

## **FINANCIAL CONTROL IN AN IT ENVIRONMENT: WARRANT OF THE FINANCIAL PERFORMANCE OF THE ENTITY**

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### **ABSTRACT**

*Under a computerized society based on advanced knowledge, techniques and procedures using comprehensive knowledge of the economic environment are being developed quantitatively and qualitatively in the virtual, online environment. Using the online environment as IT support for financial control is one of the most effective methods of research in the transition from classical economics to smart economy, taking into account the principles of sustainable development. The main purpose of the research is the organization and implementation of financial control in a paperless environment, bringing a major innovation in the practice of financial control based on uncertainty risk factors (environment, strategy, leadership style), thereby contributing to typical practical changes.*

**JEL CLASSIFICATION CODE:** M41

**KEYWORDS:** *Financial Control, IT Environment, Financial Performance, Entity, Management Decision, Accounting Informational System.*

### **1. INTRODUCTION**

The need to develop an effective control system conforms to the paradigm of development of economy and society, the ability to identify the best forms of measuring the financial flows, speed and rate, according to changing risk factors in order to achieve growth and a reasonable level of performance considered optimal. In the current development of the economies, of the intensity of progress of research and implementation of advanced technologies across the entire economic system, financial control deems necessary to adapt to dynamic economies. Thus, implementing the computerized system via online financial control, control practice requires innovation, driven mainly by modifying risk factors (environment, strategy, leadership style).

On-line financial control involves on the one hand planning, performance evaluation and coordination of financial activities aimed at achieving desired investment rentability, and on the other hand the use of any means of information technology as a lever to support managers in operating relations and other financial instruments in order to exercise financial control. The need to use the means of information technology is evident in the context of globalization and the intensification of financial flows, access to information is

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conditioned mainly by technical means, speed of response, understanding the hidden meaning of information and risks contained by the information.

Rapid advances in technology provide economic entities and business environment with an unprecedented economic boom, mainly implemented to reduce the widening gap between strategy as part of its financial performance and business processes bearing risk and uncertainty.

The advantage of implementation of financial control in an IT environment identifies means of supporting the IT system via the digital economy, as a prerequisite for streamlining the decision-making.

## **2. FINANCIAL AND ACCOUNTING INFORMATIONAL SYSTEM**

Financial accounting information system (SIFC) is an information system that seeks financial events that have occurred, as summarized in a report and financial information obtained by the entity in the period under review.

In its basic form, a SIFC is little more than an accounting system configured to operate in accordance with specifications and needs of the environment in which they are installed. Generally, the term SIFC refers to the use of information and communications technology in the financial operations to support management decisions and budget, responsible for preparing financial reports and statements.

In the State sector, SIFC refers more specifically to the computerization of public financial management (IMFP,) of processes of budget preparation and budget execution, and reporting, with an integrated financial management in ministries agencies and other public sector operations.

The main element that integrates in a computer system is a SIFC, which has a common unique database, with all data expressed in financial terms. Integration is the key to any successful SIFC and it assumes that the system has the following basic characteristics:

- standard data classification for recording financial events;
- internal controls over data entry, transaction processing and reporting;
- Common processes for similar transactions and a design system that eliminates unnecessary duplication of data input.

Integration often applies only to basic financial management, supporting SIFC in an ideal world, of coating, also the information systems with which the core system communicates, like human resources, payroll and income (fiscal and customs)<sup>1</sup>.

Organizing SIFC provides access to light financial data that stores all financial information on costs of current and previous years, but also stores the budgets approval for these years, detailing inflows and outflows of funds and complete asset inventories (equipment, land and buildings) and liabilities.

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<sup>1</sup> Transparency International Source Book 2000, in Casals and Associates, "Integrated Financial Management Systems Best Practices: Bolivia and Chile", funded under USAID Contract AEP-I-00-00- 00010-00, Task Order No. 01 Transparency and Accountability, 2004;

The scale and scope of a SIFC can vary from a simple approach to budget revenues, control expenses, debt, and human resources management, financial reporting to an audit processes.

