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CORE COMPETENCIES FOR ENTRY-LEVEL ACCOUNTING GRADUATES

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Abstract

Core competencies—defined as the fundamental knowledge, abilities, and expertise within a given skill set (Becker Accounting Dictionary)—are central to contemporary accounting practice. Grounded in job market signaling theory, this study undertakes a content and cluster analysis of 163 entry-level accounting job advertisements posted between 2023 and 2024 to evaluate the alignment between employer-demanded competencies, the AICPA Foundational Competencies Framework for Aspiring CPAs, and globally recognized core skills. The findings reveal that accounting principles, communication skills, and proficiency in Microsoft Office constitute the most frequently emphasized competencies. Overall, the results indicate only partial alignment with the AICPA framework. Moreover, five of the ten most frequently requested competencies in the dynamic U.S. labor market correspond to globally recognized core skills. Cluster analysis further identifies two predominant job profiles: one characterized by an emphasis on technical accounting expertise and the other by a focus on collaborative and digital competencies. Collectively, these findings contribute to the literature by providing empirical evidence on competency signaling in accounting labor markets and offer practical implications for educators, professional bodies, and students seeking to better align educational outcomes with evolving market demands. The study also advances theoretical and international discussions on competency development in the accounting profession.

Keywords: Accounting Competencies, Entry-Level Jobs, Content Analysis, Cluster Analysis.

INTRODUCTION

This study examines the core competencies demanded in the dynamic United States (U.S.) labor market for entry-level accounting positions and evaluates their alignment with globally recognized core skills, incorporating a cluster analysis of job profiles. Prior research has emphasized that competency-based assessment in professional contexts remains underdeveloped and warrants continued scholarly attention (Gonczi et al., 1993). At the same time, aligning accounting education with evolving industry demands has become a global priority, attracting increasing academic and practitioner interest (Elo et al., 2025). In a rapidly globalizing and technology-driven environment, the role of accountants has expanded significantly. Skill requirements are no longer static but evolve in response to shifting economic and technological conditions (Elo et al., 2025). Newly licensed CPAs are therefore expected to possess deeper technical expertise, stronger core competencies, and greater proficiency in emerging technologies (AICPA & NASBA).

Technological advancements, including artificial intelligence (AI), automation, and data analytics, are reshaping business models and redefining professional roles. According to the World Economic Forum's *Future of Jobs Report* (2025), skill gaps represent the primary barrier to business transformation, cited by 63% of employers, while technological change is projected to be a central driver of labor market transformation by 2030 (Zahidi, 2025). These developments are accelerating the emergence of hybrid human–AI work environments and intensifying demand for digital and analytical competencies.

Consequently, the scope and complexity of tasks performed by entry-level accountants have expanded, increasing expectations for both technical and professional capabilities. In response to these shifts, competency-based approaches to professional education have become

increasingly important (Gonczi et al., 1993; Elbarrad & Bellassi, 2023). Prior studies highlight that accounting graduates must demonstrate competencies beyond traditional technical knowledge, including communication, critical thinking, and adaptability (Ahadiat & Martin, 2016). The AICPA Foundational Competencies Framework for Aspiring CPAs (updated January 2025) reflects this evolution by integrating technology and digital acumen into professional competencies, refining technical competency categories, and removing organizational competencies (AICPA, 2025). Competency-based frameworks are widely adopted across jurisdictions, including North America, Europe, Australia, and Southeast Asia (Uwizeyemungu et al., 2020; Tan & Laswad, 2018; Elo et al., 2025; Suarta et al., 2024). Nevertheless, prior research underscores the need for ongoing evaluation of the alignment between competency frameworks and labor market demands (Uwizeyemungu et al., 2020).

This study contributes to this literature by providing contemporary evidence on employer expectations for entry-level accounting competencies. While the analysis focuses on the U.S. context, the findings have broader international relevance, as many accounting systems share common principles and competency-based training approaches. For instance, competency frameworks vary in design—such as the functional (output-based) approach adopted by ACCA and the capability (input-based) approach used in the U.S.—yet they address similar underlying skill domains (Boritz & Carnaghan, 2003; Gammie & Joyce, 2009). Notably, 50% of the ten most frequently demanded competencies in the U.S. labor market correspond to globally recognized core skills, underscoring cross-national convergence in competency expectations.

Drawing on job market signaling theory, this study analyzes 163 entry-level accounting job advertisements collected from Handshake between 2023 and 2024. The analysis identifies 25 distinct core competencies demanded by employers. However, only three competencies—accounting principles, communication skills, and proficiency in the Microsoft Office suite—appear in at least 50% of postings, indicating a high degree of concentration in employer priorities. Beyond foundational accounting knowledge, the findings highlight the increasing importance of information and communication technology (ICT) skills and digital proficiency.

To address the second research objective, the identified competencies are compared with those outlined in the AICPA framework. Of the 25 competencies extracted, 28% align with technical competencies and 72% correspond to professional competencies. Among technical competencies, accounting principles and technology/digital acumen emerge as particularly salient. In contrast, competencies such as risk assessment and business acumen—explicitly included in the AICPA framework—are not prominently reflected in entry-level job postings. This discrepancy may reflect the narrower scope of responsibilities typically assigned to entry-level roles, consistent with prior findings that competency emphasis varies over time and across career stages (Pasewark, 2021).

Further analysis using cluster techniques and statistical tests (independent samples t-tests and chi-square tests) identifies two distinct competency profiles: one centered on technical accounting expertise and another emphasizing collaboration and digital acumen alongside broader professional skills. These findings suggest a bifurcation in employer expectations, reflecting both traditional accounting functions and emerging digitally enabled roles.

Overall, the results highlight both domestic trends and global convergence in competency requirements. In the current AI-driven environment, accounting work is increasingly performed within hybrid human–AI teams, elevating the importance of collaboration and digital competencies. At the same time, foundational capabilities—such as accounting knowledge, critical thinking, communication, and self-management—remain essential for professional

effectiveness. Importantly, half of the most frequently demanded competencies in the U.S. align with globally recognized core skills, including communication (linked to empathy and active listening), digital literacy (reflected in Microsoft Office and ICT proficiency), and adaptability (associated with resilience and agility). As emphasized in the World Economic Forum's *Future of Jobs Report* (2025), expanding digital access is expected to be the most transformative trend, with 60% of employers anticipating its impact on business operations by 2030.

In sum, an academic accounting qualification alone is no longer sufficient in today's highly competitive labor market. This study contributes to the accounting education literature by identifying and empirically distinguishing between two predominant job profiles: one centered on fundamental accounting principles and the other emphasizing collaboration and digital acumen, alongside broader professional competencies. This differentiation, which has received limited attention in prior research, provides a more nuanced understanding of how accounting graduates' competencies align with evolving labor market expectations. It also extends the literature critiquing the historically technical orientation of accounting education—a critique that has gained renewed urgency in light of the rapid expansion of generative AI and the increasing integration of AI agents into entry-level accounting roles.

The findings further demonstrate that an exclusive emphasis on technical proficiency is insufficient for preparing graduates to meet contemporary professional demands. By identifying the core competencies sought in entry-level accounting roles in the U.S. labor market and evaluating their alignment with the AICPA Foundational Competencies Framework, this study bridges the gap between employer expectations and professional standards. The results offer practical value for multiple stakeholders. For students, they provide a basis for self-assessment and targeted skill development. For educators, they serve as a benchmark for curriculum design, supporting the integration of applied learning and diverse competency pathways. For professional bodies such as the AICPA, the findings offer insights for the ongoing evaluation and refinement of competency frameworks to ensure continued relevance in a rapidly evolving technological and workforce landscape. More broadly, the study reinforces the importance of competency-based education in equipping graduates with an integrated set of technical, professional, and digital capabilities essential for success in the modern accounting profession.

The remainder of this paper is structured as follows. The next section reviews the relevant literature on professional accounting competencies and outlines the theoretical foundation of job market signaling theory. This is followed by a detailed description of the research methodology. The subsequent section presents and discusses the findings from the content and cluster analyses. The paper concludes with a summary of key insights, limitations, and directions for future research.

