



## Article

# Modern Accounting Specialist in New Economic Reality: Cases of Lithuania and Latvia

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**Abstract:** Rapid changes in the economic environment, the development of new technologies, and global crises have an impact on and produce new requirements for many professions, including accounting specialists. An analysis of the competencies necessary for the modern accounting specialist provides insights into the required abilities from a labour market perspective. This article investigates the necessary knowledge and competencies of modern accounting specialists using a survey. Responses are analysed according to the respondents' country, work experience, current working position and the size of the enterprise. We evaluate the personal, professional and social competencies as well as necessary types of professional knowledge. Research results may be summarised based on the traditional viewpoint of an accounting specialist. Despite their differing attributes, and with only some slight differences, respondents emphasised the need for accounting specialists to have certain classic knowledge and noted the need for traditional competencies.

**Keywords:** accounting specialist; competencies; Lithuania; Latvia



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## 1. Introduction

As much as some predict the role of the accounting specialist in enterprises will be diminished with accounting becoming robotised and many routine operations being transferred to the technical level, we must disagree. Accountants are at the centre of information flows and decision-making at the enterprise level. Besides, the profession leads on climate reporting and other material environmental and social and governance disclosures and their assurance ([Time for Action on Sustainability 2022](#)) in that way contributing significantly to the sustainability of small, medium, and large organizations, sound capital markets, effective stewardship of public finances and delivery of public services, and—ultimately—economic prosperity ([The Accountancy Profession 2015b](#)). In addition, accounting specialists play a major positive role in tackling corruption, along with other key actors in the global economy. Their work is crucial to the governance architecture of economies and, along with other key elements, serves to underpin transparency, accountability and the rule of law ([The Accountancy Profession 2017](#)).

According to the Financial Reporting Council (FRC), in their Key Facts and Trends, there are over 600,000 students enrolled with accountancy bodies worldwide, and the number increased by 0.9% from 2018 to 2019 ([FRC 2020](#)). Furthermore, membership of the accountancy bodies continues to grow and amounts to over 560,000 members worldwide, with an annual growth rate of 3.0% from 2015 to 2019 ([FRC 2020](#)). The growth of the profession is an indicator of its resilience in both good times and bad. A profession is in demand, growing steadily, and making significant contributions to all areas of society ([The Accountancy Profession 2015a](#)). The accounting profession faces many challenges, such as rapid changes in technologies and business forms, digitalisation and the introduction of new types of currencies and transactions. The recent COVID-19 pandemic has had an impact on many spheres and professions, including the accounting profession. According

to the chief executive of the Confederation of Asian and Pacific Accountants (CAPA 2020, p. 9), 'the accountancy profession was already anticipating many changes and the pandemic has propelled professional accountancy organizations to consider and embrace opportunities and change rapidly in order to remain relevant and future ready'. However, Blood and Hong (2021) point to their results and conclude that resilience for the accountancy profession appears to be the order of the day, with professional accountancy organisations on track to build back stronger, ready to adapt and respond to the future in the new normal.

This study seeks to evaluate the competencies of the modern accounting specialist in the new economic reality, relying on the cases of Lithuania and Latvia. The results of the research extend the framework of accounting specialists' competencies in the labour market and may be used by educational institutions that prepare such specialists in developing programmes of study for the profession.

## 2. Literature Overview

Accounting specialists play an important role not only in individual enterprises but at the country or even global level as they record and manage the micro-level information that is used by many different stakeholders for national and international decisions. The importance of their role drives the need to define the qualifications and competencies of the profession. The International Accounting Education Standards Board (IAESB) defines a professional accountant as an individual who achieves, demonstrates, and further develops professional competence to perform a role in the accountancy profession and who is required to comply with a code of ethics as directed by a professional accountancy organisation or a licensing authority (IAESB 2019, p. 9).

Requirements or recommendations and necessary knowledge for the profession are usually described in some way at the national level. In Latvia, the head of an organisation shall organise the accounting procedure in conformity with the requirements of the Law on Accounting. In the undertaking, the accounting shall be kept by a person competent in accounting issues—an accountant or an outsourced accountant with whom the head of the undertaking has concluded an appropriate written contract, which lays down the obligations, rights and responsibilities of the person in matters related to keeping the accounting. An accountant shall be a natural person whose qualification conforms to the accountant qualification of Level 4 or 3 determined by the Cabinet and whose competence is attested by an appropriate education document (diploma or certificate) and also, such natural person whose competence in the respective accounting issues is attested by experience or appropriate certificate and who performs the duties of an accountant. An outsourced accountant shall be a person who, based on a written contract with the undertaking (except for an employment contract), undertakes to provide or provides accounting services to a customer and who conforms to the requirements specified for an accountant in Paragraph 3, Clause 1 of this Section (Law on Accounting 1993).

In Latvia, there are no mandatory education requirements for a practising accountant. The public authorities of the Republic of Latvia should look at the country's accountancy profession to determine the level of qualification and experience required to establish and ensure that skilled accountants manage a company's financial statements (Millere et al. 2018). Amendments to the Latvian Law on Accounting were planned for 2019, including a licensing programme for outsourcing accountants (Faišuša 2019). These amendments came into force on 1 July 2021. In Lithuania, the requirements for professional accountants as well as regulations for outsourcing accounting companies and accountants are defined in the Law on Accounting (Lietuvos Respublikos Būhalterinės Apskaitos Įstatymas 2019). According to this law, a professional accountant is a member of a professional organisation of auditors and/or accountants of Lithuania or any other European Union Member State, which belongs to the International Federation of Accountants. Accountants must meet special requirements and pass special exams to achieve the status of a professional accountant. However, these requirements are only relevant to achieving this status and are

not mandatory for performing accounting services. Accounting outsourcing companies or outsourcing accountants must be insured by private insurance.

Some roles in the development of the accounting profession play national professional organisations. Associations of both countries such as the Lithuanian Association of Accountants and Auditors, the Lithuanian Chamber of Auditors, the Association of Accountants of the Republic of Latvia and the Latvian Association of Certified Auditors actively participate in the development of accounting specialists, various discussions, requirements for the profession and other matters.

