

FORENSIC ACCOUNTING IN THE WORLD: PAST AND PRESENT

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Abstract

The authors describe the historical evolution of forensic accounting and forensic accountant's profession based on the survey of foreign studies. The authors focus on identifying the common characteristics and the main differences in forensic accounting status, typology, and methodology. The present article also provides a comparison of conditions of forensic accountants' certification in countries based on the Romano-Germanic and Anglo-Saxon legal systems. The authors demonstrate the application area of forensic accounting and substantiate the topicality of forensic accounting application to fraud investigation. The present study makes a comparison between forensic accounting and auditing. The authors also provide relevant information on forensic centres, where the accounting examinations are carried out, and organisations that certify the forensic accountants.

Key words: forensic accounting, accounting examination, historical review, forensic expert, case of Latvia

JEL code: K13, M48, M42

INTRODUCTION

The evolution of forensic accounting and forensic accountant's profession is related to historical events, which explain the differences in the status of accounting examinations and their approach in different countries that have different legal systems. There are many foreign studies devoted to the experience of forensic accounting and fraud examination, which demonstrate the necessity and importance of research in this area. Despite the fact that the institution of forensic accounting has existed for already 20 years in Latvia, there is no regional study of Latvian practice and its comparison with other countries.

The aim of the research is to analyse the evolution of forensic accounting and profession of forensic accountants in the world, identifying the common characteristics and the main differences in countries with different legal systems to improve understanding of the specifics of each system for the development and unification of common forensic accounting institute. The tasks of the research are to collect information on forensic accounting and its performers in the world and separately in Latvia, to investigate its evolution and to reveal the common

characteristics and the main differences in countries based on the Romano-Germanic and Anglo-Saxon legal systems.

The first part of the study provides a brief literature review of the studies on forensic accounting, which justifies the topicality of the study. The second part provides the retrospective information on the development of forensic accounting and profession of forensic accountant, which makes it possible to understand its specificity and the difference from other types of inspections. The comparison between forensic accounting and auditing is made in the third part. The fourth part describes the status of forensic accounting and its performers in the world, including a case of Latvia at present.

The scientific research methods such as bibliographic and historical review, bibliometric research, analysis of theoretical text (conceptual analysis, comparison, and aperture) are used in this research.

LITERATURE REVIEW

According to D. Larry Crumbley, the phrase “forensic accounting” was coined in print for the first time in 1946 by Maurice E. Peloubet, who stated that forensic accounting was not only practiced in courtrooms, but was involved in what was essentially a type of forensic practice (Crumbley, Heitger and Smith, 2005). Forensic accounting is the specialty area of the accountancy profession, the results of which are used in actual or anticipated disputes and litigation. “Forensic” means “suitable for use in a court of law”, and it is to that standard and potential outcome that forensic accountants generally have to work (Ozkul and Pamukcu, 2012).

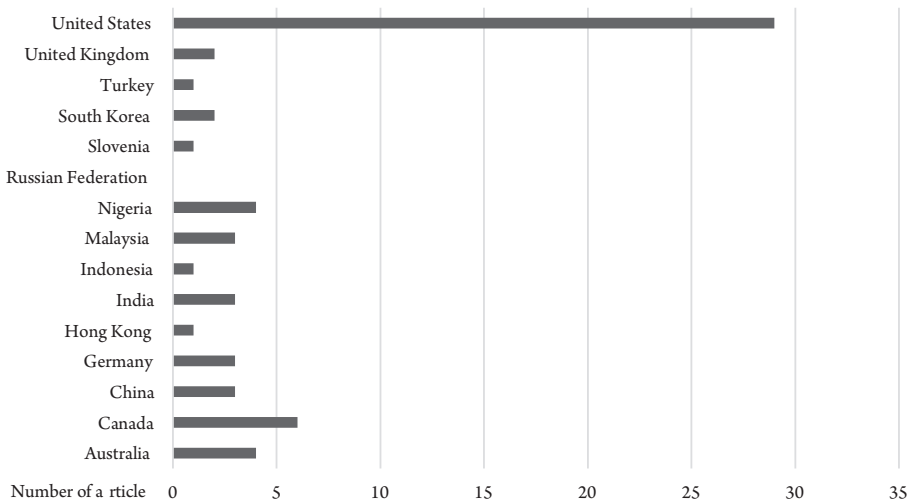
Forensic accountants, who in many countries are called forensic experts, fraud examiners or forensic accounting investigators, perform these functions. These specialists work at different police and state institutions, science institutes, large audit companies or operate in private practice. Forensic accountants are trained and experienced in resolving financial disputes through document analysis to include both financial and nonfinancial information, interviewing, and third party inquiries. Forensic accountants are members of a broad group of professionals that includes those who perform financial investigations, but it is actually wider (Skalak, Alas and Sellito, 2006).

