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Responsible CSR and ESG Management Competencies: Higher Education Alternative Credentials in the DACH-Region

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Summary: Many learners acquire relevant sustainability knowledge, such as Corporate Social Responsibility (CSR) and Environmental Social Governance (ESG) practices, by using alternative credentials (AC), short courses, for lifelong up- and reskilling. This qualitative research study investigates the current state and cultural influence of imparting CSR and ESG individual competencies with AC in higher education institutions (HEI). The authors identify 68 AC within 179 HEI in the DACH region of Germany, Austria, and Switzerland and analyze their competency domains exploratively with MAXQDA. The results reveal that the most implemented competency is the cognition-oriented domain, focusing on understanding fundamentals. Furthermore, German HEI offer noticeably more reflective course elements within the meta-oriented domain, potentially influenced by cultural differences, such as a more direct approach to feedback and disagreements.

Keywords: Sustainability, CSR, ESG, Individual competencies, Upskilling courses, Alternative credentials, Higher education

Verantwortungsvolle CSR- und ESG Managementkompetenzen: Alternative Zertifizierungen von Hochschulen in der DACH-Region

Zusammenfassung: Lernende erwerben relevante Nachhaltigkeitskenntnisse, wie Corporate Social Responsibility (CSR) und Environmental, Social, Governance (ESG) Praktiken, indem sie alternative Zertifizierungen (AC), kurze Kurse, zur lebenslangen Weiterbildung nutzen. Diese qualitative Forschung untersucht den aktuellen Stand und den kulturellen Einfluss der Vermittlung von individuellen CSR- und ESG-Kompetenzen mit AC in Hochschuleinrichtungen (HEI). Die Autoren identifizieren 68 AC innerhalb 179 HEI in der DACH-Region (Deutschland, Österreich und Schweiz) und analysieren Kompetenzbereiche explorativ mit MAXQDA. Die Ergebnisse zeigen, dass die am häufigsten implementierte Kompetenz der kognitionsorientierte Bereich ist, das Grundlagenverständnis. Darüber hinaus bieten deutsche HEI deutlich mehr Reflexionen im metaorientierten Bereich an, was potenziell auf kulturelle Unterschiede wie einen direkteren Feedback- und Meinungsverschiedenheiten-Ansatz zurückzuführen ist.

Stichwörter: Nachhaltigkeit, CSR, ESG, Individuelle Kompetenzen, Weiterbildungskurse, Alternative Zertifizierungen, Hochschulbildung

Legend

AC	Alternative Credential
CSR	Corporate Social Responsibility
DACH	D=Deutschland (Germany), A=Austria (Österreich), CH=Confoederatio Helvetica (Switzerland/Schweiz)
ESG	Environmental Social Governance
HEI	Higher Education Institutions
MOOCs	Massive Open Online Courses

1. Introduction

Is our business world educated and prepared to create a responsible and sustainable future? Higher education institutions (HEI) have been criticized for not preparing managers optimally to engage in responsible decision-making but promoting questionable theories of profit maximization that encourage short-term thinking and a lack of social awareness. As a result, graduates may have contributed to impractical and unsustainable business practices, which can lead to political and corporate scandals and contribute to humanitarian crisis (Amann, 2011; Ghoshal, 2005).

Recognizing these issues, there is a growing consensus that companies should prioritize not only shareholder profits but also environmental and social responsibilities, by reducing carbon emissions and supporting social welfare. Many organizations address these responsibilities through CSR departments and programs (Osagie et al., 2019). CSR is broadly defined as the voluntary integration of social and environmental concerns into business operations (Dahlsrud, 2008; European Commission, 2001). Besides, ESG criteria provide quantifiable metrics to assess CSR performance, making CSR and ESG complementary towards each other (Kaźmierczak, 2022). Recent research emphasizes the importance of Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) knowledge that professionals and students need to acquire to effectively implement CSR and ESG practices in their business and corporate settings (Marti et al., 2024). At the same time, there is a growing interest in CSR and ESG management by experts from consultancies, financial service providers, nonprofits, public institutions, and multinational companies (García Vaquero et al., 2021; Hesselbarth & Schaltegger, 2014).

Looking at the culturally similar DACH countries (DACH: D=Deutschland (Germany), A=Austria (Österreich), CH=Confoederatio Helvetica (Switzerland/Schweiz), several developments show the importance of upskilling the workforce to keep up with the developments in CSR and ESG. Surveys among employers and employees in the DACH region reveal that companies fear increasing bureaucracy due to governmentally required ESG measures and reporting, and experience difficulties in meeting their sustainability skills demand while employees feel less prepared to change their skill set (PwC Deutschland, 2023; PwC Switzerland, 2023; Wirtschaftskammer Österreich, 2023). In several industries, sustainability efforts are a critical part of a company's strategy, and the efforts in ESG and CSR have become mandatory in the DACH countries, such as the Corporate Sustainability Reporting Directive (CSRD) introduced by the European Commission (Pugnetti, 2024; European Commission, 2024; Abel & Markarian, 2024). Even though Switzerland is not part of the EU, the reporting obligations are aligned with the EU CSRD framework (Darbellay, 2024).

