Accounting IT systems and requirements of Polish law

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Abstract— Accounting as one of the oldest economic science has developed over the centuries. With the development of civilization and technological progress also principles, methods and techniques of records used in accounting have changed. This article examines the extent to which computer programs used in accounting, are dependent on the specific requirements of national legal solutions. These requirements are, inter alia, strictly defined in the Polish Accounting Act, but their implementation in the IT system poses many problems. The paper discusses the most commonly encountered.

Keywords— accounting books, IT system,

I. INTRODUCTION

The credibility and reliability of information provided by the accounting systems affects the process of management and control of the organization. It is through the information functions of accounting and the information contained in the financial statements that is possible to perform financial analysis and evaluate achievements that allow to cohesively assess all actions from elementary, individual to particular responsibility centers and the company as a whole. The image quality of a company presented by accounting in its financial statements, is subject to compliance with the principles articulated in the law or professional accounting standards of the country, as well as compliance with the International Accounting Standards.[1, 2]

The Accounting Act currently functioning in Poland approaches universally the accounts kept in electronic form and in the traditional manner. In addition, it attempts to copy the solutions developed in the practice of traditional bookkeeping to electronic bookkeeping. The legislature in the past 20 years has tried to supplement solutions by adapting them to the changing technological capabilities in the field of computerized bookkeeping. Unfortunately, some provisions related to bookkeeping using a computer are somewhat contrary to the copyright laws, such as those concerning the need to specify the algorithms by which a system of a given supplier operates. Therefore, some key questions arise. Should the Accounting Act contain a chapter on bookkeeping? If so - should a number of specific issues be abandoned, and only the minimum requirements defined? If not - how to determine the conditions of bookkeeping and whether determine them at all or leave to the unit discretion?

The article examines the extent to which the computer programs used in the Polish accounting, are dependent on the specific requirements of national legal solutions. Earlier attempts to explain the impact of differences in cultural factors on corporate financial reporting systems have been made. Studies have demonstrated that there are different patterns of international accounting and the development of national systems seems to be a function of environmental factors, which identification raises some controversy as to identify patterns and influential factors [3, 4, 5]. The paper puts the argument that financial and accounting (FA) systems must be subordinated primarily to applicable national laws or international solutions, although the International Financial Reporting Standards do not put too strictly defined requirements in this regard. In contrast, the Accounting Act dated 29 September 1994 (Journal od Law 2013, pos.330) [6] which is in force in Poland and the Position of the Committee of the Accounting Standards Board of 13 April 2010 on certain principles of bookkeeping [7] clearly define the requirements for accounting books, including those conducted in a digital form. These requirements, however, apply to books, without interfering with either method or technology used. Some regulations of the Act are formulated in not fully understandable language; thus it shouldn’t be a surprise, that IT specialists have problems with appropriate translation of accountancy principles to algorithms of data processing, although it may negatively affect the quality of the books of accounts serviced by the particular program. Responsibility for adopting the relevant accounting (policy) principles and supervising fulfillment of accounting obligations is held by entity’s manager (art. 4 and 4a of the Act). It is beyond any doubt that a choice of appropriate system considerably determines a method of bookkeeping and quality of records, and may significantly influence its clarity, reliability, readability and completeness [8]. Therefore, it is worth at this point to indicate few requirements for FA computer programs, resulting from the provisions of the Act.

II. THE ACCOUNTING ACT AND DOCUMENTATION OF ACCOUNTING POLICY

The obligation to apply the requirements of the Accounting Act relates to entities listed in art. 2 (subject scope of the Act). Indicated unlimited duty applies to most individuals domiciled or operate businesses in the territory of the Republic of Poland, regardless of the amount of revenues and forms of
business.

The art. 5, paragraph 1 of the Accounting Act requires an entity to select and applied accounting principles (policy) in subsequent financial years in a continuous manner, from period to period in order to ensure comparability of data. This is to ensure uniform grading and, consequently, the assessment of the nature, time of recognition in the accounts and the accounting ledger accounts of particular types of economic events, to apply the same principles of valuation, including the depreciation of intangible assets and fixed assets. In addition, one should ensure a unique grouping of operations or balances in higher sets and showing them in the same positions in the financial statements, as well as the identity of the stock of assets, liabilities and shareholders’ equity at the date of closure of the accounts of the preceding financial year to the opening balances of the next year.

