
A brief guide to competitive intelligence: how to gather and use information on competitors

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A brief guide to competitive intelligence: how to gather and use information on competitors

Arthur Weiss

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‘Collecting competitive information can be likened to prospecting for gold. Nuggets are a rarity. The prospector will need to sift through a lot of soil, to find the few grains of gold, which make the task worthwhile.’

Abstract

Outlines the processes involved in competitive intelligence, and discusses what it is, how to do it and gives examples of what happens when companies fail to monitor their competitive environment effectively. Presents a case study, showing how the company that produced the pre-cursor to the Barbie doll failed to look at their business environment and how this led to the firm’s failure. Discusses what competitive intelligence is, and what it is not, and why it is important for businesses. Presents three models used to describe the competitive intelligence process and goes through the various steps involved in defining intelligence requirements and collecting, analyzing, communicating and utilizing competitive intelligence.

Introduction: The story of an intelligence failure [1]

Today, every small girl knows about Barbie. The very first Barbie doll was launched in 1959 and from the moment she hit the shops was a runaway hit. The first Barbie had come with red lipstick and nails, arched eyebrows and white irises and wore a black and white striped swimsuit. Today, Barbie is also an American icon, and a major success story for manufacturer, Mattel.

The Barbie legend claims that Ruth Handler, a co-founder of the US toy giant had watched her daughter Barbara playing make-believe with paper dolls. Handler created Barbie as a model so that little girls could pretend to be grown-up and act out their dreams through the doll. The truth is slightly different.

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In 1952 the Bild Zeitung newspaper of Germany introduced a new cartoon character called Lilli that was an instant hit. In August, 1955 Reinhard Beuthein, Lilli's creator had the idea of turning his character into a doll. Lilli was not aimed at children, however. She was always scantily dressed, and was a sexual symbol for German men. The doll was conceived as a fantasy toy for men and as a joke-gift sold in tobacconists and bars. A major German toy manufacturer O&M Hausser won the contract to make the dolls. O&M Hausser manufactured toy soldiers and similar models out of Elastolene.

O&M Hausser's Lilli was a success, and not just from the original target, men. The new doll also attracted children and women - and different outfits were developed for the doll. Lilli was sold throughout Europe and a few even reached speciality doll importers in the US. The question remains why little girls now play with Barbie, and Lilli is almost forgotten.

In 1956, Ruth Handler, her husband (and co-Mattel founder/director) Elliot and their two children, Barbara and Kenneth were on holiday in Luzern, in Switzerland. Passing a shop window, Barbara, then in her teens, pointed to an adult-looking doll - Lilli. The Handlers bought three Lilli dolls, and on returning to the US, sent out an executive to Japan with instructions to find a company to make a similar doll. Mattel, at the time, was a manufacturer of action toys for boys and saw Lilli as a way to market toys for girls.

By 1959 Mattel had finished developing its new doll, called Barbie, after the Handler's daughter, Barbara. Like Lilli, Barbie, was 11½ inches tall. Barbie however was less sexual and more innocent looking. Her overall appearance was softer, and new 'rotation-molding' technology allowed for the creation of fine details, such as fingers and toes. She first appeared at the American Toy fair in New York where she failed to get an enthusiastic greeting from retailers. But heavy advertising over the following year led to many small girls begging their mothers for a Barbie doll. Barbie quickly broke sales records.

Back in Germany, O&M Hausser knew nothing about what was happening in the US. The firm's failure to monitor the market was to lead to its eventual demise.

Rolf Hausser first encountered Barbie, in a German toyshop in 1963. Hausser has been reported as saying 'I knew nothing about what was happening in America. We didn't even have a radio and there was nothing in the newspapers here about Barbie'. On spotting his first Barbie, Hausser felt outraged that his doll had been stolen 'I didn't know what had happened'. The following year - 1964 - Barbie launched officially in Germany, and Mattel

had a stand at the Nuremberg toy fair. Despite this, Hausser had no idea about Barbie's popularity, or Mattel's strength. Initially, Hausser planned to sue Mattel for patent infringement but instead decided to sell the doll's patent. Having decided on a course of action, Hausser and his firm failed to research the market, and Barbie's success. After protracted negotiations Hausser sold the rights for DM59,500 unaware of Barbie's true value. Without realising it, he had effectively also sold his company, founded by his father and uncle in 1904. Lilli was the company's main product and without the profits from the doll the company soon fell into debt and shortly afterwards went bankrupt.

