

PLACE OF INTELLIGENT TECHNOLOGIES WORK PROFESSIONAL ACCOUNTANTS

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Abstract:

We are sustaining the idea that the use of the informational technologies in accounting represents not only a requirement of our era but also a condition for recognition and validation of the professional competence.- We advocate that the professional accountant be prepared to do more. For example, to be able to use the accounting data and information for the management use in more profitable ways for business, using intelligent technologies and training systems in order to be able to complete as soon as possible the highest level of specialization. Therefore we mention that the use of intelligent technologies means to reach the highest level of performance in exercising the noble profession of professional accountant and we hereby present a scientific reason, the premises of using the intelligent technologies in accountancy, the main categories of applications together with the impact on the training of the professional accountants

Key words: professional accountants, intelligent technologies, advanced levels of specialization

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Intelligent use of technology in accounting

Using artificial intelligence technology involves working with facts and pieces of knowledge, shaped by methods and special techniques. Unconventional, to solve problems of development and testing of solutions by means of intelligent methodologies, tools and development environments particularly performance that provides a very good functionality and flexibility of applications, the main concern of developers leaving, epistemological adequacy. intelligent system information is the information system that combines the efficiency and scope for storage of databases with the flexibility and function-specific technologies intelligent or enables exploitation the application of at least one intelligent technologies. Such a system can be designed on the basis of common definitions for the methods of knowledge representation (concept specific FIC technology integration), and methods of semantic data modeling (concept of technology-specific databases). This work was referred by William E. McCarthy, who presented the first scheme of hybridization suggestive of accounting applications.

The goal of all organizations in a competition is to work more effectively. Thus, the distribution of intelligence and cooperation become predominantly accounting information in the 21st century [Andoni, 2002, p. 26]. Intelligence, distribution and cooperation is being increasingly felt in performing organizations with powerful competitive capabilities in the existing intelligent information systems capable of remote access to numerous information sources to process the information obtained, to make judgments and explanations on results, possibly through cooperation with other allied organizations. Therefore, the next generation of information systems, national accounting is based on the ability to store, access, transmit and reason about large volumes of information and knowledge, possibly distributed and virtual space. The development of such systems is achieved by integrating the information systems of advanced technologies.

Today, the category of advanced technologies are part database technology, technology systems to assist decision technology stores data, intelligent technologies (expert systems, fuzzy systems, systems of connection, systems based on genetic

algorithms, multitask systems, hybrid systems, systems integration) and Web technologies. In fact, all these technologies can be combined for the development of intelligent information systems that allow accounting professionals accountants can devote more of research and analysis for performance affirmation in the competitive economic environment. Various intelligent solutions developed and used by firms of international accounting and auditing (Risk Advisor used by Deloitte & Touche, Planet, used by PricewaterhouseCoopers, Inherent Risk Analysis, used by KPMG) shows the power that accounting profession is sensitive and should benefit from these advanced technologies.

Intelligent knowledge processing technologies, provide explanatory information systems capacity and provides advantageous use of inestimable value to this organization, along with traditional factors of production (natural resources, labor and capital). Today, cunoaşterea² is considered an asset, a resource like any other value chain, and received a new meaning - that the foundation of all policies, strategies, systems and procedures [Andoni etc., 2004, p. 11.63] For example, the successful reproduction expert with knowledge of computer and electronic judgment human experts using the domain knowledge to guide users accounting judgment who are interested in-1 solutions in order to solve the problems. They can be used in areas for which accounting experts, facts and definitions of decision rules are clear and application areas are very well defined. Expert systems are able to work with facts including incomplete or uncertain, but not with ambiguous parts of knowledge. In such situations using fuzzy systems specialized in handling the particulars (of concepts or terms) vague and ambiguous, which can not be modeled using mathematical methods used and the exact structure of production rules (IF .. THEN ... ELSE ..) characteristic of expert systems.