Recording information in an integrated system that uses common values, may access SIFC by extracting specific information needed to perform different functions and tasks. All kinds of reports can be created: financial statements, sources and uses of funds, cost reports, reports on investments, age of receivables and payables, cash flow forecasting, variance budget performance reports.

Managers can use this information for a variety of purposes, to plan and formulate budgets, to examine the results with the budgets / plans, manage cash balances, to track the status of debts and receivables, for monitoring and utilizing fixed asset, for monitoring the performance of specific departments and units and make revisions and adjustments as needed. Reports can also be adjusted to meet the reporting requirements set by external agencies and international institutions such as IMF.

Computerized financial management systems are not a new phenomenon; on the contrary, recording financial information is the oldest known form of evidence, dating back thousands of years. However, the financial information have experienced for a long time problems, especially those related to inventory money. Only later in the 15th century, Luca Pacioli, the father of accounting, from Italian origins, established the codification expression of double-entry to develop a financial accounting system, leading in time to modernize financial management and accounting.

All systems, including modern financial management information, that are used in the private and public sector, based on technical innovation according to Paciolo. The system is called double entry because each transaction involves the exchange between two accounts: debit and credit. For each debit and credit, there is an equal opposite, and the sum of all debts must therefore be equal to the sum of all the credits. This requirement is a critical balance because it facilitates the detection of errors or discrepancies from the recorded transactions. Furthermore, it offers a complete picture of the financial situation of an organization, and double-entry bookkeeping facilitates the making of financial reports directly from accounts.

Figure no. 1 shows the financial and accounting information system and financial and accounting management cycle.

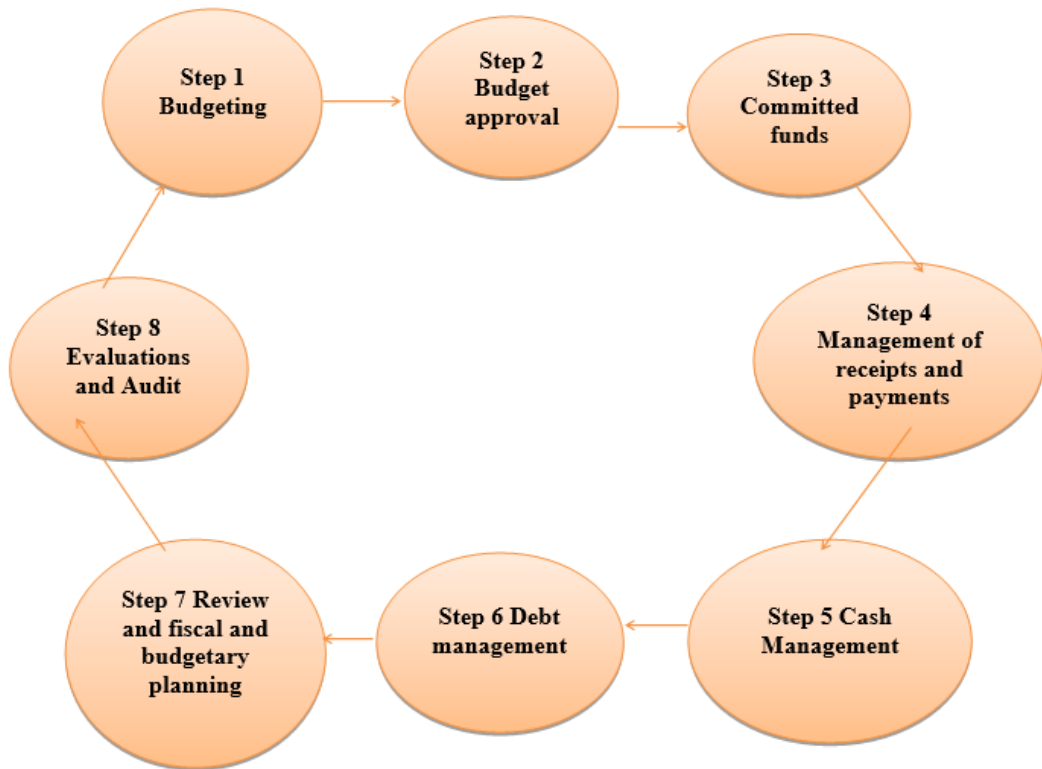


Figure 1. SIFC and accounting and financial management cycle  
Source: own design

Figure No. 1 shows a complex set of functions of SIFC, which can be used to support the creation of the execution budget and control review, assessment of financial performance and results.