Connected to upskilling, a trend can be noticed that new formats of knowledge acquisition and lifelong learning opportunities have become increasingly important in reaching sustainability goals and standards. Alternative credentials (AC), as a short course format, offer opportunities for students and professionals to acquire new skills and develop their competencies across management and other disciplines, which can help them seek additional recognition on the labor market (Brown et al., 2021; Young et al., 2019). These courses started in the 1990s, for example with IT certifications developed by technology companies as a form of AC, and can link individual economic prosperity and labor market signals (Bean et al., 2023). Moreover, Massive Open Online Courses (MOOCs) on open platforms are AC that offer a broader range of course topics, e.g., teaching intercultural competency and further career development skills (Langseth et al., 2023; Rai et al., 2023). Another form of AC is micro-credentials, which are short-term stackable courses with the same goal of increasing employability and are gaining popularity worldwide (Bideau & Kearns, 2022). Since employers mention that these types of credentials could potentially benefit recruitment, training, lifelong learning, and retention (Brown et al., 2021), HEI started building this type of AC.

Another trend within HEI in the DACH region is a noticeable shift from merely transferring knowledge to teaching competencies (Schmidpeter & Kolb, 2018; Barth et al., 2007). This shift is also evident in the context of CSR education, where the discussion on responsibility has shifted from an organizational to an individual level (Carroll & Laasch, 2019; Wesselink, 2015). Numerous frameworks for individual sustainability and CSR competencies have been proposed (e.g., Barth et al., 2007; Brundiers et al., 2021; De Haan, 2010; Rieckmann, 2012; Wiek et al., 2011), and these competencies are increasingly being integrated into HEI courses (Stalder, 2020). However, this transition in HEI also presents challenges, such as a lack of the necessary skills to teach CSR and ESG-related courses due to a misalignment between faculty skills and institutional strategies (Abdelgaffar, 2021; Beddewela et al., 2017; Podolny, 2009). It remains unclear how individual CSR and ESG competencies are integrated in HEI AC within the DACH region, and this study seeks to address this gap. Therefore, the authors start with a literature review including the concept of individual competency, alternative credentials and the culture within the DACH region. Next, the authors build a CSR and ESG competencies framework and explain the methodology. Lastly, the paper ends with the results, discussion, and conclusion.

2. Literature review

2.1 The Concept of Individual Competency

The broadly discussed concept of individual competency in business research consists of three dominant perspectives: behavioral, generic, and comprehensive (Delamare Le Deist & Winterton, 2005). The behavioral approach defines competencies as a set of simplified observable behaviors or tasks that have to be performed (Neumann, 1979). The behavioral approach is associated with behaviorism, which is part of an approach in psychology that focuses on observable behavior rather than what is happening in the mind (Mulder, 2014; Osagie et al., 2016). In response to criticism that the behavioral approach is too narrowly focused on specific tasks and lacks consideration of broader personal attributes, the generic approach to the concept of competency was put forward (Eraut, 1994; Osagie et al., 2016). The generic approach emphasizes underlying personal characteristics, such as knowledge,

skills, attitudes, and personal traits, that distinguish successful performers from less successful ones and are applicable across various contexts. However, this approach has been criticized for being too general, lacking context-specificity, and thus being difficult to apply effectively in professional practice (Osagie et al., 2016). The most recent perspective is the comprehensive approach (Mulder et al., 2009). This approach moves away from the fragmented focus on specific tasks of the behavioral approach and the broad scope of the generic approach. Instead, it views competencies as an interrelated combination of knowledge, skills, and attitudes, all embedded within the specific context of professional practice (Mulder, 2014; Delamare Le Deist & Winterton, 2005). The authors adopted the understanding of the comprehensive approach in this study.

The individual perspective on competency is relevant in the context of CSR and ESG, where the discussions on responsibility have shifted from an organizational to an individual level (Carroll & Laasch, 2019). Traditionally, literature has focused on institutional and organizational factors driving CSR and ESG performance (Aguinis & Glavas, 2012; Veldhuizen et al., 2013). However, individual change agents are now recognized as key players in response to CSR and ESG challenges, enhancing business flexibility and adaptability. The attributes of change agents are embedded in individual competencies that can be acquired in HEI (Wesselink, 2015) and are increasingly discussed in the educational literature (Wiek, 2011).

With the shift toward individual responsibility and a transition in education from merely transferring knowledge to developing competencies (Schmidpeter & Kolb, 2018; Barth et al., 2007), research on competencies for sustainable development has gained increasing importance (Osagie et al., 2016). Plenty of competency frameworks have been put forward (e.g., Barth et al., 2007; Brundiers et al., 2021; De Haan, 2010; Rieckmann, 2012; Wiek et al., 2011), including the European Commission's GreenComp framework (Bianchi, 2020), which is based on Wiek's (2011) competencies. Each framework emphasizes different aspects of the overarching goal: to equip individuals to participate in socio-political processes and support society's progress toward sustainability (De Haan, 2010; Figueiró & Raufflet, 2015). Individual CSR and ESG competencies are part of these broader sustainability competencies, however, with a more specific focus on the individual competencies needed by CSR/ESG professionals. Several authors have empirically examined these competencies (Osagie et al., 2016, 2019; Wesselink et al., 2015; Lichtenthaler, 2023), providing insights into their relevance and application in professional practice. Furthermore, studies have analyzed competencies within full programs and in bachelor and master courses, for instance in Swiss HEI (Stalder, 2020; WWF Schweiz & econcept, 2024).

