

## FIVE-PHASE MODEL OF THE INTELLIGENCE CYCLE OF COMPETITIVE INTELLIGENCE

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**Received: February 28, 2013**

### Abstract

BARTES FRANTIŠEK: *Five-phase model of the intelligence cycle of Competitive Intelligence*. Acta Universitatis Agriculturae et Silviculturae Mendeliana Brunensis, 2013, LXI, No. 2, pp. 283–288

In business Competitive Intelligence practice is often used four-phase model of intelligence cycle in Competitive Intelligence and Management, collection, analysis and distribution. Based on its 20 years of business experience, the author believes that this four-phase model CI cycle is suitable for simpler tasks of CI, or its use is appropriate in the particular circumstances of governmental organizations – e.g. CIA etc.. But current business practice confronts Competitive Intelligence in a globalized world much more demanding tasks.

For lack of basic four-step model of intelligence cycle author considers a substantial disparity of the data, information or snippets of information. It is these disparate elements, which then enter the next phase of the intelligence cycle – analysis. It is a fact that these figures, data or pieces of information can be well developed in the intelligence analysis only to a limited extent. Larger quantities of data have resulted in the high-quality processing. This leads top management to its strategic decision-making with less quality materials. These problems can be solved by using the five phase model of intelligence cycle in Competitive Intelligence.

intelligence cycle, competitive intelligence, decision-making process, intelligence analysis, four-phase model, five-phase model

It is a well-known fact that leading world companies set up internal competitive intelligence units whose responsibility is to collect data and information necessary for strategic decisions of the top management. The role of those units, however, is far more important and not limited to simply collecting information on a specific market. We need to bear in mind that the obtained data, fragmentary or, in some cases, comprehensive, information tell us (report on) what the situation on the given market was “in the past”, or, at best, what it is “at present”. Top corporate management’s decisions, if they are to be responsible decisions about strategic issues, must be about the future! It means that managers need to know something about the future! They should definitely have an idea about possible developments in their industry and market; see publication (Landa, Martinovičová, 2010). They should also have an idea about possible future steps of their competitors.

This raises a question of whether it is possible to gain such knowledge through legal means. The answer to that question is already known. The problem can be addressed within the framework of competitive intelligence. That means that competitive intelligence must be able not only to obtain necessary information in time, but also, through its correct analysis, it add value to it.

The process of transformation of data and fragments of – or even complete – information into the so-called “intelligence” is described in foreign literature in many different ways. Different models are applied to resolve the problem. It follows from an analysis of available literature on job descriptions of and procedures used by competitive intelligence (CI) professionals that – especially in its most demanding area, i.e. the intelligence analysis – there is no fixed or standardized methodology except a definition of basic activities in individual phases of the intelligence cycle. See publications (Fuld,

1995), (Kahaner, 1997), (Liebowitz, 2006), (Hall & Bensoussan, 2007), and especially (Carr, 2003), in which working methods of 15 leading competitive intelligence specialists from the USA are described.

In that publication, the renowned specialists describe competitive intelligence in many different ways, as a cycle, linear process, a four-phase model, scientific technique, and even a pyramid. These acknowledged specialists use different approaches and methods in different phases of their respective competitive intelligence models to obtain the necessary information. But when it comes to the most important activity that should be performed as part of the competitive intelligence process, i.e. transformation of information into intelligence, their statements are very sketchy and vague. In their statements they mention the use of various techniques, oftentimes routines, that that particular CI specialist found useful and hence keeps on using.

## METHODS

The aim of this article is to propose an intelligence cycle model of competitive intelligence that would ensure a proper application of intelligence analysis of information in the demanding corporate setting. The methods used in writing the article included analysis, synthesis, induction, deduction and comparison.

The author proceeds from the “basic intelligence cycle”, then focuses his own design concepts in business practice. In conclusion, comparing the use of four and five-phase model of intelligence cycle.

