

A PROCESS VIEW OF SWOT ANALYSIS

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ABSTRACT

The aim of this paper is to enrich the SWOT analysis by utilizing the five change stages of process development: birth, growth, harvesting, storage, and transformation. Each quadrant of the matrix of the SWOT model could be represented by one stage and the phases between stages correspond to transformation. The five-change processes originate from phases of the seasonal life cycle based on the Chinese Ying-yang and five elements theory. This study tries to establish a plausible bridge between Western two-dimensioned quadruple categories (2 x 2 frameworks) and Chinese five elements. In addition, integrating the concept of business life cycle with the SWOT analysis provides the policy maker with a dynamic approach to effective strategies. Finally, the managerial implications of each stage are discussed from the perspective of Chinese five elements.

Keywords: SWOT analysis; five elements theory; Chinese systems thinking; business policy; strategies formulation; management; process view; five changes

INTRODUCTION

Organizations do not exist in a vacuum but rather exist, co-exist, compete and cooperate in an interrelated environment characterized by complexity. Understanding this environment is fundamental to formulating strategy, decision making and strategic planning. As a result, there is a proliferation of strategic planning tools to enable managers to formulate competitive strategies in line with the requirements of their business environments. These include strengths, weaknesses, opportunities and threats (SWOT) analysis, which may well be used more often than any other management technique in the process of decision making.

The SWOT analysis is a useful aid to strategy formulation but some weaknesses remain. SWOT is the overall evaluation of a company's strengths, weaknesses, opportunities, and threats. Valentin (2001) said that the SWOT analysis is the conventional approach of searching for *insights* into ways of realizing the desired alignment. The SWOT analysis is no doubt a valuable tool in the field of business strategy because it invites decision makers to consider important aspects of their organization's environment and helps them organize their thoughts. However, Panagiotou (2003) argued that the open nature and unstructured method of SWOT offer little help to users and planners are left without indication as to where to search for such variables, or what to do after finding them in terms of how best to incorporate them in strategy formulation.

This study attempts to apply the Chinese five changes to enrich the SWOT analysis (see Figure 1). Five changes represent the Chinese ways to describe the complete process of how all things develop or change. Sometimes, a firm is unable to exploit external opportunities during a period of slowdown in sales growth even though it still enjoys several powerful strengths. By contrast, companies can tap their critical capabilities to create blue oceans while it is caught within the red ocean of bloody competition. The question is: How do we perform the SWOT analysis based on the life cycles of products or businesses? In other words, the internal strengths of companies do not function invariably at each stage of the life cycle, the same being true with their weaknesses, opportunities, and threats. Fortunately, the Chinese five changes may offer a viable approach to managers in their efforts to get further insights into the strategies formulation while performing the SWOT analysis. This study invites the policy makers to share the wisdom of the ancient Chinese people.

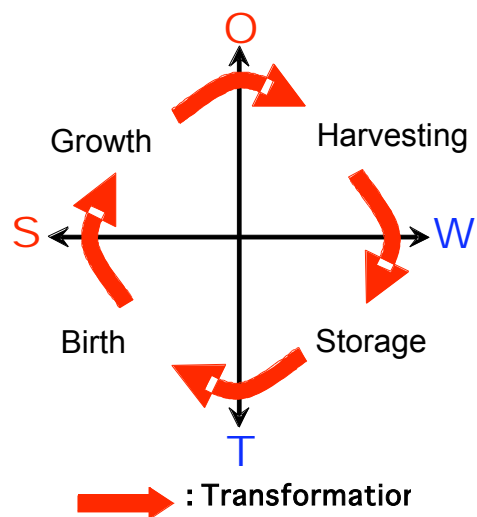


Figure 1. Five-change process and matrix of SWOT model

SWOT ANALYSIS AND SWOT MATRIX

The SWOT analysis is concerned with the analysis of an organization's internal and external environment with the aim of identifying its internal strengths in order to take advantage of its external opportunities and avoid its external threats, while addressing its weaknesses. This technique is credited to Albert Humphrey, who led a research project at Stanford University in the 1960s and 1970s using data from the Fortune 500 companies. As a strategic planning tool, the SWOT Analysis is used to evaluate the strengths, weaknesses, opportunities, and threats involved in a project or in a business venture or in any other situation of an organization requiring a decision in pursuit of an objective. It involves monitoring the marketing environment internal and external to the organization or individual.

