regulations". This factor was followed by ''Improving Skills of Internal and External Reporting'' with 15.65%, "Improving the skills of social responsibility and ethics" with 13.49%, "Improving skills of control" with 11.53%, "Improving the skills of partnership and teamwork with 11.20%"; "Improving analytical thinking skills" with 10.99%;''Improving skills in using Information Systems" with 8.77 and finally "Improving communication skills" with 7.92%.

Key words: Qualified Workforce, Employment, Practical Training, Accounting Field, Fuzzy SWARA.

JEL Code: C19, C44, J21, M53

1. Introduction

Human Capital Theory was developed in the 1960s with the works of Becker and Schultz. This theory argues that increasing the productivity of the workforce through education will indirectly contribute to the increase in national income. According to the human capital theory, individuals have the potential to reduce production costs; this potential should be activated through human capital investments made by both the individual and the state or employers (Schultz, 1966,414). Within the scope of human capital investments, developing the skills of individuals through on-the-job training as well as education provided by institutions has a priority place (Şimşek, 1995; Schultz, 1966).

According to the theory, the unemployment of educated individuals stems from both individual factors and the inconsistency of education system with the economic system. In this context, the human capital theory argues that the solution to educated unemployment can be possible through policies and practices aimed at strengthening the links between education and employment. In the literature, such practices are called "active employment policies". According to OECD Reports (2011), active employment policies mean the expansion of education and on-the-job training activities to increase the skill level of workforce. Increasing the skill level of the workforce means raising the level of education to the extent possible; in this context, increasing access to university education is an important strategy.

In the case of university students, enabling students to experience the world of work before graduation is an effective method for increasing their skill levels and strengthening the education-employment nexus. To this end, many universities in Türkiye offer practical training programs, particularly for final-year students. The 'Framework Regulation on Higher Education Institutions' was also published on June 17, 2021, which aims to contribute to the employability of university graduates.

It is known that students graduating from the Faculties of Economics and Administrative Sciences, where undergraduate education is carried out theoretically in our country, have difficulty in being employed as qualified workforce. With

practical training, these students will have the opportunity to apply the theoretical knowledge they have acquired before graduation and stepping into the business world will help reduce these challenges.

When the domestic literature is examined, it is seen that the number of studies investigating the contribution of practical training programs carried out in the Faculties of Economics and Administrative Sciences to students is quite low. In fact, there is no study that investigates the expected benefits of practical training for undergraduate students aiming to pursue the field of accounting. To overcome this deficiency, first, the expected benefits of the programs should be revealed. In this way, it may be possible to expand the application in undergraduate programs across the country and increase student participation.

In this study, it is aimed to determine the relative weights of the expected utilities of practical education in the accounting field to determine the priorities of the business world. In this way, it is also aimed to raise awareness about the importance of the issue. To reach this aim the fuzzy SWARA method has been used which enables us to model the Decision Maker's (DM) judgments in the fuzzy environment. In the starting point, the personal and professional development of the students who are in the last year of the Faculty of Economics and Administrative Sciences of a state university and who participate in the practical training program in the field of accounting is investigated. Within the scope of the research, face-to-face interviews were conducted with the managers responsible for the students, whom are determined as experts in the study, in their workplace. The scale of fuzzy Swara has been applied and data obtained were analyzed with fuzzy SWARA. According to findings, the benefits of practical training on the personal and professional competencies of the students were ranked according to their relative importance in the compromise decisions of those managers.

2. Literature Review

Practical Training

The education and learning process, which is one of the most important process managements within the scope of quality management systems of higher education institutions, is of great importance to reflect the theoretical education given by the instructors to the field of expertise in a practice-oriented manner.

The education and learning process, which is one of the most important process managements within the scope of quality management systems of higher education institutions, is of great importance to reflect the theoretical education given by the instructors to the field of expertise in a practice-oriented manner (Özkan et al, 2023).