### Points of departure

We interpret **competitive intelligence** as (Bartes, 2010): *a systematic, creative and ethical application of intelligence methodology and key methods, which, with the use of team work:*

- *finds, identifies symptoms or data and information sources,*
- *analyzes the collected symptoms, data and information, and complements them, assesses their importance and makes them into proofs of phenomena,*
- *transforms information into coherent hypotheses (forecasts of the future) for changes, and, using evidence and costs induced by the changes, evaluates its benefits in terms of the effectiveness of those changes,*
- *produces intelligence reports for the company management's decision making.*

In agreement with (Ehleman, Rosický, Vodáček, 1994), we interpret “**information**” as the *connection between information and its recipient and his possibilities to act, where only data that represent the form are considered immutable and their content is interpreted by the recipient*

*against the background of his knowledge and experience. In this concept, information acquires a subjective dimension in addition to problems of its transfer and transformation, its validity, competence of the recipient and the sender, etc.*

It means that in processing the information obtained, the inputs for the resolution of these issues will not only be the information obtained, but also the context of the possible gain of competitive advantage, which is defined by the experience and expertise as well as intuition and creative abilities of the operator in charge.

In this respect, it may be illustrative to quote T. S. Eliot<sup>1</sup>: *This is a case when it is necessary to take into account not only terms, trends, principles for this or that isolated case, but to demonstrate “universal intelligence”, the ability of a broad grasp of a problem, orientation in many directions, with all the factors, all conditions, all circumstances.*

The information concept thus conceived creates favourable preconditions for the creation of added value to the information.

## RESULTS

In corporate practice, competitive intelligence<sup>2</sup> most frequently takes the form of a cycle. The process is usually structured as a cycle containing four phases, i.e. planning and direction, collection, analysis and dissemination.

Based on our practice in the corporate setting, we feel justified in saying that the above four-phase model of the intelligence cycle can without problems be used when we are dealing with not overly complicated cases of competitive intelligence. It is quite difficult to try and tackle complicated problems using the four-phase model of the intelligence cycle of competitive intelligence, and, in some cases, it may result in the cycle's failure.

However, the present-day business practice poses very demanding tasks before competitive intelligence staff. The difficulty of the tasks is due to, e.g.:

1. complicated and unclear relationships between competitors;
2. high protection companies give to their trade secrets;
3. the use of deception (disinformation) by competition to enhanced protection of their trade secrets, etc.

The intelligence cycle result (output) is to determine the number of hypotheses on the possible evolution of the problem in the future, thus the requested forecast about the future. To resolve this task as a first step, we identify all the necessary actions that should contain each reporting cycle

1 Thomas Stearns Eliot (1888–1965), Anglo-American poet, essayist and playwright. In 1948, Eliot was awarded the Nobel Prize for Literature for *his outstanding, pioneering contribution to present-day poetry.*

2 It is important to bear in mind that this is an offensive, i.e. an active gathering of intelligence on the issue at hand. The defence, i.e. Counter Competitive Intelligence, addresses other tasks. In these cases, it is necessary to choose different activities for the CCI intelligence cycle.

irrespective of the number of phases in which the activities are organized.

### **Basic intelligence cycle<sup>3</sup> of competitive intelligence:**

- Task definition.
- Analysis and formulation of the problem.
- Planning the decision procedure.
- Collection of necessary data.
- Processing of the data collected. (Structuring, evaluation of truthfulness, completeness, relevancy, usability, generating primary information, etc.).
- Intelligence analysis of information (creation of added value – intelligence).
- Making a report in accordance with the client's requirements.
- Dissemination of the report to authorized recipients.
- Feedback.

### **Description of individual activities:**

#### ***1. Task definition.***

This initial activity of the intelligence cycle starts with a task being submitted by the company's top management. It is, however, also possible that the problem may have been identified during a standard monitoring activity of the Spefis system<sup>4</sup>, or by the company's early-warning system. If that is the case, then the organisation's responsible manager must be immediately informed about the fact.

#### ***2. Analysis and formulation of the problem.***

The problem (task) submitted must be analyzed in detail. In this step, a detailed analysis (structure, function, relationships, characteristics, etc.) is conducted. Furthermore, conditions that must be created in the competitor's company to successfully resolve the problem need to be determined (assessed). It is also necessary to identify the so-called "symptoms", i.e. concomitant phenomena that must be detected in the competitor's environment if he decides to address a specific problem, including preparations for addressing the problem. Possible sources of the symptoms or places of their identification should also be mentioned. The quality of execution of the above activities determines the quality of subsequent activities within the intelligence cycle. It is very demanding creative process.