Accounting examination may be criminal accounting expertise related to forensic crime investigation or related to accounting of damages in civil proceedings, such as insurance. They have further specialisations: accounting, economic calculations, insolvency diagnostic, fraud detection in financial statements, assets misappropriation, tax evasion, money laundering, business evaluation, etc. There is a broad approach to defining the performance of accounting examinations, since it can act in Labour, Civil and Criminal justice and in the extrajudicial area (Santos Filho, Carlos and Costa, 2017).

The conclusions of the experts are based on an expert study of objects carried out by special knowledge and scientifically based methods. The subject of accounting examination is documented information about facts and events of economic activity, which is often identified with the help of an accounting document, since the latter is a paper or electronic certificate confirming an economic transaction or economic event and possessing requisites for determining an economic transaction or event (Barkauskas, Speciute and Juodkaite-Granskiene, 2016).

In Latvia, accounting examination is registered in the classification list of the forensic examinations with No 11.02 and it is described as “research and analysis of bookkeeping registers, reports and financial activities” (Cabinet Regulation, 2016). Accounting examinations are carried out to obtain documentary evidence and to evaluate their result in money equivalents, if non-compliance with the requirements of regulatory enactments has been found, which created financial consequences (Peisniece et al., 2015). The accounting examinations are performed at the Forensic Service Department of the State Police of Latvia, and it can be held by private experts.

Sixty-three scientific articles about forensic accounting and forensic accountants are registered in the database “Scopus” for period from 1992 to 2017. The leader of number of publications is USA (29 articles), the next is Canada (6 articles), then follow Australia and Nigeria (each for 4 articles), the next are China, Germany, Malaysia and India (each for 3 articles), the next are UK and South Korea (each for 2 articles), then follow Hong Kong, Indonesia, Slovenia,



Source: author's construction based on Scopus data

Fig. 1. **Scientific Articles about Forensic Accounting by Country, registered in Scopus database**

Turkey (each for 1 article) and Russian Federation (1 common article with USA), see the Figure 1. The highest number of articles are published starting at 2008, and the number of articles is growing by each year.

The main authors, who publish articles about forensic accounting, by Scopus data, are C. Durtschi, W. D. Hurber, B. Waldrup and Z. Rezaee (USA), R. Dong (China), S. Bhattacharya and K. Kumar (Australia), L. S. Rosen (Canada), V. J. Shea (UK), and others.

There are many foreign scientific studies about forensic accounting and economic examinations published by forensic institutions, such as the State Forensic Examination Committee of the Republic of Belarus, Kyiv Research Institute of Forensic Expertise, Russian Federal Centre of Forensic Expertise, National Bureau of Expertise of Armenia, etc. There are many publications about forensic accounting and fraud examinations presented by international professional associations, such as the Institute of Certified Public Accountants (AICPA), Association of Certified Fraud Examiners (ACFE), National Association of Certified Valuators and Analysts (NACVA), etc.

The professions of forensic accounting expert and certified auditor have existed for 20 years in Latvia, having undergone a dynamic development. There are some studies about service quality of certified auditors (Daņēviča, Aizsila and Ikaunieks, 2013), the development and application of auditing standards in Latvia (Ponomarjovs, 2005). On the other hand, only a few articles about forensic accounting were published in Latvia and the Baltic States.

FORENSIC ACCOUNTING IN THE PAST

Without studying the history of a particular phenomenon, one cannot understand this phenomenon in its modern sense, which was confirmed by Professor I. F. Krilov in the 20th century (Gasparyan, n. d.).

Historians believe that record keeping originated about 4000 B.C., when ancient civilizations in the Near East began to establish organised governments and businesses (Montgomery, 1998). It has been assumed that the accounting records came about to capture the most significant facts of economic life that had an impact on the legal consequences. Such consequences were often evidence of disputes initially addressed at the domestic level, but with the emergence of courts – at the legal level (Gasparyan, n. d.). The legal approach to bookkeeping had an impact on its personalisation, thereby accounting objects are no longer just objects (real estate, goods, materials, money), but the rights and obligations of an economic entity. Thus, the necessity of accounting examination is mainly based on the conformity of the inventory of material assets with the actual situation and the control examination on the rational distribution of these values among the members of the society and their legal relations (Zavyagin and Shirimov, 2013).

There are numerous examples in the ancient world of auditing and control procedures employed in the administration of public finance systems. The Shako

dynasty of China (1122–256 B.C.), the Assembly in Classical Athens, and the Senate of the Roman Republic – all exemplify early reliance on formal financial controls (Montgomery, 1998). In the Middle Ages, for the consideration of property disputes in court instances, competent persons who represented one of the parties began to be invited for accountancy. With the development of the accountant profession in the 13th century, the court practice widely used the conclusions of knowledgeable accountants in the handling of claims for damages, late payment, etc. (Gasparyan, n. d.).

