

Management Skills and Creativity

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“Discovery consists of seeing
what everybody has seen –
and thinking what nobody thought.”
(Albert Szent-Gyorgyi)

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Abstract

After a short introduction to creativity this paper discusses the research findings of a survey carried out in Hungary during the spring of 2004 by the Competitiveness Research Centre at the Corvinus University of Budapest. The main goal of the survey was to describe the competitiveness of the Hungarian micro sphere using a relatively big sample of companies at the moment of accession to the European Union. As a part of the survey the supportive role of creative skills in business success was also investigated. This is a snapshot of the analytical and intuitive skills of the sample and an effort to connect these results to the preferred decision making approaches of the responding managers.

Keywords: management skills, creativity, analytical approach, intuitive approach

About Creativity

In today's competitive business world, few qualities are more important than creativity. Since competence and technologies are becoming commodities, the only thing that's going to make a difference between organizations in the future is creativity. That is why we need to take creativity very seriously, or it could have been already taken seriously earlier as it was advised by Edward deBono ten years ago when he argued that companies should spend directly on creativity ten percent of what they spend on research of any sort. No organization was doing that. At the same time almost all organizations claim to be creative. They are not. In 1995 deBono carried out a survey of executives in Europe and USA. Ninety percent thought their organization should do “much more” about creativity. Nine percent thought their organization should do “more” about creativity. Only one percent believed their organizations were doing enough about creativity. At the same time eighty-five percent believed that creativity was an essential part of their job. (deBono, 1995)

Creativity could be defined as a tendency to generate or recognize ideas, alternatives or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others. Creativity is any act, idea, or product that changes an existing domain or that transforms an existing domain into a new one. It is also an ability to take existing objects and combine them in different ways for new purposes. There are at least three reasons why people – especially managers – are forced to be creative. They may be grouped into these three areas of need:

- novel, varied, and complex stimulation
- communication of ideas and values

- problem solving

In order to be creative one needs to be able to view things in a new way or form a different perspective. He or she needs to be able to generate new possibilities or new alternatives. The average adult thinks of 3-6 alternatives for any given situation. The average child thinks of 60. Research has shown that in creativity quantity equals quality – the longer the list of ideas, the higher the quality of the final solution. The highest quality ideas usually appear at the end of the list. (Csikszentmihályi, 1996) According to other sources it has been estimated that most adults over forty display less than two per cent of the creative problem solving ability of a child under five years old. (Whetten – Cameron, 2005) Creativity tests measure not only the number of alternatives but the uniqueness of those alternatives. From other point of view creativity is the ability to see things in a different way. As the Nobel prize-winning biochemist Albert Szent-Gyorgyi said: “Discovery consists of seeing what everybody has seen – and thinking what nobody thought.” This capability is linked to many fundamental qualities of thinking, such as flexibility, tolerance, ambiguity, unpredictability and the enjoyment of things unknown.

This paper will investigate the role of creativity in business. Modern business executives need to handle a wide variety of activities requiring creativity. They have widespread duties like meeting with other executives and managers within the company, handling customers, negotiating with investors and partners, struggling with the media, and meeting with employees and staff at every level of the company. Practically everything that executives do involves interacting with people. During these interactions they communicate ideas and the company’s values and try to solve problems. All of these types of activities involve a constant balance between creativity and practicality. Management skills might help to carry out these activities successfully, but they will never replace business knowledge and experience. The supportive role of various management skills in increasing creativity will also be studied. Management skills are always high on employers’ lists, especially when they are searching for managers with potential to rise to management positions. However, these valuable skills, especially those related to creativity, unfortunately are not always taught in MBA programs.

Meanwhile, business has a continuing need for at least two kinds of creativity: innovative and adaptive. Innovative creativity results in new products and services. Invention forms new ideas from bits of existing knowledge and seemingly unrelated information. As the old Hungarian saying states “Necessity is the mother of invention.” When you have to solve certain problems and you have only limited resources you will find very creative solutions for sure. Adaptive creativity, on the other hand, involves putting old ideas together in a new way, putting the creative ideas of others into practice, or simply finding better ways to do the same kind of work differently.