As much as requirements for the accounting profession are set out in legislation, those requirements cover only general aspects of the speciality. A more detailed analysis of the set of competencies, abilities and skills and necessary knowledge is explored on the scientific platform. Although researchers usually emphasise individual or several competencies, some analyse the full set of them. Lithuanian researchers [Mackevičius and Subačienė \(2016\)](#) suggest three groups of competencies: (1) professional, (2) personal and (3) social. According to the authors, a professional group of competencies consist of the following abilities: to record economic transactions of accounting documents and registers; to prepare financial statements; to form financial accounting policy; to form tax accounting policy; to form management accounting policy; to form information system of the company; to plan, analyse and evaluate company's performance; to present analysis results; to support internal control system; to make decisions; and be interested in innovations and changes in regulation. A personal group consists of competencies such as responsibility, accuracy, sense of duty, independence, consistency, flexibility and quick thinking. A social group includes the following abilities: to communicate with colleagues and persons from other institutions; to cooperate with colleagues and persons from other institutions; and to work in teams ([Mackevičius and Subačienė 2016](#)). [Valkauskas \(2014\)](#) assess the competencies of accounting specialists and distinguish three general groups: (1) cognitive competencies (analytical and critical thinking, creativity, problem-solving); (2) personal competencies (diligence, honesty, independence); and (3) socio-ethical competencies (communication, leadership, adherence to accepted norms of behaviour and communication). [Giriūnienė and Giriūnas \(2017\)](#) analyse the skills of multi-disciplinary or broad-profile accounting specialists and distinguish three skills groups: essential features and characteristics (analytical skills, diligence, attention to detail, ethics, responsibility, insight, quick reaction, curiosity, intuition, scepticism, generating new ideas); basic skills (communicability, perception of operational information, critical and strategic thinking, rapid identification of key problems, high level of research intuition, high level of analysis and synthesis of results, ability to solve both non-systemic and structured problems) and specific skills (high-level financial data analysis, good testing skills, high-level audit-evidence gathering, ability to quickly identify fraud and ability to resolve conflicts and negotiate). The authors emphasise that the group of specific skills are the skills that define the broad-profile specialist ([Giriūnienė and Giriūnas 2017](#)).

Some scholars see the importance of developing appropriate competencies at the educational level and analyse improvements in accounting education. [Herbert et al. \(2020\)](#) investigate how the changing world of professional work needs a new approach to accounting education. Their research results suggest that tutors could play a more significant role in mentoring students in order to make a broader range of work experiences relevant to their development. Furthermore, they note that 'work-based learning' requires a more explicit focus on learning from work rather than learning for work. Thus, they call on accounting educators, employers and professional bodies to support students in work-based learning while also emphasising intellectual development in curricula design and pedagogy ([Herbert et al. 2020](#)).

[Oosthuizen et al. \(2020\)](#) are of the opinion that to meet the demand of primary stakeholders—such as governments, the profession, and accrediting authorities—accounting students should develop skills in addressing problematic teamwork processes such as establishing synergy, accountability, and the management of time and conflict. Referring to

their findings, these authors suggest that student performance can be enhanced further through the support of academic administrators and faculty members who have high levels of energy, strong beliefs in their followers or students, and are ready to stimulate their creativity and intrinsic motivation. The results of [Chen et al. \(2021\)](#) suggest that leading career guidance for professional accountants underestimates their need for communication and interaction and analytical thinking abilities and overestimates their involvement in information processing and nonpersonal tasks. [Mah'd and Mardini \(2020\)](#) assert that accounting graduates should not only engage in bookkeeping or generating financial information but also interpret and analyse the external and internal uses of that information.

[Obob et al. \(2020\)](#) examine the influence of ethical and ideological orientation on the ethical decision-making process of professional accountants in Nigeria. [Okougbo et al. \(2021\)](#) investigate teaching ethics using an ethics-intervention curriculum to enhance the ethical awareness of accounting undergraduates. They conclude that the ethics-intervention curriculum had a significant positive effect on the ethical awareness of accounting undergraduates. This implies that teaching ethics to accounting undergraduates can influence their ethical awareness and that accounting ethics should be contained within the accounting curriculum as a taught course and not in a piecemeal fashion. Authors referring to the findings of the study suggest incorporating accounting ethics in the curriculum as a stand-alone course for final-year accounting students since this category of students is closest to completing their accounting degree programme ([Okougbo et al. 2021](#)).

[Aldamen et al. \(2021\)](#) analyse the core competencies of the accounting profession and emphasise problem-based learning, which was incorporated by traditional consolidation, and technical international-accounting content, as well as communication, teamwork, and cross-cultural management skills. The authors conclude that problem-based learning is a pedagogy that achieves the desired outcomes when structured appropriately ([Aldamen et al. 2021](#)). [Damalakiene et al. \(2017\)](#) analyse the development of general competencies in modular accounting programmes. [Ivaškina and Maļceva \(2018\)](#) set out the essential qualities of a good accountant stating they must be fair, objective, professional and follow principles of due diligence and confidentiality. The authors conclude that it is necessary to educate yourself for longer to become a professional by acquiring the knowledge and skills needed in practical work. The status of the profession depends on the time needed to acquire it: the longer the time, the higher the prestige of the profession ([Ivaškina and Maļceva 2018](#)).

[Barac et al. \(2020\)](#) analyse data of more than 3000 professional accountants and auditors and conclude that four generic skills emerge as essential for future entry-level chartered accountants: digital, decision-making and organizational skills and business acumen. The authors identify broad categories within generic skill profiles (digital, decision making, organizational, business, practice and commercial acumen). They show that generic skills do not operate independently and should be viewed as an interdependent set or constellation of competencies ([Barac et al. 2020](#)). [Chen et al. \(2021\)](#) are of the view that the demand for advisory and analytical roles will only increase for accountants. They emphasise the critical skills needed for professional accounting: leadership, communication skills, technological know-how and creative problem-solving skills ([Chen et al. 2021](#)).