Much later, in the 12th and 13th centuries, the auditing work was performed in England, Scotland, Italy, and France. The audits in Great Britain, performed before the 17th century, were primarily directed towards ensuring the accountability of funds entrusted to public or private officials (Montgomery, 1998). Those audits were not designed to test the quality of the accounts, except insofar as inaccuracies might point to the existence of fraud. Economic changes between 1600 and 1800, which saw the beginning of widespread commerce, introduced new accounting concerns focused on the ownership of property and the calculation of profit and loss in a business sense. At the end of the 17th century, the first law prohibiting certain officials from serving as auditors of a town was enacted in Scotland, thus introducing the modern notion of auditor independence (Montgomery, 1998).

Along with the development of audit, to resolve financial disputes, it began popular to attract other professionals – auditors and inspectors – to replace accounting examination with audits in countries based on the *Anglo-Saxon legal system*.

Studies demonstrate that since 1830 auditors of Great Britain mainly focused on detecting fraud in companies operating in the public sector rather than focusing on accounting audits. In the 1930s, the disclosure of fraud risks was one of the mandatory tasks of auditors, but not the main one (Chandler, Edwards and Anderson, 1993). Publications of auditors of Great Britain have contributed to the development of forensic accounting in North America. Along with the development of the economy and the growth of company volumes, it became clear that it would not be possible for auditors to detect all fraud risks at the time of the audit. As a result, in the 1950s, the term “forensic accounting” was coined in the United States, which initially meant the gathering of evidence or expert testimony to the court about corporate turnover and asset values, not relating them to fraud detection and prevention (Stevenson, 2015).

One of the most well-known cases of forensic accountancy is the capture of Al Capone, where a team of forensic accountants gathered information in an irrefutable case against Capone in 1931 (Dreyer, 2014). In 1949, Edwin Sutherland published his first edition of *White-Collar Crime*, in which he detailed the criminal behaviours of the largest US corporations at the time (Salinger ed., 2013), highlighting the new field of issue.

Forensic accounting proved its importance after the Second World War, but its procedures were only introduced in the 1980s when scientific research was

published in this area (Ozkul and Pamukcu, 2012). The development of forensic accounting in Great Britain and the USA was related to the loud fraud scandals in the 1970s, such as the Enron case, in which investors of audited companies lost millions. As a result, requirements for bookkeeping and internal control systems were reinforced by separating auditors from accounting experts (Stevenson, 2015).

There are significant differences in the historical development of forensic accounting in countries based on the *Romano-Germanic legal system*.

In France, these differences are mainly due to the early inclusion of accounting in the judicial system. By focusing on determining the role of the state in the economy in order to prevent fraud and legal conflicts with offenders, the requirements for bookkeeping with regard to commercial law had already been introduced in the French Code of Commerce in 1673 (Labelle and Saboly, 2008). According to research by Crumbley, forensic accounting was started in France in 1817, when the accountant was used as an expert witness in the court case of Meyer v. Sefton in 1817, related to bankrupt estate (Labelle et al., 2008; Dreyer, 2014). However, in France, the development of professional organisations in the field of accounting was closely related to national priorities rather than private sector initiatives; therefore, “forensic accounting” as a specialty developed slowly because in France it was not officially recognised (Labelle and Saboly, 2008).

In Russia, the development of forensic accounting has a different path from other countries. Forensic accounting in the territory of the former Russian Empire is the result of the Great Judicial Reform in 1864 launched by Alexander II, summarising the experience of Prussian, Austrian, Belgian and French control systems (Zavyagin and Shirimov, 2013). Forensic accounting methods of Russia were formed as a result of the inspections of state institutions, which were mainly based on comparison of actual facts with the requirements of the regulatory enactment (Zavyagin and Shirimov, 2013). Before the Revolution, the accountant’s findings in the criminal law of the Russian Empire were often considered explanatory, not recognising the accounting specialist as an expert. However, in the 20th century, the accountant’s findings began to be used directly in the criminal investigations because investigators and judges could not cope without specialised knowledge in accounting. In turn, investigative and judicial authorities did not want regular accountants–specialists (Zavyagin and Shirimov, 2013). The scientific and practical approach to accounting examination was initiated in Soviet Russia in the 20th century. As a result, in 1925, the National Accounting Expert Institute was established with a wide network of republics and regions, which was responsible for conducting expert assessments at the request of the courts and administrative authorities.

