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## Causes of Competitive Analysis Failure: Understanding and Responding to Problems at the Individual Level

**Dr Craig S. Fleisher**

Windsor Research Leadership Chair and Professor of Management  
Odette School of Business  
University of Windsor  
Canada  
E-mail: [fleisher@uwindsor.ca](mailto:fleisher@uwindsor.ca)

**Sheila Wright**

Reader in Competitive Intelligence & Marketing Strategy  
Leicester Business School  
De Montfort University  
United Kingdom  
E-mail: [sheila.wright@dmu.ac.uk](mailto:sheila.wright@dmu.ac.uk)

### Abstract

It ought to be a fairly safe assumption that a CI analyst would want to perform the analysis task and execute their responsibilities successfully over time. Such competencies should come with added experience on the job, as should the ability to reduce the risk of failure by diagnosing potential pitfalls. This paper presents a) a unique four-level hierarchical model of analysis failure, b) ten key continua of competitive analysis skills which we believe an analyst has to master before they can consider themselves to be truly competent in their work, c) a discussion on the paucity of high quality teaching of these skills, and d) presents eight guiding principles which a firm should consider in an attempt to improve individual performance and reduce the potential for analysis failure. Our purpose in identifying the possibility and causes of analytical failure is that we believe much can be learned by managers and practitioners from studying failures. This learning can ultimately contribute towards creating a more successful analysis function which can only be beneficial to all concerned.

**Keywords:** Competitive Analysis Failure, Hierarchical Model, Individual Insight, Analyst Skills

## 1 Introduction

It hardly needs to be said that organizations and managers can learn from failures (Brown 2007) but it requires individuals to thoughtfully talk about and examine them, something which is rarely done except in cases of catastrophic, publicly visible failures (Edmonson & Cannon, 2005). Although analysis of failure is an accepted part of contemporary manufacturing industry practice, its application to an enterprise's intelligence, planning and decision-making functions is less common (Heuer 2005, Underwood 2006). In identifying the possibility and causes of analytical failure, we believe that much can be learned by managers and practitioners. The first task is to be aware of the location of failure.

## 2 Failure Location

We would regard the highest level of failure to be that of business failure, whereby a business is no longer able to continue as a viable commercial entity. If failure is defined as "discontinuance of business," then it is likely that approximately two-thirds of all start-ups will fail within their first ten years (Watson & Everett, 1996) and at even higher rates in some particularly difficult sectors such as retailing and restaurants. Most of these business failures are commonly attributed to a general lack of effective planning and management skills exhibited by these firms' executives.

Beneath the level of the firm, we encounter planning, decision-making and implementation failures and these are partly composed of

intelligence failures. These can be further disaggregated into failures along the traditional intelligence cycle functions of planning, data collection, analysis, dissemination and communication (Chao & Ishii, 2003).

Intelligence failures are distinguishable from more task-oriented intelligence errors, which are viewed as factual inaccuracies in analysis resulting from poor or missing data. Intelligence failure is defined by Johnston (2005, p6) as “*systemic organizational surprise resulting from incorrect, missing, discarded, or inadequate hypotheses.*” These failures may be due, in part, to failed analysis, but they can also be caused by other factors that interact with the analysis process. Attempting to disentangle or disaggregate the analysis portion of the process from other related processes is never an easy or straight-forward task. At a minimum, it is important that analysts and their decision-makers routinely carry out a post-mortem on projects to try and determine any areas for improvement.

Having suggested the need for post-task assessment of the analysis process, we recognize that there are a variety of problems associated with the evaluation of intelligence analysis and reporting that make this task more challenging. The range of cognitive biases impacting this process is outlined in greater depth by Heuer (1999). Briefly summarized, he notes that:

- Analysts normally overestimate the accuracy of their past judgments.
- Intelligence clients or consumers normally underestimate how much they learned from analysis products such as reports or briefs.
- Overseers of intelligence production who conduct post-mortem analyses of an intelligence failure normally judge that events were more readily foreseeable than was in fact the case

When analysis is ineffective, both the analyst and the decision-maker often don't know in time and frequently cannot identify the root cause(s) of the errors, problems or failure. They must consider the following questions underlying the potential errors.

➤ **Analysis problem definition**

Was the analysis problem, the Key Intelligence Topic (KIT)/Key Intelligence Question (KIQ), properly specified at the outset? Did the analysis process allow for any subsequent redefinitions of the problem?

➤ **Analysis project planning**

Did the analyst develop a project management plan or statement of work to perform the analysis process? Did they actually implement the process

according to their plan or veer away from it mid-course?

➤ **Data gathering error**

Was the appropriate data available to the analyst? If not, could the data have been efficiently acquired? Did the analyst properly account for data or information gaps? Was the analysis the cause of the failure or was data collection the primary cause?

➤ **Tool and technique-related error**

Did the analyst use the best available tools, techniques and/or analysis methods? Were the right tools used, and in the right sequence?

➤ **Synthesis error**

Did the analyst arrive at the optimal conclusion or insight? Did they “connect the dots” in a defensible manner? Would other experienced and successful analysts have connected them differently?

➤ **Communication transmission or channel error**

Did the analyst communicate their insights to their decision-maker throughout the project in an optimal fashion? Was the analysis failure really a communication failure?

➤ **Communication reception error**

Did the decision-maker have a complete and accurate understanding of the analyst's conclusions before the decision needed to be made?

➤ **Unsystematic development error**

Did events arise during the course of the process that derailed the analysis or analyst? What impact did unexplained variance or random factors have on the outcome of the analysis task?

Having located the source, or sources, of error, only then is corrective action effective.