LITERATURE REVIEW

Accounting Education Approaches

Prior research indicates that competency-based accounting education emphasizes the development of frameworks designed to demonstrate proficiency across multiple competency domains. These frameworks are outcome-oriented, flexible, and multidimensional, encompassing cognitive skills, workplace performance, and personal attributes that collectively contribute to professional effectiveness (Boritz & Carnaghan, 2003). Uwizeyemungu et al. (2020) further note that competency-based approaches define professional qualification expectations in terms of demonstrable outcomes rather than solely

emphasizing knowledge acquisition. Consistent with this perspective, this study adopts the definition of competence advanced by Hager et al. (1994), which conceptualizes competence as the integration of knowledge, skills, abilities, and attitudes demonstrated through authentic professional tasks central to practice.

Competency-based assessment refers to the evaluation of an individual's performance against established professional standards (Gonczi et al., 1993). In the United States, professional accounting bodies have developed entry-level competency standards applicable to new entrants into the profession. These assessments are designed to determine whether candidates can consistently and effectively deliver outcomes aligned with organizational objectives (Daff, 2021). Importantly, competency standards may be articulated across multiple stages of professional development, including entry-level, experienced practitioner, and specialist roles (Gonczi et al., 1993).

Accounting bodies have adopted varying approaches to competency development, most notably the functional analysis (output-based) approach and the capability (input-based) approach (Boritz & Carnaghan, 2003; Gammie & Joyce, 2009). Prior to 1989, accounting education largely reflected a capability-based model; however, subsequent reforms led by U.S. CPA firms shifted emphasis toward outcome-oriented competency frameworks (Palmer et al., 2004). While some professional bodies, such as ACCA, prioritize functional outputs, others, including the AICPA, adopt capability-based models that integrate knowledge, skills, and professional values (Uwizeyemungu et al., 2020). Both approaches are widely recognized as legitimate expressions of competency-based education.

Despite these advances, definitions of competency remain heterogeneous. Boritz and Carnaghan (2003) attribute this variability to contextual differences across educational, vocational, and employment settings. Educational contexts tend to prioritize teachable knowledge and skills, whereas employment contexts place greater emphasis on attitudes and personal attributes that, although more difficult to cultivate, are critical to effective performance. As a result, such attributes are increasingly incorporated into competency frameworks.

Competency-based education offers several advantages, including flexibility, transparency, enhanced accountability, and stronger alignment between educational outcomes and professional practice (Boritz & Carnaghan, 2003). However, critics caution that overly detailed or expansive competency frameworks may become impractical and difficult to implement effectively, thereby limiting their utility in practice (Boritz & Carnaghan, 2003).

Assessment of Competencies

The International Federation of Accountants (IFAC) recognizes that accounting practice encompasses a broad and continuously expanding range of activities, making it unlikely that any single individual will possess all competencies required for professional practice (IFAC, 2001; Elo et al., 2025). This raises a fundamental question regarding which competencies should be prioritized for assessment.

While some scholars argue that all prescribed competencies must be demonstrated to safeguard public trust (Jessup, 1991; Wolf, 1995), others advocate for more streamlined approaches that emphasize competencies most critical to professional performance outcomes (McLagan, 1997). Reflecting this latter perspective, organizations such as ACCA distinguish between mandatory and optional competencies within their assessment frameworks (ACCA, 2001).

Competency requirements have also evolved in response to changing professional demands. Pasewark (2021) notes that ethical behavior, risk analysis, and data governance have gained increased prominence during periods of industry disruption. Similarly, technological competencies have progressed from basic systems familiarity to more advanced capabilities in data analytics and digital decision-making (AICPA, 2019).

Employers' Expectations and Skills Gap

The existing literature consistently identifies a persistent misalignment between employer expectations and the preparedness of accounting graduates (Daff, 2021). Employers increasingly demand graduates who possess not only academic qualifications but also a broad portfolio of professional, analytical, and technological competencies (Ahmed, 2016). Recent studies further highlight the growing importance of advanced capabilities such as artificial intelligence, business analytics, and adaptive problem-solving in accounting roles (Pasewark, 2021). Empirical evidence suggests that employers continue to observe significant skill gaps among entry-level accounting graduates, particularly in communication and analytical competencies (Ahmed, 2016; Daff, 2021). Analytical competence—defined as the ability to acquire, manipulate, and interpret data—has become increasingly critical as accountants assume responsibilities traditionally associated with statisticians and actuaries (Pasewark, 2021). The evolving nature of accounting skill requirements has also been documented across multiple jurisdictions, including Canada, Australia, Finland, and Southeast Asia, underscoring the global nature of these shifts (Uwizeyemungu et al., 2020; Tan & Laswad, 2018; Elo et al., 2025; Suarta et al., 2024). Consistent with this trend, prior research emphasizes that accounting students must now demonstrate competencies extending beyond the technical skills traditionally emphasized in accounting curricula (Ahadiat & Martin, 2016).

Accounting Profession's Competency Expectations

The American Institute of Certified Public Accountants (AICPA), in collaboration with CIMA, developed the AICPA Foundational Competencies Framework for Aspiring CPAs to define the essential skills required at entry into the profession (AICPA & CIMA, 2022). The Framework emphasizes long-term, transferable competencies rather than traditional subject-based knowledge, thereby promoting a competency-based curriculum designed to respond to rapid and continuous professional change.

Initially structured around technical, organizational, and leadership pillars (AICPA & CIMA, 2022), the Framework was revised in 2025 to consolidate competencies into two overarching domains: technical and professional competencies. This updated structure reflects evolving labor market demands by integrating accounting principles, risk management, and digital acumen within the technical domain, while emphasizing ethical behavior, collaboration, communication, and continuous learning within the professional domain (AICPA, 2025).

AICPA's Framework Changes

The 2025 revision of the AICPA Foundational Competencies Framework introduced substantive structural changes. The Framework was streamlined from three competency pillars—technical, organizational, and leadership—to two: technical and professional competencies. Within this revision, accounting principles were explicitly incorporated into the technical competencies pillar, while measurement and reporting competencies were removed. The organizational competencies pillar was eliminated entirely.

In addition, two competency areas were substantively revised. "Risk assessment, analysis, and management" was redefined as "risk management," and "technology systems and process

management" was updated to "technology and digital acumen" (AICPA & CIMA, 2025). Collectively, these revisions reflect the accounting profession's response to evolving technological, organizational, and workplace demands.

History of the AICPA's Framework

The accounting profession has long engaged in systematic efforts to define the competencies required for professional success (Pasewark, 2021). Early initiatives include the Bedford Committee Report (1986), which called for accounting curricula to extend beyond technical knowledge to incorporate interpersonal competencies and accounting information systems. Similarly, the Big Eight White Paper (*Perspectives on Education: Capabilities for Success in the Accounting Profession*) emphasized the importance of communication and intellectual skills, alongside broader competencies related to business, ethics, and societal understanding (Arthur Andersen et al., 1989). Building on these foundational efforts, the AICPA introduced the Pre-Certification Core Competency Framework in 1999, developed collaboratively by educators and practitioners to reflect diverse accounting career pathways (Foster & Bolt-Lee, 2002; Thomas, 2000). Across these initiatives, a consistent conclusion emerges: technical accounting knowledge alone is insufficient for sustained professional success. Instead, professional success requires a combination of technical expertise, soft skills, professional judgment, and technological competence. Nevertheless, both academic and professional literature continue to document persistent gaps between graduate preparedness and employer expectations (Bolt-Lee & Foster, 2003; Pasewark, 2021).

Most recently, the AICPA released an updated version of the Foundational Competencies Framework for Aspiring CPAs in January 2025. This study adopts the technical and professional competency classifications defined in the revised framework (see Appendix 1).

Global Core Skills

The World Economic Forum's *Future of Jobs Report 2025* identifies the global skills gap as the leading barrier to business transformation, cited by 63% of surveyed employers. Based on data from over 1,000 employers across 55 economies and 22 industries, the report highlights technological change as a key driver reshaping the global labor market through 2030 (Zahidi, 2025). Prominent trends include the expansion of digital access and the accelerated adoption of artificial intelligence, data processing technologies, and automation.