[Terblanche and De Clercq \(2021\)](#) note that as routine tasks and activities of accountants have become increasingly automated, the true worth of the accountant has shifted to higher-order thinking skills, which include critical thinking, problem-solving and analytical skills. They state that professional accountants are no longer only number crunchers and bookkeepers but are increasingly expected to be strategic analysts, collaborators and knowledge professionals. The authors investigate the critical thinking ability of accounting professionals and associate the competence with many other related skills. These are no doubt important but may be seen as separate abilities necessary for the profession, not only as dispositions associated with critical thinking. These include metacognition (thinking about one's thinking), empathy, ethical behaviour, intrinsic motivation, a positive attitude, good communication skills, the ability to assess a situation and ask the right questions,

judgement, making constant critical comparisons, being systematic and organised, following certain standards, thinking outside the box, adapting thinking in different situations, skills of persuasion, problem-solving, discretionary thinking and the ability to interrogate information (Terblanche and De Clercq 2021).

Tsiligiris and Bowyer (2021) investigate the skills demanded of future accountants in response to the fourth industrial revolution and conclude that the skills necessary for future accountants may be organised into four categories: (a) ethical skills (technical and interpersonal); (b) digital skills (basic and advanced); (c) business skills (consulting and business advisory skills, strategic thinking) and (d) soft skills (adaptability, communication, lifelong approach to continuous personal and professional development (CPD), critical thinking, dynamic problem-solving, emotional intelligence). The authors find that 'adaptability' and 'lifelong approach to CPD' are two personal qualities essential for future accountants. They add that despite the anticipated disruption in accounting jobs, and the shifting expectations about the role of technology, accounting knowledge remains the key prerequisite for the success of future accountants. The value of all other skills (e.g., digital, soft, business, and ethical skills) is based on the existence of a solid foundation of accounting knowledge (Tsiligiris and Bowyer 2021).

Rufino et al. (2018) investigate the competency requirements for professional accountants and reveal accounting and finance knowledge as core competencies for accountants, alongside intellectual, interpersonal and communication skills. Zhyvets (2018) identifies trends in the development of accountants' competencies, including creative abilities and development of imagination, professional knowledge of digital technologies, logical thinking and analysis and professional knowledge of the specifics of the business organisation. Faituša et al. (2020) analyse requirements for accountants in accounting outsourcing companies in Latvia and Lithuania and conclude that those in the accounting profession must-have characteristics such as accuracy, analytical skills and logical thinking, integrity, the ability to resist stress and pressure, the ability to learn and to take responsibility. The authors also emphasise the ability to independently and continuously learn, gather, process, analyse and critically evaluate the data and make decisions (Faituša et al. 2020).

The professional accountant has a central role in providing information to decision-making fora. Analysis of the competencies and skills required to be an accountant shows that the set of abilities is much wider than is generally perceived. The required competencies and skills are supplemented by competencies such as communication, cooperation, coordination, collaboration and knowledge in different spheres (Bruna et al. 2017). The standards of the IAESB reflect a summary of the professional competencies of the accounting profession, which, it says, go beyond knowledge of principles, standards, concepts, facts and procedures; it is the integration and application of technical competence, professional skills, and professional values, ethics, and other attitudes (IAESB 2019).

The literature review shows recent tendencies of the growing demand for accounting specialists with the competencies of creativity, ability to learn, risk-taking, the identification of problems, the suggestion of solutions and analytical and logical thinking. Although classic competencies such as accounting knowledge and technical skills, accuracy, responsibility, independence, good communication skills and others are relevant, too. Scholars have conducted various studies of accounting specialists and emphasised different competencies for accounting specialists, they all rely on the same fairly general position. The works of these scholars are analysed and developed into a set of competencies of accounting specialists in Mackevičius and Subačienė (2016). There are three groups of competencies distinguished for the accounting profession: (1) personal (accuracy, analytical and logical thinking, integrity, able to withstand work routine, ability to learn, responsible, determined, able to resist stress and pressure, independence, decision making, creativity, management ability and risk-taking); (2) professional (recording economic transaction to accounting documents and registers, preparing financial statements, forming financial accounting policy, tax accounting policy, and management accounting policy, forming company information system, planning, analysing and evaluating company's performance, presenting

results, identifying problems and suggesting solutions; supporting internal control systems; and being interested in innovation and changes in regulation) and (3) social (communicating with colleagues and persons from other institutions, cooperating with colleagues and persons from other institutions and working in a team) (Mackevičius and Subačienė 2016). This set of competencies is extended by the results of the literature review, provides the broadest view of accounting specialists and is useful for further investigation. The theoretical framework of the set of competencies of the modern accounting specialist is evaluated by a survey of accountants.

### 3. Materials and Methods

Latvia and Lithuania were chosen for this research because they have similar economic, political and cultural backgrounds, have developed under the same conditions and are developing at a similar level: the GDP per capita is around half of the EU-28 indicator in both countries, the growth of real GDP is at the same level and changed around 0.9% over the three last years, the employment rate in both had reached around 77% in 2018 and the minimum wage is around 430 EUR (Faituša et al. 2020). Moreover, both countries passed similar accounting system development phases. The period of evolution started at the beginning of the nineties (1990–1992), when the countries transformed from a centrally planned economy to a market economy, accounting performed as a centrally planned economy. The accounting system was reformed and substituted with completely new accounting regulations. Common factors influencing the development of the first phase are gaining independence, the transition from a centrally planned economy to a market economy, social and economic changes, and the emergence of new entrepreneurial entities. Common factors, which impacted the development of the second phase (1993–2006), when the laws on accounting and additional legislation were issued and accounting regulating laws were aligned with the Fourth and Seventh EU Directives, are such as needed for approving a comprehensive regulation of accounting, the creation of an accounting system accessing the EU, a stronger impact of globalization and the beginning of the development of national accounting standards. The third phase (2002–2015) was devoted to further improvement of the financial statement structure, the implementation of IFRS and national accounting standards and was influenced by common factors such as the necessity of improvement of the influence of an economic crisis, the issue of the new laws regulating accounting and the new setting of the application of national accounting standards. The fourth phase (2016–present) expresses a significant influence on accounting regulatory acts of requirements of Directive (2013) 2013/34/EU of the European Parliament and Council and was influenced by factors of implementation of requirements of Directive (2013) 2013/34/EU into national Laws regarding accounting and diversification of composition and content of financial reports for different categories of companies (Subačienė et al. 2018).