With practical training activities, it is one of the primary goals of the students to get to know the sectors, to increase their professional knowledge acquisition, to develop their adaptability skills for professional business life, to

create attitudes and behaviors that increase their professional-oriented personality competencies, and to increase the projects based on the development of employment based on qualified workforce and university-industry collaborations demanded by the sector. In this perspective, many laws, decree laws, circulars, etc., legal regulations have been discussed in a clearer and more explanatory framework within the scope of the Framework Regulation on Practical Training in Higher Education prepared by the Council of Higher Education dated 17 June 2021 and numbered 31514, and a basis has been created for higher education institutions within the scope of practical training studies.

The Council of Higher Education has established a framework regulation on practical training and has established a regulatory basis for the procedures and principles regarding practical training in the relevant programs to improve the professional skills and experience of students in the fields of education, science, engineering, health, art, sports and social sciences in higher education institutions. In this context, it has divided practical education into three main categories.

Occupational Training in Business

It is the most important practical training method that enables students to experience the theoretical expertise they have acquired in the sectorial field under the responsibility of an academic staff of Higher Education Institutions.

According to the regulation, it is essential that vocational training in the enterprise is carried out during the education and training periods. Vocational education in business starts during the education and training periods determined in the academic calendar of the higher education institution and ends at the end of this period. However, depending on the nature of the program and the suitability of the operating conditions, vocational training can be carried out in business in the summer term (Practical Trainings in Higher Education, 2021: Art. 12).

Internship

Apart from the theoretical and practical courses given in higher education institutions and determined specifically for the program, it is the professional work that students do in enterprises in order to develop their professional knowledge, skills, attitudes and behaviors, to get to know the sector, to adapt to business life, to gain experience and to grow in a real production and service environment (Practical Trainings in Higher Education, 2021: Art. 3/j).

It is essential that internships are carried out in the months that coincide with the semester or summer vacation (Practical Training in Higher Education, 2021: Art. 13).

Practical Course

It is a course that ensures the development of students' knowledge, skills and competencies by taking part in the practice areas of the higher education institution, enterprises or service areas within the scope of the courses belonging to the graduate program in an education and training period, and is carried out under the responsibility of the instructor or staff of the relevant course, and is not within the scope of vocational education or internship in the business (Practical Training in Higher Education, 2021: Art. 3/k).

Practical course: it is essential that it is done on the days and times determined in the curriculum within the scope of the course it is related to. (Practical Training in Higher Education, 2021: Art. 14).

Employment of Qualified Workforce in the Field of Accounting

Accounting Education at Universities

Universities are often criticized for educating individuals who have technical knowledge but are not ready for business life (Yaşar, 2019, 88). There are gaps between what is taught in theoretical courses and the expectations of the professional business world (Siegel, et al., 2010, 41).

Siegel and Sorensen (1994) defined the failure of universities to train their students in line with the expectations of the business world as 'preparation mismatch'. According to Lucas et al. (2004), it is very difficult to develop general competencies at university in line with the demands of the business world. As a result of a qualitative study conducted in the UK, they revealed that the development of general competencies is a lifelong process. According to them, it is not possible to provide this development within four years of undergraduate education. Millner and Hill (2008) called this 'skills mismatch', focusing on students' lack of communication and poor problem-solving skills. Bui and Porter (2010) found that there is a gap between the expectations of the business world and the competencies of recent graduates, which they termed the 'expectation-performance mismatch'. Siegel et al. (2010) conducted a study in American universities and found that the content of many accounting-finance courses has not been changed for 25 years. Siegel et al. stated that since the course contents have not been changed, they cannot meet the demands of the market and defined this situation as 'synchronization mismatch'.

In our country, accounting education at undergraduate level is carried out at the Faculties of Economics and Administrative Sciences of state and foundation universities. When the curriculum programs of the universities are examined, it is seen that the compulsory and elective field courses taught do not have a certain standard in terms of hours and content. In general, it is noteworthy that most of the courses in all universities are theoretical and the number of practical courses such as package programs is low (Tosunoğlu and Cengiz, 2020, 211).

Tosunoğlu and Cengiz (2020) conducted interviews with academics and professionals in the field of accounting and finance. Academics mentioned that applied courses could not be held due to the quota density and therefore the theoretical education was insufficient. According to academics, boring repetitive courses should be removed from the curriculum and replaced with courses using technology-based equipment. Professionals, on the other hand, stated that the opportunity for practical training should be improved and an education system that integrates theory and practice should be established.