The report identifies 26 core skills for 2025, with analytical thinking ranked as the most essential competency. Other highly valued skills include resilience, flexibility, leadership, creative thinking, motivation, and self-awareness. Collectively, these competencies reflect an increasing emphasis on adaptability, collaboration, and continuous learning in the workplace. Employers also anticipate rapid growth in demand for technological competencies—particularly in artificial intelligence, big data, cybersecurity, and technological literacy—alongside socio-emotional skills such as curiosity and lifelong learning (Zahidi, 2025).

Theoretical Framework

This study adopts job market signaling theory (Spence, 1973), which provides a foundational framework for understanding how information is transmitted between employers and job seekers under conditions of information asymmetry. In labor markets, employers cannot directly observe applicants' abilities, skills, or productivity at the point of hiring, whereas applicants possess private information about their own competencies. To reduce this asymmetry, employers rely on observable signals—such as educational qualifications, certifications, and job-relevant competencies—to infer candidate quality. Conversely, job

advertisements serve as signals from employers, communicating the competencies, skills, and attributes they prioritize in prospective employees. From this perspective, the content of job postings reflects employers' strategic efforts to attract candidates whose capabilities align with organizational needs.

Spence (1973) further argues that effective signals are costly or difficult to obtain, thereby enabling them to credibly distinguish higher-ability individuals from lower-ability ones. Within the accounting context, competencies such as technical proficiency, communication skills, and digital acumen function as credible signals of job readiness. Job market signaling theory has therefore been widely applied in empirical research that utilizes job advertisements as indicators of employer expectations. Accordingly, the theory provides a strong conceptual justification for employing content analysis of job postings to examine labor market demand.

In this study, job market signaling theory underpins the interpretation of job advertisements as meaningful representations of the competencies required of entry-level accounting professionals. Building on prior research (Uwizeyemungu et al., 2020; Dunbar et al., 2016), this study assumes that job postings provide a valid proxy for employer competency expectations. Based on this premise, content and cluster analyses were conducted on 163 entry-level accounting job advertisements posted on Handshake between 2023 and 2024 to address the research objectives. Specifically, the study examines core competencies that US labor market demands for entry-level accounting positions, and extent these competencies align with the AICPA Foundational Competencies Framework for Aspiring CPAs and globally recognized core skills.

METHODOLOGY

Research Design: Content and Cluster Analysis

To examine core competencies, and consistent with prior studies (Uwizeyemungu et al., 2020; Dunbar et al., 2016), this research employs job market signaling theory to conduct a content analysis of actual job advertisements for entry-level accounting positions. Job advertisements are widely recognized as a reliable source for capturing employer expectations and required competencies (Kroon & Alves, 2023). Content analysis is a systematic and rigorous method for examining textual data, applicable to both qualitative and quantitative approaches, and supporting both inductive and deductive reasoning (White & Marsh, 2006). Prior research has successfully applied content analysis across multiple professional domains, including accounting, business analytics, engineering, human resources, and information systems (Gardiner et al., 2017; Poba-Nzaou et al., 2014; Steinmann et al., 2013; Uwizeyemungu et al., 2020). In addition to content analysis, this study employs cluster analysis to identify distinct patterns among job advertisements. Cluster analysis is a numerical technique used to identify natural groupings within data and is commonly described as an unsupervised pattern recognition method (Landau & Ster, 2010).

A valid clustering solution yields internally homogeneous yet externally heterogeneous groups, thereby enabling meaningful classification of job profiles (Uwizeyemungu et al., 2020). Accordingly, we develop the following hypotheses:

- **H_0:** There is no meaningful clustering among job advertisements; all 163 cases form a single homogeneous group.
- **H_1:** Distinct clusters exist among job advertisements, allowing the 163 cases to be grouped based on competency characteristics.

Coding and Data Analysis Procedures

Core competencies identified in the job advertisements were initially coded dichotomously (0 = competency not present; 1 = competency present). These preliminary codes were then aggregated into index scores aligned with the categories of the AICPA Foundational Competencies Framework. For instance, if a framework category comprised five competencies and a job advertisement referenced four of them, the advertisement was assigned a score of four for that category. This aggregation approach is consistent with prior research (Uwizeyemungu et al., 2020).

Cluster analysis was conducted using IBM SPSS Statistics version 27, based on the computed scores across nine competency categories. The Two-Step Cluster Analysis (TSCA) procedure was selected due to its suitability for exploratory research and its capacity to accommodate mixed data types (IBM SPSS). The dataset included six categorical and three continuous variables, reflecting the number of competencies mapped to each framework category. TSCA does not require prior data standardization and proceeds in two stages: first, cases are pre-clustered into small subclusters; second, these subclusters are grouped using a hierarchical clustering algorithm to generate the final solution (Chiu et al., 2001; Norusis, 2008).

The optimal number of clusters was automatically determined using the Bayesian Information Criterion (BIC), a widely used and robust model selection criterion (Chiu et al., 2001; Norusis, 2011). Log-likelihood distance measures were applied to both categorical and continuous variables, assuming multinomial and normal distributions, respectively, along with an assumption of variable independence. The Two-Step Cluster Analysis technique has been widely applied in social science research and is recognized for its effectiveness in identifying meaningful cluster structures (Chiu et al., 2001; Popa et al., 2022).

Job Advertisement Data Sources

Secondary data were collected from Handshake, an online career platform widely used by employers and higher education institutions in the United States. Prior research supports the validity of web-based secondary data sources for labor market analysis (Poba-Nzaou et al., 2014; Seddon et al., 2010). Online recruitment platforms provide cost-effective access to detailed job postings and are increasingly utilized by organizations of varying sizes for recruitment purposes (Sodhi & Son, 2010). Handshake connects over 17 million students and alumni with approximately one million employers and partners with more than 1,500 U.S. colleges and universities.

Sample Administration

Job postings were obtained through Handshake via the University Associate Director of Employer Relations and comprised two datasets: accounting internships (n = 1,365) and full-time accounting positions (n = 4,465), yielding a total population of 5,830 postings. The data were retrieved in Spring 2025 using unique identification numbers. Due to job posting expiration, only 168 advertisements remained accessible at the time of data collection. Following screening procedures consistent with prior research (Kroon et al., 2023), five postings requiring senior-level experience were excluded, resulting in a final analytical sample of 163 job advertisements (2.80% of the original population). In line with prior studies (Kroon & Alves, 2023; Uwizeyemungu et al., 2020), a minimum target sample of 150 U.S.-based job advertisements from 2023–2024 was established.

Inclusion criteria required postings to: (1) represent entry-level accounting roles, (2) originate from U.S.-based firms to ensure alignment with the AICPA Foundational Competencies

Framework, and (3) include verifiable employer information confirmed through company websites.

Competencies were coded using the AICPA Foundational Competencies Framework for Aspiring CPAs, which comprises five technical and six professional competency categories (see Appendix 1). No evidence of risk management or business acumen competencies was identified within the sample. Descriptive statistics were employed to examine the frequency distribution of core competencies across postings.

Framework and Coding

This study utilizes the coding scheme derived from the AICPA Foundational Competencies Framework for Aspiring CPAs. The AICPA and CIMA, operating jointly as the Association of International Certified Professional Accountants, developed this framework through collaboration between accounting educators and practitioners to define the foundational competencies required for entry into the profession.

It outlines a set of skills-based competencies applicable to all students entering the accounting profession, regardless of career pathway (i.e., public accounting, industry, government, or not-for-profit). The complete list of competencies used in this study is provided in Appendix 1.

The revised 2025 AICPA Foundational Competencies Framework for Aspiring CPAs was employed for the alignment analysis. This updated framework was selected in preference to the 2022 version as it incorporates feedback from employers and educators and reflects more recent developments in professional practice. For coding purposes, the analysis was limited to the second-level subcategories within the two main competency pillars: technical and professional competencies.

A binary coding approach was adopted, whereby a value of 1 was assigned when a competency identified in a job advertisement matched a competency in the coding scheme, and 0 otherwise. In cases where competencies in job postings did not correspond to the predefined framework, an inductive consideration was also applied to account for the potential emergence of new competencies not captured in the existing framework. This approach acknowledges the evolving nature of labor market demands in a dynamic and continuously changing professional environment.

DATA ANALYSIS AND FINDINGS

Characteristics of the Job Advertisements Sample (N=163)

The job advertisement sample reflects a diverse distribution of firm sizes based on number of employees: small firms (fewer than 100 employees) account for 46.6% of the sample, medium-sized firms (100–499 employees) represent 20.2%, and large firms (500 or more employees) comprise 33.1%, as shown in Table 1.