Hiring a manager with good skills and a high level of creativity will improve the business in a number of ways. But how can one recognize the most skilled and creative candidates? If creative skills could be precisely identified, a company would have a competitive advantage in hiring managers. Creative individuals are remarkable for their ability to adapt to almost any situation and make the best use of resources to reach their goals. They show tendencies of thought and actions that in most people are segregated. At the same time they are not easy to work with because they have personalities with contradictory extremes as Csikszentmihalyi described (Csikszentmihalyi, 1996):

- Creative people have a great deal of physical energy, but they’re also often quiet and at rest. It seems that their energy is internally generated, due more to their focused minds than to the superiority of their genes.
- Creative people tend to be smart yet naive at the same time. They are able to use two opposite ways of thinking: the convergent and the divergent. Convergent thinking is

measured by IQ tests, and it involves solving well-defined, rational problems that have one correct answer. Divergent thinking leads to no agreed-upon solution. There is an interesting relationship between IQ and creativity: it is difficult to do creative work with lower than 120 IQ points, but an IQ beyond 120 does not necessarily imply higher creativity.

- Creative people combine playfulness and discipline, or responsibility and irresponsibility.
- Creative people alternate between imagination and fantasy and a rooted sense of reality. They go beyond what others consider real and create a new reality.
- Creative people tend to be both extroverted and introverted. Ordinary people are usually one or the other, but creative individuals seem to exhibit both traits simultaneously.
- Creative people are humble and proud at the same time. Their respect for the area in which they work makes them aware of putting their contribution in perspective.
- Creative people to a certain extent escape rigid gender role stereotyping. Creative and talented girls are more dominant and tough than other girls, and creative boys are more sensitive and less aggressive than their male peers.
- Creative people are both rebellious and conservative. They are willing to take risks, to break the safety traditions. At the same time they have a strong cultural background.
- Creative people are very passionate about their work, yet they can be very objective about it as well.
- Creative people are open and sensitive. Things bother them if they do not work properly. On the other hand they are very often criticized since eminence invites criticism.

As Csikszentmihalyi summarized, creative people have contradictory extremes, two poles. Instead of being “individual,” each of them is a “multitude.”

Creative people hold special skills and expertise. It is easy to recognize that all of us possess strength and weaknesses in using our intelligence. By a self-evaluation we can gain what decision-making expert Gary Klein called “the power to see invisible.” (Klein, 1998) In his research, Klein discovered that experts not only know more, but they also observe more. For example, a jeweler needs only a cursory glance to distinguish a diamond from an imitation. Such ability is based on knowledge but also depends on accurate and instantaneous perception. The jeweler’s knowledge coexists with the perceptual acuity needed to distinguish accurately and quickly the genuine from the fake article. (Restak, 2001)

When we talk about creativity we can use the chess master’s performance as an example. During their career chess masters play thousands of games against strong players. Success in any individual game depends on the ability to select winning moves. The most brilliant players do not lose their ability to select the best moves under unusually stressful and challenging conditions such as stress. Even in games played at a rapid pace, the masters’ level of play remains consistent while the amateurs’ performance plummets dramatically in response to the narrowed time constraints. Chess masters are capable of thinking through the various options at a more measured pace because they have learned to employ metacognition to manage personal limitations.

According to Klein, four components of metacognition are most important in thinking like an expert (Klein, 1998):

- Becoming acquainted with your memory and its limitations
- Getting the big picture
- Self-critiquing your own performance
- Effectively selecting the best strategy

The first step toward improving our memory is learning about our memory limitations. Experts are always aware of their limitations and make adjustments to overcome them. At important moments they may increase their level of awareness or their ability to sustain concentration. Experts are not

only better at putting things into perspective, but also quicker at detecting when they are starting to lose the big picture. Experts are not shy to criticize their own performance. They have learned the art of constructive self-criticism when their performance is not up to their usual standards. Finally they use these components of metacognition – working with their memory limitations, focusing on the big picture, and critiquing their performance – to adapt their thinking and change their strategies.

