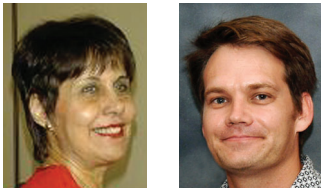


# The interdependency between strategic management and strategic knowledge management

---

Retha Snyman and Cornelius Johannes Kruger



Retha Snyman, Associate Professor, Department of Information Science, University of Pretoria, Pretoria, South Africa (msnyman@postino.up.ac.za).  
Cornelius Johannes Kruger, Senior Lecturer, Department of Informatics, University of Pretoria, Pretoria, South Africa (neels.kruger@postino.up.ac.za).

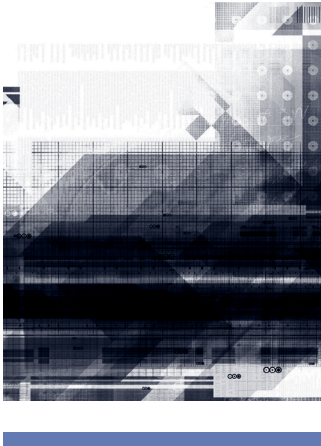
***Abstract** The manner in which a business strategy was formulated ten or even as little as five years ago, no longer applies. This phenomenon can to a great extent be attributed to a shift in the strategic importance of information and knowledge. The aim of this paper is to supply strategic thinkers with a holistic “bird’s eye view” of the interdependency between strategic management and strategic knowledge management. By analyzing the different perspectives with regard to strategy formulation from a business point of view, as well as a knowledge management perspective, a generic model incorporating knowledge management strategy formulation within business strategy formulation has been developed.*

***Keywords** Competitive advantage, Knowledge management, Strategic planning, Strategic management*

## Introduction

The shifting winds of change in today’s business environment, where the market place is increasingly competitive and the rate of innovation is rising, have made enterprises realize that knowledge is their key asset. Drucker (1993) rightly points out that the most valuable assets of the 21st century enterprise are its knowledge and knowledge workers. Within this context, the ability of enterprises to exploit their intangible assets has become far more decisive than their ability to invest and manage their physical assets.

In order for enterprises to be successful in the exploitation of their knowledge assets an appropriate “fit” between the organization’s mission and objectives and its knowledge management strategy should be found. This means that the goals and strategies of knowledge management should be reflective of those of an organization (Kim *et al.*, 2003, p. 297). Tiwana (2000, p. 103) rightfully states that “knowledge drives strategy and strategy drives knowledge management”. Tiwana (2000, p. 103) goes even further and emphasizes that “without a clearly articulated link between knowledge management and business strategy, even the world’s best knowledge management system will deliver zilch”. Strategists (strategic business managers and knowledge managers) should therefore take note of the major impact of knowledge on the formulation of corporate strategy and organizational success. Furthermore, enterprises need to ensure that their knowledge strategy and knowledge program is consistent with corporate ambitions, and that the techniques, technologies, resources, roles, skills, culture, etc. are aligned with and support the business objectives (Bater, 1999, p. 18). When such alignment between the knowledge management strategy and the business strategy is clearly established, the knowledge management system is moving in a direction that holds promise for long-lasting competitive advantage.



However, strategic management textbooks do not really address the interdependency between the formulation of business strategies and knowledge management strategies. Knowledge management textbooks normally only provide an overall scheme for knowledge management planning, including infrastructure evaluation, knowledge management system analysis, design and development, deployment and evaluation. On the other hand, managerial textbooks dealing with strategic management as primary topic, also barely touch on the holistic relationship and interdependency between setting the direction for the business and setting the overall direction for knowledge use and management in the organization.

In essence there is no generic model incorporating knowledge strategy formulation within the business strategy formulation process. Unfortunately, this leads to business managers still considering knowledge management as being separate from business strategy formulation, leading to an inability to align knowledge management goals with corporate goals. This inability to formulate a generic model depicting knowledge management's relationship to the business strategy formulation process, can to a large extent be attributed to:

- the inability to recognize knowledge as a strategic corporate resource;
- the difference in opinion/viewpoints with regard to the business strategy formulation process (strategic management); and
- the difference in opinion with regard to strategic knowledge management.

The aim of this article will be to illustrate the interdependency between strategic management and the formulation of a knowledge management strategy. In order to achieve this aim the following aspects will be covered:

- knowledge as a strategic corporate resource in enterprises;
- the different opinions/viewpoints/models with regard to the strategy formulation process;
- different opinions with regard to strategic knowledge management; and
- the development of a generic model incorporating knowledge strategy formulation within business strategy formulation to illustrate the interdependency between strategic management and the formulation of a knowledge management strategy.

### Methodology

In order to supply strategic thinkers with a holistic "bird's eye view" of the interdependency between strategic management and strategic knowledge management, a qualitative research approach was followed. Relevant literature was studied and analyzed to identify the relationship between knowledge management/planning and business strategy formulation. By linking identified corporate strategy formulation success factors to identified knowledge strategy success factors, a new perspective to the formulation of a business strategy will be formalized.

The line of reasoning followed throughout the article will be that, although no single approach/model could cover all the essential aspects involved, a holistic model covering most of the major principles involved in the strategy formulation process can be devised. Cognizance should be taken that the proposed model is only a tool in the quest to illustrate the interdependency between strategic business management and strategic knowledge management.

### Knowledge as a strategic corporate resource

Three economic goals guide the strategic direction of almost every business organization, namely survival through growth and profitability (Porter, 1980, p. 4). In order to be able to survive, grow and be profitable, any profit-seeking organization must seek a competitive advantage. Businesses strive to achieve a competitive advantage by competing in one of two ways, namely by being a low-cost producer of goods and services or by differentiation of a product or service (Porter, 1980).

