# THE PROBLEMS OF BUILDING INNOVATIVE INTELLIGENCE SYSTEMS

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***Abstract:*** *Nowadays, the companies need to be able to respond quickly to market demands while also coming up with new products and services. It is essential for companies to look for new opportunities and be able to predict future market behavior, competition and customer needs. And it is here that an innovative intelligence system is supposed to help them. This article looks at identifying problem areas in building innovative intelligence systems. Building such systems is very challenging. At the same time, these systems play an important role in corporate governance because they are an important source of information. And the right information is needed by managers for efficient decision-making and management.*

***Keywords:*** *problems, intelligence, innovative intelligence systems, recommendations*

***JEL Classification:*** *O0, O3, O31*

## 1. INTRODUCTION

The intelligence system includes systematic planning, daily acquisition, sorting and analysis of reports and their subsequent evaluation. Its main task is to assist managers in making decisions or problems (marketing, innovations, etc.). Reports, also called intelligence, are obtained from both internal and external sources.

Nowadays, businesses spend a lot of time and money on technologies and processes that ensure the collection, sorting, storage, analysis, and distribution of information. However, it is often only internal information that is of a quantitative nature and only concerns the main activities of the company - production, sales. Such information serves to increase the efficiency of processes, ie. how to make things right. This is the supply side. (Vejlupek, 2002)

However, the biggest problem nowadays is the range of data that needs to be collected, sorted, analyzed, evaluated and subsequently distributed to competent workers. Sabadka (2004) argues that it is essential for businesses to use a comprehensive innovation information system, resp. intelligence system to support innovation. intelligence system to support innovation. Since information from the innovative intelligence system is for decision-making, it needs to be in the right and required quality, form and time in the right place. (Michalko, 2009)

The innovation process is at the heart of an innovative intelligence system. The innovation process is a sequence of activities concentrated on the recognition and use of innovation opportunities, the subsequent implementation of innovation and its evaluation. The innovation process includes several important elements, e.g. data collection and innovative ideas presented by Adair (2004).

The process is a recurring and important element is also feedback and evaluation, highlighted by Gregor and Mičieta (2010) and Fuld (2007) in intelligence systems. Roffe (1999), based on Roberts (1988), in his innovation process appealed for the creation of a prototype of innovation and at the same time emphasized the realization of research in the field. This section is in the review process. Chesbrough (2003) stressed the need for openness of the innovation process, the so-called. degree of openness. It is another important element that allows the flow of information from within the enterprise, but also its surroundings (internal and external information).

At the same time, the study of intelligence systems suggests that another important element is management, resp. management of the whole innovation process (Sabadka, 2004). At the same time, Sabadka (2004) emphasized internal and external data and information in her model (as did Chesbrough in the innovation process). In the initial innovation intelligence system, information systems that are linked to each one part of the process can also be seen. Kotler (2000) and Vejlupek (2002) in their models also underlined the information needs in the news. At the same time, Vejlupek (2002) stressed the need for a system-wide methodology. One of the last and most important elements in the system is people. Every one part of the proposed system and process needs staffing and a clear definition of roles, competences, rights and responsibilities.

## 2. METHODOLOGY

Various methods of obtaining and collecting information (method of document analysis, method of interpretation, questionnaire method, method of structured and semi-structured interviews and observation (in companies) were used to solve the problems of innovative intelligence systems. Last but not least, information processing methods (modeling method, quantitative evaluation method, statistical and analytical information processing method and database method) were used.

## 3. IDENTIFICATION OF PROBLEM AREAS

Building an innovative intelligence system (ISS) is a complex activity that needs to be properly planned and mastered. The causes of failure to build ISS and the implementation of innovations can be many and different in nature. It can be e.g. o insufficient organizational security of processes, or insufficient motivation of employees, or lack of information security of processes, etc.

It is important that the company identify these problems in time and eliminate them. In this case, the likelihood of

successfully building an innovative intelligence system can be significantly increased.

The following is a set of recommendations that provide a basis for eliminating the risks of identified problems. Problems can arise in areas like:

- strategic management,
- organization of processes,
- process information security,
- when applying an innovative intelligence system.

## 4. DISCUSSIONS

### 4.1 PROBLEMS IN STRATEGIC MANAGEMENT

***P1: Setting innovation objectives incorrectly:*** the problem may arise when setting innovation objectives that should be part of and should be consistent with business objectives. Enterprises are repeatedly getting into a situation where they cannot correctly define innovation goals. At the same time, businesses are not able to estimate their options (eg. time) and the resources available for innovation.

