

Chapter 1.

The Role of Competitive Intelligence in Improving Corporate Competitiveness

The forces of competition

The corporate world is continuously buffeted by the forces of competition. These competitive forces are pervasive. The decade from 1996 to 2006 saw dramatic increases in the level of competition. This report shows that the vast majority, almost 90%, of managers already see the level of competition in the markets they now operate in as very high or extremely high. The same managers expect that over the next three or more years, the level of competition will increase even further. How do managers stay ahead of the competition in an increasingly competitive environment? How do managers successfully ride the waves of competitive change? This research report examines the ways that a representative cross section of the corporate population operating in Australia and internationally manage their knowledge of the competitive environment, and use it to stay ahead of the competition.

Corporations face increased competitive pressure, both directly indirectly, and from multiple sources. For example, a bricks and mortar retailer, such as Woolworths or Coles, may face competition from immediate rivals in retailing. This is direct rivalry for market share, for customers' spending on specific products or segments, such as snack foods or alcohol or fresh food. The same retailer may face competition from potential entrants (such as Tesco, Aldi or Wal-Mart). The same retailer may also face increased competition for the customer dollar by corporations in completely different industries, such as the on-line entertainment industry, or gambling industry. Competition for the customer dollar may also come from the auto industry, forced to respond to increased oil prices by cutting the price of its cars in order to move stock out of the sale yard, or from banks raising their lending rates in response to central bank cash rate increases and thus reducing discretionary income for customers. The retailer also indirectly competes for resources, such as finance, or for skilled staff, or for technology and knowledge. This competition for resources is not just with other retailers, but also with corporations in quite unrelated industries and markets, such as the airline, financial services and hospitality markets. Most managers are acutely aware of direct competition with rivals in their market, but are less aware of the general and diffuse pressure of competition. Competition is everywhere, and it is increasing.

This increasing competitive pressure seems to be the result of a constellation of factors and trends, loosely summarised by the term "globalisation". For example:

Communications and the web. Nowhere else is the effect of globalisation on competition so evident as on the impact of increased access to the world wide web. Every manager with a computer or phone now has ready access to billions of pages of information. Although a decade ago much of this information was electronically accessible, it required access to the "invisible web" and specialist search knowledge. Both ease of access and the amount of information have increased dramatically. Managers and entrepreneurs can see more competitive opportunities, and threats, more readily than ever before. In the early 1990's the www did not exist, and penetration rates of access to electronic databases were limited, and restricted to 16kps

connections. By 2005, penetration rates for access to internet were close to 100% for corporations, and usually access was by broadband connection.

Technology. Technology has always been a driver of competition. Technology forces cost reductions, such as the persistent effects of Moore's Law which over the last twenty years have cut costs in half every 18 months or so in many industries. It also drives convergence in industries, changing the boundaries of industries and opening incumbents to new competitors. Digitalisation has changed the way camera companies, Canon, Nikon, Minolta etc compete, and changed their competitive landscape. The same is true in the pharmaceutical industry as new technologies emerge, and in the media where broadband web connections mean that traditional print media increasingly competes across borders with other print media and across media channels with traditional radio and TV media. The number of globally registered patent applications with WIPO, the World Intellectual Property Organisation, has grown from 20,000 per year in 1990, rising by 17% pa, to around 140,000 pa in 2005.

Regulatory change. Regulatory, political and social change also drive competition. The ramification of regulatory changes initiated by Deng Xiaoping in China in the 1980s are still being felt today; China has created some 30 million new small and medium enterprises (SMEs) in that time, more than the total number of SMEs in the USA and EEC combined. India and China now offer a potent competitive force. Expansion of Free Trade Agreements allow more competition across borders. Trade in goods and services across borders is now about 55% of GDP, relative to less than 20% in the 1970s (IMF 2005 p 129). The competitor a corporation faces is now much more likely to be a foreign firm. Improved communications and cooperation between competition regulators has increased pressure on firms to compete rather than collude. The vitamin case, in which a number of manufacturers of vitamins including Roche AG, BASF, Rhone-Poulenc, and Takeda Chemical Industries colluded to raise the price of vitamins by as much as 70%, is an example. The cartel has been broken up, and fines on participants have amounted to over \$USD 2.5 billion, prosecuted by regulators in the USA, Canada, Europe, Japan, Australia and New Zealand.

Finance. Financial markets have operated globally since the 1970s, but changes in regulations and communications mean that the reach of finance markets is now much more pervasive. It is not just in bonds or listed equities that financial flows are fluid and informed and reach easily across borders. For example direct investment by private equity consortia have become a potent international force for changing competitive landscapes. This has translated into increased pressures from investors on managers to perform or be replaced. The volume of foreign assets held by industrial economies has risen from around 50% of GDP in the mid 1980s, to over 200% of GDP by 2005 (IMF 2005, p111).

Where this constellation of factors is focussed most, we sometimes get the extreme cases of hyper-competition, or "business at the speed of light". In these cases the velocity of competition is at an extreme. Only a few markets were clearly extremely high velocity in the 1980s, such as computer chip manufacture. There is some evidence that more and more firms are facing high velocity competitive environments. For almost all corporates there has been an increase in the speed of competition and the speed at which decisions need to be made. For example a local café may find itself in increased competition with a global brand like Starbucks. A

government owned energy utility may find itself broken up to facilitate market creation and privatisation, and be subject to increased competitive pressure and takeover offers from abroad. A company, such as Dell which has thrived on a business model for many years may find its competitiveness being eroded. A manufacturer or insurance company or publisher may find that it needs to shift some of its supply chain offshore in order to compete, and then may find it has to respond to other pressures to improve service in its offshore call centres. The pressure to be more competitive is everywhere, and does not just come from immediate rivals.