Pursuant to the provisions of Article 10 of the Accounting Act, the entity shall have documentation in Polish describing accepted accounting principles (policies), and in particular regarding the determination of the financial year and of its reporting periods, methods of valuation of assets and liabilities and determination of the financial result, the method of bookkeeping, which primarily means:

- company account plan and adopted rules for the classification of events
- a list of the accounting books, and in the case of electronic bookkeeping - a list of data sets representing accounts on computer data carriers with an indication of their structure, interrelationships and their functions in the organization of the whole accounting records and in the processes of data processing
- description of the data processing system, and in the case of electronic bookkeeping - description of the system, including a list of programs, procedures, or functions, depending on the structure of the software, together with a description of algorithms and parameters, and software data protection principles, in particular the methods of securing access to data and processing system, and also to determine the software version and date of commencement of its operation,

- a system for the protection of data and their sets, including accounting documents, books of account and other documents constituting the basis for the entries.

The information system must be fully adjusted to the accounting policies adopted by the user, in particular, to its elements, for which the Accounting Act leaves individuals free to choose the methods of valuation of assets and liabilities and method of determination of the financial result, company chart of accounts, general ledger chart of accounts, adopted rules of events qualification, principles of running subsidiary ledger accounts and their links with the general ledger accounts. Documents related to some of the above indicated rules are included in the accounting records, they are available in the system. Independently of system safety principles, clearly defined rules for the organization of data protection, among other things, describing the company circulation system, numbering and storage of accounting records should be attached to the entity's accounting policy documentation.

Fulfilling the requirements of the Act, an information system provides access to the list of data set representing accounts on computer data carriers with an indication of their structure, interrelationships and their functions in the organization of the whole accounting records and processes of data processing. In addition, the creator of the program should also provide documentation system containing a description of the system, a list of programs, procedures, or functions, together with a description of algorithms and parameters and the data protection principles, including, in particular, methods for securing access to data, and also to determine the software version and date of commencement of its operation.

When bookkeeping is performed with the computer accounting information resources, organized in the form of separate computer data files, databases or its separated parts, regardless of the place of their creation and storage it is considered as equivalent of accounting books. Information resources necessary to maintain the accounting system in the above form is to have software capable of supplying clear information with regard to the entries made in the accounts through their print or transfer to another computer storage media (article 13 paragraph 2 and 3 of the Act).

Separate problems are generated by need to change the accounting system during the financial year. Although the Act does not contain any restrictions on changing FA (financial and accounting) system during the financial year, however it should be remembered, that the FA system should provide information on current balances and transactions of all general ledger accounts and balances subsidiary ledger accounts, thus giving the basis for the existing unit financial statements. The fact that such a change will need to properly test and reconcile data in the revised accounting system and to ensure the merit continuity (comparability) of data provided by the amended FA system and data from previously applied accounting system should be taken into account. The issues that should paid attention when changing accounting system is the chart of accounts and algorithms (calculations) built into the FA system. Changes in algorithms during the financial year, as a violation of the principle of continuity is not acceptable, because at the stage of implementation of the new accounting system it is required to confirm by appropriate tests that the results obtained by the use of modified FA algorithms covered by the new system are consistent with the results of those obtained previously. Documentation of testing algorithms is included in the tests for determining the implementation of the new accounting system approved by the head of unit. If you change the accounting system during the financial year technical problem is to ensure the presentation of comparable data accrued since the beginning of the year. Therefore, it is imperative that if the accounting system is changed the continuity of data from the beginning of the year until the system changes is ensured. Data from the current accounting system can be transferred to a new accounting system through: detailed records, accounts, or balances. The transfer of all records secures detailed presentation of data on a continuous
basis, but it is rarely used (in particular, if the accounting system change involves changing the chart of accounts, the transfer of records details is usually not possible). In general, the transfer of data from the period preceding the change to the new accounting system is done on an aggregate basis, i.e. turnover or balance. When transferring aggregated data the key problem is to document relations between the detailed records (in the current system) with the aggregated records (in the new system).

Changing the existing accounting system to a new, requires to ensure that the new system allows adequate protection of both the data and the software and the planned structure of the permissions on the new system is suitable. Ancillary data used during the transfer of data are archived on a durable medium and protected against loss (archived) on general principles.