Empirical Research on Management Skills

The empirical research discussed in this paper is based on a survey carried out during the spring of 2004 by the Competitiveness Research Centre at Corvinus University of Budapest. The main goal of the survey was to describe the competitiveness of the Hungarian micro sphere using a relatively big sample at the moment of accession to the European Union. The survey was performed between March and June at a historical moment. It is important to emphasize that this was not the first survey on this topic. A similarly structured survey was done in 1996 – also in the framework of the “In Global Competition” research program – and the survey was repeated in 1999. Consequently, we were able to evaluate the path leading to the current situation and the development of the competitiveness of Hungarian companies based on three similarly structured and sized databases. The results of the previous surveys justify the validity of the research methodology. However, it is important to emphasize that the survey and its results reflect more often the opinion of the executives than some objective truth (Chikán et al., 2002).

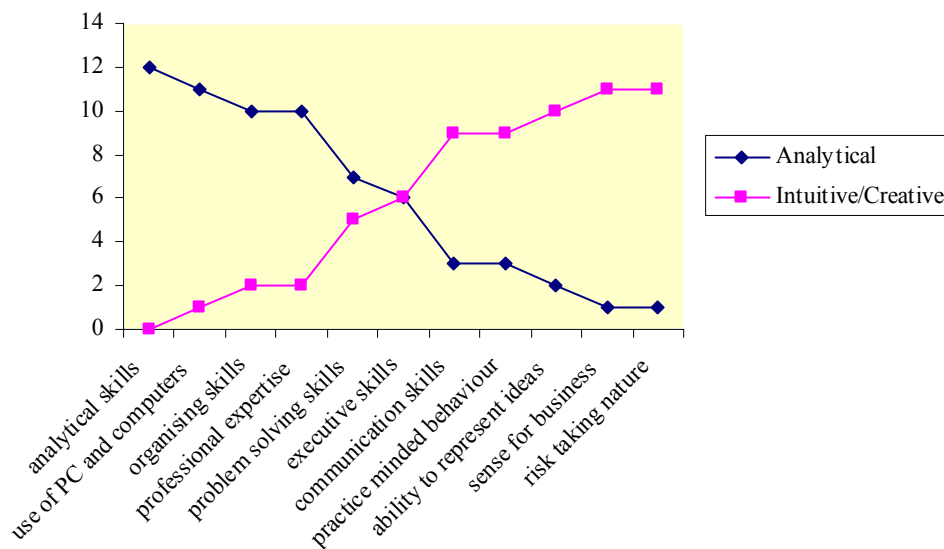
This research focused on the characteristics individuals must have to be successful in business. The supportive role of creative skills was also investigated. In order to answer my research questions I began my research based on outcomes of an international research project (Hickson, 1986) and constructed a survey to discover how Hungarian managers meet their challenges. The research topics were based in those included in the main questionnaire of the “In Global Competition” research program. There was an already well-established precedent for these items surveyed from more than three hundred companies and 1200 executives. The research will demonstrate the degree to which these skills contribute to creativity. This skills list embraced traditional managerial virtues, capabilities, skills and indispensable characteristics that are necessities in a dynamic economy. The aim was to identify and evaluate the abilities of the managers in the sample. Respondents had to evaluate their management skills and capabilities on a 5-point scale:

- excellent communication skills
- professional expertise
- executive skills
- problem solving skills
- ability to represent ideas
- organising skills
- sense for business
- use of PC and computers
- analytical skills
- practice minded behaviour
- risk taking nature

The research method also involved interviewing a dozen of university professors from Hungary and the United States in an effort to link these management skills with the analytical or intuitive (creative) way of problem solving. A quick survey was designed and the professors were asked to think about the above mentioned skills and to rate them as to whether they supported analytical or

intuitive (creative) thinking. They could mark only one answer for each skill. All of the respondents had strong management background since they were teaching either in the field of Organizational Behaviour or Decision Sciences. Figure 1 shows the distribution of the opinions regarding the supporting roles of the different management skills toward analytical or intuitive (creative) thinking.

Figure 1: Supportive role of different management skills



Based on the distribution of votes one can make a solid distinction between the two groups of capabilities. In Table 1 below the skills were split into two groups depending on their role supporting creative (intuitive) or analytical problem solving. According to the opinion of these university professors with management background, creative thinking and problem solving are best supported by the following skills: willingness to take risks, sense for business, ability to represent ideas, practice minded behaviour and excellent communication skills. On the other hand other skills take precedence when problems require analytical solutions. The skills that most support this approach were determined to be: analytical skills, computer skills, organising skills, professional expertise and problem solving skills. Not surprisingly executive skills are somewhere in between these two groups of skills since effective leadership requires a combination of analytical and intuitive approaches.