2.2 Alternative Credentials

While the CSR and ESG competencies are defined theoretically, there is a gap in the literature regarding whether HEI are implementing these competencies outside of their traditional bachelor and master programs. The upcoming trend of up- and reskilling through AC, which are short courses, is becoming increasingly significant to training executives, professionals, and students outside of regular academic pathways (Bideau et al., 2022; Ward et al., 2023). These courses are shorter than a formal higher education program and can be micro-credentials, academic certificates, or continuing education programs. They link academic education and practical work and add to existing education programs (De Rosa et al., 2024; Kato et al., 2020; Yieng & Haron, 2023). The need for

alternative credentials to foster lifelong learning is urgent to help learners demonstrate their competencies by equipping them with tailored knowledge and competencies, such as critical thinking, to unlock discipline synergies (De Rosa et al., 2024; Kato et al., 2020).

To use the potential of AC, common standards regarding quality, comparability and transparency are necessary and currently discussed worldwide, e.g., by the Malaysian Qualifications Agency (2020) or the New Zealand Qualifications Authority (2023). International and national frameworks define key recommendations, e.g., the ISO 17024, which provides internationally accepted standards to certify individuals (European Commission: European Education and Culture Executive Agency, 2024). Within Europe, several countries established pilot projects, e.g. the Netherlands based on European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESGs) with transparent standards and registration on their Edubadges platform (European Commission: European Education and Culture Executive Agency et al., 2024). The European approach with the European Union Micro-Credential Agenda aims to provide definitions and guidelines to promote innovative educational programs within EU countries and Switzerland (De Rose et al., 2024).

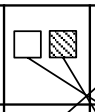
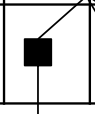
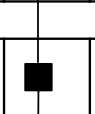
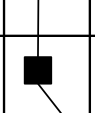
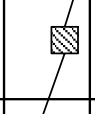
These upcoming credentials can play an essential role for HEI and employers. One benefit can be an active collaboration to ensure crucial content is taught and used as a recruitment method for potential employees who show employability. Another benefit can be offering quality learning content for existing employees to close skill gaps and improve retention by committing to their professional development (Bell et al., 2022; Brown et al., 2021). It is necessary to focus on accurate content, methods, and competencies to foster desired learning outcomes. Overall, HEI, employers, and learners must adapt to evolving changes to remain relevant.

2.3 Culture within the DACH-Region

Previous studies have highlighted the role of cultural factors in shaping CSR performance (Ringov & Zollo, 2007; Thanetsunthorn, 2015) and how Hofstede's cultural dimensions influence CSR implementation (Tehrani et al., 2021). In the field of education, scholars have primarily studied the effect of cultural factors on students' perceptions of CSR (Thetsane et al., 2024), or applied Hofstede's framework to analyze cultural differences in other areas of HEI, such as entrepreneurship education, and explored how cultural variations shape online management education (Thetsane et al., 2024; Wan Lee et al., 2012). In general, the offered AC must meet the learners' needs while addressing cultural and societal demands (European Commission and Culture Executive Agency, 2024).

Cultural researchers, like Hofstede (1983), Meyer (2022), and Trompenaars (1996), analyzed countries based on different dimensions and developed tools to reveal how social norms in these cultures can be compared to each other. Within the six Hofstede dimensions of power distance, individualism, motivation towards achievement and success, uncertainty avoidance, long-term orientation, and indulgence, the DACH countries differ most regarding long-term orientation and indulgence. The eight dimensions of Meyer's culture map include high context communication, indirect negative feedback, hierarchical leading, top-down deciding, relationship-based trusting, confrontation avoidance, flexible time scheduling, and holistic persuading. Among these, the biggest differences between Germany, Austria, and Switzerland seem to be regarding indirect negative feedback and confrontation avoidance. Trompenaars model includes the eight dimensions univer-

salism/particularism, individualism/communitarianism, specific/diffuse, neutral/affective, achievement/ascription, past/present/future, sequential/synchronic, and internal/external. Within the DACH countries, the biggest differences become apparent between individualism/communitarianism and internal/external. As represented in Figure 1, these three models applied to the context of the DACH region reveal that Germany showcases more long-term orientation (Hofstede), more direct negative feedback, and more confrontational disagreeing (Meyer). Furthermore, Austria is associated with the most balanced orientation between individualistic versus group orientation (Trompenaars), while Switzerland has the highest indulgence (Hofstede) and has a greater orientation towards taking control (Trompenaars).

Cultural Dimensions	Rather low	Rather high	Explanations
Hofstede (2024)			
Long-term orientation			Germany is associated with the highest long-term orientation (e.g., focusing on long-term rewards)
Indulgence			Switzerland is associated with the highest indulgence (e.g., emphasis on quality of life and recreational activities)
Meyer (2024)			
Indirect negative feedback			Germany is associated with the most direct negative feedback (e.g., feedback tends to be unambiguous)
Confrontation avoidance			Germany is associated with being the most confrontational (e.g., direct approach to disagreement)
Trompenaars (2024)			
Individualism/communitarianism			Austria is associated with the most balanced orientation between individualistic versus group orientation (e.g., balance the individual interest with the interest of the community)
Internal/external			Switzerland is associated with the greatest orientation towards taking control (e.g., perceive that they can control their lives and their environment)

Germany Austria Switzerland

Figure 1: Cultural dimensions relevant to the DACH region (based on digital tools of Hofstede, 2024, Meyer, 2024, and Trompenaars, 2024)

