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Scorecard for Business**

為企業組織創造“孫子兵法”作為策略方向之平衡計分卡

Chih Wen CHENG 鄭致文

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為企業組織創造“孫子兵法”作為策略方向之平衡計分卡 Recreating Sun Tzu's "Art of War" as a Strategy-oriented Balanced Scorecard for Business

Chih-Wen Cheng 鄭致文

Doctor of Business Administration Candidate
University of South Australia
Email: ercerc@ms11.hinet.net

Abstract

The balanced scorecard (BSC) is a strategic management system for organizations to measure their performance. Sun Tzu's "The Art of War" is the masterpiece of military strategy from Chinese ancient history. Many articles tried to discuss and translate the military strategy into modern business strategy. The framework is to incorporate Sun Tzu's strategy formulation with the measurement of balanced scorecard into one model. Any organization including profit and non-profit-organization can find it easy and useful to adopt the Sun Tzu scorecard in formulating strategy and measuring the performance.

Keywords

Balanced scorecard, Strategic management, Strategy, Performance measurement

摘要

平衡計分卡是作為企業衡量組織表現，所設計的策略管理系統。孫子兵法是中国古代的軍事策略的巨著。許多著述嘗試將這本軍事策略重新賦予新的意義成為現代企業組織所用。架構的方法是將孫子兵法的策略規劃結合平衡計分卡的衡量方法成為一個新的模式。任何營利組織或非營利組織都能輕易應用『孫子計分卡』在策略規劃與衡量組織表現。

關鍵詞

平衡計分卡、策略管理、策略、組織衡量。

1. Overview

1.1 Purpose of the study

During these years both internal and external environments have been changed. Companies and organizations worldwide face the same questions: How to effectively formulate strategies; and how to measure the strategies that have been implemented?

A survey conducted by Institute of Management Accounting in the USA (IMA 1996) shows that only 15 percent of the respondents indicated that their measurement systems support the top management business objective well, while 43 percent of the respondents indicated that their measurement system support less than adequate or poor. On the other hand, 60 percent of the respondents reported that they were planning to replace their current performance measurement systems. According to the results of the survey, the majority (60 percent) of the respondents didn't have the proper measurement systems in their organizations, so they were planning to replace their current performance measurement systems. It does not show in the survey that there is any brand-new performance measurement system to replace the current one.

Furthermore, 85 percent of respondents indicated that their measurement systems didn't support the top management business objective that draws the following questions: firstly, did the top management properly formulate the strategies for their organization? Secondly, did the member of the organizations clearly understand the strategies for their own organizations?

Balanced scorecard (BSC) is the latest and the most influential performance measurement. Harvard Business Review ranks it as one of five articles that changed management in the 75 years of the publication's history. With many success stories and experiences from large institutions of implementing it, BSC is the most powerful performance measurement tool. Nevertheless, BSC only provides the function as the measurement. BSC doesn't indicate the best method to formulate strategy.

This paper identifies that the content of Sun Tzu's "Art of war" provides the best source of how to effectively formulate strategy. What the "Art of war" teaches is, very simply, how to think. It teaches strategy. It teaches tactics. It teaches how to fight and when to retreat. (Lundell, 1998). Hence, this paper is a discourse on the complementarities between Sun Tzu's work and the BSC.

1.2 Contribution of study to knowledge

Sun Tzu's "Art of War" provides not only the insights of SWOT analysis but also a holistic view of the market situation. There is an intriguing analogy to be drawn between military thinking and the world of business (Wee *et al.*, 1991). It is perfectly feasible to apply Sun Tsu's Art of Business Management in Strategic planning in the world of business (Lee and Ko, 2000). The competition in the world of business and military battlefield is merciless. Wee *et al* (1991) state that many companies lost their capital and employment due to the poor planning. In a war, poor planning can also lead to loss of people, equipment and the battle itself. The application of Sun Tzu's philosophy into BSC is a complete tool for any organizations to start from formulating to measuring their strategies. BSC focuses more on internal environments than external environments. Thus makes Sun Tzu's business strategy and BSC are complement to

one another, as well as a good mix of both eastern and western cultures.