In Latvia, the first step in the creation of independent audit was taken in 1938, creating the Latvian Institute of Sworn Auditors, which operated under the supervision of the Latvian Chamber of Commerce and Industry. This institute was liquidated in 1940, but their duties and materials were given to state control

(Ponomarjovs, 2005). In the Soviet period, since 1940, with the exception of the Second World War, the control system in Latvia had been carried out in accordance with the laws and regulations of the USSR (Malderis, 2004). In 1991, after restoration of the independence of the Republic of Latvia, the previously existing system was taken over. Regulation No. 67 of the Cabinet of Ministers of the Republic of Latvia “Regulations for Conducting Revisions upon Request of the Process Facilitator” was approved on 19 March 1996. The Regulation determines the procedure for carrying out a revision of economic and financial activities at the request of an official treating the case, a prosecutor, a judge or a court. In the initial version of the Regulation, the reviser was considered to be a statutory auditor, an audit firm, an internal audit unit of a ministry or a central government institution (Cabinet Regulation, 1996). In 1998, a significant amendment was made in the Regulation – the right to conduct revisions was also granted to the Revision Division of the State Police Expertise Centre (Cabinet Regulation, 1998).

The development of the common legal system in the country, including the adoption of the Criminal Procedure Law in 2005, prompted the need for changes in the field of expert examination. On 14 September 2006, the Saeima adopted the Law on Forensic Experts (the new Law on Forensic Experts was adopted on 11 February 2016), which clarified the legal regulation of forensic examination in Latvia and established common requirements for experts in all fields, incl. bookkeeping. Thus, accounting specialists, previously called revisers, were included in the common unified forensic expert system, and a revision, at the request of the process facilitator, changed its name to accounting examination without changing its nature.

FORENSIC ACCOUNTING IS NOT THE SAME AS AUDIT

In the conditions of a market economy and an advanced audit, the services of not only forensic experts but also other experts – auditors – are often used to conduct accounting examinations. According to the above-mentioned considerations, a question arises: what is the difference between forensic accounting and auditing?

Apparently, auditing and forensic accounting operate in one area, but each goes its own way. An audit is an examination of a subject; in forensic accounting, the subject is financial (Loper, 2013). Usually auditors check for the compliance of a company’s books to generally accepted accounting principles, auditing standards, and company policies (Bhasin, 2016). Forensic accounting is a financial examination within the judicial system (Loper, 2013). The subject of forensic accounting is the action of identifying, recording, settling, extracting, classifying, reporting and verifying past financial data or other accounting activities to solve current or potential legal disputes, or using such past financial data to project future financial data to solve disputes (Crumbley, Heitger and Smith, 2013).

Auditor's main aim is the annual report auditing, during which they may face fraudulent reports. Forensic accountants' practice includes both fraud investigations and disputes not involving fraud. Thus, there is a correlation between forensic accounting and auditing in the work of preventing and combating fraud (Santos Filho, Carlos and Costa, 2017).

During the course of an audit, an auditor seeks to detect errors or improprieties, lack of specific information where such improprieties exist (Skalak, Alas and Sellito, 2006). Forensic accounting is often deductive because it starts with a specific proposition (Loper, 2013). The audit report is based on the selection of documents; however, forensic accounting examines all documents related to the problem under review. During an examination, a forensic accountant seeks to discover the full methods and extent of improprieties that are suspected or known (Loper, 2013). Auditors have no responsibility to plan and perform audit procedures to detect errors that are not considered significant (including those caused by error as well as fraud) (Santos Filho, Carlos and Costa, 2017). Forensic accountants identify a fraud, applying their professional skills and practices to dispute financial issues; are ready for questions in the courts (Loper, 2013); their conclusions are supported with references of legislation acts. The result of auditors' work is mainly professional opinion about annual report quality and compliance with the accounting international standards. In some cases, the auditor may work directly with attorneys in a dispute to compel production of documents and supporting materials for analysis (Loper, 2013).

Forensic accounting complements the gap in expectation of the audit result, which raised issues on a number of aspects, such as the role and responsibilities of the auditors; the nature and significance of the audit report releases; the quality of the auditor role; and the structure and regulation of the profession (Santos Filho, Carlos and Costa, 2017).

Nowadays there are many types of performers in forensic accounting, such as forensic expert, forensic accountant, forensic auditor, fraud examiner, fraud investigator, etc. The working area of all these performers is specific, but it is based on common principles. In the international area, criminal accounting is called forensic accounting (Santos Filho, Carlos and Costa, 2017).

In professional work, the sworn auditors comply with the code of ethics and the international auditing standards. The activities of auditors are regulated by internal law and monitored by professional associations. In the countries that have the Anglo-Saxon legal system, in professional work forensic accountants comply with the principles based on international guidelines under audit rules; their activities are not specified by law, but are monitored by professional associations (Santos Filho, Carlos and Costa, 2017). In countries that have the Romano-Germanic legal system, forensic accountants comply with the developed internal forensic methods approved by justice system; their activities are specified by law and monitored by the justice system. Regardless of the judicial system, like the auditors, all forensic accountants comply with the code of ethics.

The comparison of forensic accounting and auditing is shown in Table 1.