Change in Accounting Profession

As a result of the rapid change in information technologies, there have been significant changes in today's business environment. Because of the developments, the barriers to access to information have disappeared. Because of globalization, distance and borders have also disappeared. These developments have been reflected in the accounting profession and education. The traditional understanding of the accountant, which fulfills the function of 'recording' financial transactions, has completely disappeared. Today's accountants who supply business information are characterized as 'information specialists' (Jackling and De Lange, 2009, 369).

Automation in accounting due to technological developments has made some inadequacies in employees more visible (Pincus et al, 2017, 7). Today's accounting professionals responsible for financial reporting have to analyze the economic content of business transactions. Risk reporting, performance reporting and sustainability reporting are among the new areas of responsibility of today's accounting professionals (Lawson et al, 2014, 299).

The job descriptions of accounting managers, who in the past undertook the tasks of budgeting and evaluating past performances, have expanded considerably. Today's accounting managers are expected to quickly analyze and interpret financial data to help management's strategic decision-making processes. In this context, accounting managers need to have technical competencies and understand the basics of business management (Yaşar, 2019, 87). With the emergence of new areas of responsibility of the accounting unit, it has also gained the opportunity to advise senior management (Lawson et al, 2014, 299). From being a department that provides information and support to senior management, it has transformed into a department that is involved in a wide range of business decisions. Today's accounting employees are in the position of employees who take part in planning processes and play an active role in corporate performance management (Brewer et al, 2014,30).

Accounting Field Qualified Workforce Competencies

When word competency is considered in terms of management science, it can be defined as the basic characteristics of a person who gives superior performance results in a job (Boyatsis, 2008, 6). The competencies that the business world seeks in accounting employees are closely related to higher education institutions that provide education in this field. In the field of accounting, the business world expects a qualified workforce to possess a broad set of competencies that go far beyond technical expertise.

According to Lawson (2014), the competencies expected from the qualified workforce in the field of accounting develop over time because of a combination of education, internship and work experience. The competencies required by professionals are divided into three groups: core competencies, general management competencies and professional competencies (Lawson et al, 2014, 299). These competency groups are detailed in Table 1 below.

Table 1. Competencies Expected from Qualified Workforce in Accounting Field

Core Competencies	**General Management Comp.**	**Professional Competencies**
Human Relations	Leadership	External Reporting and Analysis
Communication	Governance and Risk Management	Planning, Analysis and Control
Quantitative Methods	Process Management and Improvement	Tax Compliance and Planning
Analytical Thinking	Core Management Competencies	Using Information Systems
Technological Competence	Ethics and Social Responsibility	Assurance and Internal Control
		Professional Values and Ethics

Source: Lawson, 2014,299 trans. Yaşar, 2019, 90.

In the accounting profession, technical knowledge is a fundamental requirement for carrying out professional activities accurately and in accordance with the law. Knowledge of Turkish Financial Reporting Standards (TFRS) and International Financial Reporting Standards (IFRS) is a must for today's accountants (IFAC, 2021). In addition, having a good command of cost accounting, management accounting and tax legislation enables accounting professionals to fulfill their duties completely (Büyükmirza, 2016).

Accounting is not only about recording data; it is also about analyzing this data and guiding decision makers. Therefore, accountants need to have cognitive

competencies such as problem solving, financial analysis and focus on details (Kaya, 2022). These skills are especially important in internal audit and strategic reporting processes.

Ethical rules form the basis of credibility in the accounting profession. The ethical principles published by IFAC require members of the profession to adhere to values such as impartiality, honesty, confidentiality and serving the public interest (IFAC, 2021; TÜRMOB, 2020). Behavior in accordance with accounting professional ethics provides transparency both internally and to the public.

Although having technical knowledge is a basic requirement in the accounting profession, soft skills are also factors that directly affect professional success. Communication skills, teamwork, time management and stress management skills are among other important competencies expected from accountants today (Akkaya, 2019). The importance of these skills increases especially in large enterprises that need to cooperate with different departments.