The corporate response to increased competitive forces

If managers are facing more and more competitive pressure, what can they do? Managers have two basic options. They can try to continually improve their competitiveness, or they can try and limit or avoid the forces of competition. Their choice has significant socio economic implications.

Players can seek to play fairly and cleanly, by continually finding ways improve their competitiveness and ability to meet competitive challenges. If they are successful, they can then ride the waves of opportunities for change that competitive forces bring. It is not just the winners who gain. Considerable social benefit also flows from such competitive processes. Increased competitiveness means improved productivity, which means being able to do more with less. At a productivity rate of say 4% per annum, at the high end of historical productivity growth, it is possible to more than double living standards every twenty years, without increasing the amount of resources required. This has important implications for sustainability of growth and of society. This is win-win competition.

By contrast players can also seek to play dirty; they can collude or monopolise, lobby to create barriers to entry and change the rules to their advantage, or to use underhand tactics of competition to damage and destroy their competitors. This sort of activity can provide a lot of benefits for the few who are successful, but it is at the expense of the greater good. This is win-lose competition.

Firms and managers use both options. This report is not so much concerned with how they play the game, but how they manage to keep track of the other players, and their own position, in the game and in the broader competition. This is what CI is about. If a game is being played harder and faster, then the need for better CI is evident.

Corporate competitiveness and competitive advantage

In an Alice and Wonderland world, to stay in the same place, it is necessary to continually run faster. There is no "sustainable competitive advantage". Competitive success is relative, not absolute. To have a competitive advantage is to have an edge over rivals, but the edge that can be obtained is only temporary, and can easily be lost. In rapidly changing, globalising environs, those firms appearing to have unassailable competitive advantages have often been outcompeted by more nimble, innovative rivals. History is littered with examples: IBM, Xerox, Encyclopaedia Britannica, Eli Lilly, Hennessey, Caterpillar, and Kodak to name a few.

To succeed competitively a corporation or individual has to strive continually to improve *relative to* their competitors. Those firms which survive often turn into quite different firms. Globally successful companies like DELL, or Microsoft, or GE, or Samsung or SONY are only as good as their next moves, relative to their competitors' moves. Any management team must continually appraise those moves,

and appraise them relative to their rivals, their potential rivals, and to the broader competitive environment. This is what CI is about.

What is CI ?

Competitive intelligence (CI) is a rather complex phenomenon. Like the elephant and the blind men, it depends on the perspective taken as to what is seen.

First, CI can be seen both as a process, and as an outcome from that process. The *outcome* is usually a report, or "smart information", which helps decision makers arrive at a decision and which in turn helps them compete more effectively. The *process* is one of how that outcome is arrived at.

The **process** usually requires the systematic management of a cluster of activities, which draw from a range of appropriate sources, to produce an output, that is an outcome of "smart information" or CI. These processes are things such as:

Selecting. It is counterproductive to try and monitor everything that may possibly affect a corporation's competitiveness. It is necessary to develop processes which prioritise the information required to be a successful competitor, and focus attention on key issues or topics. Information relevant to these key issues is then selected in a process of winnowing out and translating it into intelligence which can be acted on by decision makers.

Searching. The process of searching for relevant information can take a number of forms, ranging from intuitively knowing what to look for on a key issue, to systematic structured searches. Search engines have proliferated in recent years, but they are almost always searching secondary data. Primary data still needs skilled people to search for it and elicit it.

Constructing. Once raw information is obtained, it is often necessary to have a process for filtering and constructing it into forms and formats that allow it to be better understood or accessed. This may be as simple as a process which files information in the relevant sections of an electronic clipping file, or data base, or intranet. It may be a more sophisticated processes of feeding information into models (such as balanced scorecard) or dashboards. In some cases it is a matter of having a community of interest, or a cell leader to act as a repository of relevant knowledge.

Communicating. Information, or its value added form, intelligence, is of little use unless the person who is trying to make the decision has access to it when they need it. Communication processes for CI often have to cut across silos, and short circuit hierarchies. Communication also means getting the message to a target receiver in a suitable technological way. Some communication processes are notorious for leaking and distorting the message; for example the message "send reinforcements we are going to advance" being translated by garbling verbal channels to "send four and sixpence we are going to a dance".

Verifying. Unless information is verified and can be regarded as reliable, it is useless, or worse, misleading. There are simple processes for vetting, verifying and accrediting information on a scale of trustworthiness, reliability or accuracy.

Analysing and interpreting. The real value added to raw or semi-constructed information comes from analysing it in the context of the decision to be made. This can range from the use of ready-made analytical templates (PEST, SWOT, etc) to more complex tailored scenario analysis and interactive simulations and wargames.

Reporting. The process of reporting the results of the analysis, and the implications of different decision options is crucial in bringing the other processes together. There are many reporting formats for reporting the same "smart information", or CI. What format is appropriate depends on the audience and their needs.

This cluster of processes often forms a chain or a cycle (the intelligence cycle). The processes may be iterative and interactive. The process may be a one-off exercise, or it may be part of an ongoing intelligence effort. In an ongoing intelligence cycle, intelligence gathered from one cycle is fed into strategic decisions, which in turn feed the need for more intelligence. For example a manufacturer setting up in China may do some ad hoc intelligence gathering to help shape its entry strategy, and, once established, may set up an ongoing intelligence process to help it manage its day to day and strategic activity. There is no single ideal or best process. It depends on what is appropriate to the issues and needs at hand. As competitive pressures increase, and as the velocity of competition increases, the processes have to adapt and be more efficient.

The **outcome**, or CI, is "smart" information which is best characterised as a package with the following attributes, each of which is a matter of degree:

Actionable. If CI can not be acted on it is of little value. Actionable implies that the CI assists a manager in shaping and making a decision, but it does not make that decision. The intelligence brings together and adds value to relevant information in such a way that the decision maker can see clearly what the options and likely consequences are, and can therefore act.