In addition to firm size, the sample was analyzed by industry sector, covering 13 distinct sectors (Table 1). The largest proportion of job advertisements originates from the accounting sector (34.4%), followed by the food and beverage sector (9.2%) and the government sector (7.4%). The remaining sectors each account for two or fewer job postings and include industries such as defense, advertising, utilities, sales and marketing, sports, hotels, and leisure, among others.

Table 1: Sample Characteristics (n=163)

Company Size	Small (< 100)	46.6%
	Medium (100-499)	20.2%
	Large (>500)	33.1%
Sector	Accounting	34.4%
	Financial Services	6.1%
	Insurance	4.3%
	Government	7.4%
	Higher Education	3.7%
	Food and Beverage	9.2%
	Non-Governmental Organizations	3.7%
	Oil and Gas	2.5%
	Internet and Software	3.1%
	Real Estate	3.1%
	Other	14.7%
	Healthcare	3.1%
	Construction	2.5%
	Manufacturing	2.5%

The job position characteristics were categorized into five job titles, with the majority of postings representing accounting internships (30.1%), followed by accountant positions (27.6%) and staff accountant roles (22.1%). Further details are presented in Table 2.

The job advertisements were drawn from 31 U.S. states and the District of Columbia. The highest proportion of postings originated from New York (17%), followed by California (7%), Texas (7%), Maryland (7%), and Florida (6%). Overall, 35.0% of job advertisements were located in the Southern U.S. region, while 27.0% were from the Northeastern region (see Table 2). The Southern region includes Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The Northeastern region comprises Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Finally, 30.7% of job advertisements specified a requirement of three years or less of work experience, consistent with U.S. entry-level hiring conventions.

Table 2: Job Position Characteristics

Job Title	Accounting Interns	30.1%
	Accountant	27.6%
	Staff Accountants	22.1%
	Other	19.0%
	Public Accounting Auditor	1.2%
Region	Did not include	1.8%
	Northeastern U.S.	27.0%
	Midwestern U.S.	17.8%
	Southern U.S.	35.0%
	Western U.S.	14.1%
	Multiple states	4.3%
Work experience	Required: < 3 years	30.7%
	Not included	69.3%

In addition, 42% of employers disclosed annual salary information, 35% specified hourly wage rates, 3% offered a monthly stipend, and 20% did not provide any salary-related details. Among postings reporting annual salaries, 36% indicated a range of $50,000–$60,000, 32% reported

$60,001–$70,000, and 9% reported $70,001–$80,000. Employers offering stipends reported amounts ranging from $1,500 to $10,000 per month. For hourly compensation, 35% of postings offered $15–$20 per hour, 33% offered $21–$30 per hour, and 9% offered $35 or more per hour.

Finally, the analysis identified several key employer requirements and preferences for entry-level accounting positions. Regarding academic performance, employers typically required a cumulative GPA ranging from 2.8 to 3.5, indicating moderate to high academic expectations. In terms of work arrangements, 96% of employers specified in-person roles, while only 4% offered remote opportunities, reflecting a strong preference for onsite engagement in early-career positions. With respect to international student eligibility, 40% of employers indicated acceptance of candidates eligible for Optional Practical Training (OPT) or Curricular Practical Training (CPT), whereas only 4% explicitly offered visa sponsorship.

Under U.S. Citizenship and Immigration Services regulations, F-1 visa students may engage in practical training through OPT or CPT. OPT is a temporary employment authorization directly related to a student's field of study, available for up to 12 months either before (pre-completion) or after (post-completion) program completion, with pre-completion OPT time deducted from post-completion eligibility. CPT, authorized by a designated school official (DSO), may be granted during a student's program if the curriculum requires practical experience. CPT may be full-time or part-time; however, 12 months or more of full-time CPT renders a student ineligible for OPT, while part-time CPT does not affect OPT eligibility.

Analysis of Job Advertisements

Core Competencies Demanded by the Dynamic U.S. Labor Market and Global Alignment

The results presented in Appendix 2 identify the 25 most frequently required core competencies in entry-level accounting job advertisements, thereby addressing Research Question 1 (RQ1): what core competencies are currently demanded by the dynamic U.S. labor market for entry-level accounting graduates? Table 3 highlights the ten most frequently cited competencies.

The most dominant competency is accounting principles (GAAP, taxation, and financial statement preparation), appearing in 64.42% of job advertisements. Communication is the second most frequently required competency, identified in 61.35% of postings (100 of 163 advertisements), followed by proficiency in the Microsoft Office suite (including Excel, Word, PowerPoint, Access, and Outlook), which appears in 55.21% of advertisements. Teamwork (36.20%), critical thinking (30.06%), time management (29.45%), and adaptability (23.93%) rank fourth through seventh, respectively.

Information and communication technology (ICT) competencies rank eighth (23.31%, n = 38). ICT-related skills include proficiency in software and systems such as QuickBooks, ERP systems (e.g., SAP, NetSuite, Great Plains), ProSystem, CaseWare, iSolve, Tentrox, Hyperion/Essbase, Microsoft Dynamics, SharePoint, and other accounting and data processing platforms. Consistent with prior literature, ICT competencies encompass IT systems knowledge, software applications, data processing capabilities, and emerging technologies, including accounting-specific software and ERP systems (Elo et al., 2025).

The ninth and tenth most frequently required competencies are attention to detail (20.86%) and ability to work independently (19.63%). Collectively, these findings indicate sustained employer demand for foundational accounting knowledge, particularly in GAAP, taxation, and financial reporting. Notably, 51.5% of job advertisements required a major in accounting or a related discipline (e.g., finance, management, economics, financial management, or business

administration), while 27.6% explicitly required accounting majors only and 19.6% required accounting or finance degrees.

This distribution raises an important question regarding the extent to which non-accounting business degrees adequately prepare graduates in foundational accounting competencies, including the application of GAAP, U.S. tax regulations, and auditing standards for financial reporting and compliance purposes.

In response to evolving workforce demands, the AICPA and NASBA have proposed reforms to the CPA licensure pathway, including reducing the 150-credit-hour requirement to 120 hours, with the aim of accelerating entry into the profession and increasing CPA examination participation (AICPA & CIMA, 2025). While such reforms may facilitate entry into the profession, further research is needed to evaluate whether non-accounting degree pathways sufficiently develop the depth of technical accounting knowledge required for professional practice and regulatory compliance.

The prominence of ICT and communication competencies in this study reflects broader global trends in accounting skill requirements. Prior research similarly identifies strong demand for digital and communication skills, with ICT increasingly recognized as a core professional competency.

For example, Uwizeyemungu et al. (2020) found Microsoft Office to be the most frequently required competency, with information technology ranked seventh. Likewise, Elo et al. (2025) report that ICT skills rank highly and have increased in importance over time, with strong international consistency across countries such as Australia, the United Kingdom, Italy, and Canada. These findings suggest that ICT competencies are essential for both entry- and mid-level accounting roles.

This study's findings also align with the World Economic Forum's *Future of Jobs Report 2025*, which identifies digital access and technological advancement as key drivers of labor market transformation.

The report highlights that 60% of employers expect digital expansion to significantly transform business operations by 2030, while AI, automation, and information processing technologies are expected to reshape job structures and skill demands. Accordingly, competencies such as AI literacy, big data analytics, cybersecurity, and technological fluency are among the fastest-growing skill requirements globally.

Overall, the results demonstrate a clear convergence between U.S. labor market demands and global employer expectations. The World Economic Forum identifies 26 core skills for 2025, many of which align with this study's findings. Specifically, 50% of the top ten competencies identified in the U.S. labor market correspond to globally recognized core skills. Communication aligns with empathy and active listening; Microsoft Office and ICT competencies align with technological literacy; and adaptability aligns with resilience, flexibility, and agility.

Illustrative employer expectations further reinforce these findings, with job postings emphasizing attributes such as self-motivation ("self-starter"), high-performance orientation ("bring your A game"), positive attitude ("can-do attitude"), strong communication skills, and proficiency in Microsoft Office applications (particularly Excel and Word), ERP systems, and accounting software.

Collectively, these statements underscore the increasing integration of technical, digital, and behavioral competencies in entry-level accounting roles.