The integration of technology into business life has led to fundamental changes in the field of accounting. Tools such as ERP systems, cloud-based accounting applications, data analytics software and robotic process automation (RPA) require accounting professionals to have digital literacy beyond their technical competencies (OECD, 2020; Gücenme Gençoğlu, 2017).

Frequent changes in legislation and the integration of new technologies into the profession require accountants to develop lifelong learning habits. Certificate programs, distance learning and participation in professional seminars are tools that support this development (TÜRMOB, 2020).

3. Methodology

SWARA (Stepwise Weight Assessment Ratio Analysis), found by Keršuliene et al. (2010) is based on an evaluation of the relative importance of criteria by experts in multicriteria decision making problems. The application of its scale to experts is practical and the algorithm is simple. It is a powerful method that has gained frequent application in literature since its inception. (Aghdaie et al., 2013, Stanujkic et al., 2015; Prajapati et al., 2019; Gheibdoust et al., 2024; Basirat et al.,2025).

The starting point of SWARA method is to rank the criteria in the descending order. Then starting from the second one, assigning a real number of values in the interval [0, 1] to each criterion with respect to the previous one. Up to this step the judgments of Decision Makers have been taken, and the researcher can start to use the algorithm of the method by evaluating the relative ratios of the criteria with simple mathematical operations. This algorithm is also practical with respect to the other weighting methods of criteria.

The fuzzy extension of the SWARA method's algorithm is similar to the classical one, differs from it with the usage of triangular fuzzy numbers and the fuzzy linguistic scale. It has some advantages according to the classical one as it stems from the fuzzy decision-making environment. The most important advantage is modelling the decision makers' judgments more real than the classical ones since the gradual passing of judgments from one category to another is considered in the fuzzy environment. The fuzzy SWARA method is also frequently applied in decision-making problems involving reverse logistic suppliers for third party (Mavi et al., 2017; Zarbakhshnia et al., 2018), evaluation of logistic villages (Zolfani et al, 2021); prioritazion of solutions that are developed for the degreasing the risks of Industry 4.0 (Pandey and Khurana, 2024), Prioritization of investment decisions of renewable energy sources (Almeida, 2025).

Fuzzy SWARA's algorithm is given as in the following steps: (Mavi et al., 2017; Zarbakhshnia et al., 2018):

Step 1: Ranking the criteria in the descending order according to the aim of the problem.

Step 2: The importance of each criterion with respect to the previous one (starting from the second one according to the importance level) is determined by using the linguistic scale given in Table 2.

Table 2. Linguistic Expressions and Their Triangular Fuzzy Representations

Equally important	(1, 1, 1)
Moderately less important	(2/3, 1, 3/2)
Less important	(2/5, 1/2, 2/3)
Very less important	(2/7, 1/3, 2/5)
Much less important	(2/9, 1/4, 2/7)

Source: Zarbakhshnia et al, 2018.

Step 3: Construct the fuzzy coefficient $\tilde{k}_j$ as Eq. (1) where $\tilde{s}_j$ are the triangular fuzzy numbers are determined by the expert's judgments taken with the help of Table 2

$$\tilde{k}_j = \begin{cases} \tilde{1}, & \mathrm{j} = 1 \\ \tilde{s}_j + \tilde{1}, & \mathrm{j} > 1 \end{cases} \tag{1}$$

Step 4: Compute the fuzzy weight $\tilde{q}_j$ as Eq. (2)

$$\tilde{q}_j = \begin{cases} \tilde{1}, & j = 1 \\ , \frac{\tilde{x}_{j-1}}{\tilde{k}_j} & \mathrm{j} > 1 \end{cases} \tag{2}$$

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Step 5: Compute the relative weights of the evaluation criteria as Eq. (3):

$$\widetilde{w}_j = \frac{\tilde{q}_j}{\sum_{k=1}^{n} \tilde{q}_j} \tag{3}$$

Where $\widetilde{w}_j$ donates the comparative weight of criterion j and n represents the number of such criteria. For making the fuzzy operations, addition, subtraction, multiplication and division are defined as the following:

Suppose A_1= (l_1, m_1, u_1) and A_2= (l_2, m_2, u_2) are two triangular fuzzy numbers: Fuzzy addition, subtraction, multiplication and division are defined as in the Eq. 4-7. (Santos and Camargo, 2010).