Relevant. Relevance is always a matter of degree rather than clean black and white, but good CI highlights the most relevant information to shaping and making a decision. The information which is of interest or just nice to know is relegated or eliminated. It is difficult for a manager to see the essence of a decision set clearly if it is clogged up with trivial details.

Timely. Timeliness is relative, both to the issue at hand, and relative to the present. Information or intelligence which is as up to date as possible may be seen as timely. Equally, relevant information provided when a decision maker needs it may be timely, for example, even though it may be giving some historical background on a competitor executive's negotiating tactics. The essence of timeliness is that the CI is timely in respect of the decision to be made.

Reliable. Reliability means that the CI can be provided with a known degree of reliability, not that it is 100% accurate. Since CI is usually striving to anticipate what will happen, it can never be totally accurate. This is in contrast to knowledge management, which deals in historical perspectives, and which can, in principle, be 100% accurate.

Cost effective. CI offers good value for money, and is cost effective to collect. The distinction between CI and market research is partially one of

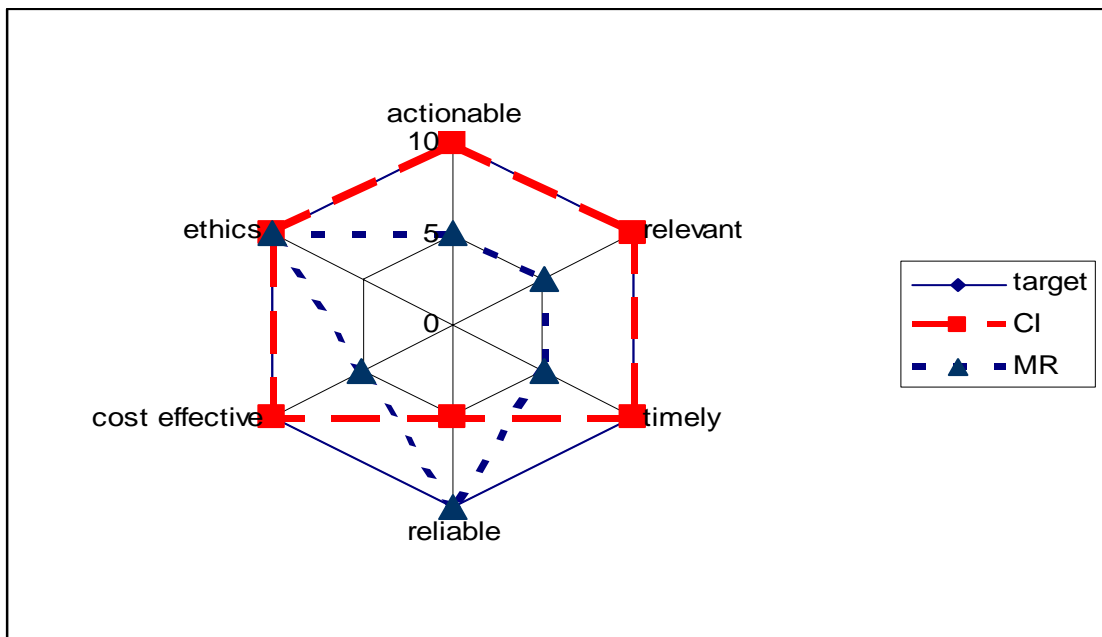
expenditure. Spending more money on research does not necessarily lead to a commensurate improvement in the accuracy of the information. Diminishing returns set in quite early. Market research is often used to reduce risk to a decision maker; they can say to their corporate superiors or colleagues that all efforts were made to get the product launch right. A good decision maker may well make a more risky decision with less information, but with good essential CI. Such a manager can be a competitive success because they get to market faster, and then use CI to adapt the product in the light of feedback.

Collected in legal and ethical ways. It is often a misconception that CI involves spying and bugging. Sometimes it does, but illegal and unethical CI behaviour are not professional, are discouraged, and are not necessary. Good competitive decisions can be made without resorting to illegal and unethical CI processes.

All of these attributes are matters of degree, and are subject to trade offs. Figure 1.1 shows the attributes as scales, where 10 is a maximum score. Ideally a decision maker wants a 10 on each attribute, but this is not usually possible. Very reliable information may be difficult to verify in the time available, so gains in timeliness may have to be traded off against some loss in reliability. Highly reliable information may be both expensive and time consuming to collect. If the decision maker is risk averse or trying to make a decision with large downsides, then the appropriate package of CI required may have a different flavour to the package required by a manager gambling on a quick opportunity. There is not a single ideal package of CI attributes that fits all managers and all decisions.

Similarly for example, market research (MR) usually takes more time to collect and is usually more expensive to collect than CI, but it can be more reliable than CI. The rigour and time that comes with market research can mean a loss of actionable information; by the time the research is done it may no longer be relevant in a fast moving market, and so may not be a good basis for actionable decisions.

Figure 1.1 The CI hexagon



Second, CI can also be seen in terms of what it is focussed on. A distinction is often made between **competitor** intelligence and **competitive** intelligence. Competitor intelligence is that which is primarily concerned about behaviour of immediate rivals and potential rivals. Competitive intelligence is that which is concerned with anything that might affect the competitiveness of the organisation, and it thus includes broader environmental aspects of technology, regulations, suppliers, allies, stakeholders, politics, socio demography, and so on.

Third, CI can also be seen as primary or secondary. It is common to distinguish HumInt, or *softer* human intelligence, from *harder* information technology sources of intelligence. Human intelligence is often a primary source intelligence. Intelligence from electronic sources, usually databases, news services and the like, is usually secondary in source. Related to this, Business intelligence is sometimes taken as a synonym for competitive intelligence, but in recent years it has taken more to mean the use of electronic data base technology for storing and retrieving information. This often takes the form of dashboards, designed so a manager can simultaneously see information pertinent to the operation of a corporate unit, on multiple screens.

