

Information System Control and Revision for the Management Information Systems Quality Function

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Abstract— Information technology is a prerequisite for modern work. Today, the information system has become an important part of the business management guide. In order to function properly, information systems need to be controlled and modified, as in other things. Control defines the necessary measures to achieve the management goal in the information system. A review, on the other hand, checks whether the information system has adequate controls in place -- at least one type of control for each type of potentially undesirable process or situation. In our daily commercial practice, the revision of information systems is what is clearly necessary. From this point of view, this document will indicate a revision of information systems as an important thing in obtaining the best quality of their work. Two aspects will be addressed here:

• The reasons that led to the control and revision of information systems; and

• The objectives achieved after the revision of information systems.

Index Terms- Control, Revision, Information Systems, Quality.

I. INTRODUCTION

Computers are the basis of the modern information systems. They collect and compute business data and serve as a resource for better management decision making. Today, with easily achieved computer price – computer potential relationship, anybody (within an organization or individually) can buy a computer. But attention should be paid to better usage of the computers' potential and the additional equipment. This is why it is essential to control and revise them thoroughly.

There are seven important reasons why both, the control and the revision are regarded as essential activities in attaining the expectations about the computers' efficiency, which are the following:

- expenses due to data loss;
- expenses due to wrong or incompatible decisions;
- expenses due to misuse of the equipment;
- expenses due to mistakes made by the misuse of the computers/expenses due to computer made mistakes;
- keeping the privacy safe; and
- controlled improvement of the usage of the equipment.

Expenses due to data loss. The data are business resource because they can picture and give a vivid description of the organizational system, of its environment, of its work and its future. The data properly processed, turn into information which is the basis of the, so called, new or information economics. If the description according to the processed data is correct, the organization will have better chances to adapt to the constant changes of the market environment, and it will also survive the conditions of the market competitiveness. If not so, the organization will inevitably undergo, sometimes, unrefundable damages. The lack or proper control over computers' work can make some damages. Namely, if there are no copies of the data, stored regularly in the data bank, the active, and real information can be (partly or totally) destroyed – maybe because of the mistakes in the programming, sabotage or unintentional human made mistake. The facts will be lost altogether with the general and real state business system is. This will also mean disorientation of the work process, not to mention minor or major material and/or nonmaterial damage.

Expenses due to wrong or incompatible decisions. Quality decision making, in business especially, depends on data quality and it also depends on information used as a basic resources for decision

making. On the other hand, whether a decision is right or wrong depends on which regulations they apply to. We will discuss them, both:

- a) Information quality and its impact on the type of the decision. How important is it if the certain information is the correct one, depends on the type of the decision. For example, when managers make strategic, long-term decisions, minor information mistakes can be tolerated because of the fact that this kind of decisions, in general, are with a high level of unpredictability. However, making short – term, operative decisions requires correct and precise data, just because of the fact that these kind of decisions cannot tolerate mistakes – not even the insignificant ones. The second mentioned type of decisions (short-term & operative) is closely connected to the processes like: research, evaluation and correction within the process, which cannot possibly tolerate data mistakes that will lead to unnecessary and very often high expenses.
- b) Rules impact on the kind of the decision. It is very important to follow and have in mind certain rules within the process of decision making. In some cases a misunderstood rule can cause unwanted minor or major consequences. For example, a small error because of a misinterpreted rule in calculation (ex. Wrong amortization coefficient) will lead to minor mistakes in processing the general work results. On the other hand, this kind of a mistake within the calculation of amortization of higher levels can cause more serious problems. Let's discuss the following example: if the interest coefficient within the banking processes is miscalculated the consequence will be payment of higher or lower rates of interest to the clients (either of which means: lost client' trust) that leads to long-term and intolerable financial losses. The previously mentioned facts suggest that the decision making rules should be followed and should be the real picture of the situation in which the expected goals will be reached.