In addition to the generic strategies (low cost, and differentiation), most business analysts agree that innovation is a key element for growth and survival (Darroch and McNaughton, 2002). By the 1990s, primarily in support of transformation processes, technology and especially

information and communication technology (ICT) applications became widespread and sophisticated enough to enable firms to compete in new and innovative ways. By using data mining, databases, data warehousing and decision support IT systems such as knowledge management tools, organizations started to focus on those market forces that significantly favor the organization in the competitive environment. In essence, by acquiring knowledge of the competitive environment, firms can now compete on both low cost and product differential simultaneously. An example of this is United Services Automobile Association (USAA). By keeping its products and services properly focused on the demands of the market (being a leader in not only knowing what the customer really wants, but also knowing its own internal capabilities), USAA is possibly the best property and casualty insurance company in the United States (Callon, 1996, p. 16).

No wonder authors such as Davenport and Prusak (1998) are of the opinion that companies can no longer expect that the products and practices that made them successful in the past will keep them viable in the future. Skyrme (1998), Zack (1999), Murray (2000), Teece (2000) and Tiwana (2000) state that knowledge is the only source for innovation and sustainable competitive advantage. Skyrme (1998) refers to knowledge and other forms of "intellectual capital" as the "hidden assets" in a company. Zack (1999, p. 127) states that "companies having superior knowledge . . . are able to coordinate and combine their traditional resources and capabilities in new and distinctive ways, providing more value for their customers than can their competitors". Teece (2000, p. 131) says that the competitive advantage of firms depends on their ability to build, utilize, and protect difficult to imitate knowledge assets. Murray (2000) refers to knowledge as one of businesses' most precious assets that allows them to be competitive, as it cannot exactly be reproduced. The reason for this is that although knowledge can be shared, the manner in which it is internalized and applied will be different for every person, situation and enterprise. Tiwana (2000, p. 100) extends this fact by saying "no technology, no market share, no product, etc. can ever provide a competitive advantage that is anything that is temporary. They can all be copied – knowledge is the only resource that cannot be copied for knowledge is protected by context". Zack (1999, p. 127) states "to acquire similar knowledge, competitors have to engage in similar experiences. However, acquiring knowledge through experience takes time and competitors are limited in how much they can accelerate their learning through greater investment".

Davenport and Prusak (1998, p. 17) state that a knowledge advantage is a sustainable advantage because it generates increasing returns and continuing advantages. Unlike material assets, which decrease as they are used, knowledge assets increase with use. Ideas breed new ideas, and shared knowledge stays with the giver while it enriches the receiver. Cohen and Leventhal (cited in Zack, 1999, p. 4) are of the opinion that a knowledge-based competitive advantage is sustainable because the more a firm already knows, the more it can learn. Learning opportunities for an organization that already has a knowledge advantage may be more valuable than for competitors having similar learning opportunities but starting off knowing less (Goldstein and Zack cited in Zack, 1999, p. 4).

From the above it is clear that knowledge (as a strategic resource) has an enabling role to play in the formulation of winning strategies. The true power of knowledge lies in its ability to positively influence, and enable, the business strategy. Synergy between the business strategy and the knowledge management strategy is thus essential. Quoting the words of Zack (2001, p. 8) "If one accepts the premise that knowledge is the (or at least one of the) most strategic resources of a firm, then a firm's business strategy should reflect the role of knowledge in helping the firm to compete". Once the role between strategy and knowledge is defined, then other aspects of strategic management such as resources allocation, organization design, product development

and market segmentation can be configured to bolster knowledge strengths, reduce knowledge weaknesses, etc. Where strategic knowledge is strong, knowledge management can focus on enabling knowledge sharing and distribution – knowledge management can focus on acquiring knowledge, providing sufficient learning opportunities and capabilities to strengthen the firm’s knowledge position.

The next section explores the question – are there any business models available to help us achieve this?

### Models for strategy formulation

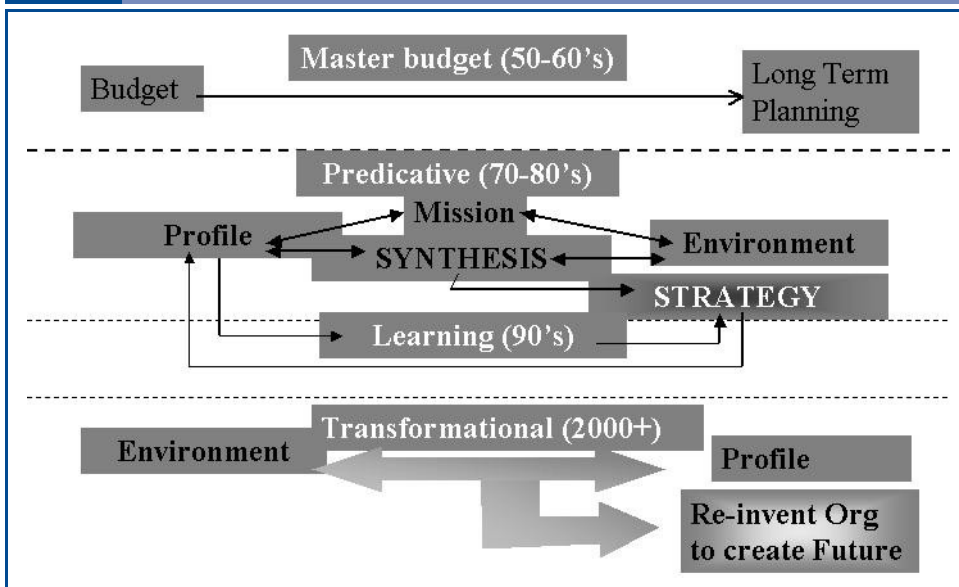
According to Byrne (1996), Pearce and Robinson (2000), Ward and Griffiths (1998), and other renowned authors, strategic management is an evolutionary process (see Figure 1), and will be the single most important management issue for many years to come.