Many businesses fail to monitor their markets, and even those that do fail to look at what is happening overseas. O&M Hausser, was not a small business. The company exported throughout Europe and even to the US. They had an established presence and reputation in mainland Europe. Yet they had no idea about their competition. Even when Hausser spotted Barbie shortly after the doll was first launched in Europe the firm failed to analyze the threat and develop an appropriate strategy.

Forty years ago, information sources were nothing like today. O&M Hausser may be forgiven for not knowing what was happening in America before 1963. However when Rolf Hausser spotted Barbie in a German shop this was a market signal that Lilli had a significant competitor. The correct action should have been to find out as much as possible about the new entrant, Mattel, and its product Barbie's success. This way, O&M Hausser would have had the information required to devise an appropriate strategy. The information was available. Had Rolf Hausser bothered to check on Barbie's sales position in the US (at the top of the toy charts with over 350,000 sold) he would have given his firm a better negotiating position. He claims that he initially asked for 1% of the sale profits and that Mattel refused. Not knowing the situation meant that he had no bargaining strength. Even worse, he did not know how important Lilli was for his own firm. So giving up the patent for a pittance meant that he had effectively signed his own firm's death warrant.

The Barbie/Lilli story is a prime example of the importance of competitive intelligence and the dangers of not following and researching the market

What is competitive intelligence?

The Society of Competitive Intelligence Professionals (SCIP)[2] defines competitive intelligence as ‘a systematic and ethical program for gathering, analyzing, and managing external information that can affect your company's plans, decisions, and operations’.

Essentially, competitive intelligence, or CI, involves the legal collection of information on competitors and the overall business environment. The knowledge gained from this information is then used to enhance the organization's own competitiveness. As such, CI can be viewed as a subset of knowledge management, involved in the management of information from and about organizations' external environment. Information sources will include online databases, the Internet and also primary research and enquiries – in fact, any source that is publicly available. CI users include all levels within the organization: the board and senior management, marketing, operations, the sales force and so on. CI is used as an input in strategic planning, benchmarking, investing, product planning, marketing, the sales process and any other business aspect that requires an informed decision on the external business environment.

CI differs from industrial espionage in that its sources are all ‘open’ and in the public domain, although not all sources will be published. Key unpublished information sources include anybody who comes into contact with the competitor. This includes the organization's own employees, customers and suppliers as well as those of the competitor and general industry experts. The secret of successful CI is knowing:

- where and when to look
- how to obtain information without misrepresenting oneself or using illicit methods
- how to interpret information, linking it with other pieces to create a coherent picture.

It is this last aspect that changes competitor and business environmental information into competitive intelligence. Unlike espionage, CI is a business practice, with a strict code of ethics[3] requiring CI professionals to disclose their identity, and to respect all requests for confidentiality.

Why is competitive intelligence important?

Only few businesses operate as a monopoly. There are almost always other organizations offering comparable products and services. Yet they all have the same ultimate objectives: to gain customers, make money and succeed. In this sense, the businesses can be viewed as at war, fighting to gain customers at each other's expense. In addition, as part of their buying process, customers will look at what is available on the market. They will get to know the differences between companies - their good points and bad points. They know that company A is cheaper than company B and that company C has a better after-sales service. For a business to operate in a market and not know the same, and more, is tantamount to giving up the battle without even starting.

To win in war, it is essential to understand the enemy:

- his thought processes;
- his plans;
- his strengths;
- his weaknesses;
- where he can be attacked;
- where the risks of attack are too great;
- what he plans to do next.

This is as relevant for business leaders today, as it is and was for military planners and army generals. Around the year 500 BC, Sun Tzu, the great Chinese military strategist, wrote in his book ‘The Art of War’. [4]

‘If you are ignorant of both your enemy and yourself, then you are a fool and certain to be defeated in every battle.’