Fourth, CI can also be seen as distinct from, but related to, KM (knowledge management). KM is concerned with rendering implicit knowledge into explicit knowledge and then storing it. KM is always looking backwards to what has already happened. CI is always looking forward to help managers make decisions to improve their future competitiveness. The challenge with KM is to avoid being overwhelmed by irrelevant knowledge. For most organisations, knowledge is a means to an end, not an end in itself. CI complements KM by doing two things. First CI helps in focussing on the knowledge that is of must use for competitive advantage. This might be, for example, knowledge about technologies, or patents, or social history, or about the pattern of behaviour and motivations of a particular manager. CI thus prioritises what information should be collected and stored. Second, CI helps winnow out and analyse the stored knowledge so that it can be translated into intelligence which supports competitive decisions.

Fifth and finally, CI can be seen at functional management levels, or at corporate or group levels. Thus, CI is often represented as "market intelligence" or "technology intelligence" or "legal intelligence". CI can also be seen as tactical intelligence or strategic intelligence. Tactical intelligence is usually shorter term, (winning battles or skirmishes), compared to strategic intelligence (winning the war).

Stages of sophistication in CI systems

CI systems and practice can vary widely in sophistication, as shown in Table 1.1, from quite rudimentary to very sophisticated state-of-the-art. This has three main implications:

First, corporations in highly competitive, very complex, high velocity markets (such as pharmaceuticals, finance, telecommunications, aerospace, computer, and information technology etc) tend to adopt more sophisticated approaches to CI. Corporations in less competitive, more sedate markets may well find less sophisticated CI systems are quite adequate for their needs. However, the effect of globalisation and of the increasing velocity of competition is to raise the bar for all corporations.

Second, CI within a corporation usually tends to evolve, usually starting at a relatively low level, and then, through a process of improvement, moves to a higher level of CI

until it reaches a level of sophistication appropriate to its competitive environment. This does not always go smoothly, and it is not always uniform across the whole organisation. Some parts of the organisation, and some management roles may seek more sophisticated CI systems than other parts. Sometimes the evolutionary process goes into reverse. For example, BHP had a very sophisticated CI system for the time, in the early 1990s, but a change in senior management meant that much of the system was dismantled by the mid 1990s, and then reinvented later again.

Third, CI itself continues to evolve, as better technology emerges, and as better techniques are developed, so state of the art itself is continually evolving.

Table 1.1 Schematic representation of CI evolution stages

5 State of the art	Comprehensive, systematic, well organised, continuous collection and analysis of information. CI output focussed on key competitive issues facing decision makers. Forward looking. CI is integrated into strategic and tactical decision making at all levels of the organisation, as appropriate. Strong CI support from senior managers, who rely on it for decisions. Appropriate use of technology. All staff and contractors aware of ethical and legal issues in using CI. Prevailing organisational culture of competitiveness, sharing of information, and clear agreement on key competitive issues.
4 Advanced	Regular use of CI data collection, analysis and techniques. May tend to be limited to some departments or areas where managers are more interested and knowledgeable. Good senior management support for and understanding of CI.
3. Ad hoc	Ad hoc use of CI when needed (eg when entering a new market or launching a new product there is a special effort, particularly on market research). Champions beginning to emerge and lead.
2. Seminal	No systematic approach to CI. CI activity is individual, and depends on good managers with some knowledge of basic CI techniques. These managers generally collect their own information using fairly basic techniques; rumours, personal contacts, web searching, trade journals, occasional conferences etc, but do not always share it, nor do they translate it into actionable intelligence.
1. Rudimentary	No structured attempt to collect, or carry out, or share any CI. No support for CI functions, and may be overt opposition to CI from senior management. Ignorance of basic CI techniques. Confusion of CI with industrial espionage.

The role of CI in improving corporate competitive performance

The main role of CI is to assist managers to make better and more competitive decisions, but it is important to distinguish the role that CI can *potentially* play, and the role it does *actually* play. A manager faced with a decision is more likely to make a good decision if they have access to actionable, relevant, reliable, timely information on which to base that decision. Good CI has the potential to lead to better decisions, and to better competitive performance. Good managers and

Staying *ahead* of the competition

leaders have always used intelligence, either intuitively or explicitly, to improve their competitive success.

Both main schools of strategic planning thought (the resource based, or Penrose school, and industry attractiveness, or Porter school) emphasise the need for managers to have good CI. In the resource based perspective, a core competency cannot be developed in a vacuum. A manager must have access to information about what competitors' competencies are, and have intelligence on where there are market gaps and opportunities, if they are to succeed. In the industry attractiveness view, Porter has always overtly recognised the need for good competitive intelligence on the five forces which shape the attractiveness of the market.

The main corporate adopters of CI are strong advocates of its importance in their competitive success, but they take a rather broad view of this. There is little focus on the specific link between CI and competitive success, or the bottom line. For example:

Bob Galvin CEO of Motorola (Galvin 1997):

"...an intelligence department can be seen as a professional entity that supports or stimulates or once in a while gets home runs, or most of the time gets pretty good bunts in to help move along the fundamental culture and character of the institution"

The Proctor and Gamble Chairman, John Pepper (Pepper 1996)

"our business intelligence group has been terribly important to Procter & Gamble in improving the quality of our options analysis. We tend to be people who want to get to a solution quickly. If we can avoid having to spend too much time thinking of a lot of different options, we'll tend to welcome that. So we benefit by having someone who holds our feet to the fire and says, "Slow down a bit to look at what the options are" so you'll have a really robust, competitively viable strategy. This has been a major contribution. "

Robert Flynn CEO and Chair of NutraSweet (Flynn 1994)

"Competitive Intelligence, in my opinion, is worth about \$50 million a year to NutraSweet. That is a combination of revenues gained and those not lost....."