### 3 Four-Level Hierarchical Model of Analysis Failures

Whatever the reasons experienced for analysis failures, it is valuable to identify why these happen and this is represented in a four-level model for identifying the barriers to generating effective competitive analysis. These four levels, and the primary factors associated with each, are illustrated in Table 1.

Whilst each of these sections warrants a full discussion on its own, for the purposes of this paper, we will concentrate on the aspect which we believe can be most effectively influenced by the individual analyst. Some of these factors may be present in other categories and we recognise that

there may be secondary or tertiary impact at other levels.

Level	Nature of Problem
Individual Analyst Level Failures	<ul style="list-style-type: none"> <li>• Different natural analytical abilities</li> <li>• Naturally limited mental capacities</li> <li>• Natural motivation</li> <li>• Cognitive biases and perceptual distortion</li> <li>• Insufficient understanding and application of analysis tools and techniques</li> </ul>
Analysis Task Level Failures	<ul style="list-style-type: none"> <li>• Part of larger task</li> <li>• Task discontinuity</li> <li>• Unsatisfactory data inputs</li> <li>• Disconnects from decision making</li> <li>• Imbalance among key task facets</li> </ul>
Internal Organizational Level Failures	<ul style="list-style-type: none"> <li>• Some decision makers don't understand and appreciate analysis</li> <li>• Clients cannot specify their critical intelligence needs or questions</li> <li>• Under-resourcing the analysis function</li> <li>• Lack of analysis-specific IT support</li> <li>• Lack of thinking time</li> <li>• Organizational culture and politics</li> <li>• Time and trust</li> <li>• Invisibility and mystery</li> <li>• Misconception that everyone can do analysis</li> </ul>
External Environment Level Failures	<ul style="list-style-type: none"> <li>• Growing range of competitive factors</li> <li>• Complexity and turbulence</li> <li>• Data overload</li> <li>• Globalization</li> <li>• Educational deficiencies</li> </ul>

Table 1  
Four-Level Hierarchical Model  
of Analysis Failures

#### 4 Causes of Failure at Individual Analyst Level

The competitive analysis task is fundamentally performed by individuals, although they will also cooperate and collaborate with others to get their tasks accomplished. From consulting and educational assignments, we have observed the

following hindrance factors as being primarily present at the level of the individual analyst.

##### 4.1 Different natural analytical abilities

People rely on a limited set of mental models, have preconceptions on issues, and exhibit a wide range of cognitive bias when reviewing information. People also think differently. Some, in a right-brained linear fashion, others in a left-brained lateral fashion. This is important when viewed in light of analysis being a mixture of both scientific and non-scientific techniques.

##### 4.2 Naturally limited mental capacities

The content and context facing most analysts has become more complicated, complex, and fast moving in recent years. Having said that, our brain's natural abilities to effectively process additional information hasn't evolved to match this. The popular view that we only use 10% of our brain's ability is a well-worn myth, and one could argue with the figure, but we are confident that human beings still only use a limited percentage of their brain capacity, although scientific record still does not have a sense of what that percentage might be (Kalat, 1998).

In his influential article, Miller (1956) suggested that the magical number describing our natural information processing capabilities is seven things at one time plus or minus two. This could be a major problem for analysts who often have a far higher number of issues to keep in their mental calculus at any one time. Although we now have better information technology systems to assist in the analysis task, we still have to use our brains in exactly the same way as we have always done.

##### 4.3 Natural motivation

Given a choice between a more difficult or a less difficult task with identical outcomes, the majority of people would opt for the easier task. As we hope is already patently obvious by now, analysis is not an easy task and can require the use, or expenditure of, significant levels of cognitive, intellectual, organizational, and social resources to achieve optimum performance. One reason it is so difficult is because we have far fewer published heuristics or "rules of thumb" to use in performing analysis than we do in many other fields of organizational endeavour such as engineering, scientific research, accounting, process management, sales and marketing. Some analysts think that volume is the answer, not value. This form of sufficing behaviour is unlikely to meet the needs of today's demanding decision-making clients.

#### 4.4 Cognitive biases and perceptual distortion

In spite of the presence of the broad range of analytical techniques, some organizations still adopt poor strategies and their decision-making processes are vulnerable to individual cognitive biases or “groupthink.” Researchers have identified a variety of common cognitive biases that can enter into an individual's or groups' process of analysis (Bazerman, 2002; Kahneman *et al*, 1982; Sawyer, 1999; Tversky and Kahneman, 1986). These are identified in Table 2.

Elements	Nature of Problem
Estimation Bias	Over or under estimation of the magnitude of the effect of future events
Escalating Commitment	Continual commitment of time, effort and finance to support a failing project, even when there is evidence that it is a fruitless task
Group-think	Lack of pertinent questioning of underlying assumptions and an unwillingness to challenge entrenched leadership, engrained cultures and senior executives
Illusion of Control	An individual's mis-placed confidence in their ability to control and immunity to error. Illusion and group-think are common bed-fellows
Prior Hypothesis Bias	Individuals prone to this bias use data only when it confirms their beliefs, even when presented with contradictory analytical evidence
Reasoning by Analogy	Individuals use simple analogies to make sense of challenging problems. Oversimplifying complex problems can lead to detrimental judgment
Representativeness	The error of extrapolating data from small samples to explain larger phenomena. Inexperienced analysts find it hard to distinguish between apparent and real facts

Table 2  
Cognitive Bias Elements

The existence of cognitive biases and groupthink raises issues of how to bring critical intelligence to bear on organizational decision-making mechanisms so that the decisions made are realistic. It is important to understand the range of motives behind it. Feldman and March (1981) pointed out that people in organizations often tend to collect more information than strictly necessary for decision making, partly to influence others and partly to be viewed as thorough in their work. In other words, analysis is often used not just for objective decision-making but also for political or symbolic purposes.