Our survey was conducted from November 2020 to April 2021 in Lithuania and Latvia. The questionnaire was prepared for accountants of various levels with the purpose of obtaining the opinion of accounting specialists in different professional positions. The questionnaire was provided online as well as on the websites of the Lithuanian Association of Accountants and Auditors and the Association of Accountants of the Republic of Latvia. In total, 387 responses were received, with 182 responses from Lithuanian and 205 from Latvian enterprises. The response rate was 48% (46% in Lithuania and 51% in Latvia). The number of responses makes the data statistically reliable, at a 95% confidence level for a population of 100 million (Tamaševičius 2015).

The structure of the questionnaire is presented in Table 1. It consisted of different types of questions: closed-ended questions with multiple options and only one answer allowed (CEQ) and Likert scales (LSs). In addition, respondents were asked to indicate their responses to the options provided as open-ended questions (OEQ). The first section of the questionnaire was about respondent demographics, and one question was asked to determine respondents' age, one—the work experience, four—the current status including the category and type of activity of the enterprise and one—the type of education. The

second section was concerned with respondents' agreement or otherwise with the eight statements about the knowledge needed for daily tasks and included a closed question on the types of activities an accountant should fulfil during everyday work as well as a closed question, with an additional open question seeking respondents' attitudes on the minimum level of an accountant's education. In the final section, respondents were asked to rate their competencies in the personal, professional and social groups using a five-point Likert scale ranging from 1 (not at all) to 5 (extremely high).

**Table 1.** Structure of the Questionnaire.

No. of Part	Purpose of Part	Indicators			Type of Question	
I.	To identify the demographic characteristics of the respondents	Age	Work experience	Current working position	Type of education	CEQ
II.	To assess the types of knowledge necessary for tasks and responsibilities the accountant should fulfil during everyday work	Types of knowledge necessary for an accountant at the enterprise		Additional requirements needed by accountants in everyday work		Y/N CEQ or OEQ
III.	To assess the competencies of accounting professionals	Competencies in the personal sphere	Competencies in the professional sphere		Competencies in the social sphere	LS

Scholars analysing the attitude towards the competencies of accounting specialists distinguished such attributes as the respondent's country, type of work (professional) experience, entity category and current working position (see Table 2). The data were analysed using Statistical Package for the Social Sciences.

**Table 2.** Distribution of Respondents by Attributes.

Work Experience	Percent	Entity Category	Percent	Current Working Position	Percent
0–5 years	20.9	Micro	33.3	Accountant in business company	32.3
6–15 years	28.7	Small	31	Accountant in state administration, state organisation, municipality, state association or foundation	15.3
16–25 years	27.4	Medium	20.4	Accountant in outsourcing accounting company	45.2
26 and more years	23	Large	15.2	Other	7.2
Total	100	Total	100	Total	100

Table 2 shows an even general distribution of respondents according to the attribute of experience. However, most respondents worked as accountants in companies that outsource accounting or engage in other businesses, and only slightly more than 15% worked in organisations in the public sector. Other respondents identified themselves as chief accountants; consultants; budget, cost-estimation execution and reporting specialists or accountants within a specific sphere; deputy chief financial officers; and managers and heads of companies or divisions. The largest proportion of respondents (64.3%) worked for micro and small entities. The remainder (35.6%) worked at entities in the medium and large categories. The criteria for entity categories are based on Directive (2013) 2013/34/EU 2013.

An analysis of variance (ANOVA) was used to compare the means of variables of personal, professional and social skills in various groups of accounting professionals to identify any potentially confounding variables. The ANOVA test was performed to determine whether the entity category, current working position, work experience, or being an accountant in Lithuania or Latvia had a statistically significant influence on personal, professional and social skills required by accountants in their everyday work. ANOVAs were performed to compare the means and assess the importance of the various characteristics required for accounting professionals (26 variables, ranked on a five-point scale) across the groups of experience, work position, entity category and country. A Pearson Chi-Square test of homogeneity was performed to evaluate the differences in the need for professional knowledge in performing the day-to-day functions of an accountant. The differences in the need for professional knowledge in experience, current job positions, company size and country were analysed. The structure and dimensions of accountants' professional skills were determined by factor analysis. The factorability for the dimensions of an accountant's professional skills was established using the Kaiser–Meyer–Olkin measure of sampling adequacy (above 0.6), a significant Bartlett's test of sphericity, extraction method of principal axis factoring and rotation method—Varimax rotation.

#### 4. Results

Our research starts with the necessary knowledge of an accounting specialist. Analysis of the types of knowledge necessary to fulfil the everyday tasks and responsibilities of an accountant shows that most respondents in both countries identified knowledge of classical accounting and related fields as necessary. Financial accounting was specified by 97.9% of respondents, external reporting by 91.7%, calculation and accounting of taxes by 89.7%, and payroll accounting by 86.8% of respondents. However, the respondents differed between countries as to the necessity of those types of knowledge, and this difference was statistically significant ( $p < 0.05$  Pearson Chi-Square).

Table S1 (see Supplementary) shows that the portion of respondents who disagree with the need for knowledge of financial accounting is significantly higher in Lithuania than in Latvia. Similar statistically significant differences ( $p < 0.05$  Pearson Chi-Square) were assessed in the countries for the other types of necessary knowledge identified (see Table S1).

Of the Latvian respondents, 98.54% saw external reporting as a necessary type of knowledge, while in Lithuania, only 84.1% of respondents were of this view; of the group who answered 'no' to the importance of this type, Lithuanian respondents made up 90.6%. The differences are even greater in respect of the calculation and accounting of taxes and payroll accounting (see Table S1). In Lithuania, 79.1% and 74.2% of respondents, respectively, saw knowledge of calculation and accounting of taxes and knowledge of payroll accounting as necessary, and in Latvia, 99.0% and 98.0%, respectively. In all cases, the share of Lithuanian respondents in the 'no' group was relatively greater and accounted for over 90% of those in the group.