‘If you know yourself, but not your enemy, for every battle won, you will suffer a loss.’

‘If you know your enemy and yourself, you will win every battle.’

Unfortunately it is not always immediately clear who is a competitor. Apple Computers considered that their key competitor was IBM, and ignored the software producer Microsoft. The reality was that Microsoft was the real

competitor, and Apple lost out, as customers favoured computers using Microsoft operating systems, irrespective of the hardware manufacturer. A story is told [5] about a new managing director of Parker Pens, who asked his board of directors who Parker's biggest competitor was. The initial response was Shaeffer Pens. The new CEO replied that although Shaeffer was a competitor, they were not the biggest or most significant competitor. The board members then suggested that cheap ballpoint pens were the key competitor. Again the answer was no. The correct answer was the Ronson cigarette lighter! Parker research had shown that people buying the pens as presents made the majority of purchases. A key alternative was often a top brand cigarette lighter. Essentially, the quality pen market was a subsection of the overall gift market, and that was where Parker needed to target to increase sales. Thus business competitors are not always those offering the same or similar products or services. In fact there are four potential types of competitor:

- organizations offering the same or similar products and services now
- organizations offering alternative products and services now
- organizations that could offer the same, similar or alternative products or services in the future
- organizations that could remove the need for a product or service.

Companies need to develop processes that monitor each of these if they are to ensure their competitive edge.

However in addition to monitoring competitors and potential competitors, effective competitive intelligence needs also to look at the overall business environment – the terrain in which competitors operate. Those companies that are best adapted to this environment are most likely to succeed, and thus it is crucial to look for environmental changes and include the impact in business planning. Such changes will include new technologies, legislation, economic conditions and social attitudes. Business history is littered with cases of companies that ignored major changes in their operating environment, and lost out. Examples include:

- O&M Hausser, with its Lilli doll, and its failure to identify or quantify foreign threats;
- valve radio manufacturers who did not adapt to the invention of the transistor;

- slide rule manufacturers who ignored electronic calculators;
- the Ford motor company, which failed to anticipate changes in social attitudes and economic conditions when it launched the Edsel motorcar in 1957[6].

The Competitive Intelligence Process

There are a number of models that have been used to describe the competitive intelligence process. For example, SCIP suggests that there are five stages in what it calls the 'Intelligence Cycle' [7]:

- planning and direction
- published information collection
- primary source collection
- analysis and production
- report and inform

A strength in this model is that it emphasizes that secondary research looking for published material should proceed primary research. It fails in that it does not emphasize that a key consideration in competitive intelligence is that the information should be used in company decision-making processes. Information that is reported to decision makers, informing them of a particular situation but that then sits on a shelf gathering dust is not intelligence. It has failed to meet the needs of its audience. Other models address this, by including an application stage. Thus Ashton & Stacey (1995) describe a model (Figure 1) that includes the need to apply the intelligence results.

Ashton & Stacey Business Intelligence Process model

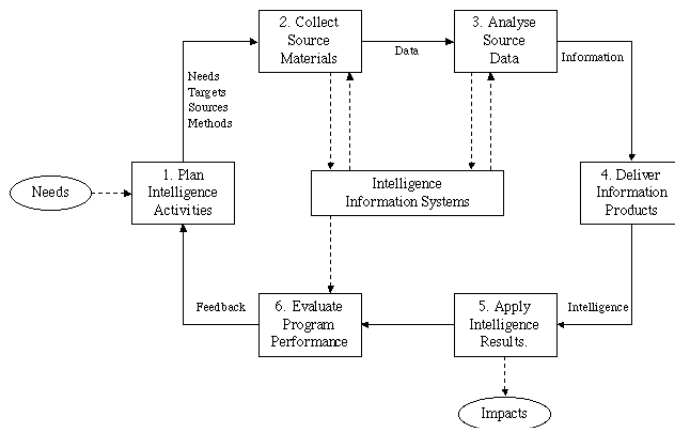


Figure 1:

This model has added strengths in that it includes a stage for feedback, where the lessons learned are fed back and used to improve future intelligence planning, and recognises that intelligence activities arise out of user needs, rather than in a vacuum.