#### 4.5 Insufficient understanding and application of analysis tools and techniques

Studies on the use of analysis tools and techniques have consistently demonstrated that the individuals responsible will use only a very limited set of tools and techniques, usually those they know the best and have previously applied with some perceived success (Gib and Gooding, 1998; Rigby, 2001, Rigby 2003, 2009). This has also been identified as “tool rut” (Fleisher & Bensoussan, 2007). Even when an analyst is willing to use an enlarged tool box and attempt tools and techniques outside their ordinary fare, they often lack the knowledge, understanding and experience to do it well. It is no surprise therefore, that they will stick to the safe but well worn path of familiarity (Self, 2003, Marteniuk (2003, Morecroft, 2006, Swanson, 2007).

There is also a misconception that everyone can do analysis. Ask a business graduate whether they developed good analytical skills in their programme and you will almost always get an affirmative answer, yet few recognize the differences between the process of analysis and the ability to think. Analysis requires a unique and differentiated form of pragmatic thinking. Most individuals have neither been formally trained, nor have the natural ability, to perform this type of activity. Although there has been a natural and healthy evolution of offerings available to those wishing to receive formal analysis instruction (Fleisher & Bensoussan 2003; 2007), few educational developments in this area have been positive, due in part, to the lack of experienced faculty staff and ambiguity of scope.

### 5 Developing Intelligence Insight

There is a long-standing debate about whether analysis is actually a craft, a discipline, a field, or a profession (Johnston, 2005, Marrin & Clemente, 2005, Fleisher, 2003, Davis, 2002). Much of this debate centres on how a competitive analyst has to balance the need to be creative with the need to

employ documented methods in their effort to produce good output (Pawelski, 2006, Fleisher & Bensoussan, 2007). Although these two “art” and “science” elements are not necessarily diametrically opposed, they are generally perceived as two ends of a single continuum (Johnston, 2005).

The potential for the teaching of critical and intuitive analysis has been debated in the arena of business ethics (Griseri, 2002, Locke, 2006, Burton *et al*, 2006), multiculturalism (El-Hani & Mortimer 2007, Kim, 2006), technology/science (Davies, 2003) and popular culture (Snævarr, 2007). A recent conceptual paper by Clark *et al*, (2006) identified scope within the marketing curriculum and Herrmann (2005) spoke of the need for scholars and practitioners to conceive “*new dominant paradigms in strategic management that revolve around the concepts of knowledge, learning and innovation*”. Miller & Ireland (2005) agreed that “*intuition has not been subjected to sufficient review*”.

In the higher and executive education system there is little evidence that teaching the skill of pragmatism and realism is taken seriously, albeit such a skill set is lauded as a distinct competitive advantage for an individual in their career (Fleisher, 2004, Dacko 2006). In their review of marketing curricula, Evans *et al* (2002) concluded that “*many marketing graduates are not being well equipped for the 'new marketing'*”. Dacko (2006) and Lynch (2007) also observed that unless graduates are able to master the broader range of “soft” skills (of which we would claim critical analysis is one), then their ability to apply their subject knowledge will be severely limited. Lynch (2007) also reported on research with employers which revealed that their requirements from graduates went well beyond the application of subject knowledge, and into the realms of intuition, creativity and common sense.

In Figure 1 we outline ten continua which identify those skills which we believe a competitive analyst has to master before they can consider themselves to be truly competent in their work. These continua have been developed not only from our research and experience of teaching competitive analysis, but also from discussions with a variety of practitioners of differing experience around the globe. A few elements of the ten continua will inevitably overlap, but the intention has been to establish those with lower degrees of redundancy and repetition. In order to carry out their work effectively, competitive analysts must be willing, able and competent at moving across the continuum to suit the situation to hand.

### 5.1 Creative ↔ Scientific

Competitive analysts need to be skilled in the application of both creative and scientific techniques. Good analysts will seek to combine differing intellectual patterns, which are reflected in the wider, often unique processes in any firm's decision making process (Clark, 2004). Experienced analysts develop the ability over time to know how to achieve the appropriate balance between the various elements, and approaches to the analytical task (Davis, 2002). Although recent efforts have sought to document and replicate the approaches, methods and skills need to properly perform this analysis (Davis, 2002), most experienced analysts recognize that creativity that comes out of first-time connections or techniques can also be a source of valuable insight. If all competitive analysis is done scientifically, then the development of artificial intelligence, computational algorithms, and solutions-generating software would already have become the norm, a situation that at least a few experts suggest would be debilitating for analysis and decision making in most organizations (Gilad, 1994, 2004; Fuld 2003).

