

# **Analysis and Intuition in Strategic Decision Making the Case of California**

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# **Analysis and Intuition in Strategic Decision Making**

## **The Case of California**

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### **Abstract**

This paper reports the results of a study that attempts to assess the effects of decision making circumstances focusing mainly on the approaches applied and the managerial skills and capabilities the decision makers built on during concrete strategic decision making procedures. The study was conducted in California between September 2005 and June 2006 and it was sponsored by a Fulbright Research Scholarship Grant. Twenty top level managers were targeted: twelve were CEOs, Presidents, Vice Presidents or Chief Financial Officers (will be called Executives), while eight were founders and majority owners of their own enterprises (will be called Entrepreneurs). The lack of field studies in strategic decision making processes called for a research study to examine concrete real life cases and to analyse how top level managers really make strategic decisions.

### **Keywords**

strategic decision making, intuition, rationality, management skills, decision making approaches

## **Introduction**

“The primary wisdom is intuition.”

(Ralph Waldo Emerson,  
American philosopher)

Many management scholars believe that the *process* used to make strategic decisions affects the quality of those decisions. However several authors have observed a lack of research on the strategic decision making process. Empirical tests of factors that have been hypothesized to affect the way strategic decisions are made notably are absent. (Fredrickson, 1985) This paper reports the results of a study that attempts to assess the effects of decision making circumstances focusing mainly on the approaches applied and the managerial skills and capabilities the decision makers built on during concrete strategic decision making procedures. The study was conducted in California between September 2005 and June 2006 and it was sponsored by a Fulbright Research Scholarship Grant.

Strategic decisions are those that affect the direction of the firm. These major decisions concern areas such as new products and markets, product or service development, acquisitions and mergers, subsidiaries and affiliates, joint ventures, strategic alliances, finding a site for a new investment, reorganisation, and other important matters. Strategic decision making is usually conducted by the firm’s top management, led by the CEO or President of the company. That is why in this research twenty top level managers were targeted: twelve were CEOs, Presidents, Vice Presidents or Chief Financial Officers (I will call them Executives), while eight were founders and majority owners of their own enterprises (they will be called Entrepreneurs). Sixteen respondents were male, four were female. The average respondent has been working for 28.7 years in general, for 13.8 years for the actual company and for 8.4 years in the current position. 60 percent of the respondents have a graduate business degree, 60 % have an undergraduate degree, seven of them have an MBA or a PhD and two out of these seven have both an MBA and a PhD. One respondent is working on his PhD right now.

The interviews took two and a half hours on the average, varying from two hours up to five hours. During the interviews a preliminary structured list of questions was followed. With each respondent we investigated the circumstances of four different strategic decision cases from their practice. They could choose the cases on their own. Using this technique a database of 80 strategic decisions could be built up.

## **Background**

Kathleen M. Eisenhardt, professor of strategy and organization at Stanford University found that top managers at more effective firms were able to make quick and high quality decisions that were highly supported throughout the firm. Her studies identified four areas in which effective decision makers outperformed counterparts at less effective firms (Eisenhardt, 1998):

1. building collective *intuition*
2. stimulating conflict
3. maintaining a pace or schedule for decision making
4. defusing political behaviour.

In my research I focused on the role of *intuition* in strategic decision making. As Ashley F. Fields stated intuition is one of the more mysterious concepts associated with the study of human capital (Fields, 2000). Classical theoreticians, from Carl Jung (Jung, 1934) through Chester Barnard (Barnard, 1938) and Abraham Maslow (Maslow, 1954) have commented on the existence and value of intuition in organisational settings. Carl Jung said: “intuition does not denote something contrary to reason, but something outside of the province of reason.” It is real and it is not in our heads and our head can not control it. Harold Leavitt (Leavitt, 1975) viewed intuition as a valuable weapon to be used against the heavily analytical practices, which gave rise to his derisive term “analysis paralysis”. Fascination with the subject of intuition remains alive and well in recent years too.

Intuition is usually defined as knowing or sensing something without the use of rational processes. Alternatively, it has been described as a perception of reality not known to consciousness, in which the intuition knows, but does not know *how* it knows. Westcott redefined intuition as a rational process, stating that it is a process in which an individual reaches a conclusion on the basis of less explicit information than is ordinarily required to reach that decision (Westcott, 1968). Weston Agor argued that intuition is a built-in capacity that some of us have and some do not (Agor, 1997). In my research I basically relied on the definition given by Martha Sinclair and Neal Ashkanasy. According to these authors intuition is a non-sequential information processing mode, which comprises both cognitive and affective elements and results in direct knowing without any use of conscious reasoning (Sinclair – Ashkanasy, 2000). Practically it is an unconscious process of making decisions on the basis of experience and accumulated judgment.