As early as the 4th century, Chinese military theorist, General Sun Tzu emphasized the need for strategy formulation: “What is of supreme importance in war is to attack the enemy’s strategy” (Sun Tzu, 1971). During the 1950s and 1960s, strategy formulation was primarily based on master budget- and long-range planning methodologies. The 1970s saw a shift in the way strategists perceived strategy formulation. The focus shifted to strategy crafting, analyzing and predicting the future, e.g. predictive models. The gist of these models was to find an optimal fit between the core capabilities (profile) of the organization and the environment in which it operates (Prahalad and Hamel, 1990, p. 79). According to Rajagopalan and Spreitzer (1996), the organization is viewed as a collection of strengths and weaknesses. An effective strategy was thus derived from a sound “fit” between the firm’s internal capabilities (strengths and weaknesses) and its external situation (opportunities and threats).

The turmoil of the 1980s caught organizations by surprise. Spectacular gains of Japanese and German industry forced organizations to rethink the way they perceived the formulation of strategy. Organizations, trying to adapt to an ever-changing business environment, started to place more emphasis on learning from the best. Benchmarking and learning methodologies became the talk of the day. According to Rajagopalan and Spreitzer (1996), the learning model accorded a central role to management actions in the strategic change process. These models thus not only emphasized the need to learn from the best, but also to learn from one’s own previous experiences and mistakes.

Fierce and ruthless competition synonymous with the 1990s once again forced a rethink of the strategy formulation process. Mintzberg (1994), Porter (1996) and Camillus (1997) started to

**Figure 1** Models for strategy formulation



**“ Companies that will prosper and outpace their competitors will be those that will be able to out-think their competitors strategically. ”**

argue that the new environment has necessitated a completely new way of thinking. Change, being unpredictable and difficult to adapt to, forced role-players to force their own change within the environment. According to Rajagopalan and Spreitzer (1996), it became clear that strategy formulation should be an ongoing process, a process of reinventing the organization in order to create the future. Transformational models became the talk of the day.

Each of the above-mentioned models has a different focus on strategy formulation especially with regard to their interaction with the organization's profile, and the competitive environment in which the organization functions. One can therefore assume that each of the mentioned models/perspectives will have a different node of interaction with knowledge as a strategic resource, knowledge management systems as an integral part of the organizational profile, and thus also the formulation and placing of an knowledge management strategy within the business strategy. However, it seems that the models are in agreement that one needs to know what the key resources of one's organization are, and what one's core competencies or capabilities should look like to sustain competitiveness in future. As Mintzberg and Waters (1985, p. 258) put it, "one of the great challenges that corporate strategists face is to know the organization's capabilities well enough to think deeply enough about its strategic direction". Any proposed strategic management model intent on depicting the synthesis between strategic management and strategic knowledge management would therefore not only include an analysis of the external environment, but also a thorough analysis of the areas of excellence in the company's profile. Given these models as a point of departure, what then is the best practice or model to employ when strategizing? In his article aptly named "Strategic thinking: domination for winning companies", appearing in *Management Today* of May 1998, Roberts makes this statement: "The companies that will prosper and outpace their competition during the next two decades will be those that will be able to out-think their competitors strategically, not out-muscle them operationally".

The authors of this article believe that the key to developing a model, capable of synthesizing strategic management and strategic knowledge management, lies in the foundation of knowledge, and especially knowledge of the area of excellence. Are all the above-mentioned perspectives or models not based on the foundation of knowledge? In the predictive model, three ingredients are critical to the success of a strategy. First, the strategy must be consistent with the conditions in the competitive environment. Specifically, it must take advantage of existing or projected opportunities and minimize the impact of major threats. This is only possible with a sound knowledge of one's competitive environment (opportunities, threats). Second, the strategy must be based on the exploitation of core capabilities, e.g. strategy must place realistic requirements on the firm's internal capabilities (strong points, weak points). Knowledge of one's capabilities, core competencies and areas of excellence is thus of paramount importance. Third, in order to execute your strategies successfully, knowledge and understanding of your strategy should be communicated throughout the organization. In collaboration with this perspective, the learning model not only emphasizes flexibility but also that organizations should become learning, thus knowledgeable organizations, building strategies around core competencies (areas of excellence). If the centerpiece of the learning perspective to strategy formulation is to learn faster than the competition rather than to outwit them, then one can only come to the conclusion that knowledge will have a profound influence on the formulation of a learning strategy.

Finally, the centerpiece of the transformational perspective to strategy formulation is that all strategies should be based on the leverage of internal as well as external knowledge. The transformational model thus emphasizes that primary resources, areas of excellence and the core competencies of different business units and partners should be pooled as far as possible,

in an extended value chain. Knowledge sharing and knowledge of the core capabilities of the extended and/or virtual value chain are thus also paramount in the formulation and execution of a successful transformational strategy.

Unfortunately, none of the above-mentioned perspectives to strategy formulation really addresses the placing of a knowledge management strategy within a corporate/business strategy. However, these models or perspectives did provide a number of guidelines for the possible placing of a knowledge management strategy within the business strategy. This enabled us to formulate a generic model, capable of incorporating knowledge management both in an adaptive and learning perspective, and in a transformational mode.

The livelihood of strategy therefore depends largely on the excellence of execution of functions performed in the chosen areas of excellence. In essence, strategy should dictate how information and knowledge should be used. At the same time, knowledge should make new strategies and new ways of competing possible. Tiwana (2000, p. 158), in trying to establish the interdependency between the two strategies (business strategy and knowledge management strategy) proves to be concise in stating: "It's your company's business strategy that drives its knowledge management strategy, and not the other way around". However, he adjusts this statement later (Tiwana, 2000, p. 188), saying that "Knowledge management and business strategy must drive each other. This is possible only if the two are in perfect alignment".

The next section elaborates on the above-mentioned knowledge and explores the difference in opinion with regard to the placing of a knowledge management strategy within the business strategy, from a knowledge management perspective.