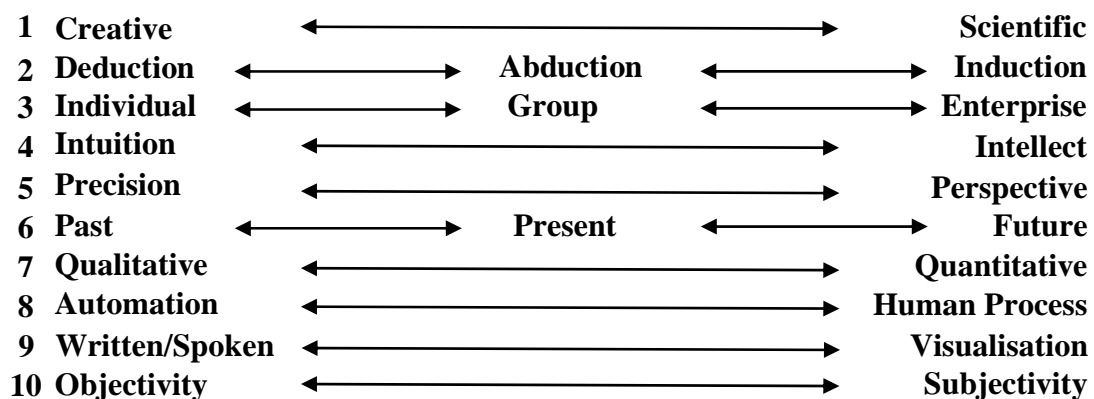


Figure 1  
The 10 Key Continua of Competitive Analysis

### **5.2 Deduction ↔ Abduction ↔ Induction**

This continuum examines the sequence of analysis arising between assumptions, facts, and conclusions. It is important because many analysts begin their tasks with a plethora of data and facts to assist them, while others lack them. It is also important in cases where analogies or benchmarks are readily available and those cases in which these items are lacking.

Deduction is the process of reasoning used by analysts whereby their conclusions follow from the stated premises (Clark, 2004). In other words, analysts deduct inferences by reasoning from the general to the specific. Deductive reasoning works best in so-called closed systems, which rarely exist in the competitive business arena. Nevertheless, as a critical mode of inquiry, it can be very useful in refuting specific hypotheses and helping the analyst arrive at more definitive estimates of the likelihood of prospective outcomes. Induction typically happens when an analyst is able to postulate causality amongst related phenomena. It can also involve drawing out or analyzing assumptions or premises used in forming conclusions (Clark, 2004).

Abduction is the process of generating an original hypothesis to explain evidence that does not easily or readily offer a common explanation. Compared to inductive reasoning, abduction expands the number and set of hypotheses available for scrutiny to the analyst (Schum, 1987). Some experts have referred to this as the “a-ha” type of reasoning whereby the analyst generates responses in a spontaneous fashion and probably cannot consciously articulate the steps they used to arrive at their outcome (Schmidlin, 1993).

### **5.3 Individual ↔ Group ↔ Enterprise**

Analysts work on tasks across three generic levels of their organizations, individual, group and enterprise. As in many problem solving and decision making endeavours, achieving success at all three levels involves more than just the additive burden of having to integrate more people into one's task. Much of the analyst's work is done at the individual level whereby they alone are responsible for the outputs. Analysts will commonly work in collaboration with others, with the final product being the result of a joint effort. In these cases, the individual effort is difficult to identify as it becomes entwined and develops as a result of the group process.

At the enterprise level, an analyst's own group collaborators, and other groups within the enterprise will generate insights that are utilized by decision makers. This is the most complex process in an organization and as a consequence, it is more difficult for the individual effort to be identified. A large part of the analyst's role is to consider and

integrate the firm's context into their analytical process. There is a paramount need for them to be cognisant of, and factor in, the social, political, historical, and cultural lenses through which their colleagues view the world (Fleisher & Bensoussan, 2007). At the same time, it is important that they do not over-play the role of such corporate norms, otherwise they will become paralyzed and ineffective (Langley, 1995).

### **5.4 Intuition ↔ Intellect**

Similar but not the same as the creative-scientific continuum, this one suggests that analysts must employ their intuition, sometimes referred to as ‘immediate cognition’ or the “Eureka effect” (Cutting & Kouzmin, 2004). Intuition is inevitably influenced by past experience coupled with a natural proclivity to come to a judgment, often recognised as instinctive ways of knowing (Davis, 2002). Analysts will have a hunch or sense of something which they cannot readily express in writing. What makes intuition so important in an analytical context is that not only will the analyst use this to some degree in processing data, but the decision-maker will almost always use a similar skill in assessing the recommendations of the analyst. Intuition is a prevailing power within the process.

The use of intellect is where the competitive analyst is operating in a well thought out, calculated and rational manner. Intellect is driven by a data gathering plan and a strategy which is subject to time, social and other performance pressures which can impair it.

Intellect and intuition may converge eventually, in an analyst's recommendation, but the intellectual portion of their recommendation can be more easily communicated to recipients in the form of rules, concepts and/or techniques. Intuition is less tangible, less easy to prove and rationally, less easy to account for.

### **5.5 Precision ↔ Perspective**

It is suggested that the majority of analysts will work in the broader context of the firm, rather than the more narrow and specific facets of precision. This is often analogized as the trade-off between seeing the “forest for the trees”. A decision-maker will not usually need to know the fact that a competitor earned precisely 34.5632 % of their total revenues from a product called “Shiny Hair To Go”, rather, the perspective view that they generated approximately one third of their revenues from one product line. In other words, answering the question, “thank you for the figures, but what does that actually mean?”

Whilst the perspective view can tend to be more valuable, this does not mean to say that there is any room for a lack of precision in coming to that view.

It is all a matter of what is reported and how it is done. Competitive analysts should always seek to attain a reasonable level of precision without spending any more time than is necessary to produce a recommendation with an agreed level of confidence. This will change by project, by situation and by decision urgency.

### **5.6 Past ↔ Present ↔ Future**

Analysts make trades-off between the direction of time in which both their data, and their recommendations, are pointing. Accounting data, competitor sales figures, information from financial statements and balance sheets, market share figures, and the like, are the result of action which have taken place in the past. This information is of value when operating in static and simple market conditions, where forecasting, trends analysis and chain ratios, based on past events, are common place (Hooley *et al.*, 2008a, pp 177-190). In dynamic and complex markets, concept testing, scenarios, strategic planning, cross-impact analysis and expert opinion are required (Hooley *et al.*, 2008b, 191-198). The simple collection and assimilation of past data is insufficient to assess the future.