Isenberg, who studied managers in Fortune 500 firms, found that they combine both rational and intuitive methods in decision making (Isenberg, 1984). Parikh studied more than 1300 managers and found that intuition is cross-national (Parikh, 1994). Catford’s study of 57 business professionals demonstrated that intuition was used commonly as a business tool (Catford, 1978). These and many other researchers have demonstrated that intuition is used regularly in the conduct of business (Fields, 2000).

Interestingly more than half of today’s intuition books are authored by females. Psychologists debate whether the intuition gap is truly intrinsic to gender. Whatever the reason, Western tradition has historically viewed rational thinking as masculine and intuition as feminine. Women’s way of thinking gives greater latitude to subjective knowledge. Some personality tests show that nearly six in ten men score as “thinkers” (claiming to make decisions objectively, using logic) while three in four women score as “feelers” (claiming to make decisions subjectively, based on what they feel right) (Meyers, 2002).

In recent years instinct appears ascendant. Decision makers have good reasons to prefer instinct. In a study executives said they use their intuition as much as their analytical skills, but credited 80% of their success to instinct (Buchanan – O’Connell, 2006). Henry Mintzberg explains that strategic thinking calls for creativity and synthesis and this is better served by intuition than to analysis (Mintzberg – Westley, 2001). Buchanan and O’Connell cited some famous statements related to intuition (Buchanan – O’Connell, 2006):

“Pragmatists act on evidence, Heroes act on guts.”  
“Intuition is one of the X-factors separating the men from the boys.”

One feature common to all the authors cited above is an inability to articulate a coherent, consistent, and verifiable theory of what underlies the intuitive phenomenon. These researchers unanimously declare that “something“ really exists, but they can not agree on just “what” exists or “why” it works as it does (Fields, 2000). Recent advances in cognitive science and artificial intelligence suggest that there is nothing mystical or magical about intuitive processes and that they are not paranormal or irrational. Rather, intuitive processes evolve from long experience and learning and consist of the mass of facts, patterns, concepts, abstractions, and generally what we call formal knowledge or beliefs, which are impressed in our minds (Isenberg, 1984, Simon, 1987). Intuition is not the opposite of rationality, nor is it a random process of guessing, as we very often think. It is a sophisticated form of reasoning based on chunking that an expert hones over years of job specific experience. Consequently intuition does not come easily, it requires years of experience in problem solving and is founded upon a solid and complete grasp of the details of the business. However, in some cases it compresses experience and learning into seconds – as it was shown in some cases during my interviews.

### **Rational/Intuitive Orientation**

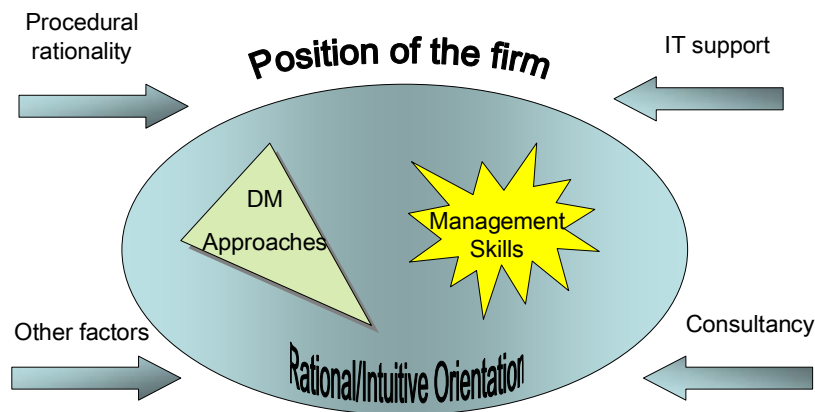
The lack of field studies in strategic decision making processes called for a research study to examine concrete real life cases and to analyse:

1. How top level managers really make strategic decisions,
2. How Entrepreneurs and Executives differ, if at all, in their approach to strategic decision making processes,
3. Similarities and differences, if any, in management skills between Entrepreneurs and Executives.

The logic of the research model can be described as follows:

## Exhibit 1

### The Research Model



Rational/Intuitive Orientation is a concept which has yet to make a significant impact on mainstream decision making research. Consequently, no well-established indicators of Rational/Intuitive Orientation exist. Based on understanding the concept, however two optional indicators (decision making approaches and management skills) were identified in this study.