#### Different opinions with regard to strategic knowledge management

In the previous sections we came to the conclusion that a winning strategy should be based on the excellence of execution of core capabilities, and that the effective and efficient management of knowledge can be considered a core capability. The strategic coupling of a business strategy and a knowledge strategy therefore requires the involvement of all the strategic thinkers of the organization. Identifying the right knowledge strategy for one's business can thus be confusing unless one begins the selection process at the strategic business level. Unfortunately, strategy formulation is not an easy process, and as Guns (cited in Manasco, 2000, p. 1) states "so often strategy is the last thing that people deal with. They must deal with all kinds of other stuff before the strategy is actually put in place". The development of an overall management system for the effective institutionalization of knowledge (as a strategic resource – strategy enabler) is thus not complete without a clear understanding of the strategic placing of knowledge management within the formulation of a business strategy. While it is easy to state that knowledge management must be incorporated within the business strategy, it is not obvious how this can be achieved, given the rapidly changing nature of business and technology.

Taking due cognizance of the overall goals – "to achieve synthesis between business strategy formulation and knowledge management strategy formulation" – this section builds on the knowledge of the previous section and explores one of the fundamental components of effective managing of knowledge in an organization – linking knowledge management's direction to the direction of the business. It is against this background that this section analyzes whether there are any models for knowledge management strategy formulation available to guide us in our quest to achieve synthesis between strategic management and strategic knowledge management.

Mitre, as cited by Taylor *et al.* (2000), views knowledge management (KM) from a two-dimensional perspective. The first dimension consists of the activities that are critical to knowledge creation and innovation: knowledge exchange, knowledge capture, knowledge re-use and knowledge internalization. The second dimension consists of those elements that enable or influence knowledge creation activities. These include:

- **Strategy** – the alignment of corporate and KM strategies.
- **Measurement** – the measures and metrics captured to determine if KM improvement is occurring or if a benefit is being derived.

- **Policy** – the written policy or guidance that is provided by the organization.
- **Content** – the corporate knowledge base that is captured electronically.
- **Process** – the processes that knowledge workers use to achieve the organization's mission and goals.
- **Technology** – the information technology that facilitates the identification, creation and diffusion of knowledge among organizational elements within and across enterprises, for instance an enterprise portal.
- **Culture** – the environment and context in which KM processes must occur (Taylor *et al.*, 2000, p. 2).

Collectively, these processes support a learning methodology and in essence build a learning organization – one skilled at creating, acquiring and transferring knowledge as well as adapting its actions to reflect new insight and innovation (Taylor *et al.*, 2000, p. 3).

In contrast to Mitre, Gartner (as cited by Caldwell, 2001, p. 4; Logan, 2001, p. 29) emphasizes that five critical success factors are necessary in any knowledge management process and implementation:

- knowledge management must be linked to the strategic direction of the organization;
- knowledge management requires an organizational culture and discipline that promotes and supports knowledge sharing, collaboration across and among employees/business units, and a drive toward innovation;
- knowledge management must be enabled by robust business and human processes;
- knowledge management depends on a compelling technology environment to automate the processes and to support collaboration and the KM discipline; and
- Knowledge management requires an extended-enterprise scale and scope of processes, people and content; additionally, this expanded-enterprise view must support both formal and informal relationships (Logan, 2001, p. 2).

Bater (1999, p. 38) emphasizes that a knowledge management strategy needs to ensure that the knowledge management program is consistent with corporate ambitions, that the techniques, technologies, resources, roles, skills and culture are aligned with and support business objectives. Bater's model in essence shows how knowledge management supports strategic planning through a knowledge strategy and how knowledge management, in turn, is supported by IT, and how the process is the core vector for all three domains (Bater, 1999, p. 40).

This line of reasoning is in line with research done by Zack (1999) within more than 25 firms. Zack found that the most important context for guiding knowledge management is the firm's strategy. An organization's strategic context helps to identify knowledge management initiatives that support its purpose or mission, strengthen its competitive position, and create shareholder value. Unfortunately, the link between knowledge management and business strategy, while often talked about, has been widely ignored in practice.

Although all the above-mentioned perspectives or models provide us with different viewpoints regarding the institutionalization of knowledge, none provided us with a holistic model illustrating the interdependency between the formulation of a business strategy and the formulation of a knowledge management strategy. It is believed that the reason for this lies in the fact that strategic knowledge management is still being seen, and managed, as an entity separate from strategic management. Fortunately, these models do to a certain extent provide guidance in the quest to achieve synthesis between strategic management and strategic knowledge management. Viewed holistically, they do provide a list of factors, which might be of strategic importance when formulating or incorporating a knowledge management strategy within a business strategy.

**The formulation of a generic model incorporating knowledge management strategy formulation with business strategy formulation**