Related to the previous literature, there is a research gap in empirically analyzing how culture may impact the integration of CSR and ESG competencies in HEI. Furthermore, limited research exists on the role of HEI in implementing AC for lifelong learning (Lang, 2023). This highlights the relevance of further exploring CSR and ESG competencies

within AC. The potential impact of country-specific cultural factors on AC in HEI holds well in the DACH region, as these countries have comparable education systems. Through the Bologna degree model, the accreditation processes and regulatory frameworks have been standardized (European Education and Culture Executive Agency and Eurydice, 2024). The training structures in Germany, Austria, and Switzerland are characterized by a similar division between vocational education, training and higher education (Graf, 2016). In terms of CSR and ESG, the countries share similar understanding of responsibility and regulatory frameworks, such as the CSRD (Pugnetti, 2024; European Commission, 2024; Abel & Markarian, 2024). Additionally, the DACH region's countries share similar labor market conditions and face intense competition for skilled labor (PwC Deutschland, 2023; PwC Switzerland, 2023; Wirtschaftskammer Österreich, 2023) which is linked to the lifelong learning intention of AC education as individuals should constantly update their knowledge. Given these similarities, it provides an opportunity to compare the HEI through cultural influences based on previously defined cultural factors (Hofstede, 2024; Meyer, 2024; and Trompenaars, 2024).

Firstly, the authors combine the topics of AC in HEI with CSR and ESG individual competencies in the DACH region. As CSR and ESG individual competencies, along with AC, continue to gain popularity both globally and in the DACH region, it is essential to understand their current status and relationship. This leads to the following exploratory research question:

1. What is the current state of CSR and ESG individual competencies in AC within HEI in the DACH region?

Secondly, due to the research gap in empirically examining how cultural factors influence the integration of CSR and ESG competencies in HEI AC and given that the DACH region shares a relatively uniform HEI system, it provides an opportunity to detect cultural influences aside from other institutional factors. This leads to the following exploratory research question:

2. How does culture influence the way CSR and ESG are implemented in AC within HEI in the DACH region?

3. Framework of CSR and ESG Competencies

To answer the research questions of this study, the authors integrate the individual CSR competencies defined by Osagie et al. (2016) and the Sustainability Management Maturity Model for ESG developed by Lichtenthaler (2023) into one combined framework illustrated in Figure 2. These sources were chosen for their strong practical orientation. The integration of CSR and ESG competencies is important for two reasons. CSR is a dynamic concept that evolves over time. Historically, different aspects of CSR have gained relevance. Between 1983 and 2002, the ethical dimension was more emphasized. From 2003 onwards, sustainability and environmental dimensions became increasingly significant (Sarkar & Searcy, 2016). With reporting becoming increasingly relevant, often facilitated through ESG metrics (Kaźmierczak, 2022), this component must be incorporated into the broader understanding of CSR. In HEI, CSR and ESG are often addressed within the same courses, highlighting the need for a framework that allows for the analysis of both concepts in combination (Chiu & Fong, 2023).

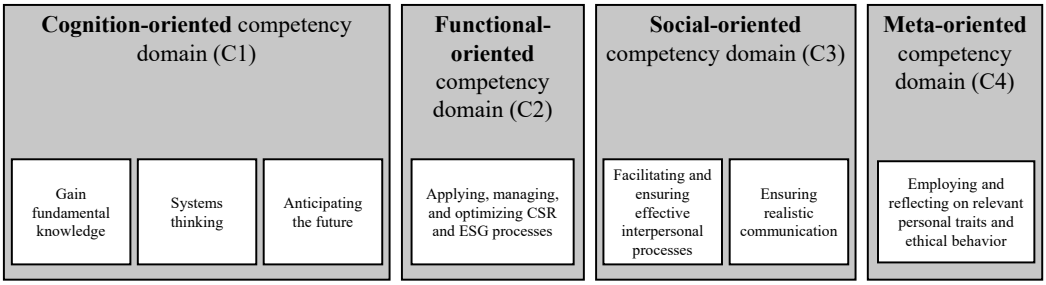


Figure 2: CSR and ESG competencies framework (based on Lichtenthaler, 2023 and Osagie et al., 2016).

Cognition-oriented competency domain (C1): Gain fundamental knowledge, systems thinking, and anticipating future developments. This domain focuses on the conceptual aspects of competencies, such as knowledge and understanding. It involves the fundamental knowledge of CSR/ESG drivers, standards, and regulations (Lichtenthaler, 2023; Osagie et al., 2016). It also includes the ability to identify socio-ecological systems and understand reality as part of broader interconnected contexts rather than merely analyzing individual components in isolation (Osagie et al., 2016 & Bianchi, 2020). Furthermore, systems thinking can also be related to the competency of recognizing business relevance, which means the ability to understand that sustainability must be integrated into all parts of a company rather than treated as a peripheral concern (Lichtenthaler, 2023). Finally, it includes the ability to anticipate future local and global CSR and ESG-related challenges and standards (Lichtenthaler, 2023; Osagie et al., 2016, 2019).

Functional-oriented competency domain (C2): Applying, managing, and optimizing CSR and ESG processes. This domain's focus lies on the operational aspects of competencies. CSR professionals must be capable of managing CSR projects and programs, which includes demonstrating leadership in CSR (e.g., acting as a CSR pioneer). Furthermore, it includes leveraging sustainability for positive business outcomes (Lichtenthaler, 2023) and making a business case for CSR (Osagie et al., 2016). Additionally, it involves the ability to oversee the implementation of CSR strategies, translate them into concrete actions, and utilize available resources more efficiently (Lichtenthaler, 2023).