In the literature of decision theory, several models of organisational decision making can be found. These differ from each other in the sense that they use other prerequisites of decision makers and also refer to the organisational connections of decision makers. On the basis of the above dimensions four different models and decision making mechanisms were identified (analytical, political, bounded rationality and intuitive). Eleven management skills were investigated and rated as to whether they support analytical or intuitive thinking. In this chapter we will focus on the core of the above mentioned research model namely on Rational/Intuitive Orientation.

The main hypotheses of the research can be summarized as follows:

H1: Intuition plays a key role in strategic decision making since strategic problems are ill-structured and hence can not be programmed. Decision makers at the top level combine analytical and intuitive approaches, but more heavily rely on their intuition.

H2: Intuitive decision making is more favoured by independent decision makers (Entrepreneurs) who have extended control over their firms and are more often in the final decision maker's position. When they put the dot on the "i" they are almost always intuitive.

H3: The level of management skills is high. The creative/intuitive skills are even more developed in the sample.

Herbert Simon was the first to distinguish between the two extreme types of decisions. He called recurring, routine-like or ready-made ones *programmed decisions*, while those being unique and unstructured with long-term impacts were called *non-programmed decisions* (Simon, 1982). Programmed and non-programmed decisions naturally set the two extreme poles of one continuum and the appearance of interim cases is much more probable. In the course of company operations it happens very rarely that a decision situation clearly corresponds to the terminology of the programmed or non-programmed decisions. On the other hand, most managers develop some kind of practice for the handling of non-programmed decision situations that can be successfully applied, if a ready-made solution can be fitted to an actual situation. Certain non-programmed decisions may become programmed in the course of time in a company's practice. It is rather meaningful that programmed and non-programmed decisions are sometimes referred to as well-structured and ill-structured as well.

A central part of this survey consisted of the examination of 20 plus 60 real strategic decisions. At the beginning of the interview every respondent could mention a "big case" which was mainly ill-structured. When I asked the respondents to quote three more decision cases, they mainly mentioned *semi-structured* problems which could be positioned somewhere between the well-structured and ill-structured extremes. These case were not as "big" as the previous 20 decision situations, but they still had long term consequences and strategic importance.

In the interest of comparability, the latter three decision cases were classified into categories that are borrowed from the „*Bradford Studies*” (Hickson, 1986). According to this, I distinguished

- investment
- reorganization
- acquisition
- fund-raising
- marketing
- service/production development
- production
- finding a site for investment
- human resource management
- quality management
- other decisions.

Product or service development (10), investment (9), reorganization (9), marketing (8), finding a site for investment (7) decisions were the most frequently mentioned cases. But I also found at least a single case for each other category.

The respondents mixed the analytical and intuitive problem solving approaches when they made these decisions. As they argued they found it very difficult to use only the rational approach for these semi-programmed decisions, therefore intuitive decision making was very often valuable

and also applied. But it was also typical that decision makers made their decisions and later developed rational sounding reasons for the decision after the fact. It seemed that for some reasons they like to be seen rational. However, some of them were very proud of relying on their instinct in solving particular cases. Demonstrating the concept of bounded rationality the respondents recognized that at least in part their decisions were based on intuition, gut feeling, “seat of the pants”. This was most typical in marketing cases, where they needed more experience and judgment than sequential logic or explicit reasons to make those decisions. As they explained it, they made these decisions based upon what they believed to be right, rather than upon what they could document with hard data. But in the other categories, especially in cases of service and product development, investment, acquisition and finding a site decisions they did not find it appropriate to apply this kind of logic.

When the respondents were given an extra opportunity to rethink their earlier answers concerning the analytical and intuitive approaches in their cases, they changed their mind only slightly. If they could repeat the same decisions, which will of course never happen, they would rely more on analysis in marketing decisions too, but in service product development cases interestingly would give more room for intuition.

Clearly, there were major perceived differences between Entrepreneurs’ and Executives’ answers in term of how their decisions were made. One of the main differences is that Executives tend to exhibit more characteristics of analytical decision making than Entrepreneurs do. Executives more heavily rely on the analytical approach. However, it is interesting to note that Entrepreneurs are more careful in cases of investment decisions, where they insist on preliminary analytical investigation. A logical explanation could be that they risk their own money when investing and are therefore more careful about it.

The quality of the decision making activity and the company’s success is considerably influenced by the fact of who makes the decisions, what skills and capabilities they have, what their managerial style is, and also what techniques and methods they use in the course of decision making. Consequently, it is not only the applied decision making approach and the managerial style that leave their mark on decision making, but it is equally important, what level of professional abilities, education and experience the managers have.