A simpler model that incorporates the above steps, but also recognises that information collected during the process can result in modified requirements is the 4C's process [9]. This covers the collection of information, its analysis, communication and utilization, as shown in Figure 2.

The 4Cs process model

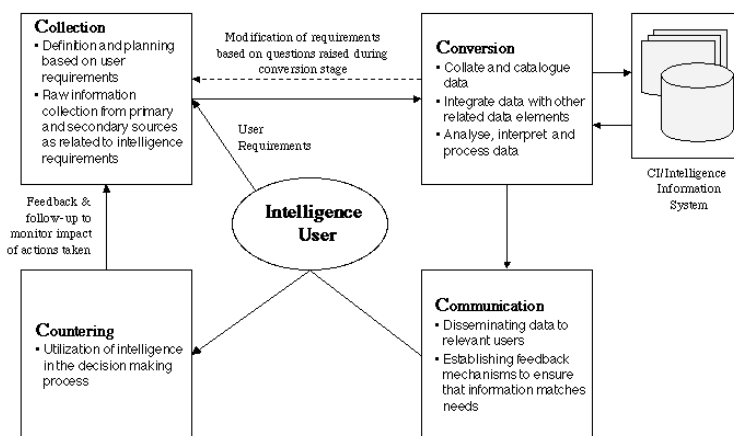


Figure 2:

Information Collection

Each stage of the 4Cs process includes a number of sub-processes. The first part of the collection stage is to define the user's intelligence requirements, or 'key intelligence topics' (KITs) [10]. KITs are established either by the competitor analyst interviewing potential intelligence users to identify their information needs, or alternatively by a user asking for intelligence required for a particular decision. The process is a derivation of the CIA's national intelligence topics, which facilitate the US Government's task of organizing, prioritizing and focusing intelligence resources on its security personnel and policy needs. KITs breakdown into a three basic categories:

- strategic decisions and actions
- early warning topics
- descriptions of key players. (competitors, customers, suppliers, partners, regulators, etc.)

The **Strategic Decision** type of KIT is the most visible and often gives the most tangible measure of intelligence value and success. KITs in this category vary in form from specific questions to full topics that need research. Topics cover all types of business activity – and are aimed at supporting company strategic decisions. Examples include:

- providing intelligence inputs for company strategic plans or giving a view of the future competitive environment;
- assessing investment decisions or acquisition possibilities;
- assessing changes in production or plant;
- product development and rollout: how will competitors respond?

Early warning KITs aim to eliminate surprise. Their emphasis tends to be on perceived threats. Examples include assessing the potential of technological developments, the entry of a new or foreign competitor into the market, and the status of key customers, suppliers, etc. Potential legislative changes would also fall in this category, as would the impact of alliances, or ownership changes among customers, suppliers and competitors.

Key player KITs are often the least actionable, and may simply reflect the need for a better understanding of a player – ‘to get under their skin’. A classical approach to satisfying key player KITs is to compile a full profile of a competitor (or other key player) covering their products, operations, financial capabilities, strengths, weaknesses, and general approach. This kind of KIT can also consist of questions such as ‘why did they change their strategy?’ Typical uses for key player KITs include competitor benchmarking and the production of sales support guides used to help sales agents sell against competitors.

KITs tend to be fairly broad-based, and the next step is to break the KIT down into questions which, when answered, will satisfy the intelligence need as expressed in the KIT. A search plan is constructed aimed at answering these questions, taking into account costs, time, ethical-legal issues about what can and should be collected, and the skills of the available collectors. The plan will look at sources for the required information, and the reliability of those sources. (For unreliable sources, extra work may be needed to verify the information, perhaps by checking additional sources looking for confirmation). A basic rule for identifying a source is to ask the question ‘why would the information be available?’ Thus, for example, when searching for company finances, one answer to this question will be that there are legal requirements to file company accounts. As a result, a potential source for financial information are company account registries, the stock exchange and similar repositories.