The aim of any SWOT analysis is to identify the key internal and external factors that are important in achieving the objective. SWOT analysis groups key pieces of information into two main categories:

1. Internal factors: the 'strengths' and 'weaknesses' internal to the organization.

2. External factors: the 'opportunities' and 'threats' presented by the external environment.

The SWOT matrix is very useful for generating a series of alternatives for a company or business unit based on particular combinations of the four sets of strategic factors. The SWOT matrix illustrates how the external opportunities and threats facing a firm can be matched with its internal strengths and weaknesses to result in four sets of possible strategic alternatives. It enables managers to create various kinds of growth and retrenchment strategies. The SWOT matrix includes:

1. SO strategies focus on how to use strengths of a business to take advantage of opportunities.
2. ST strategies attempt to utilize the strengths of a company to avoid threats.
3. WO strategies aim to eliminate weaknesses to open new opportunities.
4. WT strategies are basically defensive and mainly act to minimize weaknesses and avoid threats.

FIVE CHANGES

Chinese people use “Five changes” to describe the complete process of all things that grow or change. Originating from *Huangdi Neijing*, the most seminal medical text of ancient China, five changes are birth, growth, harvesting, storage, and transformation. The five-change concept suggests that all living beings would pass through five stages of evolution. They can be better understood in terms of the basic seasonal cycle of nature. Confucius said that the biggest changes between the heaven and the earth are seasonal shifts. The birth, growth, harvesting, and storage correspond to the spring, summer, fall and winter respectively. Meanwhile, the function of the transformation is in charge of the process of seasonal shifts (see Figure 2).

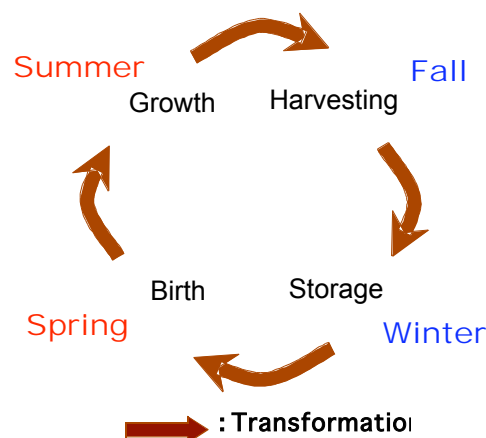


Figure 2. Five changes and seasonal cycle.

In the spring, the plants grow from the tiny seeds and sprout from the ground in spring rains. This is at the beginning and renewal stage of the life cycle. The spring signals the dynamics of *birth*. All living-beings grow in their own ways and begin to diversify in summer under the warm, stable glow of the sun. This reaches the flourishing stage of the life cycle, developing quickly and with strength. *Growth* exhibits the power of summer. As summer passes into the fall, it is the time for *harvesting* and the energy converges and draws inwards for accumulation and storage for use in non-productive winter. *Storage* symbolizes the energy of winter, during which time energy is conserved, preserved, and stored for the renewal that takes place in spring. Finally but most importantly, the phases between seasons, during which qualitative adjustments and changes occur, are responsible for *transformation*.