III. ELECTRONIC DOCUMENT AS AN ACCOUNTING EVIDENCE

A accounting entry is a fundamental component of the books of accounts. As a result of processing data covered by a book entry, one can obtain specifications presenting numerical data in chronological order (journal) or systematic order (accounts). In order to obtain specifications presenting appropriately data recorded in the books it is necessary to ensure:

- completeness of information representing single accounting entry,
- creation of accounting specifications exclusively on the basis of verified and recorded accounting documents,
- an effective way of linking accounting entries with underlying source of documents.

The term "electronic document" refers to the form of a document, such as: electronic invoice, print from the online banking system, electronic storage document, electronic ticket data from billing systems, etc. An electronic document representing an accounting evidence should comply with the requirements set out in article 21, paragraph 1 of the Act for the accounting evidence, including the simplifications referred to in art. 21, paragraph 1a of the Act. When bookkeeping using the computer the accounting records, made automatically through communication devices, computer storage media or generated by an algorithm (program) on the basis of information already in the books are considered equivalent of the source evidence (Article 20 paragraph. 5 the Act). Such provisions may also occur as a result of the introduction to the books of electronic documents constituting evidence of accounting. Entries entered automatically into the books of accounts (accounting system) shall be considered equivalent to provisions made on the basis of the source evidence, if they meet at least the following conditions:

a) when registering they become permanently readable and compatible with the contents of the relevant accounting documents;
b) it is possible to determine the source of the records and the person responsible for their introduction to the books of accounts and further modification;
c) the applied procedure provides validation of processing of relevant data and the completeness and identity of records;
d) source data in place of their creation are properly protected in a way that ensures their persistence, for the period required to store a given type of accounting documents.

Accounting entries are made by a computer system in a sustainable manner, without leaving places to use later insertions or changes. The system provides protection for records against their destruction, modification or covering of entry. In addition, the records in the log and ledger accounts are linked in a way that allows checking their compatibility. Information system provides storage of records in the accounts for a period of not less than required in the Accounting Act.

Each accounting document is defined in the computer system by: type of evidence, identification number, the parties engaged in a business transaction, a description of the operation, date of operation and preparation of evidence.

These signs provide identification of accounting evidence and comply with the requirements of the Accounting Act. Accounting documents generated by the online system meet the conditions under the Accounting Act and the VAT Act for documenting events subject to VAT.

The collected documents, regardless of the place of origin, may be transferred, edited and accepted within the defined paths of the electronic circuit. Existing "migration" of paper information rules may be replaced by their electronic version, assuming their compliance with the original. It accelerates the way of operations of the company and improves the efficiency of its activities. As a result of the transition to electronic workflow employees perform tasks in a shorter period of time, the team effectively uses the gathered jointly information and documents, and the company reduces costs resulting from normal transmission and archiving of documents. Programs for reading paper invoices that analyze scanned documents and automatically add to the information on the invoice are more and more commonly used. This allows you to export them to a file, import and proper entry in the accounting program, which is used by the company. An archive is automatically created and allows for the resignation of bulky paper files and searching for documents with the help of searcher and browse them directly in the accounting program.

These applications are usually available on-line, so it does not require any additional installation, investment in hardware or expensive servers. Conditions to use them are an Internet access and a web browser.

Criteria for evaluation of completeness of information, which are a basis for single entry, are determined by art. 23 paragraph 2 of the Act. Programs, which accept possibility of delayed entry should contain also one information – the date of actual accounting entry, filled automatically with calendar date according to system clock.

IV. ACCOUNTING SPECIFICATION AND ACCOUNTING ACT

The Act clearly defines the criteria for properly designed accounting books, which are all subject to the accounting records. Facing requirements of the law IT system allows for
keeping the books in a continuous manner, and enables making the accounting records up to date. The functionality of the system provides access to data sets which can be granted at any time and any place.

The user can use various functions of accounts such as Dr/Cr turnover, Dr/Cr cumulative turnover, per balance, opening balance opening balance difference, and others. Extremely important is the ability to create any combinations based on the chart of accounts, high level of integration with Microsoft Excel provided by most FA programs allows to use tools such as pivot tables and charts, raw data, charts, and tables loaded to the system, there is no need to create an update of prepared statements because they are subject to dynamic updating of the database system, ideal for those with only a basic knowledge of MS Excel, as well as "Excel" professionals, who can not imagine working without these tools.