Table 3: Core Competencies Most Frequently Demanded By U.S. Dynamic Labor Market (N=163)

Order	Core competencies Demanded by Job Ads	f(Yes)	% (Yes)	Code	AICPA's Framework Competency Area
1	GAAP / Tax / Financial Statements	105	64.42%	B1	Accounting Principles
2	Communication	100	61.35%	C5	Communication
3	Microsoft Office Suite	90	55.21%	B5	Technology and Digital Acumen
4	Teamwork	59	36.20%	C3	Collaboration
5	Critical thinking	49	30.06%	C2	Critical Thinking
6	Time management	48	29.45%	C4	Self-Management and Continuous Learning
7	Adaptability	39	23.93%	C4	Self-Management and Continuous Learning
8	ICT	38	23.31%	B5	Technology and Digital Acumen
9	Detail-oriented	34	20.86%	C2	Critical Thinking
10	Work independently	32	19.63%	C4	Self-Management and Continuous Learning

Core Competencies Least Demanded by the Dynamic US Labor Market

Appendix 2 presents the 25 most frequently required core competencies demanded by the dynamic U.S. labor market for entry-level accounting graduates. In contrast, Table 4 reports the ten least frequently demanded competencies: integrity (5.52%), multitasking (4.91%), professional demeanor (3.07%), presentation skills (3.07%), leadership (1.84%), confidentiality (1.84%), strategic thinking (0.61%), research (0.61%), professional skepticism (0.61%), and proactiveness (0.61%).

Notably, leadership and confidentiality competencies were identified in only three of the 163 job advertisements. Furthermore, strategic thinking, research, professional skepticism, and proactiveness each appeared in only one job advertisement.

These findings are consistent with Pasewark (2021), who notes that the emphasis placed on specific competencies may vary over time, with certain competencies receiving greater prominence during particular periods.

Similarly, Gonczi et al. (1993) argue that competency-based standards can be defined at different levels of professional development, including entry-level, experienced practitioner, and specialist stages.

In this context, competencies such as leadership, strategic thinking, and confidentiality appear to be more closely associated with later career stages rather than entry-level positions, as reflected in their limited presence in job advertisements.

Table 4: Core Competencies Least Demanded by US Dynamic Labor Market (n=163)

Order	Core competencies Demanded by Job Ads	f(Yes)	% (Yes)	Code	AICPA's Framework Competency Area
16	Integrity	9	5.52%	C1	Ethical Behavior
17	Multi-tasking	8	4.91%	C2	Critical Thinking
18	Professional demeanor	5	3.07%	C5	Communication
19	Presentation	5	3.07%	C5	Communication
20	Leadership	3	1.84%	C3	Collaboration
21	Confidentiality	3	1.84%	C1	Ethical Behavior

22	Strategic thinking	1	0.61%	B2	Analysis and Decision-making
23	Research	1	0.61%	B3	Research
24	Professional skepticism	1	0.61%	B2	Analysis and Decision-making
25	Proactive	1	0.61%	C5	Communication

Alignment of Job Advertisements Core Competencies to the AICPA's Framework

To assess the extent to which core competencies demanded in the U.S. labor market align with the AICPA Foundational Competencies Framework for Aspiring CPAs, this study addresses Research Question 2 (RQ2). Of the 25 core competencies identified in entry-level accounting job advertisements, 28% align with the Framework's technical competencies, while 72% align with its professional competencies.

Among technical competencies, accounting principles and technology and digital acumen emerge as the most prominently represented (first and third, respectively), reflecting their growing importance in entry-level accounting roles. These findings are consistent with both national expectations and global trends. For instance, the PricewaterhouseCoopers (PwC) 2025 symposium highlights the evolving nature of audit teams and the increasing need for AI-related competencies, where human expertise is increasingly augmented by artificial intelligence systems. Similarly, Chartered Accountants Worldwide reports that organizations, audit firms, professional bodies, and regulators are placing increasing emphasis on the impact of technology (ICAEW, 2017). In addition, the World Economic Forum's *Future of Jobs Report 2025* identifies broadening digital access as the most transformative global trend, with 60% of employers expecting it to reshape business operations by 2030 (Zahidi, 2025).

Professional competencies demonstrate an even stronger market signal. The seven most frequently aligned professional competencies with the AICPA Framework—communication, collaboration, critical thinking, self-management, analysis and decision-making, ethical behavior, and research—are also the most prominently reflected in job advertisements. These findings are consistent with discussions from the PwC 2025 symposium and other accounting career forums, which emphasize that entry-level accountants must possess a strong understanding of "what good looks like," grounded in accounting principles, while applying critical thinking and appropriate questioning to support effective decision-making processes.

Notably, risk assessment and business acumen—both integral components of the AICPA Foundational Competencies Framework—are absent from the job advertisements analyzed for entry-level roles. This omission may reflect the more limited scope of responsibilities typically assigned to entry-level positions.

However, the AICPA emphasizes that risk assessment is central to audit practice, particularly in understanding internal controls and designing responsive audit procedures. Moreover, deficiencies in risk assessment remain a recurring issue identified by audit practice monitoring programs in the United States and internationally.

These observations raise an important question regarding the positioning of risk assessment and business acumen within entry-level competency frameworks. While these competencies may not be immediately applied at the entry level, they are fundamental to long-term professional development and may serve as forward-looking indicators of career progression and readiness for more advanced responsibilities.

From an apprenticeship perspective, entry-level accountants are unlikely to assume direct responsibility for risk assessment or business acumen due to limited experience; however, these competencies are progressively developed through practice, supervision, and career advancement within the profession.

Cluster Analysis

This study employed IBM SPSS Two-Step Cluster Analysis to examine the grouping patterns of core competencies identified in job advertisements for entry-level accounting roles in the dynamic U.S. labor market. All nine variables and 163 cases were recoded in accordance with the AICPA Foundational Competencies Framework categories used in the clustering analysis. The variables were measured on mixed scales, ranging from two to five levels. Accordingly, all variables were standardized using z-scores to ensure comparability across measures. The absolute value of Pearson correlation coefficients was used to assess similarity among clustering variables. Consistent with Hair et al. (2014), standardization is necessary when variables are measured on different scales to avoid disproportionate influence of any single variable on the resulting cluster solution.

In addition, Pearson correlation analysis was conducted to assess multicollinearity among variables prior to clustering. The results reported in Table 5 present the correlation coefficients between variables. In general, correlation coefficients below 0.70 are considered indicative of weak to moderate relationships, suggesting the absence of strong intercorrelations. All pairwise correlations were below this threshold, indicating that multicollinearity was not present among the variables. Consequently, the dataset was deemed appropriate for cluster analysis.

Table 5: Pearson Correlation of Clustering Variables

		1	2	3	4	5	6	7	8	9
1	Accounting Principles	1								
2	Analysis and Decision-making	0.1	1							
3	Research	0.06	0.02	1						
4	Technology and Digital Acumen	0.19	0.07	0.02	1					
5	Ethical Behavior	0.08	0.02	0.02	0.11	1				
6	Critical Thinking	0.06	0.11	0.11	0.25	0.09	1			
7	Collaboration	0.18	0.07	0.07	0.1	0.04	0.15	1		
8	Self-Management and Continuous Learning	0.23	0.13	0	0.07	0.23	0.18	0.44	1	
9	Communication	0.14	0.32	0.04	0.2	0.07	0.24	0.24	0.29	1

Consistent with Norusis (2011), this study employed the Two-Step Cluster Analysis (TSCA) procedure in SPSS using the log-likelihood distance measure. The independence of continuous variables—critical thinking, self-management, and continuous learning—was assessed across mixed measurement scales (five- and four-point levels, respectively).

Pearson correlation analysis at the 95% confidence level indicated positive relationships among the continuous variables, with statistical significance observed at both the 0.05 and 0.01 levels (two-tailed tests).

Similarly, categorical variables—including accounting principles, analysis and decision-making, research, technology and digital acumen, ethical behavior, and collaboration—were examined using cross-tabulation procedures. Chi-square tests were conducted to assess independence and confirm the suitability of the multinomial distribution assumption.