Table 1

The Comparison of Forensic Accounting and Auditing

Position	Forensic accounting		Auditing
Legal system	Romano-Germanic law	Anglo-Saxon law	Both cases
Performer	Forensic expert	Forensic accountant Fraud examiner	Auditor
Legislation	Law, Code of ethics	Code of Ethics	Law, Code of Ethics
Accountability	Justice system	Professional association	Professional association
Aims	Participation in litigations; Fraud investigation	Participation in litigations; Fraud investigation; Professional services	Financial report auditing; Professional services
Tasks	Evidences determination	Evidences determination	Financial auditing
Methodology	Internal methods of forensic investigation under justice system	Principles based; International guidelines under audit rules	Audit standards
Product	Forensic examination conclusion	Fraud case report; Forensic audit report	Audit opinion

Source: made by the authors

FORENSIC ACCOUNTING IN THE PRESENT

Many aspects of the shifting world, including the history, economy, society, and legislation, have moulded the profession of forensic accountant. The development of the profession was facilitated by several reforms in the performance of financial statements, as well as occupational fraud at the international level. It has already been recognised as a separate profession in countries based on the Romano-Germanic legal system, as in Latvia; in countries with the Anglo-Saxon legal system this road has just begun.

Forensic accountants have been requested in areas such as corporate fraud, money laundering and even terrorist financing disclosure. Nowadays, forensic accountants work at the independent forensic institutions; are involved in work with national controlling organisations and investigative institutions; they provide not only testimonies to the courts, but also publish studies on detected cases of fraud and their trends.

In general, in the countries that are based on the *Romano-Germanic legal system*, forensic accounting is specified profession, and requirements for this profession are similar: education, work experience, certification, etc. The types of examinations, their tasks and methodology are basically the same.

Due to the subordination of the Forensic Service Department to the State Police, today forensic accounting examination in criminal proceedings is mainly being carried out in Latvia. More often than not, forensic examination is required in the investigation of economic crimes related to fraud and misappropriation. However, expert examination is also provided in insolvency proceedings, real estate management and the public sector to detect shortcomings and illegal seizure; there is also an increasing demand for accounting examinations in tax matters.

Accounting examination is carried out in compliance with the requirements set out in the Law on Forensic Experts and other regulatory enactments, according to the methods established by the Council of Forensic Experts. Requirements for forensic experts are established in the Law on Forensic Experts, according to which the following natural person may be a forensic expert candidate: a person with an impeccable reputation who has acquired an accredited study programme corresponding to the speciality chosen (economics) at a higher education institution and obtained professional knowledge and experience of a forensic expert (acquired a specialised training programme) at a forensic expert examination institution or under the supervision of a forensic expert (Law of the Republic of Latvia, 2016).

A forensic expert candidate shall take an examination in the presence of a commission specially created by the Council of Forensic Expert. The examination consists of two parts: the legal part (written examination) and the professional part (oral examination). Applying for the examination, applicants shall submit a copy of the document attesting education of the candidate, CV, a copy of the individual training plan and attestation for completing training, ten conclusions of the research carried out, and the qualification paper elaborated during training that is also subject to review (Cabinet Regulations, 2016).

Every five years there is a need for a recertification procedure, which is accompanied by documents attesting the qualification and competence of a forensic expert – a report on activities related to the speciality of the forensic expert and documents attesting thereto issued during the term of validity of the certificate and a letter of recommendation from the head of the expert centre, court, prosecutor's office or investigative body. The forensic expert has a minimum required level to complete for recertification and it includes the conduct of expert examination (optimal number 10), participation in training, conferences, publications, training of candidates, etc. (Cabinet Regulations, 2016).

Information about forensic experts certified in the Baltic States is provided in the Register of the Council of Forensic Experts. In 2017, the Code of Conduct for Forensic Experts has been developed, which all forensic experts, including accounting experts, should follow.

In former USSR countries, which historically followed the rules of the Russian empire, certified forensic experts who have similar qualification requirements as in the Latvian legislation also carry out accounting expertise. The right to

carry out an expert examination is obtained through certification, confirming competence in the recertification procedure every five years. In fact, an expert examination is carried out by internationally accredited examination centres under the jurisdiction of the Ministry of Justice or the Ministry of the Interior or by autonomous institutions.

The summary of the forensic centres, where forensic accounting examinations are carried out, as well the types of examinations are presented in Table 2.