Respondents of both countries had different opinions on the other types of knowledge necessary for accountants in their everyday work. Of the respondents, 77% indicated the need for knowledge of laws and legislation in their daily activities, 70.3% specified IT-related knowledge, 68.2% identified financial analysis, and only 55% and 54.8% of respondents indicated the need for knowledge of managerial accounting and activities related to the management decision-making process, respectively (see Table S1).

Additionally, various types of knowledge identified as not directly related to the profession were assessed as the least valuable or required. Respondents from both countries evaluated the necessity of language knowledge at 50.3%, knowledge of management assistants at 46%, knowledge of personnel and staff at 44.2% and environmental accounting at 29.7% (see Table S2).

The analysis reveals clear differences in the position of respondents from different countries in all cases. However, the analysis of the homogeneity of the necessary knowledge



types and the ranking of their necessity showed statistically significant differences in both countries ( $p < 0.05$  Pearson Chi-Square). The one exception concerned knowledge of being an assistant to management, where respondents' views were similar and did not differ significantly across countries ( $p > 0.05$ ). Lithuanian respondents were much more sceptical than Latvian respondents of the need for types of knowledge indirectly related to the profession: managerial accounting, environmental accounting, financial analysis, activities related to the management decision-making process, laws and legislation, and IT (see Tables S1 and S2). This may indicate that accounting specialists in Lithuania perform in more specific accounting spheres and need a deeper knowledge of that specific sphere rather than that concerning the company's activities in general.

The differences in the perceived need for various types of professional knowledge were analysed according to the respondents' work experience, current working position, and entity size. Despite the positive opinion of most accountants on the need for financial accounting knowledge, the results show that the smaller the company, the more often its accountants find this knowledge necessary for the tasks and responsibilities they fulfil during everyday work. Of the respondents in micro-enterprises, 100% held this view, while in medium-sized enterprises, 92.4% of respondents saw this knowledge as necessary (see Table S3). The opinion of respondents differed significantly on whether they assessed financial accounting knowledge as necessary or not depending on the category of the enterprise in which they worked ( $p < 0.05$  Pearson Chi-Square).

Very similar results were obtained concerning knowledge of external reporting, payroll accounting, and the calculation and accounting of taxes ( $p < 0.05$  Pearson Chi-Square). The results show respondents in larger entities are less likely to find these types of knowledge necessary. For example, knowledge of payroll accounting was seen as unnecessary by only 2.3% of micro-enterprise accounting specialists but by 28.8% of respondents in large enterprises and as necessary knowledge by 97.7% and 71.2% of respondents in micro and large enterprises, respectively. External reporting knowledge was seen as necessary by 98.4% of respondents in micro-enterprises and only 84.7% of respondents in large enterprises. Similarly, knowledge of the calculation and accounting of taxes was seen as necessary by 99.2% of respondents in micro-enterprises and 74.6% of those in large enterprises (see Table S3).

Analysis of the necessity of these types of knowledge shows statistically significant differences for respondents in different positions ( $p < 0.05$  Pearson Chi-Square); that is, 99.4% of accountants in outsourcing companies saw the necessity of financial accounting knowledge and only 93.2% (the lowest number of respondents) of accountants in state administration, state organisation or municipality, association or foundation held the same position (see Table S4).

There were statistically significant differences in views on the need for knowledge of calculation and accounting of taxes between different groups of respondents in different working positions ( $p < 0.05$  Pearson Chi-Square). Accountants in outsourcing accounting companies expressed the highest acceptance and lowest disagreement with the need for this type of knowledge (94.3% and 5.7%, respectively), while those in state organisations or municipalities, associations or foundations showed the lowest acceptance and highest disagreement with the need for this knowledge (67.8% and 32.2% respectively) (see Table S4). That may be explained by differences in accounting regulation in the private and public sectors and the specific needs of accounting specialists in these different realms.

The differences in opinion (yes/no positions) by current working positions regarding the necessity of payroll accounting knowledge were statistically insignificant ( $p > 0.05$  Pearson Chi-Square). In the group currently working as accountants in outsourcing accounting companies, 45.8% agreed and 41.2% disagreed with the need for this type of knowledge. That made the largest part of differences of opinion in groups. The least difference of opinion was in the group whose occupation is recorded as 'other' (7.4% and 5.9% agreed and disagreed, respectively). The opinion of respondents on the necessity of

external reporting knowledge is similar, and distribution within the professional status groupings is statistically insignificant ( $p > 0.05$  Pearson Chi-Square) (see Table S4).

Our analysis of homogeneity in the types of knowledge considered necessary according to work experience shows statistically significant differences in the Yes/No groups in most cases ( $p < 0.05$  Pearson Chi-Square). The trend observed in almost all cases is that the greater the respondents' experience, the larger the proportion of the group that sees the significance of knowledge of external reporting, managerial accounting, financial analysis, laws and legislation and personnel and staffing issues. By contrast, the less experienced the respondents, the smaller the proportion of the group that sees these types of knowledge as necessary in the daily work of an accounting specialist. The opposite trend was observed regarding knowledge of languages. Here, the proportion of respondents who thought a foreign language was necessary for the daily work of an accounting specialist was higher in the group with the least work experience (64.2% in favour and 35.8% in disagreement); respondents in the most experienced group rated this type of knowledge as less important (48.3% in favour and 51.7% against) (see Table S5).

Regarding knowledge of activities related to the management decision-making process, payroll accounting, environmental accounting, IT, assistance to management, financial accounting and calculation and accounting of taxes, the respondents' opinions were quite similar within groups and did not differ statistically significantly.

Our analysis of relevant competencies in the personal sphere shows that accuracy, responsibility, integrity, analytical skills and logical thinking are conventionally identified as the most important for the accounting profession. Competencies from this sphere considered less important to the accounting profession (and with a higher distribution of opinion) were risk-taking, ability to withstand work routine, creativity and management ability. Those competencies may be more important for higher-level accounting specialists and less important for technical accounting staff. Table 3 shows ranked competencies of the personal sphere and reflects the tendency that despite the theoretical framework, practical classical competencies of the accounting specialist were evaluated at a higher level.