Five changes could be represented by the interaction of Yin and Yang. Yin-yang is one of the dominant concepts shared by different schools throughout the history of Chinese philosophy. The influences of yin-yang are easy to observe, and it is the original source of changes. The Yellow Emperor said, "The law of yin and yang is the natural order of the universe, the discipline of all things, the mother of changes, the root of life and death, the temples of the gods. In order to treat and cure diseases, one must search for their origins." Moreover, the basic interactions of yin and yang can be represented by four combinations: yin-yang, yang-yang, yang-yin, and yin-yin. The process of yin-yang interaction could be illustrated in Figure 3. Any yin or yang aspect can be further subdivided into yin and yang. Therefore, two pairs of yin-yang are derived from single yin or yang at the beginning. Then, four combinations of yin and yang are generated based on the two-dimensional yin-yang axes as shown in Figure 3.

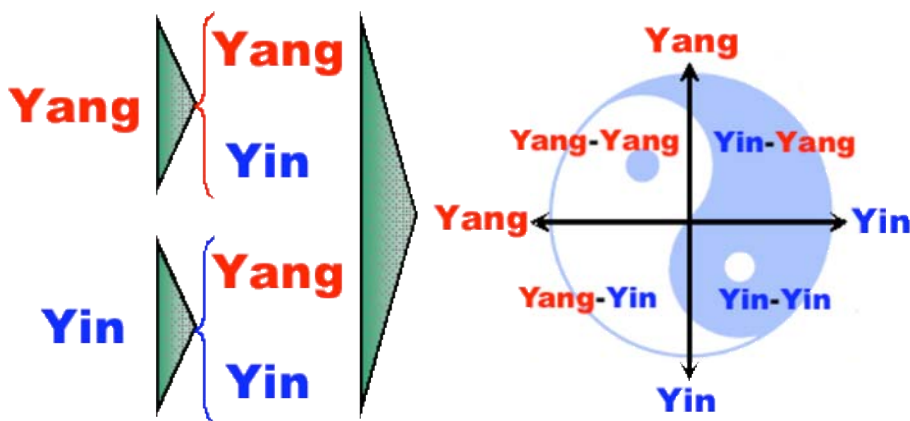


Figure 3. Interaction of Yin and Yang

Five changes could be further integrated into and represented by the interactions of yin and yang (see Figure 4) according to *Huangdi Neijing*. The ancient Chinese believed that Yang is the deciding energy that induces the growth of everything. At the yang-yin stage, yang begins to increase while yin starts to decrease. Yang-yin signals the *birth* of a new life. As the energy of yang gradually accumulates, yang-yin develops naturally into yang-yang. Yang-yang enables all things to *grow* substantially in size or quality and becomes fully developed entities. While things have reached full natural growth or development, the power of yang diminishes increasingly. Yin-yang

takes over as the next dominant force and the yang energy converges and draws inwards for accumulation. Therefore, *harvesting* stands for yin-yang stage. Yin-yin is at the stage of *storage*, in which the remaining energy from the yin-yang phase is stored for the renewal of a new cycle. All living creatures have to take a rest, recuperate and develop their critical capabilities in this period. Otherwise, there is no chance to store their core capabilities required for basic nutrition and survival and all things will lose the power of growth in the next stage. Last but not the least, *transformation* characterizes the turning point between stages, at which yin-yang waxes and wanes and qualitative changes start to occur. The other four changes cannot do without the function of transformation. Failing that, the close connections between phases will terminate. The importance of transformation manifests in its link with birth, growth, harvesting and storage.