Social-oriented competency domain (C3): Facilitating and ensuring effective interpersonal processes and communication (internal and external). The Social-oriented domain focuses on competencies related to individual operational effectiveness in interacting with others. These include social, communication, and networking abilities (e.g., to engage with all ecosystem players). A CSR and ESG professional must be able to raise awareness of CSR and ESG initiatives, coach and support others, and promote realistic and transparent internal and external communication regarding CSR and ESG efforts (Berchtold, 2024; Lichtenthaler, 2023; Osagie et al., 2016, 2019).

Meta-oriented competency domain (C4): Employing and reflecting on relevant personal traits and ethical behavior. This domain includes personal conceptual attributes and values. Firstly, it entails the ability to use CSR and ESG-supportive personal characteristics, such as balancing profit and CSR and ESG interests (Lichtenthaler, 2023; Osagie et al., 2016, 2019). And secondly, to recognize and self-evaluate our ideas, habits, and assumptions and to be able to adapt them to internal and external change (Osagie et al., 2016,

2019). This domain also includes ensuring continuous learning and developing resilience for execution (Lichtenthaler, 2023).

In line with the previously presented comprehensive approach, a competency is seen as the interrelation of knowledge, skills, and attitudes, and the integration of these factors within a context (Mulder, 2014). These competency domains can be conceptually divided, however, are most effective when activated together (Osagie et al., 2016, 2019) and may be applied in the context of a professional CSR and ESG manager. The meta-competency domain differs from the first three domains, since it is an overarching competency and has the role of reflecting on other competencies and facilitating their acquisition (Delamare Le Deist & Winterton, 2005).

4. Methodology

The chosen qualitative methodology begins with collecting secondary data about CSR and ESG courses at HEI from university websites. Prior researchers like Wymer and Rundle-Thiele (2017) gained insights on responsibility and sustainability in curricula with this observation method, which avoids potential social desirability biases and nonresponses (Boote & Mathews, 1999). Based on the availability of course information on university websites (Wymer & Rundle-Thiele, 2017), comprehensive data to answer the research questions is gathered in this exploratory analysis. Adapted from Mach and Ebersberger (2024), the authors perform a five-step methodology to identify HEI and courses, structure them with codes, and report the outcomes.

The first step is to select the HEI and gather all course information on the online course catalogs of the selected HEI. This selection includes the 100 largest German HEI based on enrollment numbers (CHE, 2023), all 44 HEI in Austria (Bundesministerium Bildung, Wissenschaft und Forschung, 2024), and all 35 accredited HEI in Switzerland (Swissuniversities, 2024), which offer business education, see also Appendix 1. The authors search for the names of the HEI in combination with the two keywords "Corporate Social Responsibility/CSR" or "Environmental Social Governance/ESG" and the three keywords "Zertifikat/Certificate," "Micro-Credential" or "Weiterbildung/Continuing Education" are performed to identify the AC courses on CSR and ESG. Within the selection criteria, the authors exclude courses that are less than 1 ECTS, which equals 25 to 30 hours of workload, in line with the EU approach to measure (European Commission, 2020), and not more than 59 ECTS, as 60 ECTS can equal a full master's degree. Furthermore, the authors exclude courses that enforce university enrollment as a student to gain the AC, since traditional seminars or modules would have expanded the study. The remaining data include university, country, course title, definition, ECTS, and target group.

The second step is the initial coding based on the first impression (Mach & Ebersberger, 2024). Therefore, each of the two authors codes the competencies of the identified credentials independently in the qualitative software tool MAXQDA (Mach & Ebersberger, 2024). The framework in Figure 2 was used as a first coding scheme with the codes C1= cognition-oriented, C2 = functional-oriented, C3 = social-oriented, and C4 = meta-oriented, since the goal is to reveal the contribution of the different competencies within the credentials.

The third step includes a deeper analysis of the codes based on keywords according to the theory. After the individual coding, the authors discuss the distribution of unmatched codes based on the inter-coder-reliability, which measures the reliability of the coding (Nili

et al., 2020). The inter-coder-reliability in pre-harmonization discussion includes values of 60 % for German coding, 82 % for Austrian coding, and 87 % for Swiss coding, meaning that German coding among the authors differed the most. During that process the authors develop a list of keywords which are presented in Appendix 2 and further discussed in the next step and the results section.

The fourth step is to review the codes and harmonize them to create a common understanding of the competencies and to further work with the data. Based on Nili et al. (2020), the authors discuss code discrepancies to find a consensus within the harmonization process. The authors critically review each unmatched code and discuss which keywords in a code overrule others to develop a comprehensive data set. Since the competencies reach increasingly deeper skills, the "highest" overruling competency is C4, followed by C3 and C2. By going through that process, the authors further define sharp differentiation between the four codes and develop higher-order keywords. Furthermore, competencies divided if two strong keywords appeared or were eliminated if the keywords were not strong enough.

The fifth step is reporting the outcomes and grouping the extracted competencies into four competency domains: C1, C2, C3, and C4.