Analysts also need to use leading indicators of present and future activity and factor these into their understanding of the evolving competitive environment. A skilled analyst knows that looking ahead is far more important than looking backwards. Reliance on past data alone only summarises what is already known, it does not necessarily predict the future.

Recommendations, propositions and judgements about the future are where competitive analysts earn their money and reputation. It is only then that they are earning their salary, providing value added analytical output for use in their firm.

### **5.7 Qualitative ↔ Quantitative**

Qualitative analysis methods are those which are typically associated with interpretative approaches, rather than measuring discrete, observable events. Qualitative methods are most helpful in those areas that have been identified as potential weaknesses within the quantitative approach. The use of interviews and observations provide a deeper, rather than a broader, data about a particular phenomenon. These methods can be particularly valuable in helping to describe and explain the longitudinal evolution of competition and competitive behaviour (Johnston, 2005).

Quantitative methods are more commonly used to examine a context at a single point in time, they seek “*distinguishing characteristics, elemental properties and empirical boundaries and tend to examine ‘how much’ or ‘how often’ certain phenomena occur*” (Nau, 1995). The weaknesses

of quantitative analytical process lie mainly in their failure to ascertain deeper underlying meanings and explanations of marketplace competition, even when they produce results that are significant, reliable and valid (Gilad, 2004).

Recent surveys of tools used in assisting decision making show that the majority of managers and companies tend to favour the use of quantitative methods (Rigby & Bilodeau, 2007), principally because they tend to produce results which can be replicated and are more easily disseminated. Quantitative analysis and results tend to be viewed as being more rigorous and free from interpretational bias (Davis, 2002), but it is also well understood that statistics are not always as “squeaky clean” as purported (Best 2001, Best 2004).

Effective analysts need to be able to apply and use both qualitative and quantitative methods and to be able to communicate both the results and the processes underlying their analysis. Without understanding from where, and how, their results were derived, as well as the trade-offs made in achieving them, they leave themselves open to criticism.

### **5.8 Automation ↔ Human Process**

One aspect that every analyst must assess is the desire to automate their processes. Many business processes have benefited greatly from the 'systems' approach and it certainly has its place. Even a number of data gathering tasks that form the larger process of competitive intelligence, such as setting up targeted RSS feeds, automated “pushing” of competitors’ website changes, or media about competitors’ activities, have been productively automated (Vibert, 2001). Unfortunately, software developed to support the analytical process has, to date, not been impressive in performing or promoting effective analysis (Fuld, 2003).

No ‘magic bullet’ or ‘plug-in’ solution exists that can replace the ability of the human brain to understand, assimilate and assess the type of data that analysts regularly deal with, much less make sense of it. Whilst some automation may benefit the process, what automation can’t yet carry out, and may never be able to do, is replicate the unique processes of strategic thinking that human beings can achieve. This is especially true when this thinking includes the application of creativity and intuition previously described.

### **5.9 Written/Spoken ↔ Visualisation**

The issue of clearly communicating analytical processes and outcomes is ever-present. In volume terms, the written/spoken word is, arguably the most frequent form of delivery used. Unfortunately, not all spoken or written words are meaningful due to poor delivery, poor language

skills and/or overuse of codes or acronyms which do not translate or travel across divisions or SBUs and, at times, in an inappropriate context.

Visualisation on the other hand, allows analysts to share their ideas in graphic, illustrative, pictorial formats. Being able to 'draw a picture' of a situation, visually describe competitors or their likely behaviours and use metaphors to aid understanding is far more powerful, and memorable, to busy decision makers than a 35 page report of closely typed text and figures. The onus is on the MCS to make the story 'live', interpret their findings and provide a recommendation, rather than simply presenting the bare facts. Analysts also need to be aware of the preferences of their differing audiences and be able to develop the skills required to deliver to those needs.

### **5.10 Objectivity ↔ Subjectivity**

Nearly all tenets of analysis suggest that analysts must be objective, detached, dispassionate and unbiased in their work. This does not mean that individuals can, or should, surrender their personal views but the analysis process is often more akin to the social sciences than to pure science. Consequently, there will always be some degree of error present. Individuality by an analyst is highly desirable in the appropriate circumstances. Competitive analysts need to recognise when they are being objective and when they are not (Clark & Montgomery, 1996). This balance is difficult to achieve because few analysts are trained or coached to recognise their own biases and subjectivity.

Subjectivity in analysis requires the same justification as any other form of objective measure. It must be properly clarified so that decision makers can make their own judgement on the quality of the analysis and recommendations presented. The analyst should always enter an assignment with an open mind, try to see things through the perspective of their data gatherers and decision-makers as well as market competitors in order to be empathetic to better understanding their own preconceived notions.

## **6 Responding to Analysis Failure: Eight Guiding Principles for the Firm**

Effective analysts must know how to properly position their efforts and focus across the continuum over time. That is not to say that analysts always need to find the middle ground on each continuum. In fact, the middle ground may be exactly the wrong place to be. Rather, the analyst needs to determine where they should be on a project along each of the continua, and be able to

adapt along each, as the project and its evolution demands.

There is however, a responsibility on the part of the firm to provide a suitable environment within which the analyst can carry out their work. One in which they can learn their craft, experiment, develop and hone their skills. It is the analyst who provided the intellectual input but it is the analysis process which determines success or otherwise. No matter how skilled the analyst, the decision making process, into which analytical output should inevitably be fed, will be significantly enhanced if the firm pays heed to these eight guiding principles.