Table 2

Forensic Centres Carrying out Forensic Accounting Examinations

Country	Accountability	Examination	Types	Website
Latvia	Ministry of the Interior	Accounting	no separation	ekspertize.vp.gov.lv
Lithuania	Ministry of the Interior, Ministry of Justice	Economical	accounting, financial, banking, labour economics	policija.lrv.lt ltec.lt
Estonia	Ministry of Justice	Accounting	accounting, financially analytical	ekei.ee
Belarus	Independent institution	Economical	no separation	sudexpert.gov.by
Russia	Ministry of the Interior, Ministry of Justice	Economical	accounting, credit-related, financially analytical, tax	ceur.ur sudexpert.ru
Kazakhstan	Ministry of Justice	Economical	accounting, credit-related, budget, etc.	sudexpert.adilet.gov.kz
Georgia	Independent institution	Financial	no separation	forensics.ge
Armenia	Independent institution	Economical	accounting, financially analytical, separation of equity, etc.	nbe.am
Ukraine	Independent institution, Ministry of the Interior	Economical	accounting, financially analytical	nise.com.ua etc. no information
Moldova	Ministry of Justice	No information	accounting, banking economical, etc.	lex.justice.md

Source: made by the authors based on the information at the websites

In Poland, Austria and France, the status of forensic accounting expert for a period of five years is granted by the court registering the chosen person in special registers. Requirements for a candidate are similar to that of the above-mentioned countries – higher education in the field, professional experience; in addition, recommendations are required from professional associations (in Poland), from the court (in France, Austria) or from the prosecutor's office (in Austria). In France, unlike Poland and Austria, candidates are required to pass a

qualification examination in the presence of a specially created court committee. After expert registration, French and Austrian experts become members of the National Association of Forensic Experts (Spečiūte et al., 2013). However, an accounting expert is not a profession in these countries; the persons selected for this status are imposed obligations before the court (Huber and Charrier, 2015)

In some countries, accounting examinations are called economic or financial, in several countries they are separated by types:

- accounting examination (accountancy records analysis, detection of non-compliance);
- financially analytical examination (financial situation evaluation, determination of insolvency reasons);
- credit-related, banking examination (research of compliance to the principles of lending);
- tax examination (research of the tax accruals and legislation compliance);
- labour economics examination (research of the wage calculation); and
- examination of separation of equity and profit (research on the distribution of capital / profits according to the investment made), etc.

Expert examination methods are altogether alike, but there are nuances in expert competence and research approaches. For example, Lithuanian and Belarusian experts categorically disassociate themselves from resolving the legal issues; thus, they do not determine the level of responsibility of officials. Kazakhstani experts carry out expert examination only in cases when the accounting documents are properly arranged. Belarusian experts do not conduct tax examination. In Lithuania, Armenia, as well as in other countries accounting examination is also considered research and business evaluation.

In countries based on the *Anglo-Saxon legal system*, forensic accounting is a relatively new profession that started its evolution centuries ago.

Due to large financial fraudulent scandals, for example, Enron, Tyco, WorldCom, there has been an increased demand for audits and scrutiny of all companies. The Sarbanes-Oxley of 2002 set major requirements for accounting, management and auditors, and opened up a completely new field of investigation for forensic accountants (Dreyer, 2014).

Now all of the large accounting firms such as KPMG, Deloitte, BDO and PWC have forensic accounting departments (Ozkul and Pamukcu, 2012). Since 1960s, the FBI has been employing over 700 special agent accountants, who investigate cases of financial fraud, crimes over the Internet, money laundering, and many other economic crimes (Dreyer, 2014).

Forensic accountants are needed for investigation of the following crimes: theft of physical assets; management conflict of interest; vendor, supplier and procurement fraud; billing, expenses reimbursements, tampering, etc. However, corporate fraud is just one area that forensic accountants deal with. Forensic accountants analyse the estimates for claims, as it was in the Hurricane Katrina

case in 2005 (Dreyer, 2014), make the property and business evaluation, etc. Thus, there is not directly specified area of accounting examination and its separation in these countries.

In the United States, the United Kingdom and other countries based on the Anglo-Saxon law, accounting forensic examinations are carried out by certified accountants as a type of service, while recognising these professionals by particular profession; in Canada, a forensic accountant is considered a profession (Ozkul and Pamukcu, 2012).

Forensic accountant must not only master the accounting techniques, but also specific forensic techniques – quantification of damage, etc. – the rules of procedure and evidence (Huber and Charrier, 2015). After forensic functions were clearly delineated, they were formally incorporated into the certification and training programmes of professional organisations and universities, such as the American Institute of Certified Public Accountants (AICPA), Canadian Institute of Chartered Accountants (CICA). Such courses offered by American organisations are based on the white-collar crimes prevalent in the USA.

Now the following professional associations provide recognition of forensic or fraud accounting certification and education (Stevenson, 2015), which are presented in Table 3. The largest and most recognised of them is the Association of Certified Fraud Examiners (ACFE) founded in Austin, Texas, in 1988.