Table 1: Distinction of management skills

Creative (intuitive) skills	Analytical skills
risk taking nature	analytical skills
sense for business	use of PC and computers
ability to represent ideas	organising skills
practice minded behaviour	professional expertise
excellent communication skills	problem solving skills
	executive skills

To enrich this picture it is interesting to learn how others think of creative people. They are quite often considered odd. Table 2 shows typical and least typical traits of creative individuals by Csikszentmihalyi (Csikszentmihalyi, 1996).

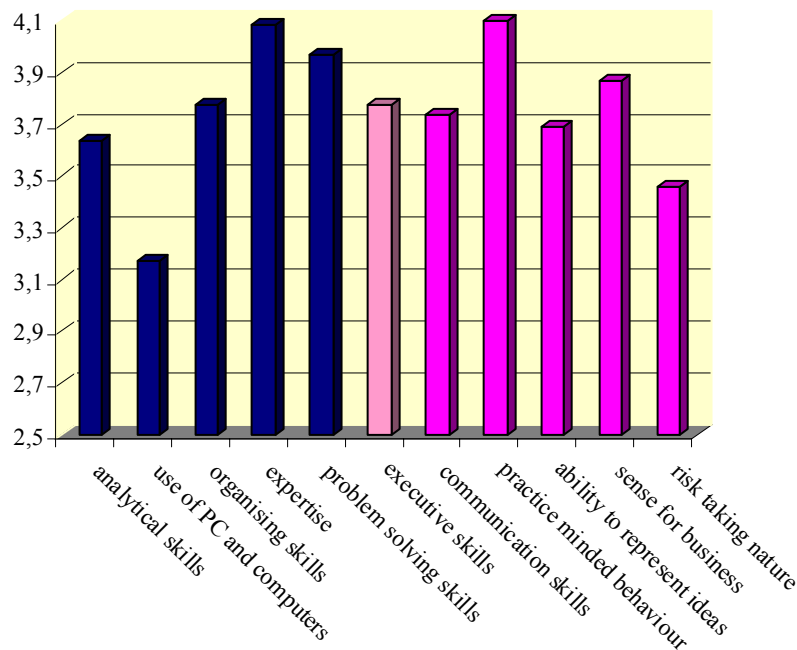
Table 2: Traits of creative people

Typical traits	Least typical traits
Impulsive	Practical
Nonconformist	Dependable
Makes up the rules as he or she goes along	Responsible
Likes to be alone	Logical
Tends not to know own limitations	Sincere

Main Research Findings

Some curiosities could be revealed from the self-assessments. Naturally, the highest values are worth attention, outlining a manager-image frequently mentioned in the answers. The major task of a manager is to solve problems which Hungarian managers find to be a continuous and frequently challenging activity. They always have to select which problems they should address personally from among those with which they are overwhelmed. To accomplish this, they must have developed recognition and selection skills.