Art. 14 of the Act determines the content and organization of the journal. In order to present accounting entries in chronological way, algorithms of financial/bookkeeping program should contain a fixed expression of chronology. A choice of appropriate method seems to be very difficult for many designers of financial/bookkeeping programs. The authors of software use various solutions for assuring conformity of the date of entry in the books with automatically prescribed number of journal. Some sample solutions are provided below:

- Positions in the journal are determined at the first registration of data which facilitates noting in the document a number of position in the journal but does not guarantee full consistency of numbering with the date of entry predetermined by the operator; it does not protect against gaps in numbering in case of removing entry from the system’s resources as well.

- During the first registration, the program assigns a subsequent number of a journal to documents allowing multiple changes of the number with regard to a date considered in a program as an indicator of chronology up to the closing of reporting period; all gaps in the numbering resulting from the canceling of wrongly registered positions are then eliminated. In this situation, continuity of numbering is preserved, but it is impossible to use a number of a journal position as an identifier which matches IT resources with an archive of source documents.

- When the document is registered for the first time, the program sets a subsequent record number of accounting document (the number is blocked from editing), but only after a final acceptance of a record, the proper position number is assigned in the journal. Record number can be noted on the document which helps to link it with appropriate source document; it also guarantees a constant numbering of positions in the journal.

A structure and frequency of trial balances of general ledger accounts is determined by art. 18 paragraph 1 of the Act. The trial balance should obligatorily include a complete list of used parameters, determined before the specification is prepared. If the list is missing, the work can be indeed much more difficult. The trial balance for a particular reporting period should include information whether the books for that period has been finally closed. Otherwise, one cannot be sure, if balance values in specification are definite or present only a temporary situation.

Entering data into the accounting system and deciding how to classify these data in the accounts are two different things. Activity concerning entering data into the accounting system is associated with saving data in a given way. In contrast, decisions about how to classify the data to include in the accounts fall within the scope of control over the accounting books and records in them. In particular, some computer financial and accounting systems allow to separate the introduction of source evidence to the accounting system since from including it in the accounts. If the introduction of evidence of accounting data to the accounting system is not directly related to the:

a) deciding on the way of classifying it in the accounts;

b) control of the accuracy of events recording, made in the accounts - the input of data to the system itself is not equivalent to keeping books of accounts.

Keeping records in the edit state (e.g., before accepting the buffer) can not be regarded as identical with the recognition in the accounts qualified for entry in the accounts in the month of accounting documents.

In article 12 of the Act certain requirements on the closure of the accounts for the financial year have been presented. Closing of the reporting period in the computerized accounting usually means changing the status of the period from active (open / active) to the closed (locked). The power to do this are usually assigned to users with the highest rank - system administrators. The closure of period should block any possibility of introducing new records to the closed books. Some programs distinguish between temporary and definitive closure of period. The temporary closure is applied to the time of verification and reconciliation of accounts for the closed period. Closing the final (irreversible) should take place immediately after filing (and possibly auditing) of all reports for that period. Books for the whole year should be locked, preventing any changes to the cycle defined in the given paragraph 4 of art. 12 of the Act. The lack of such functions may undermine the accuracy of the books.

V. ACCOUNTING IN THE CLOUD AS A BOOKKEEPING

Accounting Act in Article 11 allows for the possibility of entrusting bookkeeping to the entrepreneur conducting business in this field as well as within the entity using its information, organizational and human resources. As already mentioned, in accordance with Article 13, paragraph 2 and 3 bookkeeping using the computer appropriate accounting information resources, organized in the form of separate computer data files, databases or separated parts of it, regardless of the place of their creation and storage are considered equivalent of accounting books.

The books of account carried out using a server that is outside the place of keeping the books, is considered to be carried out in a proper manner, if they meet at least the following conditions:
a) entity has control over the accounting books and records made in them;
b) the entity secures identity of the accounting records with a copy of the reports received by teletransmission connection (wired) and wireless;
c) the accounts are conducted fairly, correctly, verifiable and up to date,
d) a clear link between the accountancy records with supporting documentation is provided;
e) the books of account are effectively protected against unauthorized changes, unauthorized access, damage or destruction;
f) the books are available at all times at the place of bookkeeping.