5. Results

The main objectives of this research study are, first, to understand the current state of implementing CSR and ESG competencies in AC within HEI in the DACH region, and second, to analyze how culture influences curricula. The following section presents the results based on an analysis of the CSR and ESG AC across the three DACH countries by elaborating on the sample and content. Regarding the sample, the authors reviewed 179 higher education institutions in the DACH region during desk research to explore CSR and ESG competencies in AC. Within this screening, the authors discovered 68 courses from 23 universities and 27 universities of applied sciences, see Appendix 1.

	Germany (total all courses)	Germany (average per course)	Austria (total all courses)	Austria (average per course)	Switzerland (total all courses)	Switzerland (average per course)	Total of competencies DACH-Region
Cognition-oriented domain (C1)	126	3.7	68	3.8	62	3.9	256
Functional-oriented domain (C2)	92	2.7	67	3.7	76	4.8	235
Social-oriented domain (C3)	74	2.2	20	1.1	25	1.6	119
Meta-oriented domain (C4)	52	1.5	4	0.2	5	0.3	61

Table 1: Total and per course numbers of extracted CSR and ESG competencies in AC, divided into Germany, Austria, and Switzerland (own elaboration)

Table 1 presents the number of identified competencies grouped by competency domains. The results indicate that educators focus mostly on the cognition-oriented domain (C1), comprising 256 competencies. After that, the functional-oriented domain (C2) follows closely, with 235 identified competencies in all AC courses. The social-oriented domain (C3) appeared in 119 competencies taught in AC courses. Finally, the meta-oriented domain (C4) has the lowest representation, with only 61 competencies in total. Additionally, Table 1 displays the ratio of competencies per course for each country, accounting for the higher number of identified AC courses on CSR and ESG in Germany (34 courses) compared to Austria (18 courses) and Switzerland (16 courses) (see Table 1).

Regarding the content, the authors discover which keywords HEI in the DACH region use for the four competency domains C1, C2, C3, and C4, see also Appendix 2. Keywords within the cognition-oriented (C1) competency domain are learn, understand, become familiar, identify, and anticipate. An example within this category is "Expansion of existing knowledge to include advanced concepts and practices in sustainability and ESG" (Fachhochschule Joanneum (Austria_Coding, pos. 152). The functional-oriented domain (C2) is associated with keywords such as: applying, optimizing, implementation, operational, developing, and evaluating. One example in this domain is "how to implement ESG standards into the investment process" (Universität St. Gallen, Switzerland_Coding, pos. 34). The social-oriented domain (C3) includes representative keywords such as: agents of change, leadership, problem-solving, communication, and facilitation. The following example includes a communication keyword: "how you can systematically and compactly present positive effects with regard to sustainable development for stakeholders" (Leuphana Universität Lüneburg, Germany_Coding, p. 18). Finally, the meta-oriented domain (C4) was related to keywords such as: discuss, reflection, ethics, self-examination and resilience. This domain is created based on examples such as "Our CSR training will guide you through developing your own Code of Ethics" (Freie Universität Berlin, Germany_Coding, p. 13).

Figure 3 illustrates the average number of competencies per AC course for each DACH country. All the countries in the DACH region put more emphasis on cognition and on the functional competency domain. For the cognition-oriented domain (C1), HEI in the three countries display relatively similar numbers of competencies with Germany at 3,7 competencies, Austria at 3,8 competencies, and Switzerland at 3,9 competencies. However, there is a divergence in the functional-oriented domain (C2). Germany's CSR and ESG AC courses allocate less emphasis, with 2,7 competencies, compared to Austria at 3,7 and Switzerland at 4,8. Within the sample, the focus is on the cognition and function-oriented competencies, which aligns with previous research, revealing that obtaining cognition-oriented competencies is prevalent (Osagie et al., 2016). By offering these cognition-oriented competencies, HEI can show that they are a trustworthy partner that includes scientific basic understanding and helps students and professionals to gain a solid foundation. The function-oriented domain is more practice-oriented, and since all companies must include CSR and ESG in their sustainability reporting, this domain is crucial for the business world (Abel & Markarian, 2024).

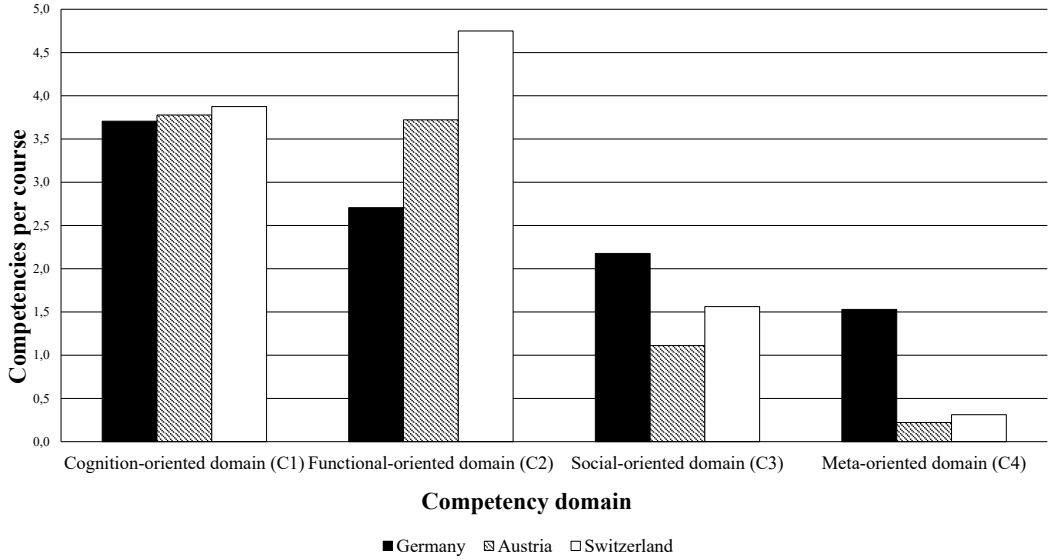


Figure 3: Relative numbers of extracted CSR and ESG competencies in AC, divided into Germany, Austria, and Switzerland (own elaboration)