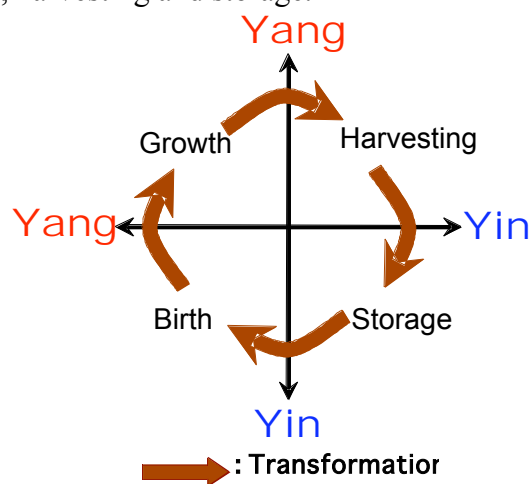


Figure 4. Five changes and yin-yang interactions

Moreover, the five elements theory could enrich the meanings of five changes for application purposes. Five changes can be classified into five elements (see Figure 5). According to *Huangdi Neijing*, the corresponding elements of *birth*, *growth*, *harvesting*, *storage*, and *transformation* are Wood, Fire, Metal, Water, and Earth. In an attempt to classify natural phenomena in terms of five quintessential substances, the five-element theory deals with five emblems that denote categories of related functions and qualities. Wood emphasizes the very beginning of growth or development of all things. It is associated with the *birth* of five changes. In addition, Wood is regarded as a flexible substance by the ancient Chinese because it is able to bend or to be bent easily without breaking. Fire designates the function that fully utilizes the energy of yang in the process of all things that develop. It is closely related to *growth* of five changes. Moreover, the ancient Chinese had learned from the fact that the fire always burns upwards or outwards. Therefore, Fire is a metaphor for everything exerting its influence towards the outside. Take business as an example, Fire may represent the marketing function that helps to provide products or services to customers outside. Metal stands for the completion of growth or development. Accordingly, it may represent *harvesting* of five changes. In contrast to the flexibility of Wood, lack of elasticity characterizes Metal, which has been molded and unable to recover from the original condition. Metal embodies the behaviors that begin to move inwards. Water by nature flows downwards; therefore, it usually symbolizes inward or

internal behaviors or conditions. Just like bears go into hibernation in the winter, human beings or organizations have to enter the Water phase in which yang energy could be stored for renewal. Thus, Water bears close relationship to *storage* of five changes. Finally, just like Earth, which affords a necessary foundation for the four other elements, the function of *transformation* serves as the causal links between other changes. In the absence of the effect of transformation, the functions of birth, growth, harvesting and storage are unable to form a complete life cycle. Transformation is the very coordinator that bridges the transition between Western two-dimensional quadruple categories and Chinese five elements.

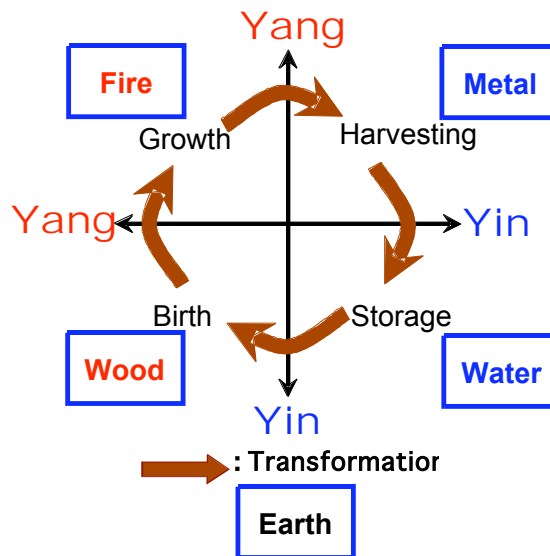


Figure 5. Five changes and five elements

HOW TO ENREICH SWOT WITH FIVE CHANGES

The two-dimensional quadruple categories could be well interpreted from and enriched by five changes. In the above sections, this author attempts to explain five changes with the yin-yang interactions, seasonal cycles, or five elements. Five changes could be considered as four sets of categories or alternatives plus the very function of transformation. In this regard, the taxonomy of five changes illustrated above provides a valuable framework to establish a plausible bridge between Western two-dimensional quadruple categories and Chinese five elements. Figure 6 manifests the relationship of four sets of alternatives in terms of two dimensions and five changes. Consequently, the original classification of four sets could be enriched by the five changes with a concept of evolution. This evolution occurs as a result of *transformation* function that links up birth, growth, harvesting, and storage to form a close connection in sequence. That is, a meaning of time has been significantly attached to the four independent sets of activities. Therefore, we are able to reexamine the two-dimensional sets from the perspective of life cycles and extend their applications.