**Table 3.** Ranking of Personal Competencies.

Competencies	N	Minimum	Maximum	Mean		Std. Deviation	Variance
				Statistic	Std. Error		
Accuracy	387	3	5	4.86	0.021	0.421	0.177
Responsibility	387	3	5	4.84	0.021	0.409	0.168
Integrity	387	3	5	4.76	0.026	0.519	0.270
Analytical skills and logical thinking	387	2	5	4.70	0.028	0.550	0.303
Ability to learn	387	2	5	4.59	0.033	0.659	0.434
Ability to resist stress and pressure	387	2	5	4.40	0.038	0.749	0.561
Determination	387	1	5	4.26	0.043	0.856	0.732
Decision making	387	1	5	4.23	0.042	0.835	0.697
Independence	387	1	5	4.11	0.049	0.969	0.940
Risk-taking	387	1	5	3.87	0.055	1.075	1.156
Ability to resist work routine	387	1	5	3.84	0.054	1.055	1.112
Creativity	387	1	5	3.71	0.052	1.015	1.031
Management ability	387	1	5	3.65	0.050	0.980	0.960

It must be noted that the four competencies reflecting respondents' rather conservative position on the classic personal qualities of an accounting specialist were assessed very similarly by respondents of both countries ( $p > 0.05$  ANOVA) (see Table S6).

Table S6 shows that the distribution of averages between Lithuania and Latvia respondents is statistically significant ( $p < 0.05$  ANOVA) for almost all competencies from the personal sphere that were seen as less important: the ability to withstand work routine, ability to learn, determination, ability to resist stress and pressure, independence, ability to make decisions, creativity and the ability to manage. Lithuanian respondents assessed all these competencies (except the ability to withstand work routine) as less important than did Latvian respondents.

Our analysis of the distribution of the averages for the various personal competencies across entity categories shows that there are no statistically significant differences ( $p > 0.05$  ANOVA). The size of entities does not influence the evaluation of personal competencies, except concerning the ability to resist stress and pressure, independence and creativity ( $p < 0.05$  ANOVA). These competencies seem to be less important for those in medium-sized companies (in the case of the ability to resist stress and pressure) and large companies (concerning independence and creativity) (see Table S7).

We found the same pattern between respondents grouped by their current working position concerning personal competencies ( $p > 0.05$  ANOVA). Although statistically significant differences were found only for the competencies of analytical skills and logical thinking ( $p < 0.05$  ANOVA); this ability was evaluated as most important by the accountants working in the state administration, state organisations or municipalities and as least important by those working in organisations grouped as 'other'. However, those in other working positions assessed the competencies as alike (see Table S8).

Analysis of the distribution of means of the personal competencies across respondents grouped by work experience shows that there are statistically significant differences ( $p < 0.05$  ANOVA) in the opinion concerning analytical skills and logical thinking, integrity, ability to withstand work routine, ability to learn, independence, creativity and management ability. In all these cases, the respondents with up to five years of work experience assessed the competencies as less significant than respondents with a high level (16–25 years) or the highest level (up to 26 years) of work experience (see Table S9). This shows the tendency to see the typical and classical personal competencies as the main descriptors of the personalities of those in the profession.

The analysis of professional competencies shows that respondents of both countries identified the ability to record economic transactions to accounting documents and registers and the ability to prepare financial statements as the most important. Meanwhile, the competencies more relevant for the higher-level accounting specialists are assessed as less important: the ability to manage the company information system, support internal control systems and form a management accounting policy. Table 4 shows the ranking by respondents of competencies from the professional sphere.

Lithuanian and Latvian respondents at the same level evaluated the ability to present analysis results, identify problems and suggest solutions and an interest in innovations and changes in regulation ( $p > 0.05$  ANOVA). In all other cases, the difference in the opinions of respondents is statistically significant ( $p < 0.05$  ANOVA), and Lithuanian respondents evaluated other professional competencies (except the ability to manage company information systems) as less important than did Latvian respondents (see Table S10).

There are some statistically significant differences in the opinions of respondents across enterprise categories concerning competencies from the professional sphere ( $p < 0.05$  ANOVA). Those competencies are the ability to prepare financial statements, form management accounting policy, form tax accounting policy and plan, analyse and evaluate company performance. Our analysis shows that respondents from micro and small companies evaluate those abilities more highly than those from medium and large companies (see Table S11). This result may reflect the higher diversification of functions in larger companies.

**Table 4.** Ranking of Professional Competencies.

Competencies	N	Minimum	Maximum	Mean		Std. Deviation	Variance
				Statistic	Std. Error		
Ability to record economic transactions of accounting documents and registers	387	2	5	4.76	0.028	0.542	0.294
Ability to prepare financial statements	387	1	5	4.75	0.031	0.608	0.370
Be interested in innovations and changes in regulation (including accounting systems)	387	1	5	4.32	0.042	0.823	0.678
Ability to form financial accounting policy	387	1	5	4.31	0.048	0.940	0.884
Ability to plan, analyse and evaluate the company's performance (including the accounting system)	387	1	5	4.28	0.047	0.927	0.859
Ability to form tax accounting policy	387	1	5	4.21	0.050	0.979	0.959
Ability to present analysis results, identify problems and suggest solutions to problems (including accounting systems)	387	1	5	4.17	0.044	0.865	0.748
Ability to form management accounting policy	387	1	5	3.93	0.054	1.061	1.126
Ability to support internal control system (including accounting system)	387	1	5	3.90	0.051	1.003	1.006
Ability to form information system of the company (including accounting system)	387	1	5	3.59	0.056	1.094	1.196

The results show that respondents working in different positions evaluate the competencies of the professional sphere in the same way, and there are no statistically significant differences within the groups ( $p > 0.05$  ANOVA) (see Table S12).