Fuzzy Addition:

$$A_1 \oplus A_2 = (l_1 + l_2, m_1 + m_2, u_1 + u_2) \tag{4}$$

Fuzzy Subtraction:

$$A_1 \ominus A_2 = (l_1 - u_2, m_1 - m_2, u_1 - l_2) \tag{5}$$

Fuzzy Multiplication:

$$A_1 \otimes A_2 = (l_1 l_2, m_1 m_2, u_1 u_2) \tag{6}$$

Fuzzy Division:

$$A_1 \oslash A_2 = (l_1 / u_2, m_1 / m_2, u_1 / l_2) \tag{7}$$

Moreover, for a group decision MCDM problem with fuzzy SWARA, the algorithm can be done for all experts than after the $\widetilde{w}_j$ are determined, they can be combined with arithmetical mean operator for fuzzy component of the fuzzy weight number that is given in the Eq.8 where D is the number of Decision Makers (Koçak, 2023, 49)

$$\widetilde{w}_t = \frac{\sum_{k=1}^{D} \widetilde{w}_k}{D} \tag{8}$$

Also, for the defuzzification many operators can be used as well as centroid, weighted average, area center etc. In this research the centroid method which is called Centroid of the triangular fuzzy set, has been used where the formula is given in Eq. 9.

$$w_i = \frac{s_i}{\sum_{i=1}^{n} s_i} \quad = \frac{s_l + s_m + s_u}{\sum_{i=1}^{n} s_i}, \quad i = 1, \ldots, n \tag{9}$$

4. Application and Findings

In this research, it is aimed at ranking and finding the relative weights of competencies for the profession of accounting in order to determine the priorities of the business world. The criteria, which reflect the competencies relevant to the accounting field, were determined based on a literature review to achieve this objective. The study focuses on the practical education of students from the Faculty of Economics and Administrative Sciences who are currently participating in a practical training course in the field of accounting. The decision makers in this research are the managers of students enrolled in practical education courses in the field of accounting during the 2024–2025 academic year. All decision makers have at least 15 years of experience in their field of work. Since there is no universal value of a group size for DMs in MCDM problems, even a single DM is used in some cases, number of Decision Makers is sufficient in this problem according to their expertise and competence levels. The proficiency level of DMs as manager positions in the Accounting Departments are given in Table 3.

Table 3. DM's Working Experience

DM1	15 years
DM2	22 years
DM3	31 years
DM4	17 years
DM5	27 years
DM6	18 years
DM7	30 years

For the protection of ethical values, DMs have signed the pre-informed voluntary consent forms before they filled the scale.

Criteria in Research

For the determination of the criteria Lawson (2014) and AICPA (2025) are used. The basic, general administrative and professional competencies are listed in Lawson's research. The functional, individual and job competencies are listed in the AICPA's report. The criterion of this research is determined as in the following

C1. Improving Skills in Using Information Systems: It consists of gathering, validating, and analyzing data by using software/reporting systems with decision support, enterprise resource planning (ERP) systems. The integration of ERP systems into accounting processes requires accountants to develop advanced information system skills for effective data entry, retrieval, and reporting.

C2. Improving Control Skills: It enhances the accuracy and reliability of financial reporting, contributing to more effective decision-making processes. Improved control skills enable accountants to implement stronger internal controls, reducing the risk of errors, fraud, and financial misstatements.

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C.3 Improving Skills of Internal and External Reporting: It consists of presenting financial and non-financial information about the firms primarily to various internal or external stakeholders, especially for government related with the legal liabilities of the firms.

C.4 Improving the Ability to Master the Legal Legislation: It is essential for accounting professionals to ensure compliance with tax laws, financial reporting standards, and regulatory frameworks. It enables accountants to navigate complex statutory requirements, minimizing legal risks and enhancing the credibility of financial statements.