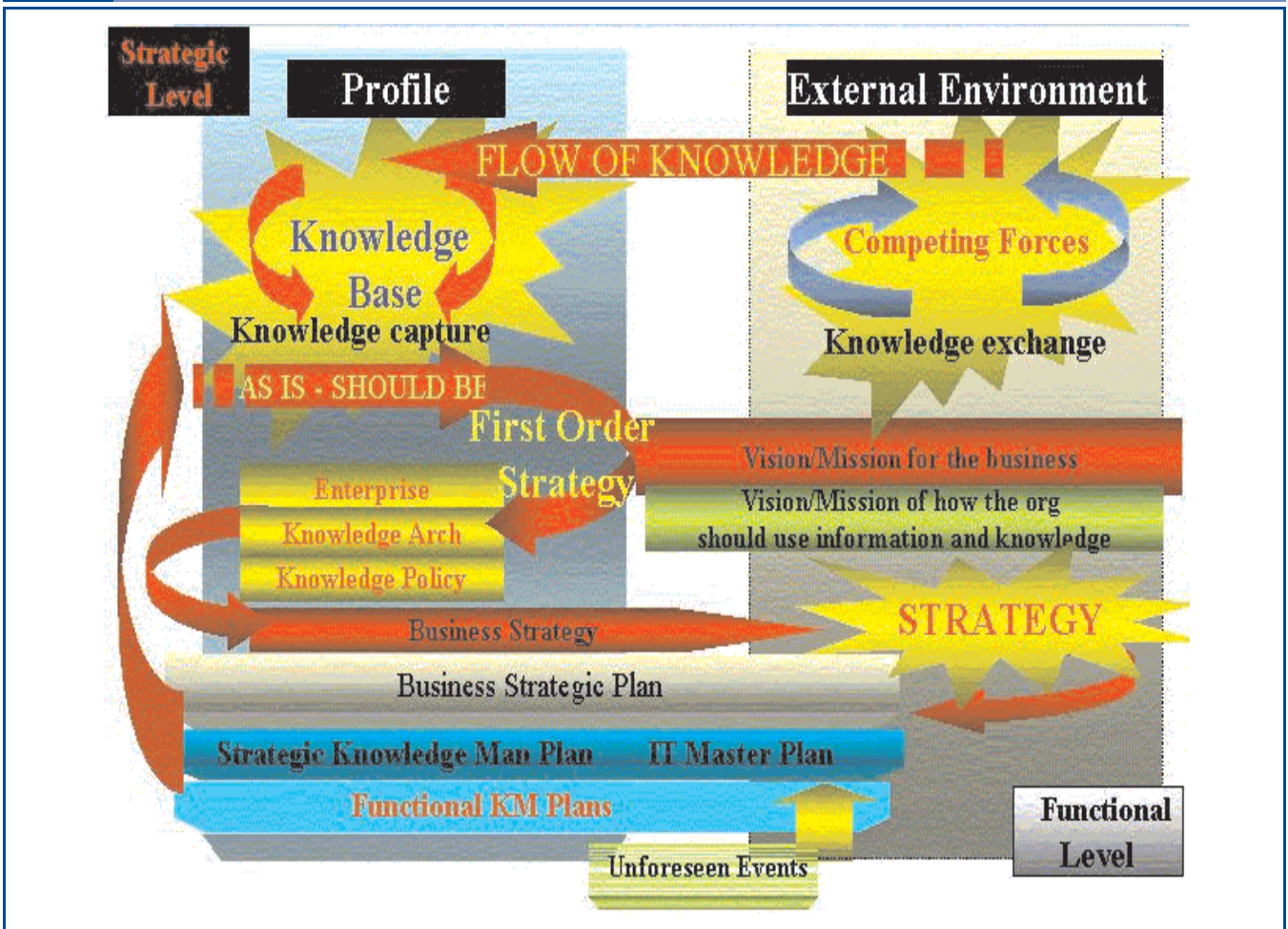
By analyzing all the different perspectives with regard to strategy formulation from a business point of view, as well as from a knowledge point of view, it became clear that strategy formulation should be an integrated process, based on the excellence of execution of core competencies. This article also illustrates not only that knowledge is becoming a resource of strategic importance, but also that knowledge is having a profound effect in the achievement of a strategic fit – a strategic fit between the organization and the environment in which the organization operates. No wonder it was found that knowledge is playing a major role in supporting strategies, as well as in primary strategies, strategies formulated from a predictive, learning and transformational perspective. Knowledge management strategy should thus not be managed parallel with the business strategy, but should be an integral part of the business strategy.

The aim of this section is to propose a holistic strategy formulation model (see Figure 2) capable of incorporating the major principles involved in strategy formulation and of illustrating the interdependency between strategic management and strategic knowledge management. The following is a brief description of the model, which consists of four steps.

*Analysis of the external and internal environment*

If strategy is an evolutionary process, and if winning strategies are dependent on constant revision of strategy formulation methodologies, then knowledge must be acknowledged as

**Figure 2** Holistic strategy formulation model





being one of the primary driving forces behind these changes. According to Manville and Foote (1996) knowledge-based strategies begin with strategy and not knowledge. "If a company does not have fundamentals in place, all the corporate learning, information technology, knowledge databases will be of no use. A company needs to know the kind of value it intends to provide and to whom". This above mentioned argument might hold true in a fairly stable environment, but in a dynamic changing environment it could easily be argued that the word strategy should be replaced by the word vision. Unfortunately, vision in itself is not enough. Vision needs to be brought into perspective with knowledge – knowledge of all the internal and external forces impacting on the organization. Vision without knowledgeable reasoning is at best nothing more than dreams. Thus, in order to excel in strategy formulation, businesses should as a point of departure determine how the competitive environment of the organization could change in future and how the organization, through knowledgeable reasoning, could transform competitive forces in order to create a favorable future.

Organizations need to conduct a competitive analysis to determine and analyze all forces in their environment that might have a profound effect on the organization's ability to survive, grow and be profitable. It is important to remember that the core capabilities of the organization's extended value chain should also be analyzed. Not only analyzing, but also learning from the environment, should be the primary goal. In essence, this means that an organization needs to define and understand its industry, identify its competitors, and determine their strengths and weaknesses in order to anticipate their moves. In all these processes, the capture and exchange of knowledge as well as knowledge management systems play a major role.

Apart from analyzing the external environment, organizations should also assess the interrelation between business functions, and how strategic resources are structured to support these functions (e.g. human resource architecture, financial architecture, technology architecture, etc). In essence this is nothing more than establishing a knowledge base of what the organization's reality looks like. This not only involves evaluation of the alignment of organizational mission and goals, but also is an assessment of the design and working of the enterprise architecture, which consists of the main organizational architecture domains and their respective inter- and intra-relationships. In short, a business audit should be conducted.