**P1 Recommendations**:

- a proper understanding of the nature of the innovative intelligence system, its impact on the detection and realization of innovation opportunities,
- correctly defining the required statuses, where the enterprise wants to get through innovation and application of innovative intelligence system,
- aligning innovation goals with overall business goals,
- defining the expected benefits of an innovative intelligence system.

***P2: Incorrectly defined innovation strategy:*** if an enterprise decides to build an innovative intelligence system, it needs to have a defined innovation strategy. Mostly, there is a problem that the innovation strategy just defined does not correspond to the overall business strategy. Businesses need to re-evaluate the current business strategy (its timeliness) first and then pursue an innovation strategy. Because the innovation strategy is the basis for strategic innovation decisions and affects the entire innovation process and thus the building of the entire ISS.

**P2 Recommendations**:

- reviewing the current business strategy,
- defining innovation objectives,
- identifying the means and means to achieve them,
- determination of control criteria.

### 4.2 PROBLEMS IN ORGANIZATION OF PROCESSES

***P3: Inappropriate organizational structure:*** this is a problem when an enterprise does not apply an organizational structure that would help to develop innovative ideas and implement them. At the same time, it is important that the organizational structure supports the influx of new data and, thanks to this organizational structure, the company can respond flexibly to changes in the market environment. A few changes to the organizational structure of the business are needed to meet the needs of an innovative news system. For example, it could be the creation of an innovation team, a commission, or the innovation department itself. All these changes depend on the nature of the business - its size, goals, strategy, resources and so on.

**P3 Recommendations**:

- a review of the current organizational structure,
- organizational security of the whole innovative intelligence system,
- proposal for changes in the current organizational structure,
- application of proposed changes, respectively. application of a flexible organizational structure,
- checking the suitability of the organizational structure (or meeting the expectations of the business).

***P4: Incorrectly defined roles in the business:*** a problem can arise when responsible functions for innovation and implementation are not established in the business. Whether it is an innovative manager, an innovation team, an innovation commission or an analyst who has exactly defined roles, powers and responsibilities. The amount and size of organizational units supporting innovation depends on the characteristics of the business (eg, size, resources, etc.).

**P4 Recommendations**:

- reassessing the current roles responsible for innovation,
- formulation of expectations (what the company wants to cover, what will be its rights and obligations),
- proposal for changes,
- changes application,
- control and fulfillment of expectations.

***P5:*** **Insufficient employee motivation:** This problem has proven to be one of the most common in current business practice (based on research). Business employees are not sufficiently motivated to create innovative ideas or to innovate themselves. As a result, there is a lack of innovation objectives, a low level of innovative ideas and innovation.

**P5 Recommendations**:

- emphasize the need for innovation,
- create a motivation program,
- creating a remuneration system,
- ensuring access of employees to the innovative intelligence system,
- ensure that employees are able to work with an innovative intelligence system,
- getting innovative ideas from employees,
- ensure employee participation in innovation,
- ensure regular communication and regular information with employees.

### 4.3 PROBLEMS ARISING FROM INFORMATION PROCESS SECURITY

***P6:*** **The absence of an information system needed to work with data**: a problem of the companies can be inefficient collection, sorting and storage of data and innovative ideas due to the absence of information process security. As a result, the companies's innovative opportunities do not be revealed and not used.

**P6 Recommendations**:

- writing a complete set of information security requirements, ie. on the information system,

- characterization of the company's technological equipment,
- compare requirements with the current state of information systems,
- selection of an appropriate information system supplier,
- implementation of the information system,
- entrusting a person to ensure the whole system administration (staff access to the system, system maintenance, etc.),
- regular review of information system and process security (timeliness, suitability, reliability, etc.).

### 4.4 PROBLEMS ARISING FROM THE APPLICATION OF AN INNOVATIVE INTELLIGENCE SYSTEM

***P7:*** **Incorrect planning to build an innovative intelligence system**: Failure to build an innovative intelligence system due to inappropriate planning can also be a problem for the business. This means that there are no conditions for building ISS - personnel, financial, capacity, time and so on. Managers are often busy and do not pay enough attention to innovation and ISS building.

**P7 Recommendations**:

- the inclusion of an innovative intelligence system in the company's strategic objectives,
- analysis of the current situation in the company,
- defining critical points in the planning process,
- implementation of measures,
- control of compliance,
- implementation of project management elements.

## 5. CONCLUSION

A company that undertakes to build an innovative intelligence system should take into account all the problems mentioned and be thoroughly prepared for them. The article also proposes recommendations for individual identified problems. Whether it concerns information, organizational security of processes or necessary resources.

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