Table 3

The Organisations that Hold the Certification of Forensic Accounting

Organisation	Certified specialty	Website
The American Institute of Certified Public Accountants, AICPA	Financial Forensic Specialist	www.aicpa.org
The American Board of Forensic Accounting, ABFA	Forensic Accountant	www.certfa.org
The Association of Certified Forensic Investigators of Canada, ACFI	Forensic Investigator	www.acfi.ca
The Association of Certified Fraud Examiners, ACFE	Fraud Examiner	www.acfe.com
The Association of Certified Fraud Specialists, ACFS	Fraud Specialist	www.acfsnet.org
The Institute of Certified Forensic Accountants, ICFA	Professional Forensic Accountant	www.forensicglobal.org
The Association of Chartered Certified Forensic Accountants, ACCFA	Chartered Forensic Accountant	www.accfaglobal.com
The Forensic Certified Public Accountant Society, FCPAS	Forensic Public Accountant	www.fcpas.org
The National Association of Certified Valuation Analysts, NACVA	Master Analyst in Financial Forensics	www.nacva.com

Source: made by the authors based on Stevenson, 2015

The conditions to the expert-candidates are the same comparing with countries with other law system: education not less of bachelor level (master level in Canada), specific training, experience 2-5 years, free of criminal sanction, all candidates must pass the examination. There are some additional conditions in several associations – candidates must be certified accountants or/and be members of these professional associations. These associations accept the decision of certification. The renewal is automatic each year if experts have professional training during this period (must continuous activity in Canada).

The used techniques of forensic accounting includes the conventional accounting and auditing tools like ratio technique, cash flow technique, a standard statistical tool examination, etc. (Bhasin, 2016). As well, one from more used techniques is the Bedford's Law that is the mathematical tool, and is one of the various ways to determine whether variable under study is a case of unintentional errors or fraud (Bhasin, 2016). In order to be more effective, today's forensic accounting has evolved its processes combined with elements of computer forensic tools (Stevenson, 2015). In cases involving significant amounts of data, the present-day forensic accountant has technology available to obtain of source data, sort and analyse data and even quantify and stratify results through computer audit and various other techniques (Bhasin, 2016), for example Data Mining Techniques.

Worldwide events have triggered the request the demand for forensic accountants also in such countries as the India, China, Turkey, etc. Many universities in United States, Canada, Australia, India, Turkey, etc., offer a high-level degree education of forensic accountants. The field of forensic accounting is advancing in worldwide, with more sophisticated challenges to address and with more sophisticated tools at hand.

CONCLUSIONS

Institution of forensic accounting was established in the early 20th century, following the historical development in social and economic activities. Forensic accounting as a forensic area and forensic accountants called forensic experts as a particular profession got their judicial status early in countries based on the Romano-Germanic legal system. In the countries based on the Anglo-Saxon legal system, this process began only following the corporate fraud cases at the world level at the end of the 20th century. Forensic accounting as a specific area, which is not the same as audit, has been accepted in these countries only nowadays, but this specialisation has a rapid rate of development. There is not a clear sign that the future of the specialty of forensic accounting, deriving from financial auditing and criminology and developing its own repertoire of goals and methods, will be much longer than it is past.

The types of forensic accounting are specified in the legislative acts in countries based on the Romano-Germanic legal system. There is not a directly

specified area of accounting examination and its separation in countries based on the Anglo-Saxon law, but issues of examinations are similar to that in the countries with other legal systems.

The conditions for forensic accountants are the same in all countries: education, specific training, experience, free of criminal sanction and obligatory professional examination. However, there are some substantial differences. In countries that have the Anglo-Saxon legal system, the decision of certification is the accountability of professional associations, which are at least eight. In turn, it must be the discretion of the Court Department in countries based on the Romano-Germanic legal system. The renewal of competition is automatic each year in countries that have the Anglo-Saxon legal system; however, the experts from countries that have the Romano-Germanic legal system must have partial or full re-examination each five years.

By comparing the methodology of forensic accounting, it should be stated that, in fact, it is the same based on the audit principles in all countries, substantiating the conclusion with regard to legislative support. Despite the profession recognition, the methods used in countries that have the Anglo-Saxon legal system are more developed and they contain more mathematical approaches and computer tools.

REFERENCES

- Barkauskas, M., Speciute, A., Juodkaite-Granskiene, G., 2016. Ekominiu ekspertiniu tyrimu galimybes tiriant ukines ir finansines nusikalstamas veikas. *Law review*, 2 (14), 281–305. Available at: <https://ejournals.vdu.lt/-index.php/LawReview/article/view/1248>
- Bhasin, M., 2016. Forensic Accounting in Asia: Perspectives and Prospects. *International Journal of Management and Social Sciences Research*, 5 (7), 25–38.
- Cabinet of Ministers of the Republic of Latvia. (19.03.1996.) Regulation No. 67. Regulations for Conducting Revisions upon Request of the Process Facilitator. Riga: Latvijas Vēstnesis.
- Cabinet of Ministers of the Republic of Latvia. (04.08.1998.) Regulation No. 287.
- Cabinet of Ministers of the Republic of Latvia. (20.12.2016.) Regulation No. 834. Procedures for the Certification and Recertification of Forensic Experts.
- Cabinet of Ministers of the Republic of Latvia. (20.12.2016.) Regulation No. 835. Regulations on the List of Forensic Institutions and the Classifier of Specialities of Forensic Experts.
- Chandler, R. A., Edwards, J. R., Anderson, M., 1993. Changing Perceptions of the Role of the Company Auditor, 1840–1940. *Accounting and Business Research*, 23, 443–459.
- Crumbly, D. L., Heitger, L. E., Smith, G. S., 2005. *Forensic and investigative accounting*. 2nd ed. CCH Incorporated, Chicago.
- Crumbly, D. L., Heitger, L. E., Smith, G. S. 2013. *Forensic and investigative accounting*. 6th ed. CCH Incorporated, Chicago.