The final part of the collection stage is the data collection itself. Generally, like in all business research secondary sources are tapped before primary sources are accessed, with one exception. One of the key sources for competitive information is the organization itself. In fact, internal sources are considered among the best sources for competitive intelligence. For example:

- sales representatives deal on a daily basis with customers and will hear what the competitors have been doing;
- research & development may come across new patents or read new research papers mentioning competitor developments;
- purchasing may find out that a supplier is now also supplying a competitor;
- market research can give feedback on the customer's perspective.

Including a process where this kind of information is routinely accessed is one of the guarantees for a successful competitive intelligence system.

Secondary research information will come from numerous sources. With the rise of the Internet, many new sources have appeared. These include the online availability of much government and quasi-governmental information, company promotional material in the form of corporate websites, conference papers and reports and even material from protest movements campaigning against specific company actions. The latter material would previously only have been circulated within a narrow caucus, but is now frequently made available on the Web, either as a dedicated protest website, or through a newsgroup or discussion forum.

A common mistake is to assume that all relevant information is available over the Internet. This is not yet the case. Many specialist journals do not have archives on the Internet or any of the major host databases. In addition, most recruitment and promotional advertisements published in the press are not available on the Web and photographs, graphs and other diagrams are not generally held on archive databases. Nevertheless, much information can now be found online, simplifying the intelligence gathering processes. Typical online information includes financial information, product information and general news and comment.

Financial information can be found in company account registries and on commercial services. The European Business Register [11] holds links to eleven European country registries, while the UK registry is held on the Companies House website [12], and US public company information can be found on the US Securities and Exchange Commission site [13]. Additional and analyzed information is available from commercial suppliers such as D&B [14], Hoovers [15], Skyminder [16] and others. Other important sources for financial information include broker reports and prospectuses, with the former available from specialist sites such as Hemscott [17] as well as commercial databases, and the latter from company websites.

Information on products can be found from competitor, retailer and product review websites, newsgroups, market research databases and press information sources. Patent and trademark information is of particular use when looking for R and D type information. Whereas previously such information was costly to obtain, much can now be found for free using national patent office websites [18], although commercial suppliers such as Derwent Information [19] do offer additional features.

General news can be found from numerous newspaper websites, as well as news consolidators such as Moreover [19], and online host database suppliers such as Factiva [20], Lexis-Nexis [21] and Thomson with its Dialog [22] and Datastar [23] services. Such sources are important in that they cover company information including, for example, management interviews which often give an insight into the way the competitor thinks, personnel changes, plant expansions, M&A activity, and contracts and new business won. (There are other more specialist databases like Tenders Electronic Daily or TED [23] which also are good for this kind of data.)

Although internal company information and published information such as described above is important, many questions will remain unanswerable without primary research, contacting individuals with a detailed current knowledge of competitor and industry activity. Published information is often old and out-of-date by the time it appears. For early warning of competitor moves waiting on such sources may be too late. Instead, CI analysts need to develop procedures to keep them informed on what is happening, ideally before it happens. Trade shows and conferences, for example, are frequently used to announce new products and ideas. Industry experts and consultants, stock analysts, trade journalists, competitor customers and suppliers and ex-competitor employees will all often have a detailed knowledge of competitor activity, thought processes and culture, and be willing to talk. Industry experts will also have a broad view of the overall trends impacting the industry. Although it is acceptable to interview these sources, a prime consideration for all such research must be to remain ethical. It is important to respect requests for confidentiality, to avoid pressure and not to hide one's identity or lie about the research purpose. Sometimes it can be better to outsource such work to specialist consultants, who can interview personnel close to the competitor without arousing suspicion or misrepresenting themselves.

Conversion – from information into intelligence

An enormous amount of data is often collected for any given KIT. Some of this will be out of date, inaccurate, misleading, or incomplete. However like a jigsaw, each piece can help build up the complete picture. And even if some pieces are missing, you can often get a good idea of what the real picture actually is, even if other pieces are damaged and not all remaining pieces fit perfectly.