The social-oriented domain (C3) shows moderate differences among the countries. German AC programs include 2,2 competencies on average per course, whereas Austria and Switzerland place slightly less emphasis, with 1,1 and 1,6. A notable difference is the stronger emphasis German educators place in their AC courses on the meta-oriented domain (C4), with 1,5 competencies per course, compared to only 0,2 in Austria and 0,3 in Switzerland. Overall, the social and meta-oriented domains are less present than the previous two domains in all three countries. Once a basic understanding of cognition-oriented and functional-oriented is established, social-oriented competencies connected to change management and leadership are essential to drive new processes. These social-oriented competencies, like implementing the change of CSRD in companies, are underrepresented in AC. Lastly, the meta-oriented domain is the least taught competency. There might be limited time for self-reflection or ethical behavior education within the course structure of AC if the focus is on cognition- and function-oriented domains, even though these competencies play an important role in embracing the complexity and envisioning a sustainable future (Bianchi, 2020). From these results, it can be deduced that not every educator includes and facilitates all the necessary CSR competencies in their AC (Abdelgaffar, 2021; Beddewela et al., 2017; Podolny, 2009).

Analyzing the cultural aspect, all three DACH regions are similar with minor differences in worldwide comparison. Within Germany, with a gradual decrease in proportion from the cognition- to the meta-oriented domain, the meta-oriented competencies are more often taught than in Austria and Switzerland. With an average of 1,5 included competencies per course, Germany features 7.5 times more meta-oriented CSR competencies than Austria and 5 times more than Switzerland within the sample. From a cultural perspective, this aligns with Germany's high score in long-term orientation in Hofstede's dimensions, underlining the relevance of meta-oriented competencies. Traits like self-reflection and eth-

ical behavior are thus valued as essential tools for considering long-term impact. Furthermore, Germany holds the most direct approach to negative feedback and confrontation, based on Meyer (2022), which leads to a more open confrontation regarding needed change.

Within Austrian AC, the cognition- and function-oriented domains are essential, with a notable drop to the other social- and meta-oriented domains, which are nearly unavailable. Based on Trompenaars` dimensions, Austria is the most likely country to balance individualistic and group orientation within the DACH region. The need to have the same basic understanding and "how to" know-how on all levels within a company can be reflected by this contribution.

Among the different domains, only Switzerland focuses predominantly on the function-oriented domain. Swiss culture is associated with Hofstede's high levels of indulgence and Trompenaars orientation towards internal control, meaning the drive to increase the quality of life with a hands-on mentality.

6. Discussion and Conclusion

As CSR and ESG competencies become increasingly important in the business world, HEI have integrated them into AC to support the development of these competencies among students and professionals. Despite the shared CSR and ESG objectives, differences become apparent by collecting and coding AC competency data from German, Austrian, and Swiss HEI and matching them with cultural dimensions.

One of the key findings of this study regarding the current state of CSR and ESG competencies is that Germany places a stronger emphasis on the meta-competency domain within its AC compared to Switzerland and Austria. Cultural differences may influence this discrepancy, as Germany exhibits the highest long-term orientation score and tends to adopt a more direct approach to feedback and disagreement (Hofstede, 1983; Meyer, 2022). As a result, competencies such as self-reflection and ethical behavior are more prominently emphasized in CSR and ESG AC in German HEI. This would align with a cultural inclination toward considering individual future impacts and fostering open discussions on necessary changes and ethics. However, there are also similarities among the results of the countries as all three focus on implementing the cognition- and functional-oriented competencies. Based on Trompenaars (1996), Germany, Switzerland, and Austria lean more towards internal control in international comparison, which leads to a focus on planning and knowing all the information to act accordingly.

In conclusion, this study contributes to the literature on CSR education and AC education in the following ways. Firstly, it introduces a novel CSR and ESG competencies framework that enhances the understanding of CSR competencies by integrating ESG into CSR, as discussed, reflecting the growing prominence of CSR reporting. Secondly, it sheds light on the current distribution of CSR and ESG competencies, highlighting that not all competencies are systematically embedded within the AC in the DACH region. Particularly, the integration of social and meta-competencies into AC within HEIs still appears to be challenging, although literature emphasizes the importance of incorporating all competency domains. Thirdly, the lack of certain competency domains might point to operational or institutional issues in CSR and AC education within higher education institutions. In the context of AC, time constraints may limit the inclusion of meta-competencies, which require reflection on other competencies and support their acquisition

(Delamare Le Deist & Winterton, 2005). It might also indicate that the educators in HEIs lacks the necessary support structures and training to implement and facilitate the required CSR and ESG competencies in their AC.