In a situation where the system stores the vouchers only in the electronic version, they can be accessed using servers located in the unit or outside the unit, which will be owned or leased by the entity. "In the cloud" data processing came to be called a model of the IT systems in which the server installation location does not matter. Cloud computing is a new model of computation that can bring significant benefits to consumers, businesses and government, creating new threats and challenges. Accounting "in the cloud" is a relatively new phenomenon. Accounting is a field rather conservative and one of the last subjected to modern computer and technological trends.

A few years ago the company, at the expense of considerable amounts, invested (and still invest) in data centers or server rooms, equipped with a sufficient number of servers that perform different functions. To support server administrators security companies have been employed and engaged. With the introduction of new solutions in recent years, it turned out that the concept of building their own data center is not always effective. An important element is to increase awareness among entrepreneurs advantages of outsourcing, or outsourcing certain services to external partners. Accounting will also be aimed in the direction of the "in the cloud" data. The factors reinforcing this trend will be publicly available service on the Internet and the integration of accounting systems with these services.

VI. DATA PROTECTION, INCLUDING THE PROTECTION OF PERSONAL DATA

The issue of retention of documents is regulated by section 8 of the Act of accounting "Privacy protection". In accordance with art. 71 books of accounts, accounting documents, including e-invoices, inventory, and financial statements must be properly stored, protected from prohibited against amendments, distribution, damage or destruction. The range of issues related to information security include:

- procedures for granting authorization to process data and registration of these rights in the information system;
- identifying the person responsible for the procedure of granting authorization;
- the means of authentication and procedures related to their management and use;
- procedures for starting, suspension and termination of work by the users of the system;
- procedures for backup data sets and programs and software tools used for processing;
- manner, place and period of storage - electronic media containing personal data backup.

All collections of documents generated by the system (accounting books, accounting documents) are stored and secured on servers from intrusion. Servers provide 24-hour access to accounting data unit and minimize the risk of data loss due to a malfunction. In addition, every day creates backup copies of data files that are stored on computer media and stored for a period specified in the Act (5 years, excluding financial statements which should be stored permanently).

Most software allows to define certain parameters of setting the password such as: minimum password length, password complexity checking rules, forcing the user to change the password after a certain date, etc. To ensure the highest level of data protection to observe basic security policy requirements.

The information system provides access to accounting data unit only to third parties, the manager of the unit expressed written authorization of access to the system. As the online system provides access to accounting data of company for many previously identified users, automatic monitoring system keeps records made by individual users. Every document created in the system is marked by signature of the user who entered it. Each authorized user has separate roles (accountant assistant, accountant, independent accountant, chief accountant), the right of access to data (total absence, read-only, full access to the data), the system of passwords is closely associated with the security policy in your company.

The Regulation of the Minister of Internal Affairs and Administration of 29 April 2004 on personal data processing documentation and technical and organizational conditions which should be fulfilled by devices and systems used for the processing of personal data [9] imposes the obligation of the data controller to develop instruction specifying the management of the computer system used to process personal data, its approval and transfer of procedures and guidance contained in the manual to those responsible for their implementation.

VII. CONCLUSION

Financial and accounting programs must be subordinated primarily to national laws or international solutions being in force. First of all functioning in the enterprise information system must be fully adjusted to the accounting policies adopted by the user. This is especially true for those solutions for which the user itself makes a choice in accordance with the laws of the balance sheet. The necessary condition for obtaining the statements which in the correct way describe the data contained in the books is to provide the completeness of the information constituting the single entry, preparation of accounting statements only on the basis of the verified and recorded evidence, and to provide an effective way to link
accounting records with source documents. In the era of globalization and performance of transnational enterprises, availability of current financial information from anywhere in the world and at any time, becomes a necessity. That data processing concerning costs, revenues, sales, corporate finance in the cloud enables independent of place and time access to such data only limited by access privileges. However, new information solutions cause new legal problems in terms of the operation of information systems in the field of accounting in relation to the increasingly common use of Cloud computing. The basic condition for exploiting benefits of cloud computing activities, not only for the single market of the European Union, is to fill the gaps in the legal provisions related to the cloud. Main points are to improve conditions for users, solving security-related problems of stakeholders, to encourage the public sector to benefit from the cloud and to support further research and development in cloud computing.

REFERENCES


[9] The Regulation of the Minister of Internal Affairs and Administration of 29 April 2004 on personal data processing documentation and technical and organizational conditions which should be fulfilled by devices and systems used for the processing of personal data (Journal of Law 2004, no.100, pos. 1024).