The amount of information created, processed and sent to the economic entity in the current context, is so large that it can no longer conceive such activity without exploiting IT solutions.

The engine of these changes at the company level is the Internet which is both a cause and an effect of globalization and all that flows as a transformation of society as a whole and the economic society in particular. It was therefore unlikely that the entity through its specific functions, will not adapt to the new demands of society. From a number of functions, like the marketing function, which is the most *liberal*, we could adapt more easily the accounting function which we must recognize that it is perhaps the most *rigid* and has a lower degree of adaptation to the new conditions because it is a strictly regulated system, making it difficult to transition to an Internet environment.

Specifically the Internet has been a source of documentation, infrastructure and less a communicative environment for the development of new accounting applications. In time, when the emphasis was placed on processing and distributing Internet through the

services it uses, a model of organization was established due to protocols used initially in local area networks, and later to organizational intranets.

### 3. IT SYSTEM AND FINANCIAL CONTROL.

The information system is a basis for decision-making in financial control. The system is a complex system that can be divided into three sub-systems:

- sub-executive system
- sub- information system
- sub-control system.

Figure No. 2 is showing the link between the computer system and financial control.

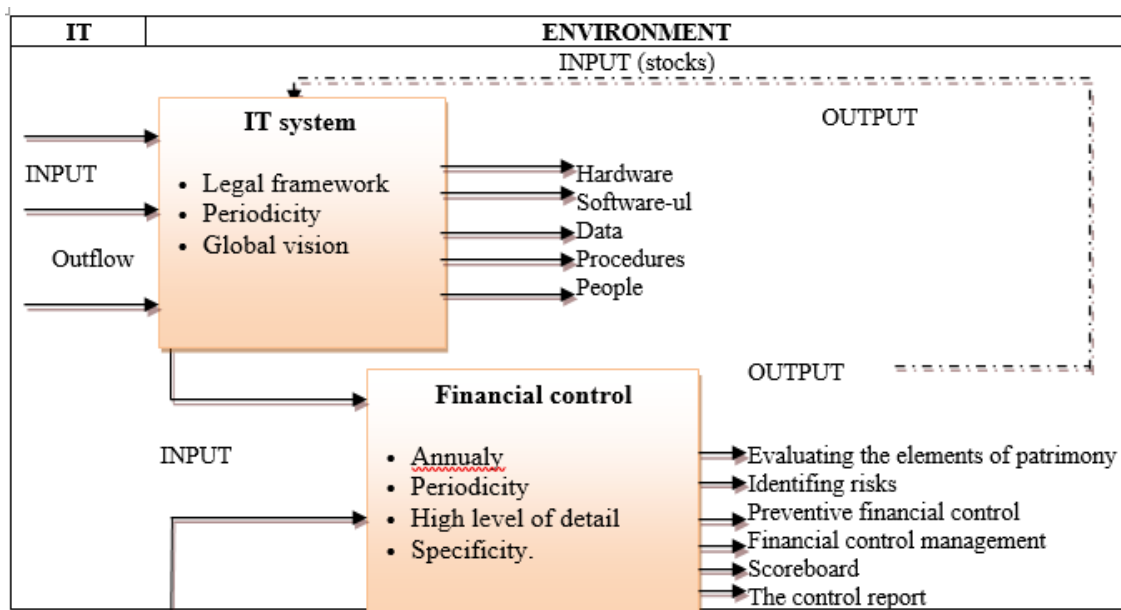


Figure 2. The interdependence between the computer system and financial control  
 Source: processed after Budugan D., Berheci I., Georgescu I., Bețianu L., 2007

*Sub- executive* system is a basic means of control, such as purchasing, production, sales, financial and others. The information of sub-system is a link between sub-executive and management systems that have a task to provide timely information for executives and managing sub-systems in decision making.