One limitation of this study is that some AC could possibly not be identified due to restricted external websites. Additionally, it is difficult to generalize Europe-wide by focusing on three culturally similar countries. Within Switzerland, the study does not account for regional linguistic and cultural differences. Furthermore, course catalogs may list certain competencies, but there is no guarantee of actual inclusion or emphasis in classroom instruction. Based on the results, future research could further analyze the distribution of CSR and ESG competency domains within each AC in the DACH region. Moreover, an in-depth investigation into the reasons behind the less frequent inclusion of certain competencies, beyond cultural differences, would be valuable. For instance, investigating the challenges faced by the CSR and ESG educators, as well as the competency development of faculty and educators in HEI, would be necessary. Additionally, future research paths include further examination of the AC functions within the system of implementing these new education innovations into different HEI systems by focusing on relevant sustainability topics such as CSR and ESG. Hence, measuring the long-term impact of these CSR and ESG AC and the impact of the pedagogical way the competencies are taught are potential future research paths.

Overall, this study is a unique contribution to the current CSR and ESG competencies teaching landscape in combination with the upcoming concept of AC, which has become increasingly important for students and professionals to prove their employability regarding sustainability competencies. By focusing on the DACH region with a similar education system, this study benefits decision-makers in HEI as practical guidance in developing and refining their CSR and ESG AC offerings. The HEI can benefit from each other's concepts, such as the German effort for the meta-oriented domain or the Swiss dedication on function-oriented competencies, and, therefore, can develop and expand their AC portfolio. Moreover, this study lays the groundwork for enhancing faculty training in HEI in the DACH region, an area currently lacking a strong research foundation. By equipping educators in HEI with effective teaching strategies to develop all competency domains, including cognition, function, social, and meta-competencies, this study contributes to preparing learners for the evolving demands of CSR and ESG practice.

Appendix

Appendix 1: Descriptives – number of courses (own elaboration)

	Germany (D)	Austria (A)	Switzerland (CH)	overall
Number of checked HEIs	100, based on CHE (2023)	44, based on Bundesministerium Bildung Wissenschaft und Forschung (2024)	35, based on Swissuniversities (2024)	179
Number of courses	34	18	16	68
Number of universities	15	5	3	23
Number of universities of applied sciences	11	9	7	27

	Germany (D)	Austria (A)	Switzerland (CH)	overall
Number of universities per location: D=West, A=West, Ch=French region	7 (Hochschule RheinMain, Hochschule Bonn-Rhein-Sieg, RWTH Aachen, Universität Münster, Johann Wolfgang Goethe-Universität Frankfurt am Main, Hochschule Fresenius, FOM Hochschule für Oekonomie & Management)	3 (Fachhochschule Kufstein Tirol Bildungs GmbH, MCI Management Center Innsbruck, Fachhochschule Kärnten)	3 (Université de Genève, HES-SO Haute école spécialisée de Suisse occidentale, International Institute for Management Development)	
Number of universities per location: D=North, A=Central, Ch=German region	6 (Universität Hamburg, Hamburger Fern-Hochschule, Europäische Fernhochschule Hamburg, Carl von Ossietzky Universität Oldenburg, Leuphana Universität Lüneburg, Ostfalia Hochschule für angewandte Wissenschaften)	1 (Johannes Kepler Universität Linz)	6 (Universität Zürich, Universität St. Gallen, Zürcher Hochschule für Angewandte Wissenschaften, Hochschule Luzern, Fachhochschule Nordwestschweiz, Berner Fachhochschule)	
Number of universities per location: D=East, A=East	5 (Friedrich-Schiller-Universität Jena, Universität Rostock, Freie Universität Berlin, Technische Universität Chemnitz, IU Internationale Hochschule)	6 (Fachhochschule des bfi Wien GmbH, Wirtschaftsuniversität Wien, Fachhochschule Wiener Neustadt GmbH, Fachhochschule Burgenland GmbH, Universität für Weiterbildung Krems, FHW Fachhochschul-Studiengänge der Wiener Wirtschaft GmbH)		
Number of universities per location: D=South, A=South, Ch=Italian region	8 (Universität Augsburg, Hochschule München, Technische Hochschule Nürnberg Georg Simon Ohm, Universität Passau, Technische Hochschule Deggendorf, Technische Universität München, Friedrich-Alexander-Universität Erlangen-Nürnberg, Universität Bayreuth)	4 (Fachhochschule Joanneum GmbH, Technische Universität Graz, Montanuniversität Leoben, CAMPUS 02 Fachhochschule der Wirtschaft GmbH)	1 (Scuola universitaria professionale della Svizzera italiana)	

Appendix 2: Coding Keywords and Harmonization (own elaboration)

Keywords C4 (overruling C3, C2, C1)	Keywords C3 (overruling C2, C1)	Keywords C2 (overruling C1)	Keywords C1
reflection	leadership	realize	(become) familiar
ethics	promoting participants	implement	encounter
dealing with issues as a person	cultural components	create	look at
philosophical questions	tailor-made	evaluate	acquire
high self-standard	employee-oriented	compare	insights

Keywords C4 (overruling C3, C2, C1)	Keywords C3 (overruling C2, C1)	Keywords C2 (overruling C1)	Keywords C1
work-life-balance concept	(further development of sustainability) reporting	design	overview
assessment	management tools	develop	frame
evaluation	managing	determine	core competencies
resilient	leader of tomorrow	operational	learn
discuss	communication	define criteria	understanding
	lead	control	
	key functions	assess	
	stakeholder		
	agents of change		
	problem-solving and moderation techniques		

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