Figure 2: Self-assessments according to the management skills

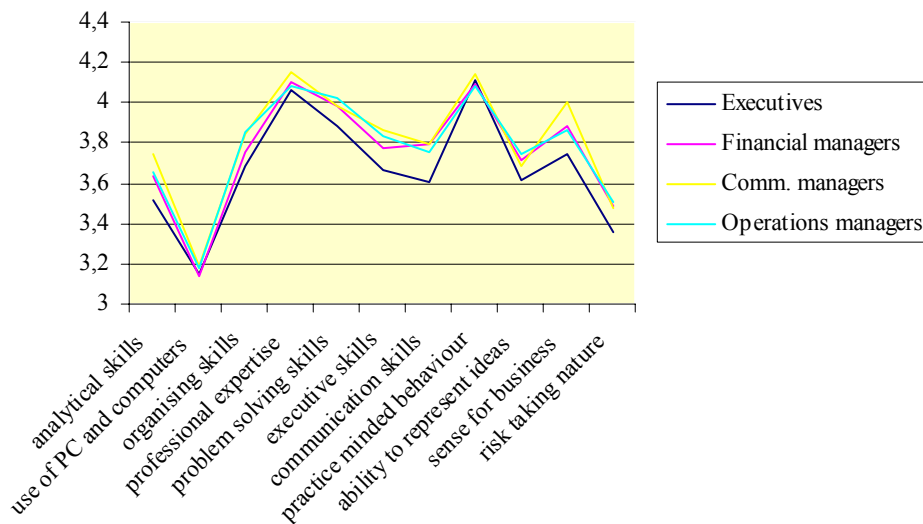


The most positive picture emerged in the area of *professional expertise* and *practice minded behaviour*. Professional expertise leads the rank of the analytical skills while practice minded behaviour is the most important strength among the creative skills. Consequently, for management positions, the greatest emphasis is on practical skills, while professional skills and capabilities fell into the background. Indication of the *sense for business* as an important strength is also promising as Hungary completes its transition to a market economy. Among the weaknesses is the lack of *risk taking nature* which could cause problems in a challenging economic environment when linked to the shortcomings of *representing ideas*. A frequently mentioned shortcoming was the regretfully low level of *computer skills*. This is reconfirmed by the research.

If we compare the results of the past three surveys (1996, 1999, 2004) both are headed by the same skills: practice minded behaviour, the high level of professional expertise, problem solving skills and sense for business. These strengths outline a highly able and pragmatic management that adapted the new conditions but still lacked the risk taking nature and the ability to represent ideas whereas both were necessary for creative problem solving.

Analysing the self-assessments by their analytical or intuitive nature, we find that the managers compared in the four management groups (executives, financial managers, commercial managers, operations managers) statistically have more strengths in the field of intuitive thinking. That is especially true in the case of commercial managers. Surprisingly CEOs evaluated their intuitive skills to be the lowest, which totally contradicts the management literature in which CEOs are usually considered to be the most intuitive thinkers within the company. However, in our sample there were no big differences in this respect and the tendencies were rather similar in the four groups of managers as is shown by Figure 3.

Figure 3: Self-assessments of the four different management groups



Decision Making Approaches

In the literature of decision theory, several models of organizational decision making can be identified. These differ from each other in a sense that they use other prerequisites of decision makers and also refer to the organizational connections of decision makers. The core question of this research was whether Hungarian managers in the sample could be considered to be more rational or more intuitive decision makers, depending upon their nature. Therefore the focus of the study was on their preferences for analytical and intuitive problem solving approaches. Clarification was sought on Hungarian peculiarities. With the use of well-known decision taxonomies, I tried to map out the occurrence ratio of different decision making approaches at Hungarian companies, and which approaches were typical.

Hungarian executives were interviewed for this project. They were asked to indicate their decision making styles by responding to statements in a questionnaire. The items were carefully worded to avoid negative connotations that might influence their answers. Responses were given on a 5-point scale with 5 being the most characteristic of their company and 1 being the least characteristic.

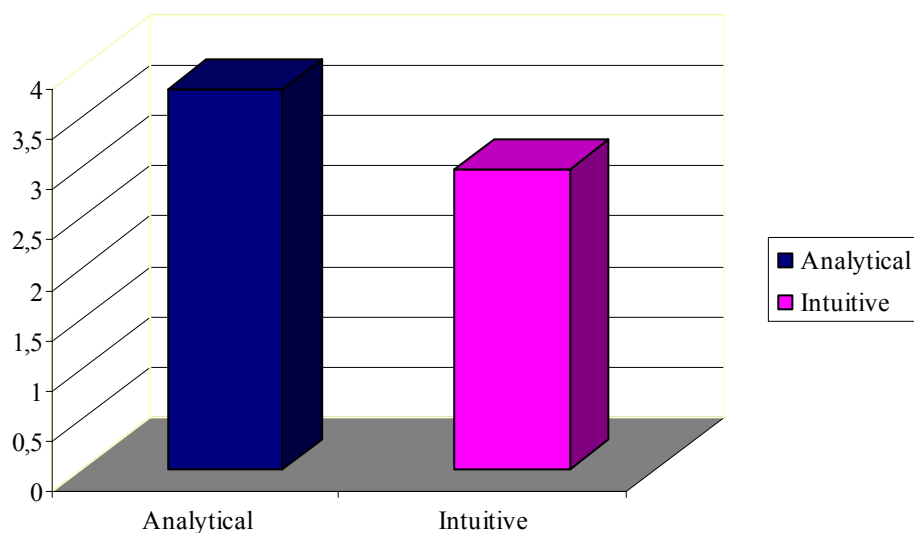
The rational (analytical) approach assumed one-man decision making, where the decision maker uses a classical economic approach to reach the optimal solution. This is a normative model that