The initial TSCA output identified two clusters based on the nine input variables, as reported in the SPSS Model Summary. The silhouette measure of cohesion and separation was approximately 0.4, indicating fair cluster quality. Auto-clustering statistics (Table 6) were used to determine the optimal number of clusters. Although the lowest Bayesian Information Criterion (BIC) value (1133.652) corresponded to a five-cluster solution, the algorithm

ultimately selected a two-cluster solution as optimal based on the largest ratio of distance measures (1.854), indicating stronger separation between clusters. This result is consistent with prior studies employing similar clustering procedures.

Table 6: Auto-Clustering

Number of Clusters	Schwarz's Bayesian Criterion (BIC)	BIC Changes (a)	Ratio of BIC Changes (b)	Ratio of Distance Measures (c)
1	1404.946			
2	1240.144	-164.802	1	1.854
3	1188.782	-51.362	0.312	1.042
4	1142.724	-46.057	0.279	1.408
5	1133.652	-9.073	0.055	1.449
6	1152.651	18.999	-0.115	1.038
7	1173.921	21.27	-0.129	1.017
8	1196.21	22.289	-0.135	1.121
9	1224.869	28.66	-0.174	1.201
10	1262.389	37.52	-0.228	1.495
11	1314.464	52.075	-0.316	1.073
12	1368.53	54.066	-0.328	1.085
13	1424.751	56.221	-0.341	1.121
14	1483.693	58.942	-0.358	1.306
15	1547.915	64.222	-0.39	1.091
(a) The changes are from the previous number of clusters in the table.				
(b) The ratios of changes are relative to the change for the two-cluster solution.				
(c) The ratios of distance measures are based on the current number of clusters against the previous number of clusters.				

The results of the cluster analysis indicate that Cluster 1, the larger of the two clusters, comprises 53.4% of the sample (n = 87 job advertisements), while Cluster 2 accounts for the remaining 46.6% (n = 76), as shown in Table 7. The size ratio between the largest and smallest clusters is 1.14, indicating a relatively balanced distribution across the two groups. A two-cluster solution based on nine variables representing competencies signaled by the dynamic U.S. labor market was therefore retained as the final model. The robustness of this solution is further supported by independent samples t-tests, which confirm statistically significant differences between the two clusters across most variables.

Table 7: Cluster Distribution

Cluster	N	Percent (%)
1	87	53.40%
2	76	46.60%
Total	163	100.00%

The Two-Step Cluster Analysis (TSCA) predictor importance results indicate the relative contribution of each variable to cluster formation. Collaboration emerged as the most influential variable (importance score = 1.00), followed by self-management and continuous learning (0.32) and communication (0.15). In contrast, ethical behavior (0.01), research (0.02), and technology and digital acumen (0.02) exhibited minimal importance, suggesting limited contribution to the overall clustering solution. The cluster comparison output further reveals meaningful differences across both categorical and continuous variables. Among categorical variables, accounting principles (mode = 1) were present in 77% of Cluster 1 job advertisements (n = 67), compared to 50% in Cluster 2 (n = 38), representing a 27% difference. Technology and digital acumen (mode = 1) appeared in 51% of Cluster 2 postings (n = 39), while collaboration (mode = 1) was present in 94% of Cluster 2 job advertisements (n = 72).

For continuous variables, critical thinking was observed at the upper quartile (Q3 = 1.01) in both clusters. Communication was higher in Cluster 2 (median = 1.00) compared to Cluster 1 (Q3 = 1.00). Self-management and continuous learning also showed a notable difference, with Cluster 1 at the upper quartile (Q3 = 1.00) and Cluster 2 exhibiting higher dispersion (Q3 = 2.01). To further examine differences between clusters, independent samples t-tests were conducted (Tables 8 and 9), following confirmation of variance assumptions using Levene's test for equality of variances. Statistically significant differences were observed for several competencies. Accounting principles differed significantly between Cluster 1 (M = 0.262, SD = 0.88) and Cluster 2 (M = 0.300, SD = 1.05), $t(147.26) = 3.679$, $p < .001$. Analysis and decision-making also differed significantly, with Cluster 1 (M = 0.204, SD = 0.39) and Cluster 2 (M = 0.233, SD = 1.37), $t(85.58) = -2.681$, $p = .009$. Critical thinking similarly showed a significant difference between Cluster 1 (M = 0.153, SD = 0.77) and Cluster 2 (M = 0.175, SD = 1.19), $t(161) = -2.053$, $p = .042$.

More pronounced differences were observed for collaboration, where Cluster 1 (M = 0.727, SD = 0.77) was significantly lower than Cluster 2 (M = 0.832, SD = 0.41), $t(161) = -15.837$, $p < .001$. Self-management and continuous learning also exhibited a strong contrast between Cluster 1 (M = −0.449, SD = 0.72) and Cluster 2 (M = 0.514, SD = 1.03), $t(132.41) = -6.824$, $p < .001$. Communication showed a similar pattern, with Cluster 1 (M = −0.314, SD = 0.84) and Cluster 2 (M = 0.359, SD = 1.05), $t(161) = -4.536$, $p < .001$. In contrast, no statistically significant differences were observed for research, technology and digital acumen, or ethical behavior. Specifically, research showed no meaningful difference between Cluster 1 (M = 0.078, SD = 0.00) and Cluster 2 (M = 0.090, SD = 1.46), $t(75) = -1.000$, $p = .321$. Likewise, technology and digital acumen ($t(161) = -0.725$, $p = .470$) and ethical behavior ($t(140.08) = 1.487$, $p = .139$) were not significantly different across clusters.

Overall, the findings indicate that entry-level accounting job advertisements can be meaningfully grouped into two distinct competency profiles: one primarily emphasizing accounting principles, and the other emphasizing collaboration and broader professional competencies. The null hypothesis was rejected ($p < .01$) for accounting principles, analysis and decision-making, critical thinking, collaboration, self-management and continuous learning, and communication, confirming statistically distinct groupings. In contrast, the null hypothesis was not rejected for research, technology and digital acumen, and ethical behavior, suggesting these competencies are relatively homogeneous across entry-level job profiles.

Table 8: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Accounting Principles	Equal variances assumed	30.937	0	3.722	161	0	0.56	0.15	0.26	0.86
	Equal variances not assumed			3.679	147.26	0	0.56	0.15	0.26	0.86
Analysis and Decision Making	Equal variances assumed	37.946	0	-2.84	161	0.005	-0.44	0.15	-0.74	-0.13

	Equal variances not assumed			-2.68	85.575	0.009	-0.44	0.16	-0.76	-0.11
Research	Equal variances assumed	4.708	0.031	-1.07	161	0.286	-0.17	0.16	-0.48	0.14
	Equal variances not assumed			-1	75	0.321	-0.17	0.17	-0.5	0.17
Technology and Digital Acumen	Equal variances assumed	3.193	0.076	-0.73	161	0.47	-0.11	0.16	-0.42	0.2
	Equal variances not assumed			-0.73	160.758	0.467	-0.11	0.16	-0.42	0.19
Ethical Behavior	Equal variances assumed	8.682	0.004	1.437	161	0.153	0.22	0.16	-0.08	0.53
	Equal variances not assumed			1.487	140.082	0.139	0.22	0.15	-0.07	0.52
Critical Thinking	Equal variances assumed	10.697	0.001	-2.11	161	0.036	-0.33	0.16	-0.63	-0.02
	Equal variances not assumed			-2.05	125.61	0.042	-0.33	0.16	-0.64	-0.01
Collaboration	Equal variances assumed	2.398	0.123	-15.8	161	0	-1.56	0.1	-1.75	-1.37
	Equal variances not assumed			-16.4	134.771	0	-1.56	0.09	-1.75	-1.37
Self-Management and Continuous Learning	Equal variances assumed	16.554	0	-6.98	161	0	-0.96	0.14	-1.24	-0.69
	Equal variances not assumed			-6.82	132.414	0	-0.96	0.14	-1.24	-0.68
Communication	Equal variances assumed	3.819	0.052	-4.54	161	0	-0.67	0.15	-0.97	-0.38
	Equal variances not assumed			-4.47	143.922	0	-0.67	0.15	-0.97	-0.38

Table 9: Group Statistics

	TwoStep Cluster Number	N	Mean	Std. Deviation	Std. Error Mean
Accounting Principles	1	87	0.262	0.88	0.09
	2	76	-0.3	1.05	0.12
Analysis and Decision Making	1	87	-0.204	0.39	0.04
	2	76	0.233	1.37	0.16