During the process of determining the interrelationship between business processes, it is essential that the flow of information should be determined. In essence business processes are nothing more than an extension of the flow of information through an organization. Determining the flow of information will enable strategists to assess the flow and exchange of knowledge – e.g. crucial information needed to establishing interrelationships and dependencies between business functions and processes. While assessing the nature of interdependencies between business processes, if it is found that knowledge, knowledge systems and knowledge management can be considered of strategic significance in sustaining and enabling these processes and functions, a knowledge audit should be conducted. As with any resource, the knowledge strategy formulation and planning process should thus be part and parcel of the business assessment, with special emphasis on the assessment of the use of knowledge and knowledge systems in support of core business functions and processes. This assessment should:

- examine the knowledge needs in relation to the business driver's functions and processes;
- not only review the way knowledge flows through the organization, but also assess the manner in which knowledge is captured, exchanged and reused in the organization;
- measure current levels of knowledge resource use within the organization and compare it to a set of standards – these standards can be derived from past performance in the organization, technical benchmarks, industry norms, etc.; and
- assess the quantity and the quality of its knowledge resources, both implicit and explicit, and also assess the strengths and weaknesses of the organization's knowledge management and knowledge management structure.

It is thus clear that knowledge is a crucial element to the effective and efficient assessment of the organization's profile and external environment – elements that not only enable the



formulation of a business strategy, but also serve as a cornerstone in the foundation of a firm's strategy formulation process.

If the business audit is conducted in an effective and efficient manner, it should provide strategists with a clear picture – realistic knowledge of the “as is” profile of the organization. After assessment of the enterprise “as is” profile, strategists need to determine whether this profile is adequate to ensure the achievement of the organization's primary goals, strategies, and current mission. This means that business needs to compare the “as is” profile to:

- what business processes are needed to direct the business;
- what business processes are needed to conduct the core business of the organization; and
- what business processes are needed to support the business.

This involves, in essence a comparison between the logical or “should be” profile of the organization and the current or “as is” profile of the organization. Comparing the “as is” profile with the “should be” profile, will lead strategists to identify a strategic “gap”. This strategic “gap” should be rectified through excellence of execution of core capabilities. The process of rectifying this undesirable “gap” constitutes the organization's first-order strategy. All first-order strategies should thus be based on learning what one's mistakes were, realistically utilizing primary resources to develop, nurture and deploy core capabilities, all in order to rectify previous made mistakes and deficiencies.

Does the logic followed so far hold true for the ingredients critical to ensure success in the predictive, transformational as well as the learning perspective to strategy formulation, as formulated earlier in this document? By effectively and efficiently utilizing the knowledge gained (from conducting the competitive analysis and assessing the external environment), the organization's first-order strategy will be consistent with the conditions in the competitive environment. This will enable organizations to take full advantage of existing or projected opportunities, and minimize the impact of major threats. Second, assessment of the manner in which knowledge is structured to support business processes (internal as well as external) will ensure that realistic requirements are placed on the firm's internal and extended capabilities. It will also enable strategists to identify processes of excellence. Processes (winning formulas) that can easily be replicated “benchmarked” throughout the organization. This will ensure that first-order strategies (strategy to fill the gap between the “as is” and “should be” profile of the organization) are based on the redistribution of excellence – nurturing of knowledge. Core capabilities, will thus not only be based on the organization's areas of excellence, but also on the core capabilities and knowledge of the different partners of the extended value chain (and even the core capabilities and knowledge of competitors!). It is thus clear that the proposed model holds true of the requirements critical to the success of a predictive, as well as learning strategy. But, what about being transformational?

Assessment of the external environment and company profile is however not only of paramount importance in determining where one's organization “is”, and where it “should be”. The primary function of the assessment step is to enable strategic decision-makers to determine how the competitive environment of the organization could change in the future, and how the organization should take advantage of these changes. This constitutes a concerned effort to bridge the gap between where you are and where you would like to be. The first step in specifying the most effective and efficient use of any core capability (those capabilities on which one's strategy should be based) should be to set a strategic direction for the business – a mind eye picture of your future where you realistically would like to be. As stated, all external factors, of paramount importance to the strategy formulation process, should therefore be thoroughly analyzed during the assessment step.

### *Setting objectives*

According to Pearce and Robinson (2000, p. 64), the first step in setting a strategic direction for the business should be to formulate organizational goals – goals for achieving the future. This should be an organizational wide (interactive) process. As mentioned earlier, all goals should be brought into perspective with knowledge – knowledge of all the internal and external forces

impacting on the organization. All the stakeholders involved should reach agreement that these goals are obtainable. Taking due cognizance that primary goals should be coupled to the core business of the organization, supportive goals should be derived from core business goals. Coupled to the future goals should be a vision/mission statement. This vision/mission statement should in essence be a clairvoyant view (based on knowledgeable reasoning) of how the organization could transform the future. The vision/mission statements governing the use of primary resources may then be written.

For a moment, let us once again focus on knowledge, as one of the primary resources. If one advocates that future vision/mission statements should be based on sound reasoning e.g. knowledgeable reasoning, and if one also take cognizance that these "future vision mission statement" supply the fundamental rationale on which all the future activities of the organization should be based, then it becomes apparent that the organization should mandate some section or function to act as an enabler in ensuring the availability of appropriate knowledge to support the strategic decisions in the organization. As we have illustrated, knowledge needed for successful strategy formulation not only includes knowledge of the internal and external environments, but also of the realistic future. This means that the organizations should establish a cross-functional section to manage the intellectual assets. The chief knowledge officer heading this section, thus needs to be fully conversant with all aspects of the business strategy, whether it be the vision and mission of the company, the functional flows of information internal or external to the company, or the human resources that represent the tacit knowledge or knowledge assets of the company. The mandate of the knowledge management section should thus include the responsibility to provide information to strategists to improve the "as is" architecture, to become the "should be" architecture, and also to develop the "future" knowledge architecture needed to support the core business processes of the future. All these statements and architectural artifacts should form the basis for developing an organizational knowledge policy and a knowledge strategy based on the following principles: capture, accessibility, reuse, quality, user accountability, openness, flow and exchange of knowledge, security and confidentiality, privacy, cost and value, ownership/intellectual property, misuse of information, etc.