*C.5 Improving Communication Skills***:** It is essential for accounting professionals to effectively convey complex financial information to both financial and non-financial stakeholders.

C.6 Improving Analytical Thinking Skills: It supports the interpretation of complex financial data, enabling professionals to identify trends, anomalies, and strategic opportunities. Analytical thinking is critical for accountants engaged in financial analysis, risk assessment, and forensics. Accounting, as it allows for deeper insight into financial patterns and irregularities.

C.7 Improving Cooperation and Teamwork Skills: It is vital for accounting professionals, especially when working in multidisciplinary teams on budgeting, auditing, and financial analysis projects. Strong cooperation skills ensure smooth coordination among team members, increasing accuracy and compliance with standards.

C.8 Improving Social Responsibility and Ethical Skills: It is fundamental for accounting professionals to uphold integrity, transparency, and public trust in financial reporting. Accountants with strong social responsibility awareness contribute to ethical decision-making and corporate social reporting.

Findings

Each decision maker ranked the criteria in descending order and subsequently made seven pairwise comparisons starting from the criteria that they put in the second rank. They compared the posterior one with the previous one using the linguistic scale given in the Table 4 by regarding the descending order that they constructed. The comparison table for the DM1 is given in Table 4 as an example.

Table 4. The Comparison of DM1

C4		-	-	-	-
C6		MODERETELY LESS	0.67	1.00	1.50
C2		EQUAL	1.00	1.00	1.00
C3		EQUAL	1.00	1.00	1.00
C1		LESS IMP.	0.40	0.50	0.67
C7		EQUAL	1.00	1.00	1.00
C5		LESS IMP.	0.40	0.50	0.67
C8		LESS IMP.	0.40	0.50	0.67

Then the formula given in the Equations 1-2-3 are used and the results are shown in Table 5. For the application of formula 2, the fuzzy division is used that is given in Equation 7.

Table 5. kj, qj and wj (weight) Values for DM1

	kjl	kjm	kju	Qjl	qjm	qju	wjl	wjm	wju
C4	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.55
C6	1.67	2.00	2.50	0.40	0.50	0.50	0.20	0.24	0.27
C2	2.00	2.00	2.00	0.20	0.25	0.25	0.10	0.12	0.14
C3	2.00	2.00	2.00	0.10	0.13	0.13	0.05	0.06	0.07
C1	1.40	1.50	1.67	0.06	0.08	0.08	0.03	0.04	0.05
C7	2.00	2.00	2.00	0.03	0.04	0.04	0.01	0.02	0.02
C5	1.40	1.50	1.67	0.02	0.03	0.03	0.01	0.01	0.02
C8	1.40	1.50	1.67	0.01	0.02	0.02	0.01	0.01	0.01
				$\sum_{l=1}^{8} q_l = 1.82$	$\sum_{l=1}^{8} q_l = 2.05$	$\sum_{l=1}^{8} q_l = 2.28$			

Same operations have been done for the other DMs. Certainly, their descending order is different from DM1. The weights of each criterion have been calculated in the same way, and all decisions are combined with the arithmetic mean operator the results are shown in Table 6.

Table 6. Combined Decision Matrix of all DMs

C1	0.08	0.08	0.11
C2	0.09	0.11	0.15
C3	0.13	0.16	0.19
C4	0.18	0.20	0.24
C5	0.06	0.08	0.10
C6	0.07	0.10	0.16
C7	0.09	0.12	0.13
C8	0.12	0.13	0.16

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In the next stage, the defuzzification process was applied by using Equation 9. The results are in Table 7 and Figure 1.