The systems of connection [Andoni, 2002, p. 79] also performed emulation human performance expert, but with the help of arch-type artificial neural network, to resolve problems that tend to become the main technology used in automatic learning. Ease and naturalness with which learners have led experts to consider the systems of connection a huge step in shaping a integrated applications of the various areas, including accounting. With a system can be captured systems of connection expert skills in accounting or evaluating in resolving problems involving large volumes of data and obtain a specific model manageable with other systems, eg expert systems. Typical applications of accounting systems dealt with are those systems of connection - modeling data modeling processes, grouping, viewing and extraction of data for forecasting stocks, etc.

Systems based on genetic algorithms, which are capable of simulating the behavior of entities in the form of a suite of inductive sentences about unknown aspects of a work may be used including intelligent modeling specific accounting software. They require clear definition of the problem to resolve accounting and binary representation of candidate-solutions. For example, Lopez-Gonzalez et al., 2000, is presented in full detail a decision-making in managerial accounting, modeled using a hybrid system consisting of a genetic algorithm and a fuzzy system. Practical benefits of such applications are multiple [Andres, 2006].

Multitask systems [WeiB, 2000] systems are composed of entities called agents that cooperate to solve a problem that could be addressed in an individual manner. Agents are software or hardware entities autonomous and heterogeneous. An important class of entities in the structure of a multi-agent system is the smart, intelligent agents [Wooldridge & Jennings, 1995] can play many roles included business accounting and audit taking repetitive tasks, customizing the interaction of information, notification of users to occurrence of major events in the system to learn user behavior assisting accountants and auditors in the various contexts of their work, the performance of

accounting tasks in remote or virtual organizations. The advantages are obvious: reduced state, reduced accounting transactions and operations or the provision of audit and accounting services, auditing and so personal.

Hybrid systems are information systems to use at least two different information technologies (of which at least one is a smart technology), building which used technology fusion (a combination of technology components of effective structures operating systems). And they show interest in the design and implementation of accounting information systems performance, Intelligent systems [Andoni etc., 2004, p. 328] emulates human perception capabilities of the realities of the acts of collecting and organizing knowledge collected to design things (objects, situations, events and processes) plans and programs to use them, and to execute and monitor these plans and programs in accordance with the most effective decisions. Any intelligent system must provide the ability to perceive and understand, the ability to choose the judgment made, the ability to operate successfully under the terms of a multitude of circumstances so as to survive, prosper and to ensure reproduction in an environment as complex and hostile. Each of the systems based on advanced technologies listed above can be classified as category systems integration, from a certain perspective, given the levels of intelligence built:

- computing power and deduction;
- complexity of algorithms and mechanisms used in deducting sensory processes, modeling the real world, behavior generation, the estimation values and global communication;
- data, information, and pieces of knowledge stored in the memory system;
- Process complexity of the system.

Such levels of intelligence can be observed by measuring with the aid of performance criteria established (cost, time, accuracy, etc..) Achieve goals of success and intelligent decision system.

Research literature and experiments in the laboratory of specialized faculty of our prototype system that uses intelligent technologies should mention the application of accounting that can be used intelligent technologies with predilection expert systems, as follows:

- evaluation: material analysis and risk assessment of internal control, audit planning, review accounts, obtaining evidence and opinion formation, external audit, internal audit, audit information, etc.;
- managerial accounting and cost accounting: cost assessment and allocation, resource allocation rare variation analysis and monitoring, planning and control management, the design of information system management, etc.;
- financial accounts: accounting regulations, standards and accounting principles, accounting standards, recovery and analysis of accounting records, designing accounting systems, accounting imputations , strengthening financial, etc.;
- analysis of financial statements: economic analysis, economic and financial situations of accounting, calculation and interpretation of ratios, trend analysis and assessment, understanding and assessment of financial reporting, financial diagnosis etc.
- financial planning: financial planning company, financial planning staff, treasury management, trade in securities, capital budgeting, etc.;
- Tax: analysis and decision to use the law of taxation, configuring solutions for intelligent management of the fiscal strategy;
- accounting information systems: the incorporation of modules of intelligent solution for any aspect of the question applied accounting