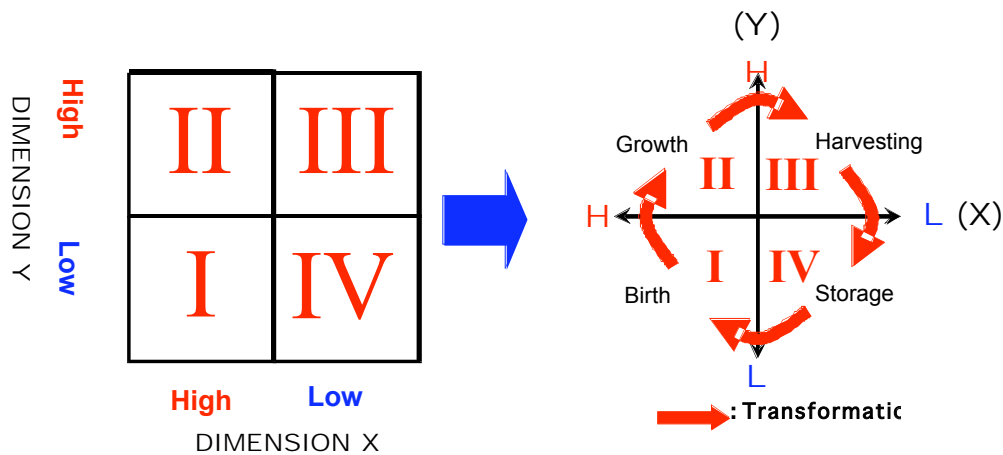


Figure 6. Two-dimensional quadruple categories and five changes

How to relate five changes with the matrix of the SWOT analysis? Because the SWOT matrix is a typical example of two-dimensional sets of four possibilities, it could be expressed in terms of five changes (see Figure 7). The SWOT matrix could be easily matched with five changes if one corresponding change of four possible strategies is identified first. For example, if the current internal strengths were more influential than the weaknesses but the external opportunities available were less powerful than the threats, an organization is likely to adopt the ST strategies that intend to use strengths to avoid threats. The S (strengths) and T (threats) can be regarded as yang and yin respectively. It would be reasonable to choose between yang-yin (birth) and yin-yang (harvesting). When a business tries to develop a new product or enter a new market, it will fully utilize its strengths to reduce the threats facing the company. *Birth* could plausibly be the situation of this business. Therefore, a firm tends to employ the ST strategies in the *birth* stage. After the state of the ST strategies has been classified as *birth*, the SO, WO, and WT strategies could then find its corresponding states: that is, *growth*, *harvest*, and *storage* (see Figure 7). In addition to the four combinations of strategic factors, a new kind of strategy emerges in the above mapping processes, *transformation*. It plays an important role while one strategy is shifting to another. The *transformation* strategies help companies take the necessary precautions or adjustments before transferring to the next stage.