focuses on analysis. It assumes that all necessary information is available or can be obtained. All possible alternatives can be revealed along with reasonable costs and its consequences can be precisely measured. With the use of appropriate quantitative methods, usually the optimal profit-maximizing decision can be made

The model of behavioral science (intuitive) decision theory investigates decision makers who are not able to rationalize and make decisions that enable them to win time and somehow “muddle through”. This approach requires sound preparedness in the phase of problem identification. Usually, an environment that is changeable and highly uncertain dominates the strategic decisions of the organization. Decision makers do not have enough time and resources for a comprehensive problem analysis. Solutions mostly rely on previously acquired experience and the detailed analysis is frequently replaced by intuitive solutions.

The rational (analytical) approach characterizes analytical thinkers while the model of behavioral science characterizes intuitive thinkers. Managers in the sample expressed the frequency of usage of these two approaches on a five-point scale. Figure 4 shows the answers.

Figure 4: Use of different decision making approaches



It is evident from the short introduction of the major characteristics of the two models that an organization which can create its decision making mechanism according to the optimizing (analytical) model of the normative decision theory can gain a competitive edge over other organizations. However, descriptive decision theory points out that in real decision making situations, especially in case of complex company decisions that are accompanied by a high level of uncertainty, several factors can hinder the surfacing of the normative model in its clear form. Important causes of differences between the ideal and the real are eliminated by other models. The results of this survey show that Hungarian managers hesitated to rely on their intuition when making decisions. This failure could ultimately have negative impact on the performance of the company.

That can explain why they are afraid of using the intuitive model and rely on the analytical approach more heavily. After finding that they are equipped with the necessary skills to be intuitive this is an unexpected research result. The figures also show their shortcomings in analytical skills. So why are they still reluctant to rely on their intuition? Probably they are biased culturally. In

Hungary, if someone is considered to be rational it implies that he or she is careful, reliable and responsible, while intuition is still considered to be a negative trait – something unjustifiable, uncertain, and unreliable.

Conclusions

Should we convince Hungarian managers to use their intuitive skills in order to improve their management performance? Will they be more successful as a result? Who is a good manager? Based on this research, the main characteristics of a good manager may be summarized as follows: A good manager can always figure out what needs to be done. This person is an *innovative thinker* and can usually see the pros and cons of each situation. Many times this individual has different scenarios in mind and can see how the problem can be tackled with various solutions.

By adulthood people generally know their strengths and weaknesses. Most of them enter careers in which flow from their natural talents and thereby increase their chances for success. Peter Drucker, author of *The Effective Executive* in his imaginative book argued for reliance on intuition rather than 'facts'... but finally gave very wise advice (Drucker, 1966):

“For years I have urged managers to concentrate their efforts in areas in which they are strong and to waste as little effort as possible trying to improve the areas in which they don’t have much confidence... You may be shocked when you identify your weaknesses in certain skills or your lack of talent for certain activities. Use the information to avoid jobs that depend on those skills rather than waste time challenging yourself.”

However, a number of researchers have found that the most creative and probably the most successful problem solvers use both left and right hemisphere (in other words analytical and intuitive thinking) and easily switch from one to the other. (Whetten – Cameron, 2005) Creative ideas arise usually in the right hemisphere but must be processed and interpreted by the left, so creative problem solvers should use both hemispheres equally well. So it is highly advised to improve our capabilities, the less developed side of our brain or at least surround ourselves by others who can complement our strengths. To Hungarian managers in facing the new EU competitiveness probably this is a good advice.

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