*Sub-systems of information*, in accordance with criteria for accounting roles and tasks, are divided into accounting and non-accounting information of sub-systems<sup>1</sup> (information system, management accounting information system). It is important to know that these systems are not organized into separate modules physically but are often integrated into overlapping areas of responsibility.

<sup>1</sup> Romney, M., Steinbart, P. J. (2009). Accounting Information System. Eleventh Edition. Pearson Prentice Hall

The advancement of information technology and communications in management is in a better position during the decision-making process, since it is possible to improve constantly the update of accounting information system to support decision-making entities<sup>1</sup>.

#### **4. INDIVIDUALITIES OF FINANCIAL CONTROL IN IT ENVIRONMENT.**

In the context of technological developments, the entity is a basic link on the value chain, which must be active in order to achieve the objectives and making a profit in various forms of financial control. There are many factors that force entities to have an agitated behavior for economic survival, based on financial control.

Within the entities the components of the information system are departments that form the entity. Among the components of the information system certain relationships within the control activity are established. Knowing these relationships determines the measure of knowledge of the control system and act as a measure to safeguard the activity. Information technology via the Internet opened a new economy. The term new economy is used much more in the recent years, because the today's economy is based on Internet. This new economy is based on knowledge creation, the use of knowledge in the economic field, particularly towards innovation.

*In transaction there is a control activity of data that are stored in the database of the system, which by collecting can be recovered and processed into useful information in decision making, in business processes. The application takes the raw data held in the system database which processes based on configured business logic, and it will switch it to display user presentation system.*

For example, take into consideration the department accounts payable to process an invoice, for an accounting information system to operate on the basis of an invoice provided by a supplier, the database must be stored in the system. When goods are received from the seller, a receipt is created and then it enters in the information system. Before closing the accounts, the department pays the seller for the merchandise and the payments are processed automatically at system level; a voucher can be created and the seller can be paid.

#### **5. BENEFITS AND IMPLICATIONS OF FINANCIAL CONTROL OVER FINANCIAL ACCOUNTING SYSTEM IN AN IT ENVIRONMENT**

After the wave of corporate scandals at major companies such as Tyco International, Enron and WorldCom, particular emphasis was placed on applying strong system of internal controls based on transactions. Controls were used with the passage of the Sarbanes-Oxley Act of 2002, stipulating that these companies must generate an internal control report, to attest the person responsible for the internal control structure of the entity, and also to present the efficiency of these controls.<sup>2</sup> Because of the great scandals

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<sup>1</sup> Pierce, B., O'Dea, T. (2003). Management Accounting Information and the Needs of Managers – Perception of Managers and Accountants Compared. *The British Accounting Review* Vol.35, No.3, pp. 257- 290.

<sup>2</sup> <http://www.coso.org>;

that were embedded in the company's accounting practices, much of the focus of the Sarbanes Oxley Act has been on accounting information systems based on computer. The sellers of accounting information systems through their government pursue risk management and compliance features to ensure that business processes are robust and protected by the assets of the entity that insures them.

Table 1 presents the advantages and disadvantages of financial control in an IT environment.

Table.1. Benefits and implications of financial control over financial accounting system in an IT environment

**Benefits and implications of financial control over financial accounting system in an IT environment**

- A big advantage of financial control on accounting information systems based on computer is that users efficiently automate financial reporting and modeling support using advanced development.<sup>1</sup>
- Reporting is an important tool for the entity in which you can see exactly how information is used in real time, in decision-making processes and financial reporting.
- Financial accounting information system represents a centralized database, of generating processes and transformations of the data and information that can be easily controlled and analyzed by business analysts, managers or other stakeholders.
- These financial control systems must ensure that reports are appropriate, so that policy makers do not act on old irrelevant information, and rather act on quick and efficient reported results.
- Consolidation is one of the hallmarks of reporting, people should not forget the enormous numbers of transactions. At the end of the month, a financial accountant consolidates all tickets paid by rolling a financial report. This application system offers a report with the whole amount paid to its suppliers for that month. And in the case of large corporations, which generate large volumes of transactional data, running these reports based on accounting information systems may take days or even weeks.