By contrast, there are statistically significant differences in the opinions of respondents with different levels of work experience for half of the competencies from the professional sphere ( $p < 0.05$  ANOVA). These competencies are the ability to form financial accounting policy, tax accounting policy, and management accounting policy, the ability to plan, analyse and evaluate company performance (including accounting systems) and the ability to support internal control systems (including accounting systems). The analysis shows the tendency of respondents with less work experience to assess competencies that are not traditionally concentrated in the professional sphere as less important and, by contrast, for those with more work experience to evaluate them as more important (see Table S13). However, on average, the key competencies were assessed as most important by those across all levels of work experience.

The social competencies evaluated as similarly important by respondents from both countries were the abilities to communicate with colleagues and persons from other institutions and to cooperate with colleagues and persons from other institutions. The means

were in the 4.56–4.6 range but with a higher standard deviation (in the 0.63–0.73 range). Table 5 presents the ranked social competencies.

**Table 5.** Ranking of Social Competencies.

Competencies	N	Minimum	Maximum	Mean		Std. Deviation	Variance
				Statistic	Std. Error		
Ability to communicate with colleagues and persons from other institutions	387	1	5	4.57	0.035	0.692	0.479
Ability to cooperate with colleagues and persons from other institutions	387	1	5	4.60	0.032	0.630	0.397
Ability to work in team	387	1	5	4.56	0.037	0.730	0.533

No statistically significant differences were identified in the averages of respondents grouped by enterprise category, work experience or current working position (ANOVA  $p > 0.05$ ), meaning the opinions of respondents were similar in relation to this sphere of competencies.

Factor analysis was applied to structure the totality of the personal, professional and social abilities of accountants and thus identify the areas of competencies thought important for accounting specialists. A high value of 0.912 for the Kaiser–Meyer–Olkin measure and significant results were obtained for Bartlett’s test of sphericity ( $<0.01$ ) showed sufficient sampling adequacy. The relevance of the data for the analysis was measured by sampling adequacy; all twenty-six variables were found relevant and were included in factor analysis ( $MSA \geq 0.81$ ). The screen plot technique was used to determine the number of factors, with extraction based on eigenvalues greater than one. The five-factor solution was found most interpretable. Five factors explained 51.1% of the total variance. However, half of the total variance was unexplained; this can be attributed to unmeasured factors. The rotated factor matrix was calculated. Eight variables had the highest coefficients and, therefore, strongest relationship with the first factor, five variables had the highest coefficients with the second factor, four variables had the strongest relationship with the third factor, six variables were related to the fourth factor, and three variables had the highest coefficients with the fifth factor. Common meanings among the variables that have large loadings for a particular factor suggest an interpretation of the factors (see Table 6).

Factor loadings for professional skills referred to in Items 1 to 8 were in the first factor. Looking at the interdependence of the personal characteristics referred to in Items 1 to 8, it could be argued the eight statements are, in fact, measuring the determination of abilities of higher-level specialists as the personal characteristics needed in the accounting profession. Factor loadings for professional skills referred to in Items 9 to 13 were in the second factor. It could be argued that these variables describe the professional accountant’s capacity to prepare, systemise and form accounting information or implement activities and achieve defined results. Factor loadings for professional skills referred to in Items 14 to 17 were in the third factor. Items 14 to 17 describe an accountant’s ability to analyse and evaluate information and assimilate and apply new knowledge. The highest factor loadings for Variables 18 to 23 were in the fourth factor. In interpreting the fourth factor, we see a high correlation with accountants’ personal characteristics that are significant in the performance of classical functions. The highest factor loadings for variables 24 to 26 were in the fifth factor. The fifth factor correlates with the social abilities of accountants—the ability to communicate, cooperate, and work in a team. This factor may be interpreted as the factor of social ability.

**Table 6.** Factors of Competencies of Modern Accounting Specialist.

Indicators	Factors				
	1	2	3	4	5
% of variance	14.55	11.88	8.80	8.07	7.81
Initial Eigenvalues	8.99	1.95	1.84	1.5	1.17
Variables	Factor loadings				
	1	2	3	4	5
1. Ability to withstand work routine	0.357				
2. Determination	0.632				
3. Ability to resist stress and pressure	0.575				
4. Independence	0.567				
5. Decision-making ability	0.573				
6. Creativity	0.639				
7. Management ability	0.689				
8. Risk-taking	0.645				
9. Ability to prepare financial statements		0.511			
10. Ability to form financial accounting policy		0.824			
11. Ability to form tax accounting policy		0.876			
12. Ability to form management accounting policy		0.726			
13. Ability to manage company information systems		0.383			
14. Ability to plan, analyse and evaluate company performance			0.585		
15. Ability to support internal control systems			0.603		
16. Ability to present analysis results, identify problems and suggest solutions			0.717		
17. Be interested in innovations and changes in regulation			0.438		
18. Accuracy				0.66	
19. Analytical skills and logical thinking				0.294	
20. Integrity				0.463	
21. Ability to learn				0.417	
22. Responsibility				0.441	
23. Ability to record economic transactions to accounting documents and registers				0.539	
24. Ability to communicate with colleagues and persons from other institutions					0.82
25. Ability to cooperate with colleagues					0.864
26. Ability to work in a team					0.495

Therefore, the factor analysis provides evidence to suggest that the twenty-six-item measure of accountants' professional competence is, in fact, measuring the following five factors: accountants' professional determination and the abilities of higher-level specialists (this factor explains 14.6% of the total variance), accountants' capacity to prepare, systemise and manage accounting information (11.9% of the total variance), accountants' ability to analyse and evaluate information and apply new knowledge (8.8% of the total variance), the ability of accounting specialists to perform classical functions (8.1% of the total variance), and accountants' social abilities (7.8% of the total variance). Generally, according to the factor analysis, all competencies were measured by five factors and attributed to the personal competencies of accounting specialists to perform classical functions and the abilities of higher-level specialists. Professional competencies were attributed to the

capacity of accounting specialists to prepare, systemise and form accounting information and to the abilities to analyse and evaluate information and apply new knowledge. Social competencies were measured in the same way. Factor analysis shows that the classification of the competencies of the profession into three groups (personal, professional and social) is logical and applicable, although it suggests the possibility of establishing more refined groups to establish the competencies of accounting specialists.