What characteristics or individual skills must a management have to be successful? The survey embraced the general abilities of management. What is more, in the in-depth interviews I encouraged respondents to make some self-evaluations. I asked them to define their strengths and weaknesses according to the investigated characteristics and skills by evaluating themselves on a five point Likert scale. However, the first task was to rank the skills according to their importance. Considering the opinions of all respondents (N=20), the “image of the ideal manager” fulfilling all expectations of management was appeared as shown in decreasing order:

1. excellent communication skills
2. sense for business
3. problem solving skills
4. practice minded behaviour
5. ability to represent ideas



6. risk taking nature
7. expertise
8. organising skills
9. executive skills
10. analytical skills
11. use of PC and computers

Some interesting features are revealed from this ranking. Naturally, the top and the bottom of the list are worth attention, since the skills there outline a manager-image frequently mentioned during the interviews. The major task of a manager is to communicate inside and outside of the company (as they stated they do most of the marketing) while the use of computers at top level is not a must since they can get all necessary IT support whenever they need. The other skills could be divided into two subgroups in the order. As one of the respondents stated those skills are more important - and happen to be in the upper part of the list - which you can not buy, and those which are available through different channels i.e. consultancy like organising skills, analytical skills or IT knowledge are in the second half of the list.

If we compare these results to the actual self-assessments we can see an interesting evidence of cognitive dissonance. The respondents ranked less important their weaknesses and more important their strengths. They were far beyond the average performers (indicated by 3) on all criteria except one, the use of computers, but as we saw earlier they did not feel that as a disadvantage. They are very good communicators which I can confirm based on my personal experiences. They quite heavily rely on their accumulated knowledge and experiences and expertise and equipped with the necessary problem solving skills. They named as a real strength their sense for business. We can not forget that two-fifth of them are founder and majority owner of his or her enterprise in the sample. Two of them started a totally new business when recognized a new business opportunity. They left behind their emerging and safe career and chose an unknown challenging new field. Both of them are very successful in their new businesses.

We know that some skills and capabilities support more the intuitive way of problem solving than the others. My research method also involved interviewing a dozen university professors in an effort to link the management skills involved in this research with the analytical or intuitive 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 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.

The skills were split into two groups depending on their role supporting intuitive or analytical problem solving. According to the opinion of the university professors with a management background, intuitive 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 different 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 between these two groups of skills since effective leadership requires a combination of analytical and intuitive approaches.

Subsequently I revised this distinction at two points. Most of the authors (Sinclair – Ashkanasy, 2005, Csikszentmihalyi, 1996, Klein, 2004) agree, that intuition is nothing else than experience put into practice. This demystified definition of intuition shows how one can become expert in one's profession through one's cumulative experience or knowledge. Klein argues that intuition is a developed sense helping to put experience into recognizable patterns for future use (Klein, 2004). As it is well-known good communication skills often go with good analytical skills, since both are the functions of the left hemisphere (Browning, 2005).

Putting this split into practice the chart of the managers shows a rather balanced picture of their analytical and intuitive skills. *Problem solving skills* lead the rank of the analytical skills while *business sense* is the most important strength among the intuitive skills. Among the 80 analyzed decision cases I found much that confirms the importance of the business sense as the path towards the success. The weaknesses are compensated by the high level of strengths. Lack of the *computer knowledge* or *organising skills* do not seem to be a big problem because top level managers can easily find someone to do these jobs.

The largest gap could be recognized in case of the ability to represent ideas. Entrepreneurs do not have to "sell" their decisions, because they are typically the final decision makers, consequently for them this skill is not a must. Their priorities are instead: risk taking nature, problem solving skills, sense for business and communication skills. Executives consider the ability to represent ideas far more important than the Entrepreneurs. Analytical and organizing skills are ranked a little bit higher by them too.

Differences between groups that exceed 10 percent are considered to be very significant in survey research. There were relatively large differences in this research between the two responding groups according to the capabilities and skills based on their self assessments. Entrepreneurs have better business sense and they are ready to take far more risks. They evaluated their problem solving skills slightly higher than the Executives. Executives' strengths are in ability to represent ideas, analytical skills and executive skills. The more balanced picture emerged when we compare practice minded behavior, communication skills and expertise.

### **Future Trends**

When analyzing these findings it must be remembered that these results were based on self-assessments. Rarely are self assessments and independent (objective) assessments congruent. However, we do not have any techniques to measure the level of the different management skills and capabilities or decision making approaches objectively yet. Even though we feel that it might be a lack of agreement between the self assessments and an imaginative objective assessment of these parameters. We call this gap “the coefficient of self delusion”. This coefficient can be positive (when the objective rating is higher than the self assessment) or it can be negative (when the objective ratings are lower than the self assessments). The positive coefficient of self delusion occurs with people who either are genuinely humble or may be trying to avoid over-inflating their self-ratings for a variety of reasons e.g. because of their cultural background. The negative coefficient of self delusion usually occurs with people who are not conscious of the impact of their behaviors on others or they have an inflated sense of self. In either case, it is important to investigate why the assessment gap exists and reflect upon ways that it can be narrowed, perhaps even closed, which is a big research challenge.