### **6.1 Provide Empowerment**

A common utterance in the intelligence community is that without intelligence, a decision-maker cannot take responsibility. With it, he or she cannot avoid taking responsibility. Clearly, the more that decision makers are equipped with insight, the better they will perform. This is why the importance of intelligence analysis needs to be recognized in its own right. Both analysts and executives need to promote the reality that analysis is critical to an organisation's competitive success. Analysts and their internal customers should be comfortable with, and publicise to others, the real benefit which emanates from analysis. It is an evolving discipline in its own right and competitive analysts are skilled professionals, operating no differently than others in the firm.

### **6.2 Realize the Value of Analysis**

Even if the benefits and value of the process cannot be easily quantified by existing performance measurement systems, executives need to realize that effective analysis cannot be achieved through "quick fixes" or by the introduction of new software or hardware applications. The value of analysis comes from the insight it provides decision-makers, which ultimately benefits their enterprise.

### **6.3 Value the Link between Analysis and Success**

Providing managers with case studies and examples of good and bad analytical outputs can help powerfully demonstrate this relationship between analysis quality and decision-making effectiveness. Using analysis insights will significantly lower the number of uncontrollable or perceived risks associated with decisions.

### **6.4 Ask the Right Questions**

Consumers of analysis products should know what to ask for from analysts and be realistic in what they expect to receive. Executives and



departmental managers, like many other employees within the organization, often misunderstand the true functions and proper operations of analysts or intelligence specialists. Decision makers often ask for the wrong information and will then have difficulty in making sense of the analytical products they receive. For the analyst, it is important that executives communicate just what is that will make a difference to their agenda, priorities, and needs as they perceive them. Only then will the analyst be able to provide products that are tailored not only to decision-makers' specific information requirements but also presented in their language.

### **6.5 Measure Performance Appropriately**

The competencies, skills and capabilities of an analyst can be measured, therefore, it can be both managed and improved. The development of capability measurement tools and metrics to demonstrate improvement should be strongly encouraged. There is also a need to measure analysis products and processes against benchmarks. Best practices in the analytic field should be studied, adapted and emulated.

### **6.6 Position the Analyst Correctly**

It is vital that a competitive analyst is positioned where they can make a difference. Analysts need to be actively involved in the networks of information collectors and their clients, but also be given the time needed to properly do their work. Also, the longer that an analyst can focus their efforts on particular specialties needed by decision makers, the quicker they will move up the learning curve in terms of producing quality outputs.

As even the most effective analysts can provide inaccurate insight at times, decision-making clients need to give their analysts opportunities to fail and to demonstrate that they have learned from those experiences. This leads to the development of shared trust between an analyst and their decision-maker. With security and the trust of their clients, analysts are at their most effective.

### **6.7 Provision of the Right Tools**

As with any other skilled worker, the analyst needs to have access to all the proper tools of their craft. Analytic applications, reliable data inputs, access to sources, time to think, advanced information and communication infrastructure, and so on. Analysts cannot be expected to provide insight without having access to rich sources of data, enabling technology, the open door of their organisational colleagues and clearly articulated KITS/KIQs. The outputs will then be focused to capture the client's imagination and provide assistance on complex issues both quickly and comprehensively. The

analyst's job must not be to intimidate clients with information, but rather to entice them with it.

### **6.8 Differentiate the Task**

Last, but certainly not least, competitive analysts must differentiate the nature of the analysis they perform from other forms of analysis concurrently being done within their enterprises. Analysts and their decision makers should be careful not to overrate. Overemphasise or try and duplicate the analysis of organizations, industries, and markets that is typically provided by economists, financial analysts, sector analysts and/or market researchers. These individuals are primarily concerned with short-term financial gains, customer satisfaction, product placement, and related concerns, not necessarily with long-term competitiveness and strategic development. Executives who understand the reasons these functions vary, and the respective benefits each generates, will be far better served by their analyst and their potential contribution to decision making.

## **7 Conclusion**

Gilad (1994) notes that intelligence is an insight about externally motivated change, future developments and their implications to the organisation. Done well, analysis and the intelligence developed from it, helps the organisation to reduce its risk level in dealing with both threats and opportunities in its competitive environment. Paradoxically, the analysis function tends to suffer during recessionary periods, when organizations reduce their commitment to what they deem as less-essential functions. Those working in analysis know that this is precisely the time when investment in such activity should increase, in order to better prepare the firm for the challenges ahead.

We have identified five key causes of failure at the individual level and would draw special attention to the issue of cognitive bias, a factor which both analysts and educators should be acutely aware. It is noted that the teaching of analysis receives superficial attention amongst educators and at best, is haphazard. Analysis is a critical component in aiding executives in their decision making and as such, effective analysts must know how to properly position their efforts and focus, over time, across the 10 key continua presented in this paper. That is not to say that analysts always need to find the middle ground on each continuum. In fact, the middle ground may be exactly the wrong place to be. Rather, the analyst needs to determine where they should be on a project along each of the continua, and be able to adapt along each, as the project and its evolution demands. Unfortunately, teaching the art of

pragmatism, intuition and "gut feel" is less evident and is an element of learning which continues to evade educators, not least because of their lack of experience of actually doing this sort of work in a commercial environment, their lack of experience at having to defend the findings of analysis when critical decisions will be taken on the basis of their work, and their almost inevitable lack of understanding of what is needed by employers.