Table 7. Defuzzified Weights

C1	8.77%
C2	11.53%
C3	15.65%
C4	20.44%
C5	7.92%
C6	10.99%
C7	11.20%
C8	13.49%

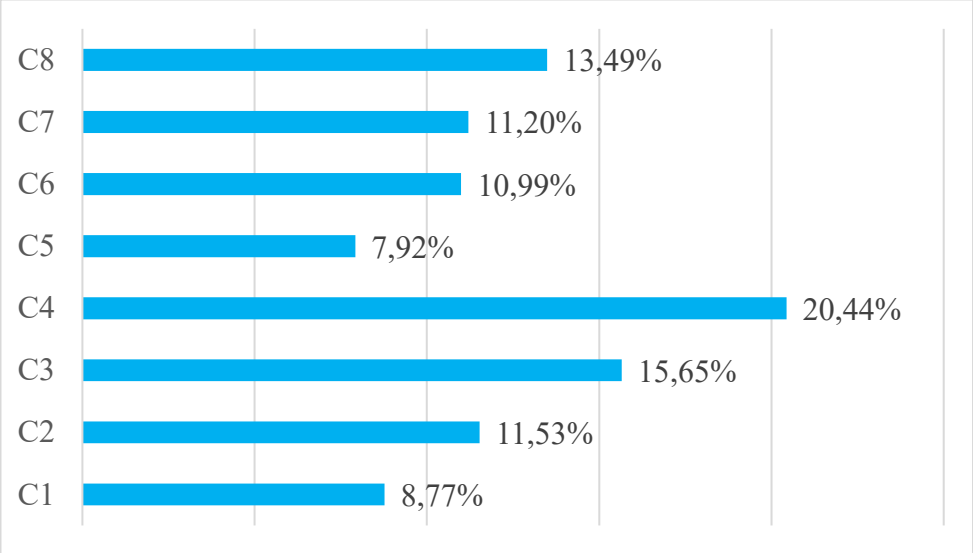

Figure 1. The Weight Distribution of Criteria-Expected Utilities

According to Table 7 and Figure 1, the importance level of criteria is lined up as C4>C3>C8>>C2>C7>C6>C1>C5 with the weights as %20.44, %15.65, % 13.49 %11.53, %11.20, %10.99, %8.77, %7.92 respectively.

5. Conclusions

To keep up with the digital age and respond to the demands of the business world, change in accounting education is essential. In the field of accounting, there is a need for the dissemination and effective implementation of 'practical training' in the training of qualified workforce with the qualifications required by the business world. In practical training processes, university-industry cooperation play a major role. It is extremely important that the academic advisors of the students

participating in the practical training program are in contact with the responsible managers in the workplaces and closely monitor the process. The effectiveness and efficiency of practical training can only be made possible by the joint efforts of the manager, student and academic counsellor responsible. These three stakeholders must coordinate with each other to follow the process in harmony and maximize success.

In this study, it is aimed to raise the expected benefits of practical training to the employment of qualified workforce in the field of accounting. The judgments of 7 expert Decision Makers have been modelled with the linguistic scale of fuzzy SWARA. The intangible criteria have been successfully modelized. Moreover, the judgments of Decision Makers have been modelled in the fuzzy environment that considers the gradual transition from one category to another which fits real life problems more than classical modelling. According to the results: The top criterion is C4. Improving the ability to master legal regulations has an important level of 20.44% followed by in the descending order C3. Improving Internal and External Reporting Skills 15.65%, C8. Improving the skills of social responsibility and ethics 13.49%; C2. Improving skills of control 11.53 %; C7. Improving the skills of partnership and teamwork 11.20%; C6. Improving analytical thinking skills 10.99%; C1. Improving skills in using Information Systems 8.77%; C5. Improving communication skills 7.92 %

This ranking gives the importance levels of expected utilities of practical training in the accounting field. Since the DMs are experts from the accounting fields the judgments of them show the expectations of business world. Therefore, this study also provides insights into the alignment between education and employment. The identified importance levels and the ranking of competencies illustrate which aspects of accounting education—particularly its practical components—are most valued by employers.

In future studies, interviews can be conducted with students, who are the other stakeholders of the system. Students may be asked to evaluate their achievements. Revisions can be made in practical training programs by revealing the current deficiencies from the students' perspective. Interviews can also be conducted with academic advisors, the third stakeholder of the system. Academics who have expert-level knowledge in the field of accounting can be asked to evaluate the competencies of the students they consult before and after the program, and the contributions of the process to the students and the deficiencies can be revealed from the perspective of academics.

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