John Hovis, senior Vice President for Strategy at Avnet (Hovis 2000)

"Our CI activities, our analytical activities inside Avnet, are focused around growing earnings per share (EPS). Why are we growing EPS?It has everything to do with shareholder value. As that information gets moved into my area and I have the opportunity to explain, through our investor relations efforts, why Avnet is performing so well, then hopefully we'll also be able to increase our stock price and the PE multiple over a period of time by effective communications with The Street."

and

"What is successful CI? It facilitates "alignment." By "lighting up targets," helping us to understand who, what, where, and when, it helps us to achieve alignment in our strategic plan. It keeps the executives informed as a key element in decision-making. It needs to be more than "competitor" intelligence."

Thus, senior managers definitely see a use and an important role for CI. They do not expect that adopting CI will be a magic wand to improve their bottom line

performance. What they do see is that adopting CI will lead to a corporate culture more focussed on competition. However they also acknowledge that this takes time.

As we might expect, empirically the link between the level or quality of CI and the competitive performance of corporation is not a direct one. For example, there is no relation between CI activity and short term growth of sales or turnover (Hall and Bensoussan 1997). This is consistent with results from Jaworski and Wee (1993). If CI does improve performance then the link is more complex and longer term.

Whilst good CI should thus lead to better competitive decisions, and to better competitive performance, it does not always do so. There are two main reasons for this.

First, no intelligence can always be 100% accurate, except sometimes in hindsight. At the time of the decision, a decision maker always has to take the risk that the intelligence provided is faulty, biased, incomplete, or could simply be improved upon. A good manager may sometimes choose to ignore the CI available to them, or to simply supplement it with their own gut feeling or their own intelligence. This can be addressed, in part, by improving the quality and reliability of CI.

Second, managers may not want to make good competitive decisions. For many managers, and management cultures, information is power. Even where CI is as good as it can be, managers may choose to ignore what they do not want to see. If the objectives of the manager are not in concordance with the objectives of the corporation then it may be in the manager's interests not to acknowledge or use CI. For example, a CEO whose bonus is tied to share options or quarterly results may ignore CI that would lead to long term improvements in competitive position, in favour of bad decisions to support short term bonuses. Further, CI can be coloured by a manager to support a particular agenda or decision, and may even be used to support decisions which reduce competitiveness or competition of the organisation as a whole.

CI has a definite role to play in improving corporate competitiveness, but its role is not to replace managers. It is not the role of CI to tell managers what competitive decisions to make. The role of CI is to assist managers to make better competitive decisions. CI offers the potential to managers to improve the quality of their competitive decisions, but it is ultimately up to managers as to how effectively it is used, and thus the extent to which that potential is realised.

Fifty years of survey evidence on CI activity in corporations

The importance of CI has long been recognised in corporations. Survey evidence dating back to 1959 tends to show a pattern of increasing use of CI, but a persistent inability of managers to get the full potential from CI activity. Most surveys of CI do not seek to give a representative view of CI activity. Instead, they tend to focus on those companies which are larger, or in industries where CI is more important to competitive success, thus focussing more on best-in-class, rather than a representative sample of the population. .

James Taylor (1992) carried out a survey of CI use in Fortune 1000 Industrial Firms and the Fortune 500 Service Firms. The questions used allowed some comparison with previous Harvard Business Review surveys by Furash in 1959 and Wall in 1974 (Taylor op cit) Taylor concluded that "US business seems to recognize the need for competitive intelligence but has not figured out how to use the information effectively

or efficiently." By way of explanation Taylor quotes Woody Savage "Competitive intelligence gathering is generally taken too lightly. You never have enough of it when you need it. Too often, you 'scramble'; to get some intelligence to react to a problem or situation rather than develop a long term market" (Taylor op cit).

Taylor shows a changing pattern of emphasis in what CI efforts were focussed on. He notes "There have been some major changes in the types of competitive intelligence that management has been interested in over the years. Competitive plans was eighth in importance in 1959, third in 1974 and second in 1988. There has been a corresponding decline in top management's interest in knowing about competitor's promotional strategies over the years, but the interest in cost data has shown a steady increase in interest to management. What hasn't changed is top management's primary interest in pricing. Pricing information was the number one subject of interest to management in all three studies. " (ibid). His survey was sent mostly to Marketing Directors, so there is an understandable emphasis on tactical marketing intelligence. Taylor had a response rate of 9%.

Stanat (1993) surveyed 8,900 firms by mail, obtaining 408 (4.6%) responses from USA, Canada, Europe, Asia Pacific, and Latin and South America. The main findings were:

- most respondents were responsible for strategic planning (ie CI tends to be located within a strategic planning department);
- CI Departments are small and generally have five staff or less;
- The budget is usually less than \$100,000 US pa;
- about 36% said they had an organised, formal system or CI network;
- awareness of CI is only moderate, with 27% reporting only a low level of awareness of CI functions within the organisation;
- CI tends to evolve through several stages, from a library function, to a CI department, to a formal network, to a global network.

Jaworski and Wee (1993) in the USA carried out research in three industries (telecommunications, packaged foods and pharmaceuticals). They identified 398 Strategic Business Units (SBUs - effectively profit centres), and obtained questionnaire responses from 284 (56%) of them. They also carried out more detailed case studies on nine companies. The main conclusions were:

- about 68% to 88% of major firms recognise the importance of CI (ibid p24);
- the majority of firms surveyed still use informal methods for CI. It is difficult to interpret the results, but it would appear that only between 15% and 35% use structured formal CI (ibid p26 and p28);
- The sources most commonly used for CI are personal contacts with staff and customers;
- Senior management play a crucial role in fostering CI activity;
- CI has an impact on the perceived quality and usefulness of strategic planning, but has little tangible impact on short term corporate performance.