The first stage in converting the raw data collected into intelligence is to collate it and catalogue it. Whether the data is stored on a paper file or in a complex database is not important. What is important is that the data is assessed for accuracy and reliability, and that related data that may have been collected previously, as well as new data is linked together. This way any patterns or trends can be spotted and a picture built up. Moreover, just because some items do not appear to fit together does not mean that they are wrong (although they may be). Such data may relate to other areas, or there may be missing pieces. Even data that appears to be irrelevant may hold some meaning that will only appear following further research. So, almost all data is potentially useful and needs to be indexed and kept in a format that will allow for it to be accessed as and when needed. Part of the role of the CI analyst is to use their experience, and knowledge to evaluate what the true situation is. They need to be as objective as possible, and a real danger is that they become blinded or sidetracked by myths, taboos or assumptions that exist in most organizations about the 'outside world'.

Data needs to be put into context, and used to answer the particular queries that led to the research. Different types of data will give different answers that together should lead to a coherent understanding of what is happening. For example, the company report can give an idea of a company's health, which will be enhanced by information from trade suppliers and trade press articles on recruitment or downsizing strategies. Together, these can give information that will give clues to a company's investment strategies and financial capabilities. Alternatively, primary research may have uncovered hints about new product development, confirmed through analysis of recent patents and trademark filings, and press reports announcing new supplier contracts.

It is also important to use data collected as a means of building up knowledge on the market and competitors in general, and on one's own organization: its strengths, weaknesses, opportunities and threats. Comparisons

should be made looking at how all the different players interact and compare with each other and the market overall. Thus, although data many have been collected for one purpose, the CI analyst should always look at how it relates to other information and use this to build up overall organizational knowledge about the market and the organization's place within it.

Communication

Unless those who need intelligence about competitors and the business environment actually receive it, all efforts to collect and process competitive intelligence are worthless. Although it is important to protect trade secrets and restrict the free availability of confidential information, it is also important that relevant competitive information is communicated to those who need it. For example, letting the sales force attempt to sell products without a full awareness of the products' strengths and weaknesses relative to the competition is like sending them out with one arm tied behind their back. They will be unable to answer objections and comparisons convincingly, and thus are less likely to make the sale.

Competitive intelligence needs to be evaluated and selectively communicated to all who need to make decisions based on what customers, suppliers, or other companies in the market are doing or are likely to do. Effectively, this means that CI has a relevance to almost everybody in the organization – from the boardroom to the factory floor. However the ways that CI will be communicated, and the frequency of communication will differ, depending on the intelligence requirements recipients and the precise nature of the information. Communication can be verbal, via the telephone or face-to-face meetings and presentations. Written communication can be via daily or weekly Email bulletins, as well as written reports or analyses produced as printed documents or placed on a corporate intranet. When discussing user requirements, part of the process should include agreement on how intelligence will be communicated and to whom. The essential point is that CI needs to be used in decision-making, and its presentation should thus aid this process. Rather than present a long document containing all the data collected, only the salient points that are needed for decisions should be emphasized, with the remaining data available as a backup reference if needed.

Countering – utilizing the intelligence to combat competitors effectively

An effective CI process will have led to the gathering of four different but linked types of knowledge about competitors and the competitive environment [26]:

- competitor knowledge – information on individual competitors;
- comparative knowledge – information comparing and contrasting different competitors;
- market knowledge – information on the wider marketplace, such as customers, suppliers, channels, technology, intra-industry rivalry and alliances, etc.;
- self-knowledge – information on one's own organization.

Types of competitive knowledge and how they lead to strategy

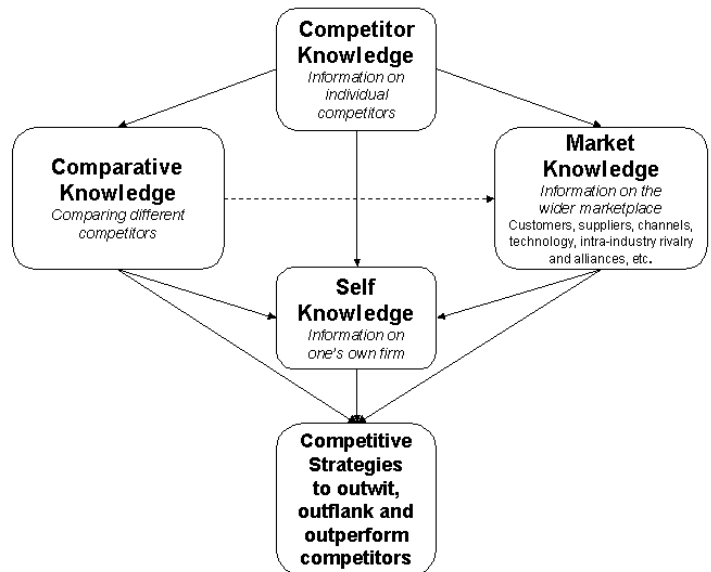


Figure 3:

These four categories are all required to build a full and comprehensive picture of the business environment. Only by fully understanding one's own position in the marketplace, and that of rivals, can appropriate decisions be made to take advantage of market opportunities and to protect against threats.

The final part of the CI process integrates the intelligence collected into the organization's decision-making and strategic planning processes. All such plans should include steps to monitor progress and evaluate the impact of actions taken. This will require further information collection, and the lessons learned should be used as inputs for future plans. Thus effective CI allows organizations to create strategies that can be used to maintain and enhance competitive advantage so as to stay ahead of competitors and the market. This is the ultimate goal of competitive intelligence.

A final analogy

Collecting Information on competitors can be likened to prospecting for gold. Nuggets are a rarity. The prospector will need to sift through a lot of soil, to find the few grains of gold, which make the task worthwhile. Occasionally, the prospector will even be tricked by iron pyrites, or 'Fool's gold'!

Similarly, some of what is collected on competitors will turn out to be useless. Sometimes the information may be completely wrong and lead the unaware on the wrong path. However with experience, this is less likely, as with the skilled gold prospector and 'Fool's gold'.

By learning to recognize 'gold', the CI analyst helps their organization retain competitive advantage and fulfill its objectives. Failing to look for or identify such gold leaves organizations vulnerable to their environment, and when lightning strikes, instead of a mother lode being highlighted, all that was worked for is at risk of being washed away.

References and Notes

- [1] Based on Anne Barrowclough, Barbie – her secret story, *The Times*, 3 Aug 1999, p.35; www.chass.utoronto.ca/~thammond/Bpage31.htm; www.havenhouse.com/planetponytail.htm
- [2] www.scip.org/ci/
- [3] www.scip.org/ci/ethics.asp
- [4] The quotation given is based on a mixture of translations and is unattributable. For *Art of War*

translation, see Khoo Kheng-Hor, 1990, *Sun Tzu's Art of War: War At Work*, Malaysia, Pelanduk Publications.

- [5] Hooley, G & Saunders, J, 1993, *Competitive Positioning - the key to market success*, Prentice Hall
- [6] www.failuremag.com/history_content.html. Article giving the history of the Edsel motorcar, with reasons for failure including a change in social attitudes towards car size, compounded by an economic downturn.
- [7] www.scip.org/Library/intell_cycle.pdf
- [8] Ashton, W. B. & Stacey, G. S, Technical Intelligence in Business: Understanding technology threats and opportunities. *International Journal of Technology Management*, 1995, Vol. 10, No. 1, pp. 79-104.
- [9] The 4Cs process has been developed by the author, and is also summarised at www.competitive-intelligence.co.uk/competitor-analysis.htm
- [10] Jan P. Herring, Herring & Associates, *Key Intelligence Topics: A Process to Identify and Define Intelligence Needs*. www.cipher-sys.com/Website.nsf/b51da56dd4d96ea48525699300701588/318b16826c81ec988525680900480f34?OpenDocument
- [11] www.ebr.org
- [12] www.companies-house.gov.uk
- [13] www.sec.gov
- [14] www.dnb.com
- [15] www.hoovers.com
- [16] www.skyminder.com
- [17] www.hemscott.net/
- [18] www.european-patent-office.org/
- [19] www.derwent.com/
- [20] www.moreover.com
- [21] www.factiva.com
- [22] www.lexis-nexis.com
- [23] www.dialog.com
- [24] www.datastarweb.com
- [25] <http://ted.eur-op.eu.int/>
- [26] Model based on Fahey, L, 1999, *Competitors: outwitting, outmaneuvering and outperforming*, John Wiley & Sons, p. 44