There is a big debate at the present time whether the analytical or the intuitive way of thinking is more powerful in the business arena. Thomas Davenport argued that some companies have built their very businesses on their ability to collect, analyze and act on data. Every company can learn from what these firms do. (Davenport, 2006) The popular “head versus formula” controversy that is based mostly on laboratory studies in the past, established the superiority of the rational-analytical approach over the soft judgmental or intuitive approach. The extension of this approach to strategic decision making is problematic, however. This is because strategic decisions are characterized by incomplete knowledge. Consequently, it may be impossible to identify quantitative equations among variables and find numeric values for parameters and initial states. That is why people still use their heads instead of formulas in strategic cases (Khatri – Alvin, 2000). As a conclusion of the very intensive debate by now there is an agreement that intuition is not an irrational process. It is based on a deep understanding of the situation. It is a complex phenomenon that draws from the store of knowledge in our subconscious and is rooted in past experience. It is quick, but not necessarily biased as presumed in previous research on rational decision making (Khatri – Alvin, 2000).

### **Conclusion**

In everyday language we tend to use the word “intuitive” with some connotation of “irrational”. This is probably due to Bergson (Bergson, 1911) who attached great importance to intuition but interpreted it as a mystic force which by definition could not be subject of rational means of inquiry (Wierzbicki, 1997). However, almost a hundred years of research in various fields of science now leads to a reversal of this interpretation. In the management literature of our days we can read that intuition is not arbitrary or irrational because it is based on years of practice and hands on experience, often stored in the subconscious. Managers started to accept that new interpretation and they believe that their intuition is part of their business knowledge. It will probably take time until this view is widely recognized.

This study showed that Executives in a corporate setting tend to view decision making differently than Entrepreneurs. Since they are typically given a fixed amount of budgeted resources to work with, they tend to define a problem in terms of *what can be done* with the resources in hand. Entrepreneurs, on the other hand, will likely pose the problem in terms of an *objective*. “This is what I want to get done”, they usually state and then start to worry about finding the resources to accomplish that objective. As a result entrepreneurial decision makers feel less constrained by the lack of resources. They are famous for making “seat-of-the-pants” decisions, which means they make quick decisions based on a good feeling or intuition. This kind of challenge required different skills from the Entrepreneurs than from the Executives.

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### **Terms and Definitions**

**Analytical skills:** The skills that most support analytical approach in problem solving are determined as follows: analytical skills, computer skills, organising skills, professional expertise, problem solving skills and communication skills.

**Intuition 1:** Intuition is usually defined as knowing or sensing something without the use of rational processes.

***Intuition 2:*** Intuition has been described as a perception of reality not known to consciousness, in which the intuition knows, but does not know *how* it knows.

***Intuition 3:*** Intuition is a rational process in which an individual reaches a conclusion on the basis of less explicit information than is ordinarily required to reach that decision.

***Intuition 4:*** Intuition is a non-sequential information processing mode, which comprises both cognitive and affective elements and results in direct knowing without any use of conscious reasoning.

***Intuitive skills:*** Intuitive 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 expertise.

***Programmed/well structured decisions:*** Herbert Simon was the first to distinguish between the two extreme types of decisions. He called recurring, routine-like or ready-made ones *programmed decisions*.

***Strategic decisions:*** Strategic decisions are those that affect the direction of the firm. These major decisions concern areas such as new products and markets, product or service developments, acquisitions and mergers, subsidiaries and affiliates, joint ventures, strategic alliances, finding a site for a new investment, reorganisation, and other important matters. Strategic decision making is usually conducted by the firm's top management, led by the CEO or President of the company.

***Un-programmed/ill-structured decisions:*** Unique and unstructured decisions with long-term impacts are *non-programmed decisions*. Programmed and non-programmed decisions naturally set the two extreme poles of one continuum and the appearance of interim cases is much more probable. In the course of company operations it happens very rarely that a decision situation clearly corresponds to the terminology of the programmed or non-programmed decisions. On the other hand, most managers develop some kind of practice for the handling of non-programmed decision situations that can be successfully applied, if a ready-made solution can be fitted to an actual situation. Certain non-programmed decisions may become programmed in the course of time in a company's practice. It is rather meaningful that programmed and non-programmed decisions are sometimes referred to as well-structured and ill-structured decisions as well.