Intelligent technology systems, especially expert systems technology, very much appreciated in the processing of knowledge in the field, suitable where more often meet procedural knowledge. In our opinion, accounting, in its theoretical aspects and

application is a process of collection and production of information that requires a lot of expertise (know-how), accounting professionals are looking for the owners thereof. Currently, it is known that the production of financial information provided by applying techniques judgments and policies according to the information needs of users. It is a process of transforming data from transactions and economic events in the financial information and hoarding of knowledge in the field of accounting experience that we can speak of real processes treating a knowledge of accounting as follows:

- the production of financial information;
- the assessment of financial performance;
- the evaluation process by the audit;
- the preparation of accounts and so the decision

Conclusions

Problems using smart technologies in accounting organizations integrate their information systems accounts must inquire not only professionals in IT management, but also managers, accountants and economists highly skilled technicians. Everyone must contribute to achieving the target fixed for the modernization of accounting intelligent information in order to achieve decisions more rapidly and better for the most profitable completion of each financial year, according to the exemplary customer service, environmental conservation and user satisfaction.

Current information systems are systems for automatic data processing oriented transactions recorded in documents. But this work is enough? What would happen if in an accounting information system, where data entry and automatic formulation and aggregation necessary records would be one way of economic and financial analysis or even a smart solution for how to show us everything would be beneficial and made possible with information in the context of achieving the management objectives? Moreover, it would be beneficial to the selection and hiring of accountants in the way on-line using an expert system that works in tandem with a specialized Web application that is on the gate-level? But automatic management accounting in a firm manner on-line as an outsourced service intelligent?

Certainly, accounting problems and virtual organizations, are increasingly challenging, we will put before the other news worthy of all the attention. In these circumstances, it is thought about how it will guide scientific research and practice in accounting information systems. Management functions or roles have now become accountable those economic analyst, strategic analyst, consultant (counselor or business partner), agent of change, supplier information and knowledge (the knowledge worker - knowledge worker), and analyst information systems designer, designer and controller systems for measuring performance, expert or consultant. We need to take account of these realities when organizing training programs to accounting professionals at all levels.

Mention five kinds of changes that highlight the impact of advanced technologies on the accounting profession:

- changes in the nature of accounting work in the sense that the very advanced knowledge encourages staff in cooperation with developers of intelligent information systems;
- changes in the nature of services consultancy and training in accounting and auditing;
- changes in the internal planning of projects, billing services, management skills, intensive use of email and Web services;
- changes in the organizational structure of material due to increased staff specialization and intensification of work at home in the interest of the company;
- changes in the education of advanced professional accountants, by the

generalization of the use of training programs and the incorporation of best practices in the field.

Guidelines are very important, occur when addressing organization from the perspective of knowledge. Knowledge is the most important asset of an organization and its key to survival in the information society. In this direction, accounting professionals have the mission to study the organization of new information systems suitable for performance management based on knowledge that in such circumstances, professional accountants must operate with concepts new concepts and organizational and managerial systems in November. This has major implications on the organization and management accounting and auditing, accounting for all other professional activities. Therefore, training professionals in accounting should not miss some complementary objectives which they consider essential, namely: Familiarity with the professional accounting concepts and organizational paradigms November; understanding of competencies in the knowledge the adaptive and intelligent Acquiring new ways of seeing organizations Tia-field activity of the professional accountant; Understanding knowledge as a factor in the company key and overall survival in the competition; The concept of acquiring knowledge and adjacent notions ; how to convert data in information into knowledge and information; Acquisition of basic skills and performance, their integration in the value chain; Knowing the response of the flexible and adaptable intelligent; Acquiring organizational learning methods and new information strategy; Problems acquiring a virtual organization and its accounting implications; Professional use of new sources of documentation in the accounts; intensive use of advanced information technologies.

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