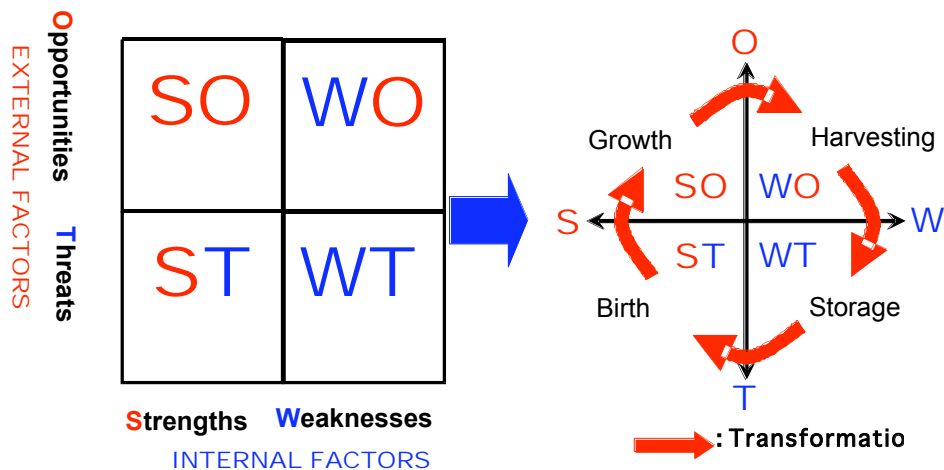


Figure 7. SWOT matrix and five changes

Integrating five changes with the SWOT analysis, this study attempts to offer two suggestions for managers as to how to work out effective strategies. First, the concept of a business life cycle could be incorporated into the SWOT analysis with the current business goal in mind.

1. *ST* strategies may focus on *birth*.

The organization should spend more resources and time in developing new products or services with potential for success to create the awareness of customers or gain more market share. Businesses are expected to develop their abilities to quickly respond to changing and unsatisfied demands in this period. Underpinned by the results of R & D from the previous period, firms could strengthen their sales by utilizing OEM or ODM business strategies. Besides, a business should enhance service capabilities to ensure the quality of products and could increase its marketing budget to enlarge its customer base.

2. *SO* strategies may focus on *growth*.

In due course of time, a corporation will try to build a new brand, maximize its sales revenue and likely benefit from the economies of scale, thus becoming the market leader. With consumers clearly feeling that its products or services will benefit them in some ways and gradually accept them, a business is at the stage of growth. The firm is typically at the peak of its life cycle and would enjoy a period of rapid sales growth. Firms are expected to grow at a much stronger pace and more effectively responds to changes in demand. As a result, a business continues to increase its marketing budget, fight off competitors and become a market leader. More importantly, managers should pay attention to the unexpected threats such as complaints from the customers about the defective products or unsatisfactory services. These threats may become a warning or another opportunity for the corporate body attains future growth.

3. *WO* strategies may focus on *harvesting*.

At the harvesting stage, a company always slows down the pace of development and attempts to take advantage of opportunities left behind mainly from the growth phase. Rapid sales growth cannot last forever. Sales slow down as the competitors emerge into the market. Nevertheless, the company or business unit still has relatively the largest market share and brings in substantial revenue. Because the business is still the market leader, it enjoys economies of scale and higher profit margins. Moreover, the products or services might be unable to effectively meet the needs of potential customers. Therefore, the attempts to expand market share would always leave much to be desired. In this harvesting stage, firms typically curb expenditure on marketing and lay considerable emphasis on satisfying their current customers.

4. *WT* strategies may focus on *storage*.

During the storage stage, a firm would concentrate its efforts on developing core competencies while undergoing feasible corporate changes. Sales and profits start to decline and the business has weak market share in a low-growth market. The managers may try to adjust their pricing strategies to stimulate growth. The unprofitable products might be modified, replaced or abandoned during this period. It is about time that the organization initiated necessary transformative changes including creation of survival anxiety, learning and internalizing new concepts or meanings (Schein, 1999, p. 116-117). More resources could be devoted to the researches and development for the future. Furthermore, companies could make an

effort to discover new market space by rethinking the conventional boundaries of competition, such as looking across alternative industry, strategic groups within industry, complementary offerings, customer appeals, or redefining the industry buyer group as suggested by Kim & Mauborgne (2005, p. 47-80).

The second suggestion offered by this study is concerned with the strategic issues between stages (see Figure 8). The shifting strategies between the phases of the business life cycle have always been neglected. Fortunately, a plausible solution could be found in the Chinese five changes. That is, *transformation* assumes the role of adjustments between the four stages of birth, growth, harvesting, and storage.

1. State: from Storage to Birth

Strategic issue: How to make a strategic move towards a new market while the opportunities (O) gradually outweigh the threats (T)?