The knowledge policy and knowledge strategy should be seen as interdependent entities, i.e. entities in a process of constant revision of one another. Due cognizance should be taken not to confuse the knowledge strategy[1] with the knowledge management strategy. The knowledge strategy is in essence a higher-order strategy, derived from future organizational goals, thus providing the framework for the internalization of knowledge. The knowledge strategy should typically include detailed expression of non-negotiable policy in terms of objectives, targets and actions for achieving knowledge excellence for a defined period ahead. The knowledge policy and knowledge strategy should thus provide governance not only to the formulation of knowledge management strategies, but also to business strategy. There should be awareness that in order to manage change, the knowledge strategy must have the ability to amend, change, and/or rectify the knowledge policy and knowledge management strategy.

#### *Establishing strategic initiatives.*

Simultaneous assessment of the external environment (now and in the future) and the organization's profile ("as is", "should be" and "future") will enable strategists to identify a range of possible attractive interactive opportunities. These opportunities are possible avenues to create the desired future. However, they must be screened through the criterion of the organization's future mission/vision, non-negotiable policies (thus also policies contained in the knowledge policy and knowledge strategy), organizational ethics, norms and values, to generate a set of possible and desirable opportunities (Pearce and Robinson, 2000, p. 13). This screening process should result in the selection of options from which future strategic choices should be made. According to Pearce and Robinson (2000, p. 13) this process is meant to provide the combination of long-term objectives and generic and grand strategies that optimally position the firm in its external environment to achieve the company's future vision/mission and goals.

Guidelines contained in these generic and supporting strategies should provide strategists with the basis for determining the activities and associated resources allocation for the

organization's different functions. Allocations need to ensure that the organization grows and remains profitable. The formulation of directive, core business and supportive strategies should, therefore, be done in a holistic manner and be part and parcel of this overall business strategy formulation process. The purpose of the business strategy should be to direct the business towards the achievement of the envisioned future. All organizational strategies should be based on knowledge – knowledge enabling the nurturing and deployment of core capabilities. Strategies should thus be built around core capabilities, a process of reorganizing and re-deploying resources, thus to attain competitive advantage.

In order to implement strategies, hierarchies of plans must be formulated. Parallel with core business plans, supportive plans should be formulated with due consideration of the vision for the use of strategic resources and the overall management of resources in the organization. These plans should include executive plans, divisional plans and operational plans to institutionalize the core business strategy. These plans should thus optimize the use of strategic resources (human resources, finances, infrastructure, ICT, intellectual capital/knowledge, etc.). The knowledge management process should therefore generate a strategic knowledge management plan (SKMP) to govern the efficient and effective management and future institutionalization of knowledge and knowledge systems. This plan should typically contain a set of longer-range goals that document movement towards the knowledge vision and knowledge architecture and the associated major initiatives that must be undertaken to achieve these goals.

The SKMP should, in a sense, be a statement of the major initiatives, not yet defined precisely enough to be projects, that the organization must accomplish over a period of time to move the organization towards the knowledge vision and strategic plan, as derived from the core business plans. The SKMP should outline the results desired for a specific time, as well as the major initiatives necessary. In order to determine how best to institutionalize knowledge and knowledge systems via technology available, strategists need to incorporate knowledge management in any information technology master planning (ITMP) process. In contrast to the SKMP, ITMP should specify the information technology to be used to ensure that knowledge is captured distributed and internalized throughout the organization. After the SKMP has been developed, the initiatives identified in it must be translated into a set of well-defined projects with precise expected results, due dates, priorities and responsibilities.

It is thus clear that assessment of the external and internal environment, setting objectives and goals, and establishing strategic initiatives – steps crucial to efficient and effective strategy formulation – are all steps that need to be conducted before an SKMP can be formulated. An efficient and effective strategy formulation process is thus a prerequisite to the formulation of an efficient and effective SKMP.

### *Strategy institutionalization*

Although strategy formulation in itself is important, it is even more important that strategies and plans be institutionalized in an effective and efficient manner. In order to establish how well strategies and plans are being institutionalized, constant feedback from functional and process owners are needed. In addition situations/changes may occur in the external environment and also in the profile of the organization, which might necessitate new strategies, or even require altering of existing strategies. These “situations” are normally picked up by operational personnel and forwarded to functional owners. Remedial steps are, therefore, normally included in operational plans (thus also the SKMP). Some of these situations or changes may, however, have a profound effect on the execution of core business activities. They should thus be forwarded to strategic decision-makers for inclusion in the strategy formulation process. Unfortunately, strategy formulation is normally a yearly event, thus too slow to cater for these unexpected situations. Earlier in this document it was determined that this phenomenon gave rise to the birth of the learning as well as transformational approach to strategy formulation. In order for the proposed model to be predictive, learning and transformational at the same time, and also to be able to ensure efficient and effective institutionalization of strategies, it is suggested that functional plans, for example the SKMP, should play a major role in this regard.



## “ Knowledge management strategy should be an integral part of the business strategy. ”

As soon as the SKMP (using the SKMP as an example) is approved, it should be rewritten into a policy document. This policy document should form the backbone for determining the “should be” knowledge profile of the organization. In order to ensure a constant flow of “new” knowledge to the organization, assessment of the “as is” and “should be” organizational structure should thus be an ongoing and an interactive process. What we are saying is that strategy formulation should thus not be a yearly event, but should be a continuous event. Functional owners should therefore either be part and parcel of the process, or at least have direct input into the formulation of the first-order strategy – a first order strategy based on learning, transforming, dismantling and improving organizational structures on a continuous basis. Future strategies should be based on knowledgeable reasoning – reasoning of how the organization intends to achieve future vision/mission statements and goals.