Based on the findings, it is necessary to again discuss the problem with the client. The discussion must accomplish the following:

- a) absolutely unambiguous understanding of the problem by both parties,
- b) more accurate definition of the task, if necessary,
- c) agreement regarding the content and form of the final report, and the list of other recipients of the report.

#### ***3. Planning the decision procedure.***

At this phase of work on the submitted problem, the competitive intelligence team leader must prepare a decision procedure for tackling the problem, which will include allocations of necessary financial, human and other resources, and will set binding deadlines for completing tasks in individual steps of work on the problem.

#### ***4. Collection of necessary data.***

First, the so-called secondary data or information are collected. Based on secondary data evaluation, a set of data will be identified that needs to be obtained through primary collection in the field.

#### ***5. Processing of the data collected. (Structuring, evaluation of truthfulness, completeness, relevancy, usability, generating primary information, etc.).***

This activity is called collation. The data obtained through primary collection are first sorted out according to the following criteria:

- a) Relevance – their relation to a specific problem.
- b) Usability – i.e. whether a specific datum or piece of information can be used in strategic management, influence strategies, operative management, or only within the framework of analytical work being done. e.g. to check truthfulness, etc.
- c) Relevance.
- d) Etc.

We also need to pay attention to information that is produced as a result of a correct understanding and a combination of several collected data. At this phase, the truthfulness of some collected data can be checked and first hints of suspicion may be detected that competition may wish to employ deception i.e. that competition is trying to use disinformation (for more details, see Bartes, 1997).

Only after information on a given problem has been prepared in this way it can be passed on for further processing.

#### ***6. Intelligence analysis of information (creation of added value – intelligence).***

Intelligence analysis of information is the most important and decisive operation in the entire intelligence cycle. By applying highly sophisticated procedures, experience as well as the analyst's

3 Basic intelligence cycle – the working title for the sum of basic activities that we believe should be included in the intelligence cycle.

4 Spefis – Specific Information System, for more information, see (Bartes, 1997).

intuition, added value is created that transforms ordinary information about a specific problem into intelligence, e.g., how to gain competitive advantage on a given market. Because this issue was discussed in some detail by Bartes in a separate paper (Intelligence Analysis – the Royal Discipline of Competitive Intelligence, Bartes, 2011), we refer the reader to that text for further details.

### **7. Creating a report in accordance with the client's requirements.**

The report's content should correspond to the client's requirements (expectations) that should be consulted with him in step 2 of the basic intelligence cycle of competitive intelligence. The report should be written in a way that will help the reader to understand it. The report should contain:

1. Description and objectives of the task.
2. Report annotation.
3. Conclusions (results of the intelligence analysis).
4. Proposals for measures to be taken.
5. Procedure according to competitive intelligence methodology.
6. Enclosures (CI forms used).

All the processed documents and forms should be numbered and appended to the report (see Item 6).

Because competitive intelligence relies exclusively on legal methods and open information sources, when writing a final report it is not usually necessary to resort to measures that are indispensable on a similar occasion when writing a final report to be submitted to the intelligence community. There may nevertheless be occasions even in business practice when the use of such measures will be advisable, or even necessary. In such cases, the following precautions should be taken:

- a) all data that could help identify our company's information sources must be removed from the report;
- b) leave Items 5 and 6 out of the report because they could reveal the intelligence analysis know-how used by our company.

### **8. Dissemination of the report to authorized recipients.**

Our client can specify a list of other recipients who should also receive the final report. The dissemination itself is conducted in accordance with the company's rules for protection of commercial secrets. It means that each copy of the report must be numbered and the level of classification indicated. A classified list of recipients of each such report distributed in this manner should be made. For routine reports of the competitive intelligence unit, a permanent list of recipients can be made.

### **9. Feedback.**

Feedback is the concluding part of the basic intelligence cycle of competitive intelligence. In corporate practice it means that after he has studied the report, the client will either request additional

information to the report, or he will submit a new task to the competitive intelligence unit.

If we use this model of the basic intelligence cycle of competitive intelligence in corporate practice, we will ultimately conclude that it contains too many activities that are alike or organized as stand-alone steps although they are closely linked together. Having analyzed activities in individual steps of this basic intelligence cycle, we concluded that all the above operations can be organized into a five-phase model of the intelligence cycle of competitive intelligence.