In alignment with the strategies formulated in the storage period, a firm actively seeks external opportunities and utilizes its core capabilities developed for the birth stage. The market always offers new opportunities for organizations as they move from the storage to birth stage phase. However, managers should be cautious in making a strategic move towards a new market. They are supposed to learn the lessons from the past experience of failures. In this transformative stage, a firm could devote much more time to conducting market surveys and try to co-produce products or services with customers.

2. State: from Birth to Growth

Strategic issue: How to fully exploit external opportunities when the internal weaknesses (W) are increasingly dominated by strengths (S)?

It is the best time for a company to defeat its competitors as it moves from the birth to growth period. A firm may choose the option of reducing or avoiding the fierce competitions because the external opportunities have overwhelmingly favored its development. Therefore, it could replace the weaker competitors to enlarge its market share.

3. State: from Growth to Harvesting

Strategic issue: How to evaluate the business portfolio and adopt proactive approaches when the external opportunities (O) are gradually overshadowed by threats (T)?

At this juncture, a company may preferably screen out and withdraw timely from the businesses that are not compatible with its objectives. Performance assessments characterize the essence of the coming harvesting period. After reaching its climax, a firm is supposed to undertake a serious review of its business portfolio. Firms can grow *bigger* but cannot grow *better* in the harvesting stage. Managers may evaluate the performances of current products or services before the external opportunities eventually disappear. In fact, the inertia that usually originates from the past formula of success may disable managers unable to perceive the critical point for change in time. The inertia always delays the reactions to changes (Gharajedaghi, 2006, p. 4-6). Sull (2003, p. 23-42) argued that companies may be trapped by their success formula. It is always prudent not to multiply the business scale before the end of the growth stage.

4. State: from Harvesting to Storage

Strategic issue: How to accumulate and prepare resources necessary for the next stage when the internal weaknesses (W) detract from strengths (S)?

One of the Chinese proverbs says “Things always reverse themselves after reaching an extreme.” As the pendulum swings back, the sales volume would decline and profitability diminish in the storage period. Therefore, it is better for a company to cease to provide unprofitable products or services. The storage is the period during which energy is conserved and stored for the renewal in the next stage. A firm should recognize that there is no space for growth and unprofitable businesses have to retreat from the current market. All the resources are reserved for the research and development of new products or services.

	<p>State: from Birth to Growth Strategic issue: How to make a strategic move towards a new market while the opportunities (O) gradually outweigh the threats (T)?</p>
	<p>State: from Growth to Harvesting Strategic issue: How to fully exploit external opportunities when the internal weaknesses (W) are increasingly dominated by strengths (S)?</p>
	<p>State: from Harvesting to Storage Strategic issue: How to evaluate the business portfolio and adopt proactive approaches when the external opportunities (O) are gradually overshadowed by threats (T)?</p>
	<p>State: from Storage to Birth Strategic issue: How to accumulate and prepare resources necessary for the next stage when the internal weaknesses (W) detract from strengths (S)?</p>

Figure 8. Strategic issues between stages of business life cycle

CONTRIBUTIONS AND CONCLUSIONS

This theoretical framework makes three important contributions to enrich the SWOT analysis.

1. This paper has developed a process view of SWOT analysis. Five changes are integrated into the SWOT matrix. The four sets of strategic factors can be represented and linked up as a life cycle by the five changes. This approach allows managers to make strategic decisions about the different stages of the business life cycle by employing the SWOT matrix most effectively.
2. This study establishes a plausible bridge between Western two-dimensional quadruple categories and Chinese five elements as well as five changes. This paper has offered one of the plausible ways to transform two-dimensional quadruple sets into the five-change framework as shown in Figure 5. Five changes could be considered as four sets of categories or alternatives plus the very function of transformation.
3. This work explores the strategic implications of business life cycles in terms of the Chinese five changes. Managers could fully utilize the SWOT matrix by examining the ST, SO, WO, and WT combinations based on the corresponding five changes to formulate feasible business strategies. Moreover, strategic issues are advanced and shifting strategies between the phases of the business life cycle are taken into considerations.

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