Research	1	87	-0.078	-	-
	2	76	0.09	1.46	0.17
Technology and Digital Acumen	1	87	-0.053	1.05	0.11
	2	76	0.061	0.95	0.11
Ethical Behavior	1	87	0.105	1.2	0.13
	2	76	-0.12	0.69	0.08
Critical Thinking	1	87	-0.153	0.77	0.08
	2	76	0.175	1.19	0.14
Collaboration	1	87	-0.727	0.77	0.08
	2	76	0.832	0.41	0.05
Self-Management and Continuous Learning	1	87	-0.449	0.72	0.08
	2	76	0.514	1.03	0.12
Communication	1	87	-0.314	0.84	0.09
	2	76	0.359	1.05	0.12

The Two-Step Cluster Analysis (TSCA) predictor importance results indicate the relative contribution of each variable to cluster formation. Collaboration emerged as the most influential variable (importance score = 1.00), followed by self-management and continuous learning (0.32) and communication (0.15). In contrast, ethical behavior (0.01), research (0.02), and technology and digital acumen (0.02) exhibited minimal importance, suggesting limited contribution to the overall clustering solution.

The cluster comparison output further reveals meaningful differences across both categorical and continuous variables. Among categorical variables, accounting principles (mode = 1) were present in 77% of Cluster 1 job advertisements (n = 67), compared to 50% in Cluster 2 (n = 38), representing a 27% difference. Technology and digital acumen (mode = 1) appeared in 51% of Cluster 2 postings (n = 39), while collaboration (mode = 1) was present in 94% of Cluster 2 job advertisements (n = 72).

For continuous variables, critical thinking was consistently high across both clusters, observed at the upper quartile (Q3 = 1.01). Communication was higher in Cluster 2 (median = 1.00) than in Cluster 1 (Q3 = 1.00). Self-management and continuous learning also showed notable variation, with Cluster 1 at the upper quartile (Q3 = 1.00), whereas Cluster 2 exhibited a higher distribution (Q3 = 2.01).

To further examine inter-cluster differences, independent samples t-tests were conducted (Tables 8 and 9), following confirmation of homogeneity of variances using Levene's test. Statistically significant differences were identified for several competencies. Accounting principles differed significantly between Cluster 1 ($M = 0.262$, $SD = 0.88$) and Cluster 2 ($M = 0.300$, $SD = 1.05$), $t(147.26) = 3.679$, $p < .001$. Analysis and decision-making also differed significantly between Cluster 1 ($M = 0.204$, $SD = 0.39$) and Cluster 2 ($M = 0.233$, $SD = 1.37$), $t(85.58) = -2.681$, $p = .009$. Similarly, critical thinking differed between Cluster 1 ($M = 0.153$, $SD = 0.77$) and Cluster 2 ($M = 0.175$, $SD = 1.19$), $t(161) = -2.053$, $p = .042$.

More pronounced differences were observed for collaboration, where Cluster 1 ($M = 0.727$, $SD = 0.77$) scored significantly lower than Cluster 2 ($M = 0.832$, $SD = 0.41$), $t(161) = -15.837$, $p < .001$. Self-management and continuous learning also showed a strong contrast between Cluster 1 ($M = -0.449$, $SD = 0.72$) and Cluster 2 ($M = 0.514$, $SD = 1.03$), $t(132.41) = -6.824$, $p < .001$. Communication exhibited a similar pattern, with Cluster 1 ($M = -0.314$, $SD = 0.84$) significant.

Table 10: Chi-Square

		Cluster 1	Cluster 2	X2
Company Size	Small	37	39	1.259a
	Medium	15	18	1.043a
	Large	35	19	4.247a
Sector	Accounting	26	30	1.654a
	Financial Services	2	8	4.768a
	Insurance	5	2	.958a
	Government	6	6	.059a
	Higher Education	3	3	.024a
	Food and Beverage	10	5	1.173a
	NGO	2	4	1.005a
	Oil and Gas	3	1	.771a
	Internet and Software	5	0	4.506a
	Real Estate	4	1	1.469a
	Other	11	13	.643a
	Healthcare	4	1	1.469a
	Construction	2	2	.019a
	Manufacturing	4	0	3.582a
Job Title	Staff Accountants	15	21	6.859a
	Accountants	26	19	
	Accounting interns	31	18	
	Public Accounting auditor	0	2	
	Other	15	16	
Work Experience	< 3 years	24	26	.837a
Regions	None	1	2	3.760a
	Northeast	26	18	
	Midwest	12	17	
	South	30	27	
	West	13	10	
	Multiple	5	2	

DISCUSSION

The findings of this study indicate that U.S. organizations increasingly demand entry-level accounting graduates with a clearly defined set of core competencies, as reflected in job advertisements posted between 2023 and 2024. Drawing on job market signaling theory, a content analysis of 163 online job postings identified 25 distinct core competencies. However, only three competencies—accounting principles, communication, and proficiency in the Microsoft Office suite—appeared in at least 50% of advertisements. This concentration underscores the continued centrality of foundational accounting knowledge as a baseline requirement for entry-level employment.

The prominence of accounting principles reflects employers' continued expectation that graduates possess strong foundational knowledge in financial reporting, regulatory compliance, and core accounting concepts. Communication emerged as the second most frequently required competency, highlighting the growing expectation that entry-level accountants effectively convey financial information across organizational levels. Entry-level professionals are increasingly expected to present analyses, collaborate with audit teams, and engage with clients. Despite rapid technological transformation in the profession, these findings confirm that communication remains a fundamental component of professional competence and employability.

Six additional competencies—teamwork, critical thinking, time management, adaptability, information and communication technologies (ICT), and attention to detail—were required in 20% to 50% of job advertisements.

These competencies are consistently emphasized in hiring practices and global workforce analyses, including the World Economic Forum's *Future of Jobs Report 2025*. Their prevalence suggests that employers value graduates who can operate effectively in collaborative, fast-paced, and digitally enabled environments.

A further twelve competencies appeared in at least 10% of postings, including continuous learning, decision-making, integrity, multitasking, professional demeanor, presentation skills, leadership, confidentiality, strategic thinking, research, professional skepticism, and proactiveness. Collectively, these results indicate that employers expect entry-level accounting graduates to demonstrate not only technical proficiency but also a broad range of professional, ethical, and behavioral competencies. This reinforces the shift away from narrowly technical skill sets toward more holistic professional profiles.

LIMITATIONS AND FUTURE RESEARCH

While this study provides valuable insights into the competencies demanded of entry-level accounting professionals in the U.S. labor market, its findings should be interpreted in light of several limitations. First, the sample is limited to job advertisements posted on the Handshake platform in the United States during 2023–2024. As such, regional variations and alternative recruitment channels may not be fully captured. In addition, the relatively modest sample size and reliance on historical job postings may limit generalizability, particularly given the rapidly evolving nature of labor market demands.

A second limitation relates to the geographic focus of the study. While the analysis is situated in the U.S., where national professional bodies play a central role in shaping accounting education and certification pathways, the use of the AICPA Foundational Competencies Framework is appropriate for this context.

Nevertheless, although the study is grounded in the U.S. setting, many of the competencies identified are not country specific. Jurisdictions operating under International Financial Reporting Standards (IFRS), including those in Europe and Australia, share broadly comparable accounting practices (Chapple, 2018). Accordingly, the findings may have relevance beyond the U.S. context. Consistent with cumulative research traditions (Richardson, 2018), future studies could replicate this research across multiple jurisdictions to enable comparative analysis and strengthen external validity.

Future research could address these limitations by expanding the dataset to include additional recruitment platforms and larger samples. Mixed-method approaches, such as surveys or semi-structured interviews with employers, could also be employed to capture implicit expectations that may not be explicitly stated in job advertisements—particularly for competencies such as risk assessment and business acumen, which were absent from the present dataset. Further research may also examine longitudinal changes in entry-level competency requirements and assess the extent to which different academic pathways adequately prepare graduates for evolving professional demands.