There is some broad consistency in the findings of Stanat, and Jaworski and Wee that about 35% or less make use of an organised and structured approach to CI. Both studies specifically selected firms that are more likely to use CI, so this figure is probably an overestimate of the general population, but it does provide something of a benchmark for comparison.

Hall and Bensoussan (1996a, 1996b, 1997), in a 1996 survey which forms the precursor to this report, found that the proportion of respondents using an integrated

approach to BCI on a regular basis is about 15%, or about half that of the benchmark suggested by Stanat and Jaworski and Wee. Part of the difference is attributable to the previous studies targeting firms that are more likely to have CI systems, rather than attempting to give a representative level of CI activity in the business community. The results were from a stratified random survey of 544 firms operating in Australia. The effective response rate was about 30%. Other significant findings were that the main sources used to keep track of what competitors were doing were newspapers, front line staff, customers and trade literature; these were used regularly by about 70% of respondents. A surprisingly high proportion of respondents made little or no use of electronic data bases and news services, or of market research. This pointed to many lost opportunities for cost effective CI. The study also identified a degree of complacency and self deception which inhibited managers from instigating effective planning to improve CI; 67% saw themselves as above average in ability to compete, and 48% saw themselves as above average in their ability to monitor competitors. Despite this, many of those who considered themselves as above average either carried out no strategic planning on a regular basis, or, if they did, only about half of them made regular use of CI processes that would give them the information necessary to effectively monitor competitors.

The survey research by Hall and Bensoussan (op cit) was replicated by Trengrove and Vryenhoek (1997) who found that New Zealand firms tended to rely on word of mouth and personal contacts for their information. CI methods were generally quite unsophisticated, with results similar to those of Hall and Bensoussan; only about 15% of firms make continuous or regular use of a CI system. Even though a majority of organisations recognised that they needed better information on events in the future, there was a large gap between the perceived level of need, and the allocation of resources and systems to gather that information. Eight years later, Hawkins (2005) replicated Trengrove and Vryenhoek and found little improvement. Hawkins estimated that only 10% of New Zealand firms in 2005 made use of a formal CI system on a regular or continuous basis.

A 2005 survey ("Ostriches & Eagles") of 100 executives in the USA conducted by Outward Insights, studied the effectiveness and use of CI across several industries and found that 29% of respondents admitted that they do not have "an organized and systematic way to deliver CI" (Outward Insights 2005). The survey was targeted at industries where CI usage might be expected to be high; aerospace, financial services, insurance, hi-tech, pharmaceutical, information services and utilities industries. It is thus not representative of the more general pattern of CI usage in the USA. The pattern of emphasis on tactical use of CI seen by Taylor still seems to continue. "More than three-quarters (78%) of all respondents use CI for business development and sales purposes, and almost as many (74%) use it for new product launches. On the other hand, only 59% use CI for strategic alliances, joint ventures and licensing relationships, and 55% use it for research and development planning and execution." (ibid)

SCIP in 2005/6 undertook survey research on CI, viewed mostly from a CI manager's perspective (Fehring et al 2006). The survey was self selecting and completed by some 540 CI professionals. It found that the principal use of CI was for supporting decisions on corporate or business strategy, market entry, product development and sales or business development.

The research framework - a decade of empirical work

The decade from 1996 to 2006 was an exciting and challenging period for CI. The research undertaken for this study was based on a framework made up of seven main components, each with a set of corresponding research questions:

Figure 1.2 Schema of research framework

Market Competition	What is the current level of competition in the market? how much is this level expected to increase in the future?
CI Needs	What are the priority needs for information to maintain or improve competitiveness?
CI Capability	How capable is the firm at monitoring its competitors, and its own, competitive position?
CI Preparedness	How prepared is the firm to address common competitive challenges?
CI Management and Resources	What level of sophistication is used to manage the CI function? Who is responsible for CI management? Who should be responsible? What human and financial resources are devoted to CI management? What sources and processes are used for CI?
Plans for CI Improvement	What plans and priorities are there for improving CI management?
Competitive Position	How does the firm rate its competitiveness relative to the market average?

These data can then be stratified by:

- Industry, classified in terms of the ASIC classifications;
- Affiliation (that is, is the firm part of a multinational group of companies, a domestic group, or is it a stand alone entity?);
- Size (as measured in terms of number of employees); and
- a range of other vectors as required. .

The broad conceptual framework underlying this structure is as follows.

1. **Market competitiveness:** We expect that the perceived level of market competitiveness will be affected by such things as the velocity of competition, the level of globalisation of the market, and the predictability of changes that occur.