- Daņeviča, D., Aizsila, I., Ikaunieks, R., 2013. Audit Quality Aspects of Cooperation between Certified Auditor and Audited Entity. *Journal of Economics and Management Research*, 3, 11–25.
- Dreyer, K., 2014. *A History of Forensic Accounting*. Available at: <https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1339&context=honorsprojects>
- Gasparyan, M. Y., n.d. Тенденции развития судебно-бухгалтерской экспертизы. The world economy. [Online]. Available at: https://www.world-economy.eu/fileadmin/world-economy/Dokumente/Russ._22%D0%A2%D0%B5%D0BD%D0%B4%D0%B5%D0BD%D1%86%D0%B8%D0%B8_%D1%80%D0B0%D0%B7%D0%B2%D0%B8%D1%82%D0%B8%D1%8F_%D1%81%D1%83%D0%B4%D0%B5%D0%B1%D0BD%D0BE_22.pdf [Accessed 09 January 2018].
- Huber, D., Charrier, E. 2015. Is it Time to Regulate Forensic Accounting? *Les Cahiers du Chiffre et du Droit*, 3, 104–111.
- Labelle, R., Saboly M., 2008. Forensic Accounting in France: Emergence and Development. *Journal of Forensic Accounting*, 9, 83–94.
- Law of Forensic Experts. (14.09.2006.) Riga: Latvijas Vēstnesis.
- Law of Forensic Experts. (11.02.2016.) Riga: Latvijas Vēstnesis.
- Loper, D. K., 2013. „Forensic Auditing” in *Encyclopedia of White-Collar and Corporate Crime*. Salinger, L. M. (Ed.), 2nd ed. Vol. 1. Thousand Oaks; New Delhi; London and Singapore: SAGE Publications, pp. 356–359.
- Malderis, G., 2004. *Grāmatvedība. Revīzija. Audits*. Riga: SIA “Biznesa augstskola Turība”.
- Montgomery, R. H., 1998. *Montgomery’s Auditing*. 12th ed. New York: John Wiley & Sons, pp. 1–7.
- Ozkul, F. U., Pamukcu, A., 2012. Fraud Detection and Forensic Accounting. *Emerging Fraud. Fraud Cases from Emerging Economies*, 26, 19–41.
- Peisniece, L., Zelča, I., Liniņš, K., Narkevics, Ē., Logins, M., 2015. *Tiesu ekspertīze un noziedzīga nodarījuma notikuma vietas apskate*. Riga: Valsts policija, pp. 87–92.
- Ponomarjovs, A., 2005. *Development of the Regulatory Requirements of Audit in Latvia*. Summary of doctoral dissertation. University of Latvia.
- Salinger, L. M. (Ed.), 2013. *Encyclopedia of White-Collar and Corporate Crime*. 2nd ed. Thousand Oaks; New Delhi; London and Singapore: SAGE Publications.
- Santos Filho, C. R., Carlos, F. A., Costa, F. M., 2017. Relevant Skills for Criminal Accounting Expertise: the perception of Federal Police experts and delegates. *Journal of Education and Research in Accounting*, 11 (1), 69–88.
- Skalak, S. L., Alas, M. A., Sellito, G., 2006. Fraud: an Introduction. Chapter 1 in Golden, T. W., Skalak, S. L., Clayton, M. M. *A Guide to Forensic Accounting Investigation*. New Jersey: John Wiley&Sons, pp. 1–20.
- Stevenson, S. G., 2015. The Past, Present, and Future of Forensic Accounting. *The CPA Journal*, March 2015, pp. 18–20.
- Spiečiūte, A., Barkauskas, M., Kuncevic, M., Jansone, A., Zeltīte, A., Liodorova, J., Kangro, I., Liivamae, I. 2013. The economic expertise best practice guide for investigation of the crimes related to bankruptcy and for completion of the experimental insolvency research in the Baltic countries. In: *Forensic methods*, eds. H. Malevski & A. Gorbatov. Vilnius: Forensic center of Lithuania, pp. 62–122.
- Zavyagin, S., Shirimov, J., 2013, Ретроспективный анализ развития судебно-бухгалтерской экспертизы в России. Вестник Воронежского института МВД России, 2, 11–18.