CONCLUSION

In today's rapidly evolving global business environment, the periodic assessment of core competencies is essential to ensure that accounting graduates are prepared to contribute

effectively from the outset of their careers. Grounded in job market signaling theory, this study analyzed 163 entry-level accounting job advertisements from 2023 to 2024 to identify the competencies most valued by the dynamic U.S. labor market. Through content analysis, 25 core competencies were identified, addressing the first research question and providing a comprehensive view of employer expectations.

The findings indicate a strong demand for a balanced combination of technical, professional, and digital competencies. Accounting principles, communication, and proficiency in the Microsoft Office suite emerged as the three most frequently required competencies, followed by teamwork, critical thinking, time management, adaptability, ICT skills, attention to detail, and the ability to work independently. Collectively, these results highlight the importance of integrating technical expertise with professional and digital capabilities in preparing entry-level accounting graduates. Consistent with global studies, the prominence of communication and digital competencies underscores their universal relevance in contemporary accounting practice. In contrast, competencies such as leadership, strategic thinking, and professional skepticism were less frequently demanded, likely reflecting their association with more advanced career stages. However, they may be developed progressively through experiential learning and professional advancement.

Second, this study compared the competencies identified in job advertisements with those outlined in the AICPA Foundational Competencies Framework and globally recognized skill sets to address the second research question. Of the 25 competencies identified, 28% aligned with the AICPA's technical competencies, while 72% aligned with its professional competencies. Within the technical domain, accounting principles, technology, and digital acumen were the most prominently represented, reflecting their growing importance in entry-level roles. Notably, risk assessment and business acumen—both central components of the AICPA framework—were absent from the job advertisements analyzed. This omission may reflect the limited scope of responsibilities typically assigned to entry-level positions. Consistent with Pasewark (2021), this finding suggests that the emphasis placed on specific competencies may vary across time and career stages.

Overall, the findings reveal both domestic patterns and global alignment, underscoring the need for accounting education to evolve in response to changing industry expectations. Collaboration and digital competencies are becoming increasingly essential, while foundational capabilities such as accounting knowledge, critical thinking, communication, and self-management remain indispensable for professional effectiveness.

A key contribution of this study to the accounting education literature lies in its use of cluster analysis and inferential statistical techniques (independent samples t-tests and chi-square tests) to identify two distinct entry-level job profiles: one centered on fundamental accounting principles and another emphasizing collaboration, digital acumen, and broader professional competencies. This differentiation has received limited attention in prior research and provides a more nuanced understanding of how accounting graduates' competencies align with labor market expectations. It also extends literature critiquing the historically overly technical orientation of accounting education—a critique that has gained renewed relevance in the context of generative AI and AI-enabled systems that are reshaping entry-level accounting roles.

These results further emphasize the importance of integrating technical, professional, and digital capabilities in accounting education, as consistently signaled by employers in the labor market. Digital competencies have become essential in a rapidly transforming professional

landscape. This is consistent with the World Economic Forum's *Future of Jobs Report 2025*, which identifies expanding digital access as the most transformative emerging trend, with 60% of employers anticipating that it will reshape business operations by 2030.

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Declaration of Competing Interest

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Appendix 1 - Coding Scheme for Competencies

AICPA Foundational Competencies Framework for Aspiring CPAs Source: AICPA and CIMA January 2025
B. TECHNICAL COMPETENCIES
B1 Accounting Principles
B1.1 Knowledge and application of GAAP and other relevant frameworks; U.S. tax law and regulations; and relevant auditing standards
B1.2 Record and report transactions in accordance with GAAP and/or other relevant frameworks
B1.3 Identify and measure relevant data for financial, taxation, compliance and other reporting needs.
B1.4 Communicate and report appropriate content as required by professional standards, law, industry standards and voluntary reporting initiatives to relevant stakeholders.
B2 Analysis and Decision-making
B2.1 Recommend informed decisions by applying professional judgment to analyses.

B2.2 Analyze information, including statements, tax returns and other relevant data.
B2.3. Recommend informed decisions by applying professional judgment to analyses.
B3 Research
B3.1. Identify research question(s).
B3.2. Conduct research using primary sources, authoritative literature, standards, laws, and organization-specific practices.
B3.33. Use research findings to make informed decisions.
B4 Risk Management
B4.1 Describe the entity, its industry, and its risk environment.
B4.2 Describe necessary processes, inputs, and controls to mitigate risks.
B4.3 Evaluate controls for efficiency and effectiveness by using appropriate risk-assessment frameworks.
B5. Technology and Digital Acumen
B5.1 Compare technological tools to recommend best option(s) for desired output.
B5.2 Leverage relevant technologies to facilitate data analyses to support recommendations/conclusions.
C. PROFESSIONAL COMPETENCIES
C1 Ethical Behavior
C1.1 Adhere to the AICPA Code of Professional Conduct and other professional codes of ethics.
C1.2 Demonstrate unwavering ethical business practices.
C1.3 Explain the importance of ethical principles for the protection of society.
C2 Critical Thinking
C2.1 Articulate accurately organizational issues/problems/questions.
C2.2 Evaluate available quantitative and qualitative data relevant to issues/problems/questions.
C2.3 Apply a critical thinking framework to the decision-making process.
C2.4 Evaluate alternative answers/decisions to issues/problems/questions.
C2.5 State informed decisions supported by critical thinking processes.
C3 Collaboration
C3.1 Engage with diverse stakeholders who have common objectives to reach innovative outcome(s).
C3.2 Serve as both a leader and follower as appropriate for specific circumstances, including working with diverse global teams.
C3.3 Promote diversity, equity, and inclusion in collaborative organizational activities.
C4 Self-Management and Continuous Learning
C4.1 Maintain self-awareness to be cognizant of how your behaviors impact others.
C4.2 Develop social awareness to respond to the needs of others.
C4.3 Build relationships to achieve common goals.
C4.4 Maintain a commitment to lifelong learning related to the outlined competencies.
C5 Communication
C5.1 Practice active listening to verify understanding of information provided.
C5.2 Adapt communication to specific audiences.
C5.3 Communicate clearly using accounting terminology and plain language as appropriate.
C5.4 Proactively seek and provide constructive feedback.
C6 Business Acumen
C6.1 Evaluate how a business fits within the broader context of an industry, the economy, and the geopolitical environment.
C6.2 Knowledge of how strategies, goals, and objectives impact business decisions.
C6.3 Understand the impact of one's role in the objectives of the business.

Appendix 2 - Core Competencies Demanded by US Dynamic Labor Market (n=163)

Order	Core competencies Demanded by Job Ads	f(Yes)	% (Yes)	Code	AICPA's Framework Competency Area
1	GAAP / Tax / Financial Statements	105	64.42%	B1	Accounting Principles
2	Communication	100	61.35%	C5	Communication
3	Microsoft Office Suite	90	55.21%	B5	Technology and Digital Acumen
4	Teamwork	59	36.20%	C3	Collaboration
5	Critical thinking	49	30.06%	C2	Critical Thinking
6	Time management	48	29.45%	C4	Self-Management and Continuous Learning

7	Adaptability	39	23.93%	C4	Self-Management and Continuous Learning
8	ICT	38	23.31%	B5	Technology and Digital Acumen
9	Detail-oriented	34	20.86%	C2	Critical Thinking
10	Work independently	32	19.63%	C4	Self-Management and Continuous Learning
11	Positive attitude/ Self-motivated	26	15.95%	C4	Self-Management and Continuous Learning
12	Problem Solving	20	12.27%	C2	Critical Thinking
13	Interpersonal skills	18	11.04%	C3	Collaboration
14	Continuous learning	14	8.59%	C4	Self-Management and Continuous Learning
15	Sound judgement and decision	9	5.52%	B2	Analysis and Decision-making
16	Integrity	9	5.52%	C1	Ethical Behavior
17	Multi-tasking	8	4.91%	C2	Critical Thinking
18	Professional demeanor	5	3.07%	C5	Communication
19	Presentation skills	5	3.07%	C5	Communication
20	Leadership	3	1.84%	C3	Collaboration
21	Confidentiality	3	1.84%	C1	Ethical Behavior
22	Strategic thinking	1	0.61%	B2	Analysis and Decision-making
23	Research	1	0.61%	B3	Research
24	Professional skepticism	1	0.61%	B2	Analysis and Decision-making
25	Proactive	1	0.61%	C5	Communication