2. **Needs:** In firms and industries where levels of market competition are high and are likely to increase in the future, we might expect greater needs for information to monitor market competition.
3. **CI Capability:** In firms where managers have higher levels of need for information in order to be able to compete, we would expect to find higher levels of CI capability. Where that capability is relatively low, in comparison to other firms, then we would expect to see higher levels of planning for improvement in CI. CI capability can be measured in terms of the relative ability to track a firm's competitors, to track its own competitive position, and by the intensity of its use of common CI process and sources. We expect that CI capability will tend to vary by firm and by industry, such that firms in higher velocity environments will tend to have relatively higher levels of capability. Firms with higher levels of CI capability will also tend to see themselves as more competitive relative to the average in their market.
4. **CI Preparedness:** This is the ability to deal with common competitive and CI challenges. For example; "*We have a clear idea of the motivations, competitive drivers, and the personalities of the key executives of our rivals and potential rivals*" and "*The information and intelligence required to support strategic and tactical decisions is readily available to the people who need it when they need it*". We expect that as CI Capability increases, so should Preparedness, and as preparedness increases, so should competitive performance. For example, we might hypothesise that preparedness will vary by firm size and industry, so that smaller firms may be less well prepared, and that industries which are more competitive should have a higher average level of preparedness.
5. **The Management of CI function:** CI management comes down to the level of sophistication of processes and sources, and also covers such things as the resources devoted to CI, both people and funds. It also investigates who currently has the main responsibility for CI management, and who managers think *should* have responsibility for CI management. We expect that firms with higher levels of CI capability will probably tend to have more formal systematic CI management in place.
6. **Plans for improvement:** We might hypothesise that as CI capability declines and market competition increases, Plans for improvement in CI should tend to increase. The main focus of those plans will tend to vary depending on the size of the firm, the industry and velocity of competition in that market as measured by the degree of market competitiveness.
7. **Competitive Position:** We expect that as the quality of CI management, preparedness, and capability increase, that firms will tend to have a higher estimate of their competitive position and be better able to track their competitors position against their own.

Not all these research questions can be addressed in this current document, but the overall framework supports a continuing program of research.

Intuitive CI management and professional CI management

Most good managers carry out CI intuitively, and always have done so. Two or three decades ago, good managers could be a competitive success by doing their own CI. Their CI management was done by simple processes: reading the newspapers and

trade journals; talking to customers, staff and suppliers; listening for rumours; attending the occasional conference or trade show; having a reliable network of friends in business and in the professions, and so on. Common sense and some business nous, acquired from years of experience helped them put it all together and translate it into competitive decisions. For the most part this could be done by the manager; the manager did not need much professional assistance to collect or make sense of the information required to make intelligent competitive decisions. What professional assistance was used was limited to accountants, lawyers, patent attorneys, technical experts and the like.

In much the same way, in an earlier era of four or five decades ago, a good manager might have had the knack of selling, or have acquired the experience necessary to run a successful logistics supply chain. The manager might have had some officer training in the military, or learnt how to sell from watching others do it successfully. The corporation did not need a specialised sales and marketing manager, or a specialised operations manager, with trained professional support and specialised systems. The world has changed. Improvements in supply chain management, and in sales and marketing mean that a professional approach is now the norm.

So also is it changing in the area of CI. There is now such a flood of information available that it is easy for a manager to be overwhelmed by it. A typical CEO now has an expected life in that role of only five to ten years, or less. Senior managers no longer have the luxury of learning from decades of mistakes and business experience accumulated by small increments in specific industries. A manager is better off delegating CI activity to professionals and CI systems than trying to collect all the CI they need to arrive at competitive decisions. That means CI management improvements are coming from more systematic and professional approaches to CI. This does not mean that managers have to just accept what they are told by CI professionals. What it does mean is that the emphasis has now shifted. No longer does a senior manager do all their own CI. Instead a senior manager must know how to manage the CI function, that is, knowing what CI they want, and understanding how to tell CI professionals their requirements, and use their CI resources in effective ways.

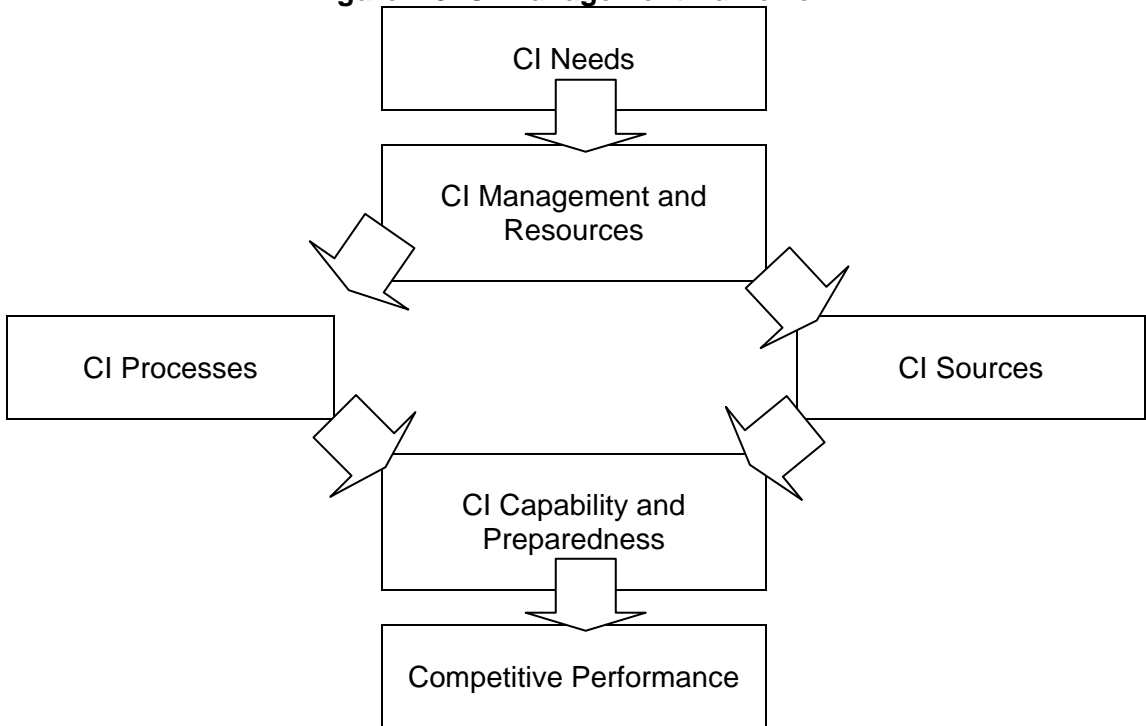
Improving the management of CI

If good CI has the potential to improve the competitiveness of organisations, then in an increasingly competitive environment it makes a lot of sense to explore ways to improve the management of CI. How can a firm improve the management of its CI activity?