### **The five-phase intelligence cycle consists of the following phases:**

1. Planning and direction of the intelligence cycle (contains activities 1, 2, 3 and 9).
2. Gathering information and conducting research (contains activity 4).
3. Information processing and storing (contains activity 5).
4. Intelligence analysis of information (contains activity 6).
5. Intelligence dissemination (includes activities 7 and 8).

## **DISCUSSION**

We interpret competitive intelligence as a systemic application discipline (for details, see Bartes, 2010): Competitive intelligence as a systemic application discipline makes it possible to use both team work and work plan. The creative phase in the work plan is the so-called intelligence analysis of information. It involves rather sophisticated methods of work with data and information, and their evaluation.

The result of thus applied intelligence analysis is the so-called "forecasting the future" (Bartes, 2011), which can already be used for strategic decision-making by the company's senior management. It means that using this added value, the company can gain a distinct competitive advantage over its competitors. The five-phase model of the intelligence cycle is particularly suitable to deal with demanding tasks in today's complicated business environment.

We believe that the five-phase model of the intelligence cycle has some very important advantages over the four-phase cycle:

1. The division of analytical operations into Phase III (**Processing and storing of information**) and Phase IV (**Intelligence analysis of information**). This allows for a much more thorough processing of raw data and their structuring, and the inputs for the intelligence analysis of information itself are generally of a much better quality.
2. The fact that all the original activities of our basic intelligence cycle are functionally well-integrated into the five-phase intelligence cycle framework.

3. This model of intelligence cycle Competitive Intelligence proved to be useful in the business practice for its ability to identify hidden linkages of the analyzed problem.

We believe that under the very demanding conditions of business practice the five-phase model of the intelligence cycle is not only more manageable, but also more successful in producing added value to the information analyzed. It is of course possible that intelligence cycles with more than five phases are used if it suits the company's specific situation, but we do not consider that a very likely scenario in Czech companies.

### CONCLUSION

In business practice it is becoming evident that if a company wants to achieve market success, it must prepare a business plan in time which is based of properly generated intelligence products

and timely responds to coming changes in the company's environment. To produce intelligence, the competitive intelligence unit must have a suitable method, i.e. a work plan, at its disposal. That work plan, however, must not only be able to produce desired results in the form of intelligence but its implementation must be manageable. To do that, it must be properly structured. To structure the activities, the intelligence cycle of competitive intelligence is used. When competitive intelligence units use the intelligence cycle in their work, they in most instances rely on the four-phase intelligence cycle, which is well suited to handle simple to intermediate tasks of creating added value to data and information. Our practice in the business sector, however, generated much more important results when we used the five-phase model of the intelligence cycle in competitive intelligence.

### SUMMARY

In the introduction to his article, the author characterizes current approaches to the analysis of collected information in competitive intelligence units set up in companies. He points out that information in contemporary specialized literature on analysis of information collected is very sparse and even unclear.

For the analysis, a four-phase model of the intelligence cycle of competitive intelligence consisting of planning and direction, collection, analysis and dissemination is used most frequently. The author argues that the four-phase model of the intelligence cycle of competitive intelligence may be suitable for the handling of rather simple intelligence analysis tasks but would find it difficult to cope with some of the more difficult intelligence analysis tasks.

The author defines the basic intelligence cycle of competitive intelligence, using the following nine activities:

1. Task definition.
2. Analysis and formulation of the problem.
3. Planning the decision procedure.
4. Collection of necessary data.
5. Processing of the data collected. (Structuring, evaluation of truthfulness, completeness, relevancy, usability, generating primary information, etc.).
6. Intelligence analysis of information (creation of added value – intelligence).
7. Creation of a report in accordance with the client's requirements.
8. Dissemination of the report to authorized recipients.
9. Feedback.

These activities comprising the basic intelligence cycle of competitive intelligence are briefly characterized in the paper, and their content is defined. The author then arranges the nine activities of the basic intelligence cycle of competitive intelligence into the five-phase model of the intelligence cycle of competitive intelligence. The author gives a brief characteristic of individual phases and lists basic intelligence cycle activities that each phase contains, and outlines the benefits of the five-phase model of the intelligence cycle of competitive intelligence.

### Acknowledgement

This paper is the output of the project "Microeconomic and macroeconomic principles and their effect on the behaviour of households and firms." The project is funded by the Internal Grant Agency of Brno University of Technology and its registration number is FP-S-13-1."

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