Furthermore, factor analysis revealed the classification of competencies which development may be suggested for higher education institutions by distributing abilities at different study levels. Master's studies may cover abilities of the first and second factors which include accountants' professional determination and abilities of higher-level specialists related to management and leadership skills and accountants' capacity to prepare, systemise and manage accounting information related to professional information systematization skills. As well as third, fourth and fifth factors, which include accountants' ability to analyse and evaluate information and apply new knowledge related to their professional and analytical skills, the ability of accounting specialists to perform classical functions related to a profession's personal competencies and accountants' social abilities related to the communication skills may be suggested to cover at bachelor level studies.

## 5. Discussion and Conclusions

Despite a changing environment, new economic reality as well as the results of literature review and new insights of top managers of international and national companies and associations for the profession (on the importance of such competencies to have a wider understanding of the company and its management, to have more knowledge of legislation, personal management and IT, etc.) our analysis of necessary knowledge for the accountant's everyday tasks and responsibilities shows that most respondents in both countries (at least 90%) identified having knowledge of classical accounting as important (i.e., financial accounting, external reporting, calculation and accounting of taxes, payroll accounting). Additional types of knowledge (such as knowledge of laws and legislation, IT, and financial analysis) were evaluated as less important by respondents of both countries (77% and below). Slightly more than half of the respondents indicated the necessity of a knowledge of managerial accounting, the management decision-making process and languages as necessary for their everyday activities. Evaluated as necessary by the fewest respondents were knowledge related to giving assistance to management, personnel and staff and environmental accounting. Furthermore, the smaller the company, the more often financial accounting was indicated as necessary to perform the accountant's everyday tasks and responsibilities. This may be because of the broader or less specified functions of accountants in micro-companies. Most respondents grouped by work experience provided similar views on several knowledge types: financial accounting, payroll accounting, calculation and accounting of taxes, environmental accounting, activities related to the management decision-making process, knowledge of assistance to management, and IT-related knowledge. However, the more extensive the respondents' experience, the more the group identified the importance of knowledge of external reporting, managerial accounting, financial analysis, laws and legislation and personnel and staff; these results were statistically significant. The exception was the knowledge of languages—this type was evaluated by the respondents with the lowest level of experience at a higher level than those with more experience. Such results may indicate the tendency to use different languages at international companies and amongst the young employees of such companies. Accounting specialists with more experience usually take higher-level company positions and require more accounting-related information.

Although the results of the literature review highlight the competencies of creativity, ability to learn, risk-taking, identification of problems and suggestion of solutions, our results show that the practical, classical personal competencies of the accounting specialist, such as accuracy, responsibility, integrity, analytical skills and logical thinking, are still relevant and were evaluated as necessary by a large proportion of respondents from

both countries. Personal competencies such as the ability to withstand work routine, ability to learn, determination, ability to resist stress and pressure, independence, decision-making ability, creativity and management ability were evaluated as less important by respondents of both countries. The exceptions to this were that those in medium companies evaluated the necessity of the ability to resist stress and pressure at a lower rate than those elsewhere. Similarly, those in large companies evaluated independence and creativity at a lower rate. This indicates a conservative view of the importance of personal skills for accounting specialists. This results in a difficult situation as most international companies see as vital the need to develop creativity, independence, decision-making skills and the ability to learn and resist stress and pressure. Our analysis of the competencies within the professional sphere indicates the same classical view and shows that respondents from both countries had a similar assessment of the ability to record economic transactions to accounting documents and registers and the ability to prepare financial statements as the most important. Respondents ranked as less important the ability to manage company information systems, support internal control systems, and form management accounting policy—the competencies which are related to the qualifications of higher-level accounting specialists. The opinions of respondents with different attributes for social competencies were similar, which reflects the results of the factor analysis.

Research results show that despite global changes and theoretical framework in the labour market classical competencies of the accounting specialist such as accuracy, responsibility, integrity, analytical skills and logical thinking, the ability to record economic transactions to accounting documents and registers and the ability to prepare financial statements are still most important, which indicates that even the high promotion of automation and robotisation does not lessen technical abilities of the modern accounting specialist (at least in Lithuania and Latvia). Although respondents of larger enterprises with a higher level of work experience evaluated more progressive competencies such as the ability to withstand work routine, the ability to learn, independence, creativity and management ability, the abilities to form financial, tax and management accounting policy, plan, analyse and evaluate company performance and support internal control systems as more important for the profession. Furthermore, still, analysis shows that creativity is not an important attribute of an accounting specialist, which contradicts the general global tendency of the requirement for any profession. Such tendencies may be reflected by the common economic development context of Lithuania and Latvia as well as the accounting system's evolution phases. After 1990 when countries regained their independence accounting system was oriented toward strict regulation and purposes of tax accounting as well as a more conservative point of view on the accounting process and the profession. The general context of the accounting system changed when both countries started the implementation of IFRS and national accounting standards, followed by additional requirements for accounting specialists, although the tendencies are reflected in bigger companies. Research results may be used for the development of educational programs and evaluation of the competencies of an accounting specialist. Research in this area should be continued in order to assess the changing trends in the labour market in terms of competencies required for an accounting specialist.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/admsci12040124/s1>, Supplementary: Table S1. Types of Necessary Knowledge by Country; Table S2. Knowledge, Indirectly Related to the Profession by Country; Table S3. Types of Necessary Knowledge by Category of the Company; Table S4. Types of Necessary Knowledge by Current Working Position; Table S5. Types of Necessary Knowledge by Work Experience; Table S6. Personal Competencies by Country; Table S7. Personal Competencies by Category of the Company; Table S8. Personal Competencies by Current Working Position; Table S9. Personal Competencies by Work Experience; Table S10. Professional Competencies by Country; Table S11. Professional Competencies by Category of the Company; Table S12. Professional Competencies by Current Working Position; Table S13. Professional Competencies by Work Experience.



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