The problems inherent in analysis failure can be fixed and we present eight guiding principle for the firm which will assist in helping to prevent analysis failure and improve the potential for the delivery of high quality output. When the full realisation of the impact that skilled analysts can have on a firm's success is understood, it makes sense that this would be one way of promoting best practice. The ultimate ambition would be the development of a validated education path which leads to a recognised qualification with standards of practice and Chartered status. Such a development would only be good news in the dynamic, globalised markets within which most organisations now conduct their business and which seek to recruit employees able to show the attainment of a 'gold' standard of expertise.

## 8 Future Work

This paper is the fore-runner to a funded research project which aims to better understand the precise personal qualities which employers seek when hiring analysts and the expertise which they expect their new employees to bring to the firm. This will then be the subject of a large scale, survey of professionals in higher education to discover whether, and how, these highly valued 'hard' and 'soft' skills are being taught in the classroom. It is anticipated that the findings from this research will inform and guide future curriculum developments for post graduate educational offerings.

## 9 References

- Bazerman, M.H. (2002) *Judgment in Managerial Decision Making*, 5/E. Hoboken, NJ: John Wiley & Sons
- Best, J. (2001) *Damned Lies and Statistics: Untangling the Numbers from the Media, Politicians, and Activists*, University of California Press
- Best, J. (2004) *More Damned Lies and Statistics: How Numbers Confuse Public Issues*, University of California Press
- Brown, S. (2007) *Fail Better: Stumbling to Success in Sales & Marketing*, London, Cyan
- Burton, B.K., Dunn, C.P. and Goldsby, M. (2006) "Moral Pluralism in Business Ethics Education: It's About Time", *Journal of Management Education*, 30(1) 90-105
- Chao, L.P. and Ishii, K. (2003) "Design Process Error-Proofing: Failure Modes and Effects Analysis of the Design Process", *Proceedings of Design Engineering Technical Conferences 2-6th September 2003*, Chicago, IL
- Clark, R.M. (2004) *Intelligence Analysis: A Target-Centric Approach*, Washington, DC: CQ Press
- Clark, P., Gray, D. and Mearman, A. (2006) "The Marketing Curriculum and Educational Aims: Towards a Professional Education?", *Marketing Intelligence and Planning*, 24(3) 189-201
- Clark, B.H. and Montgomery, D.B. (1996) "Perceived Competitive Reactions: The Value of Accuracy (and Paranoia)", *Marketing Letters*, 7(2) 115-129
- Cutting, B. and Kouzmin, A. (2004) "A Synthesis of Knowing and Governance: Making Sense of Organizational and Governance Polemics", *Corporate Governance*, 4(1) 76-114
- Dacko, S.G. (2006) "Narrowing the Skills gap for Marketers of the Future", *Marketing Intelligence & Planning*, 24(3) 283-295
- Davies, D. (2003) "Pragmatism, Pedagogy and Philosophy: A Model of Thought and Action in Primary Technology and Science Teacher Education", *International Journal of Technology and Design Education*, 13(3) 207-221
- Davis, J. (2002) "Sherman Kent and the Profession of Intelligence Analysis," *Occasional Papers, The Sherman Kent Center for Intelligence Analysis*, 1(5) November,
- Edmonson, A. and M. Cannon (2005) "Failing to Learn and Learning to Fail (Intelligently): How Great Organizations Put Failure to Work to Improve and Innovate", *Long Range Planning*, 38(3) 299-319
- El-Hani C.N. and Mortimer, E.F. (2007) "Multicultural Education, Pragmatism and the Goals of Science Teaching", *Cultural Studies of Science Education*, 2(3) 657-701
- Evans, M., Nancarrow, C., Tapp, A. and Stone, M. (2002) "Future Marketers: Future Curriculum: Future Shock?", *Journal of Marketing Management*, 18(5) 579-596
- Feldman, M.S. and March, J.G. (1981) "Information in Organizations as Signal and Symbol", *Administrative Science Quarterly*, 26(2) 171-186
- Fleisher, C.S. (2003) "Are Competitive Intelligence Practitioners Professionals?" pp 29-44 in Fleisher, C.S. and D.L. Blenkhorn [Eds], *Controversies in Competitive Intelligence: The Enduring Issues*, Greenwich, CT: Praeger
- Fleisher, C.S. and Bensoussan, B. (2003) *Strategic and Competitive Analysis: Methods and Techniques for Analysing Business*