Making improvements to CI Management means balancing the trade offs involved, between reliability, timeliness, cost effectiveness, relevance and legal/ethical concerns. For example, getting more information does not necessarily increase its usefulness in making a decision. Often to the contrary; more information may lead to analysis paralysis. It really thus comes down to a balance as to what CI is best for a particular decision, and then making best use of CI resources to get the required CI to assist in decisions.

CI is made up of processes which draw on sources to produce outcomes. Those outcomes are smart information, or CI, which assist managers to arrive at better competitive decisions, and thus lead to increased competitiveness. CI management brings all this together. This is summarised in figure 1.3.

Figure 1.3 CI management framework



Improved CI management then comes down to making improvements in:

1. understanding CI needs;
2. managing the whole CI function and the resources required for it;
3. managing CI processes;
4. managing CI sources;
5. delivering CI outcomes via capability and preparedness;
6. CI resource management and CI management structure.

This chain is often depicted as a cycle, the intelligence cycle. Examples of specific improvements can be seen as follows.

Improvements in understanding CI needs. Getting decision makers to focus on their real needs for CI is an important step in providing good CI. Untrained managers tend to ask for as much information as possible, and do not ask for it in advance, or in a structured manner suited to helping them make competitive decisions. For example, a good manager will anticipate they will need CI on competitors, and does not leave asking for it until a tender is due, or a competitor has just launched a new product. Simply getting decision makers to agree on priorities for focussing CI on a limited range of key issues, and updating these on a rolling basis, can make significant improvements to the management of CI. Improvements in CI can come from training decision makers, and working with them to help them anticipate what their needs will be, when they will need what, and to clarify and prioritise their real needs.

Improvements in managing CI processes. CI processes are made up of a cluster of activities:

- Selecting;
- Searching;
- Constructing;
- Communicating;

Verifying;
Analysing, interpreting; and
Reporting;

By auditing what a corporation does in each of these areas, relative to what its CI needs are, it is possible to identify gaps and opportunities for improvement. For example, many corporations are quite good at searching and collecting a large volume of data. A CI "system" is often not much more than a large electronic clipping file. They are less good at verifying this information, or adding value to it, by analysing it, structuring it, and communicating it to the decision makers who need it when they need it. Making improvements in these areas is often a matter of investing in new technologies and skills.

Improvements in processes can come from many different initiatives. For example CI Audits can be supplemented by carrying out "win-loss" reviews, and can help CI managers to find out how decisions were arrived at, what processes were used and what CI was helpful to winning in the competitive race. Performance targets and incentives can be adjusted to encourage people to seek and communicate relevant information to those who know what to do with it. Responsibility for CI tasks can be formalised. CI training can be integrated into the normal induction and review processes.

Improvements in managing CI sources. CI sources can be drawn from many primary and secondary sources, such as:

Experts;
Staff, including front line staff, back of house etc;
Suppliers;
Distributors;
Agents;
Consultants;
Trade shows;
Conferences;
Newspapers;
Trade journals;
Websites;
Data bases;
Information aggregators;
Blogs;
etc.

CI can be improved by making more effective use of appropriate sources. For example, staff attending a trade show or a conference might be trained in elicitation techniques and ethics prior to attending. The attendees also might be briefed by decision makers in CI priorities and issues prior to attending, debriefed afterwards, and all the contacts, documents and papers they collect at the conference might be scanned into the corporate intranet and tagged and indexed relative to key words and key issues.

Good CI management strategy means balancing CI needs and priorities with appropriate sources, and taking account of the timeliness, reliability, cost, and legality/ethics of the source. For example, a good CI manager might rule out the use of a particular source (such as dumpster diving for a competitor's new product launch plans, or their legal advice on a patent challenge) in favour of more ethical, less timely or more expensive sources. Similarly for example, blogs have become an important new source in the last few years, as they compete with conventional media in shaping a corporate brand and

reputation. Blog monitoring and web metrics have emerged as important sources in the CI toolkit. Understanding how to use these new tools and sources to competitive advantage is an increasingly skilled professional area.

Improvements in managing CI outcomes, CI capability and preparedness. CI reporting and outcomes can be improved by making sure they are actually useful in helping decision makers arrive at more competitive decisions. It is not uncommon to still see reports churned out regularly which purport to provide intelligence, but which are really used to keep doors open or fill up bottom drawers of desks. Similarly, corporate intranets often have a CI wing, which is full of disorganised, unverified, out of date information on competitors, and the kitchen sink. These do not help decision makers make better decisions, and are often largely ignored by them. By working with decision makers to clarify needs and priorities, and to understand what reporting formats they find most helpful, a CI manager can improve the usefulness of CI outcomes. Monitoring performance of CI predictions against actual observations can help to improve CI outcomes, and build confidence among decision makers in the reliability of CI as an aid to competitive decision making. Increasing transparency of CI outcomes can put pressure on decision makers to justify their decisions, and thus reduce the temptation to use information as power for personal ends rather than corporate ends.

Improvements in CI Management and Resources. Overall, CI management involves the coordination of the management of CI processes, CI sources, CI outcomes and CI needs. It also involves allocating appropriate resources to these areas. There is no single management structure which works best, it depends on the circumstances. This report allows the reader to benchmark existing CI management against empirical evidence, and market norms. Like all functions, a CI manager cannot manage if they cannot measure.

A striking finding (in Chapter 5) is that on average, strategic and tactical decisions are only based on timely accurate information 55% of the time. As shown in Chapter 5 and 6, there is plenty of room for improvement in most corporations.