Expenses due to the misuse of the equipment. Abused and/or misused information equipment is maybe the main reason why we should control and revise the information systems. The most common examples of abused and/or misused equipment in practice are:

- abusing the legal rights of the users of the equipment;
- hackers;
- computer viruses;
- illegal approach/entrance to the equipment and the data;
- stealing of the equipment;
- modification of the equipment;
- unauthorized use of the equipment;
- "privatization" (individualization) of the computer programmes and abusing author's rights; and
- physical attack on the persons working with the information system.

Expenses due to computer made mistakes. Computers are taking over a large number of activities. The level of dependence on the computer work rises every day (within the society and individually, too) thus the sensitivity about the mistakes that can be made, rises, too. In some cases the dependence is so tight that the caused problems are big. That is why it is necessary to take strict measures to prevent the causes, and of course the consequences.

One of the main issues that suggests that the information systems should be controlled and revised is the connection of the business systems through Internet. This kind of work is essential to be done precisely and without any mistake just because of the consequences that can be critical/dangerous.¹

Keeping the privacy safe. Among the great variety of data, in the information systems there are certain data on the people. Therefore, if they are not kept safe they can be reached by anybody who works with the system. That is why the control and revision of the information systems should be strict in order not to allow the personal data to be easily reached. This should be done by establishing for such protection.

Controlled improvement of the usage of the equipment. Any technology, by its origin, is neutral – but the problem lies in the usage. Any technology can be used in achieving positive goals of the individual and/or the society as a whole – however it can be abused, too². Therefore we must say "stop" (no) to all the opponents to the process of improving. Potentially, at least, we can keep the pace with the growth of the

technology. What is more important, business can equalize without any of them, in particular, going substantially further on. This will mean better business results.

II. REVISION OF THE INFORMATION SYSTEMS – GOALS

The revision of information systems is a process of collection and evaluation of the evidence resources, which confirms whether the systems are kept properly, whether the integrity of the data is secured, whether the systems guarantee goal achievement, and at last, whether the usage of the systems is profitable.³ According to this, the revision of the information systems has to achieve the following traditional goals:

- evidence goals (internal or external) which prove the level of security and integrity of the properties of the data; and
- management goals (internal or external) which show how to check and use the evidence goals – feedback.

Except the listed above, the revision of the information systems has got another important goal – to serve as a prove of whether an organization works according to, and follows the rules and the conditions established in the field or question.

To continue the discussion, we will list all the goals that we think are important in the process of the revision of the information systems:

- securing the property;
 - securing the integrity;
 - system's productivity; and
 - system's profitability.
- a) Securing the property. The following are the properties of an information system: the equipment, the programmes, the data banks, the digital knowledge, the documents and the other equipment and material used. The property, by its origin, is there to be kept secured, therefore the system's property, too – by the internal control of the system.
- b) Securing the data integrity. The key term in the revision of the information systems is the data integrity. The term can be defined as a state/situation in which the data are characterized as: wholeness, clarity, preciseness and accuracy. If at any point the data integrity is endangered or

destroyed the organization will "lose the ground under its feet".

- c) System's productivity. A productive system is the one that can reach the assigned tasks. To valueate system's productivity means to know in details the requests, the wishes and the expectations of the users. Therefore it is very important for the supervisors to know the user's characteristics and the decision making environment.
- d) System's profitability. Profitable information system is the one that function using the smallest possible quantity of resources to achieve the assigned task. System's profitability is extremely important in the case of not having already stored data that can serve as resources. In this case some applications can fail in quality, and for the users it will be a problem. The management of the system, in this case, must decide on whether to choose improving and/or purchasing some new resources.

CONCLUSION

To identify and diagnose the appropriate moment for initiating the new system processing, it is essential for each active information system to undergo evaluation and oversight. Oversight is a crucial component of managing an information system. It serves as a means to halt, identify, and rectify any undesirable situations that may arise within the information system. Such undesirable circumstances may stem from unauthorized access to the system, leading to incorrect, incomplete, or inefficient usage of the system. Oversight is what can prevent, identify, and rectify the aforementioned issues. Ultimately, the goal of oversight is to mitigate losses resulting from unwanted processes within the system.

The revision serves as a form of oversight regarding the control, signifying that it evaluates the degree of oversight over the information system at each step and circumstance encountered.

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