Source: processed after <http://www.allbusiness.com/accounting/3504565-1.html>;

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<sup>1</sup> <http://www.allbusiness.com/accounting/3504565-1.html>;

## **6. POSSIBILITIES FOR ORGANIZING AND IMPLEMENTING FINANCIAL CONTROL IN AN IT ENVIRONMENT.**

In order to ensure this financial control we were inspired by *WorldCom și Lehman Brothers<sup>1</sup> Cases*, which helped us to achieve the primary objective of this. We found that the basis of financial accounting information system is built on a special register to follow the progress of all economic transactions.

Every economic transaction enters the system registry, starting with the allocation of funds to reach the commitments of payment of goods and services. For all transactions there should be simultaneously a special register of compliance required by a standard table of accounts. These records remain as a permanent piece of history of all financial transactions, and the source from which all the reports and financial statements are derived, and controlled.

Based on the *WorldCom and Lehman Brothers* model, we have established an information system which will have accessibility to all information within the entity, thus easing the way financial control. This model that we want to implement is based on a **general register (RG)** which manages and performs integrated tracking of the following business processes: customer relationship management, relationship management with suppliers, management of the complete sales, complete management supply and stock, therefore the internal or external control will be easier.

Any form of financial control in an entity shall be conducted using internal working procedures. These procedures are specific only to granting visa for preventive financial control and financial control management.

### **Financial Preventive Control**

Financial control aims to identify projects of operations that do not meet the conditions of legality and which may affect public property. We note that CFP is a preventive control of legality, and to simplify the procedure we would require all documents recorded to be electronic.

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<sup>1</sup> In 2002, internal auditors Cynthia Cooper of WorldCom and Eugene Morse used a computerized accounting system in the company that discovered \$ 4 billion allocated in fraudulent charges and other serious accounting entries. The investigation led to the termination of CFO Scott Sullivan and established a new legislation, Section 404 of the Sarbanes-Oxley Act, which regulates companies' internal financial control and introduces procedures. In investigating the causes of Lehman's collapse, a data review of all SIFC systems was done and a key element was discovered in collecting documents which reviewed witnesses in interviews. Searching for reasons for failure of the company led to an investigation extended to the necessary operating data review of Lehman's through marketing, financial evaluation and other systems of accounting data. Lehman systems provide an example of how not to structure a SIFC. At the time of bankruptcy, Lehman has maintained a patchwork of over 2600 systems and software applications. Lehman systems were highly interdependent, but their relations were difficult to decipher and not well documented, it took an extraordinary effort to manage these systems and to obtain the necessary information.



CFP visa involves the following steps:

- **Receiving** the documents to grant visas CFP.

In order to grant CFP visa for fairness and speed is necessary to operate only with electronic documents.

- **Verifications** are made on the basis of CFP register which must contain the following elements: document name, department that issued the visa, content of the document, department that submitted the visa, the value of transactions, the date of return of the document and comments.

All documents submitted to CFP visa should be electronic for effectiveness, fairness and even for clear evidence.

- **The handing** over of the documents shall be made only to specific persons entitled to the nature of this operation.

Documents submitted to electronic visa type can be emailed thus shortening the workload and the time used.

Conceptually, the CFP conducted in an IT environment will be as follows:

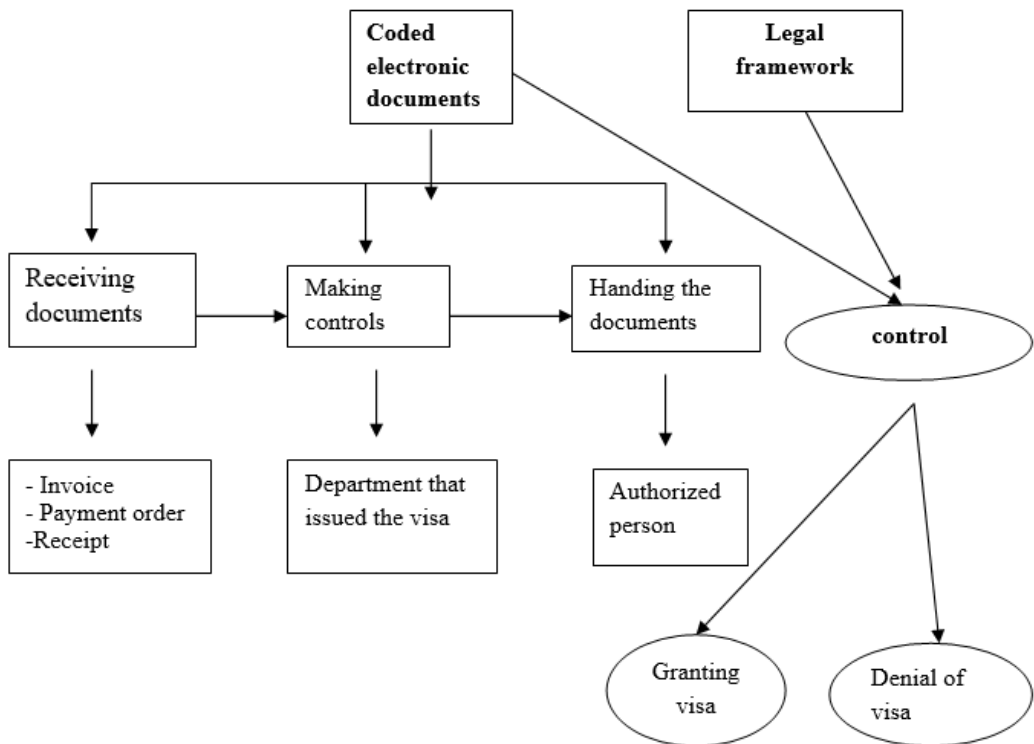


Figure 3. Financial Preventive Control

## **Management control**

To perform management control in an IT environment we must go through the following steps:

- **The opening meeting:** the date set by the control team that will perform the control, where, it will have a meeting in the presence of management to establish organizational measures necessary to conduct control.
- **Performing the control:** meetings, site visits, interviews in order to collect information to ascertain compliance with the legislation. During the time of control Financial Control Management Notes are revised. Deficiencies are determined by measurements and evidential documents, not based on information coming from outside.

Conducting meetings and approvals requires a large amount of work and time. In case the documents are electronic, the verification can be more accurate and faster. If we created the register RG, then the information will be accessed by password by control bodies on both the internal control and external control. RG helps us avoid deficiencies due to product codes, which prevent the introduction of erroneous data, thus removing the Observation Note as well as the information received from outside the entity.

- **The closing meeting:** agreeing between the inspection team and structure controlled on the shortcomings and development of the financial control management Protocol.

If there is a general register is enough to make an electronic Protocol in the closing meeting which gives the possibility of keeping some intermediary electronic copies that will help verify the financial control.

- **Tracking results of financial management** is based on the control of financial management Protocol which allows us to track the records obtained and the deficiencies observed.

If there is a general register, than the Protocol is presented electronically allowing other control bodies to verify the results obtained and deficiencies observed.

## **7. CONCLUSIONS**

Financial control is one of the tools that managers use to meet the tracking of progress and evaluation of results. From this perspective, **controls** are an integral part of economic activity undertaken, and implementation of financial control is the responsibility of every employee in the institution, in accordance with specific processes and operations of the business cycle. In this regard, the safeguards require the development of standards, procedures and instructions that control the activities of the entity, establishing clearly the performance and responsibilities of the manager and employees.

Implementation of standards for financial control information system requires compatibility with the institutional activities, including the organizational structure methods and procedures specific to the activity of the institution, in line with the

objectives of financial control, the control environment, risk management, surveillance and monitoring, objectives specific to strategic management.

Managers are interested in achieving financial controls which often are preferred to monitoring business performance and evaluation of progress of a company, as company's financial objectives. Once the decisions of strategic management have determined how the company will proceed, financial controls are designed to assess the company, pursuing strategic plans, and how decisions are valid in relation to the entity's ability, to obtain a certain level of performance.

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