- Competition*, Upper Saddle River, NJ: Prentice Hall
- Fleisher, C.S. (2004) "Competitive Intelligence Education: Competencies, Sources and Trends", *Information Management Journal*, 38(2) 56-63
- Fleisher, C.S. and Bensoussan, B. (2007) *Business and Competitive Analysis: Effective Application of New and Classic Methods*, Upper Saddle River, NJ: FT Press/Pearson
- Fuld, L.M. (2003) *Intelligence Software Report 2003: Leveraging the Web*, Private report by Fuld & Company, Boston, MA
- Gib, A. and Gooding, R. (1998) "CI Tool Time: What's Missing From Your Toolbag?" *Proceedings of the 1998 international conference of the Society of Competitive Intelligence Professionals*, pp 25-39, Chicago, IL
- Gilad, B. (1994) *Business Blindspots: Replacing Your Company's Entrenched and Outdated Myths, Beliefs, and Assumptions with the Realities of Today's Markets*. Chicago: Probus
- Gilad, B. (2004) *Early Warning*. New York, NY: Amacom
- Griseri, P. (2002) "Emotion and Cognition in Business Ethics Teaching", *Teaching Business Ethics*, 6(2) 371-391
- Heuer Jr., J.R. (1999) *The Psychology of Intelligence Analysis*. Center for the Study of Intelligence, Washington, DC
- Heuer Jr., J.R. (2005) "Limits Of Intelligence Analysis", *Orbis*, 49(1) 75-94
- Herrmann, P. (2005) "Evolution of Strategic Management: The Need for New Dominant Designs", *International Journal of Management Reviews*, 7(2) 111-130
- Hooley, G., Piercy, N.F. and Nicouloud, B. (2008a) *Marketing Strategy and Competitive Positioning*, Fourth Edition, Harlow, UK: Prentice Hall
- Hooley, G., Piercy, N.F. and Nicouloud, B. (2008b) *Marketing Strategy and Competitive Positioning*, Fourth Edition, Harlow, UK: Prentice Hall
- Johnston, R. (2005) *Analytic Culture in the U.S. Intelligence Community*. The Center for the Study of Intelligence, Washington, DC
- Kahneman, D., Slovic, P. and A. Tversky (1982) *Judgment Under Uncertainty: Heuristics and Biases*. Cambridge, UK: Cambridge University Press
- Kalat, J.W. (1998) *Biological Psychology*, 6/E, Pacific Grove: Brooks/Cole Publishing Co
- Kim, K.I. (2006) "A Cultural Artefact 'Show and Tell': A Pedagogic Tool for Teaching Cross-Cultural Management", *Journal of Business Innovation and Research*, 1(1/2) 144-148
- Langley, A. (1995) "Between Paralysis by Analysis and Extinction by Instinct," *Sloan Management Review*, 36(3) 63-76
- Locke, E.A. (2006) "Business Ethics: A Way Out of the Morass", *The Academy of Management Learning and Education*, 5(3) 324-332
- Lynch, J. (2007) "The Creation of the New Marketer – Are We Getting It Right?", *Proceeding of the Academy of Marketing Conference*, Royal Holloway, London, UK
- Marrin, S. and Clemente, J. (2005) "Improving Intelligence Analysis by Looking to the Medical Profession" *International Journal of Intelligence and Counterintelligence*, 18(4) 707-729
- Marteniuk, J. (2003) "How do Companies find the Best Balance between the Technical and Personal in Effective Competitive Intelligence Systems?" pp. 176-189 in Fleisher, C.S. and D.L. Blenkhorn [Eds], *Controversies in Competitive Intelligence: The Enduring Issues*, Westport, CT: Praeger Publishers
- Miller, G.A. (1956) "The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information," *Psychological Review*, 63(2) 81-97
- Miller, C.C. and Ireland, R.D. (2005) "Intuition in Strategic Decision Making: Friend or Foe in the Fast Paced 21<sup>st</sup> Century", *Academy of Management*, 19(1) 19-30
- Morecroft, J.D. (2006) "The Feedback View of Business Policy and Strategy", *Systems Dynamics Review*, 1(1) 4-19
- Nau, D. (1995) "Mixing Methodologies: Can Bimodal Research be a Viable Post-Positivist Tool?" *The Qualitative Report*, 2(3) retrieved from <http://www.nova.edu/ssss/QR/QR2-3/nau.html>, accessed 14th December 2008
- Pawelski, J.O. (2006) "Teaching Pragmatism Pragmatically: A Promising Approach to the Cultivation of Character", *Contemporary Pragmatism*, 3(1) 127-143
- Rigby, D.K. (2001) "Putting the Tools to the Test: Senior Executives Rate 25 top Management Tools," *Strategy & Leadership*, 29(3), 4-12
- Rigby, D.K. (2003) *Management Tools 2003*, White Paper. Boston, MA: Bain & Company, Inc
- Rigby, D.K. (2009) *Management Tools 2009: An Executive's Guide*, White Paper, Boston, MA: Bain & Company, Inc
- Rigby, D. and Biodeau, B. (2007) "Bain's Global 2007 Management Tools and Trends Survey", *Strategy & Leadership*, 3(5) 9-16
- Sawyer, D.C. (1999) *Getting It Right - Avoiding the High Cost of Wrong Decision*, Boca Raton, FL: St. Lucie Press
- Schmidlin, W.G. (1993) *Zen and the Art of Intelligence Analysis*, MSSI thesis,

- Washington, DC: Joint Military Intelligence College
- Schum, D.A. (1988) *Evidence and Inference for the Intelligence Analyst*, Lanham, MD: Rowman & Littlefield
- Self, K. (2003) "Why Do So Many Firms Fail at Competitive Intelligence?" pp 190-202 in Fleisher, C.S. and D.L. Blenkhorn [Eds], *Controversies in Competitive Intelligence: The Enduring Issues*, Westport, CT: Praeger Publishers
- Snævarr, S. (2007) "Pragmatism and Popular Culture: Shusterman, Popular Art, and the Challenge of Visuality", *Journal of Aesthetic Education*, 41(4) 1-11
- Swanson, R.A. (2007) *Analysis for Improving Performance: Tools for Diagnosing Organizations and Documenting Workplace Expertise*, San Francisco, CA: Berrett-Koehler Publishers
- Tversky, A. and Kahneman, D. (1986) "Rational Choice and the Framing of Decisions," *Journal of Business*, 59(4) 251-294
- Underwood, J. (2006) "Making the Break: From Competitive Analysis to Strategic Intelligence", *Competitive Intelligence Review*, 6(1), 15-21
- Vibert, C. (2001) "Leveraging Technology: CI in an Electronic Classroom Teaching Environment," *Competitive Intelligence Review*, 12(1) 48-58
- Watson, J. and J. Everett (1996) "Do Small Businesses Have High Failure Rates?" *Journal of Small Business Management*, 34(4), 45-62