### Conclusion

The successful management of an organization’s resources in the next century will thus be determined to a greater extent by the organization’s ability to combine knowledge management with a thorough understanding of principles involved in business strategy formulation to guide the development of information resources for the firm. Only when combined with direction setting (setting a vision, architecture and a technology plan) and excellent management of the intellectual assets, can an organization perform most effectively. The shift in the strategic role that intellectual assets play in business management, is to a greater extent forcing business managers to actively participate, if not lead, strategic knowledge management decision making. A sound understanding of the formulation of business strategy is crucial in the formulation of an efficient and effective knowledge management strategy, and vice versa. Effective knowledge management requires a strategic and reasoned approach, solid planning and comprehensive support structures. Unfortunately, there is no generic model incorporating knowledge management strategy formulation with business strategy formulation. This leads to business managers still considering knowledge management as being separate from business strategy formulation, leading to an inability to align knowledge management goals with corporate goals.

By analyzing all the different perspectives with regard to strategy formulation from a business point of view, as well as a knowledge management point of view, a holistic model was formulated – a model capable of predicting the future, learning from mistakes and transforming strategic resources into core capabilities. Although the management of all organizational resources is included in this model, special emphasis is placed only on the management of knowledge as a strategic resource. Due cognizance should therefore be taken that this model only be used as a guideline, a tool in the quest to illustrate the interdependency between the management of a strategic resource (in this case knowledge management) and the formulation of a business strategy.

Business strategy and knowledge management strategy should thus feed upon each other and need to work interdependently, because in order to formulate a knowledge management strategy, the chief knowledge officer needs to be fully conversant with all aspects of the business strategy, whether it be the vision and mission of the company, the functional flows of information internal or external to the company, or the human resources that represent the tacit knowledge or knowledge assets of the company.

### Note

1. Zack (2001) makes a distinction between knowledge strategy and knowledge management strategy. Knowledge strategy implies a notion of knowledge-based strategy, that is, competitive strategy built around a firm’s intellectual resources and capabilities. Once a firm identifies opportunities, threats, strengths and weaknesses related to its intellectual resources and capabilities, then actions it may take to manage gaps or surpluses (e.g. recruiting for particular skills, building online documentary

repositories, establishing communities of practice, acquiring firms, licensing technologies, etc.) are guided by a knowledge management strategy. Knowledge strategy is oriented toward understanding what knowledge is strategic and why. Knowledge management strategy guides and defines the processes and infrastructure for managing knowledge.

## References

- Bater, B. (1999), "Knowledge management: a model approach", *Managing Information*, Vol. 6 No. 8, pp. 38-41.
- Byrne, J.A. (1996), "Strategic planning", *Business Week*, No. 3,490, pp. 46-51.
- Caldwell, F. (2001), "Knowledge management scenario", *Gartner Group*, 15 October.
- Callon, J.D. (1996), *Competitive Advantage Through Information Technology*, McGraw-Hill, New York, NY.
- Camillus, J. (1997), "Shifting the strategic management paradigm", *European Management Journal*, Vol. 15 No. 1, pp. 1-8.
- Darroch, J. and McNaughton, R. (2002), "Examining the link between knowledge management practices and types of innovation", *Proceedings of the 7th World Congress on Intellectual Capital*, Hamilton, Ontario, 16-18 January 2002, McMaster University, Hamilton, Ontario (CD-ROM).
- Davenport, T.H. and Prusak, L. (1998), *Working Knowledge: How Organizations Manage What They Know*, Harvard Business School Press, Boston, MA.
- Drucker, P. (1993), *Post-Capital Society*, Harper & Collins, New York, NY.
- Kim, Y.-G., Yu, S.-H. and Lee, J.-H. (2003), "Knowledge strategy planning: methodology and case", *Expert Systems with Applications*, Vol. 24, pp. 295-307.
- Logan, D. (2001), "Knowledge management scenario: measuring and managing intellectual assets", *Proceedings of the Gartner Symposium/ITxpo Africa, Sandton, South Africa, 2001*, unpublished.
- Manasco, B. (2000), "Knowledge strategies: generate lasting value", available at: [www.webcom.com/quantera/KI019901.html](http://www.webcom.com/quantera/KI019901.html)
- Manville, B. and Foote, N. (1996), "Strategy as if knowledge mattered", available at: [www.fastcompany.com/online/02/stratsec.html](http://www.fastcompany.com/online/02/stratsec.html)
- Mintzberg, H. (1994), *The fall and rise of strategic planning*, Free Press, New York.
- Mintzberg, H. and Waters, J.A. (1985), "Of strategies, deliberate or emergent", *Strategic Management Journal*, Vol. No. 3, July-September, pp. 257-72.
- Murray, P. (2000), "Designing for business benefits from knowledge management", in Depres, C. and Chauvel, D. (Eds), *Knowledge Horizons: The Present and the Promise of Knowledge Management*, Butterworth Heinemann, Boston, MA, pp. 171-94.
- Pearce, J.A. and Robinson, R.B. (2000), *Strategic Management, Formulation, Implementation and Control*, 7th ed., McGraw-Hill, Boston, MA.
- Porter, M.E. (1980), *Competitive Strategy*, Free Press, New York, NY.
- Porter, M.E. (1996), "What is strategy?", *Harvard Business Review*, Vol. 74, November-December, pp. 61-78.
- Prahalad, C.K. and Hamel, G. (1990), "The core competence of the corporation", *Harvard Business Review*, Vol. 68, May-June, pp. 79-91.
- Rajogapalan, N. and Spreitzer, G.M. (1996), "Towards a theory of strategic change: a multi-lens perspective and integrative framework", *Academy of Management Review*, Vol. 22 No. 1, pp. 48-80.
- Roberts, M. (1998), "Strategic thinking: domination for winning companies", *Management Today*, May, pp. 14-18.
- Skyrme, D.J. (1998), "Developing a knowledge strategy", available at: [www.skyrme.com/pubs/knwstrat.htm](http://www.skyrme.com/pubs/knwstrat.htm)
- Small, C.T. and Tattalias, J. (2000), "Knowledge management model guides KM process", *The Edge Newsletter*, April, available at: [www.mitre.org/pubs/edge/april\\_00.htm](http://www.mitre.org/pubs/edge/april_00.htm)
- Sun Tzu (1971), *The Art of War*, Oxford University Press, New York, NY.