2. The balanced scorecard

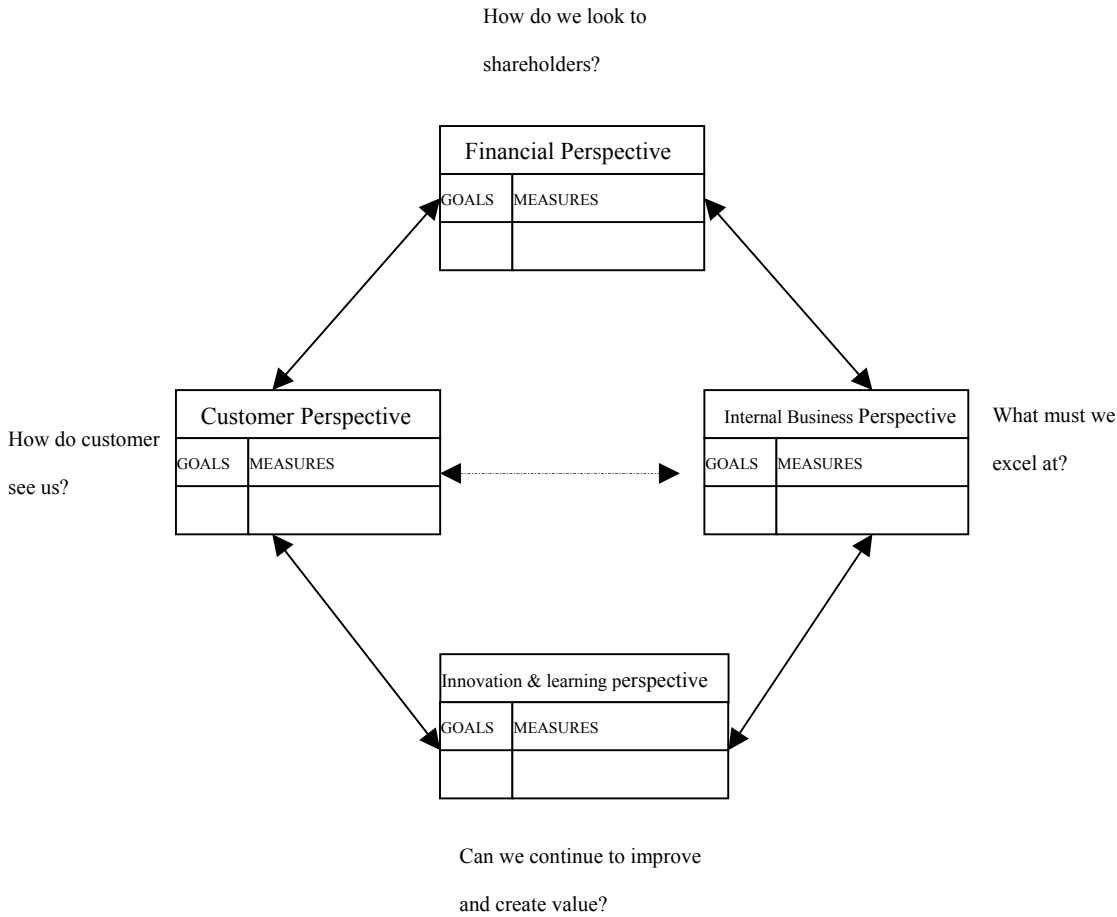
2.1 Current theory

BSC was developed by Kaplan and Norton in the early 1990s. The concept was created as a pioneering business performance measurement system, in the belief that “existing performance measurement approaches, primarily relying on financial accounting measures, were becoming obsolete” (Kaplan and Norton, 1996). The term “balanced scorecard” reflected the balance between short- and long-term objectives, financial and non-financial measures, lagging and leading indicators and external and internal performance perspectives. The BSC was built around the premise that companies can no longer gain sustainable competitive advantage solely by developing tangible assets. To phrase it differently, the ability of a company to build its “intangible assets” or “intellectual capital” has become a critical success factor in creating and sustaining competitive advantage (Itami, 1987).

The BSC as illustrated in Figure 1, is based on four key perspectives; they are:

1. Financial perspective – “How will we look to our stakeholders?”
2. Customer perspective – “How must we look to our customers?”
3. Internal process perspective – “What internal processes must we excel at?”
4. Learning and growth perspective – “How can the organization learn and improve?”
(Sanger, 1998)

Figure 1. The Kaplan and Norton balanced scorecard



Source: (Kaplan and Norton, 1992).

2.2 Current practice

Its implementation begins with setting goals and the strategies to achieve them. Measures and performance targets are then established, aligned with the strategies, and are set up so that they can be regularly monitored as shown in Figure 1.

A recent article (Anonymous, 1999) has pointed out that BSC is not a new concept. Peter F Druker's Management by Objective (MBO) is the first framework of the BSC in 1954. Druker demonstrated a conceptual framework suggesting the need for quantitative objectives in activities relating to marketing, innovation, human resources, financial resources, productivity, and so on. But Druker never went further to develop a "step-by-step" analyzer like BSC.

Why is there a need to adopt BSC? Traditionally, most organizations look into their corporate performance by reviewing their financial aspects (Hepworth, 1998). Financial measurement has its limitation and are inconsistent with long-term strategy. Pla (1999)

summarized Norton's research and identified four barriers to strategic implementation. The first barrier is that only five percent of the workforce understands a company's strategy. The second barrier is the management barrier: some 85 percent of executive teams spend less than one hour a month discussing strategy. The third barrier is the resource barrier: 60 percent of organizations don't link budgets to strategy. The fourth barrier is people barrier: only 25 percent of managers have incentive linked to strategy. BSC has the four processes to manage the four barriers that mentioned above. The first process – translating the vision – helps managers build a consensus around the organization's vision and strategy. The second process – communicating and linking – lets managers communicate their strategy up and down the organization and link it to departmental and individual objectives. Since the departmental and individual objectives and goals have been set, the managers can easily link rewards to performance measures. The third process – business planning – enables companies to integrate their business and financial plans. The fourth process – feedback and learning – gives companies the capacity for strategic learning. With the BSC at the center of its management system, a company can monitor short-term results from the three additional perspectives – customers, internal business processes, and learning and growth – and evaluate strategy in the light of recent performance.

The BSC is so popular, because many companies have well-organized strategies in hand but most of them never really implement strategies properly. The reason that even good CEOs with good strategies fail (and 7 out of 10 do) is that they don't execute the strategy properly (Charan and Colvin, 1999). BSC became one of the hottest measurement system since it was introduced. A current article (Anonymous, 1999) states the consulting group Bain & Co. reported that 55% of the US companies and 45% of the European companies claim to be using BSC.

There are many BSC adopters that have done well. For example, Sears Roebuck has a success story in implementing BSC. The company reported its net loss of \$3.9 billion in 1992 alone. After two years of implementing BSC, Sears reported a 4 percent increase in employee satisfaction and customer satisfaction. An estimated \$200 million increase in revenue due to the increase in customer satisfaction. The extra revenues also increase Sears' market capitalization by almost \$250 million (Rucci *et al.*, 1998)

There are two other success stories of BSC (Anonymous, 1999):

- AT&T Canada Long Distance Service

The company was losing almost \$1 million a day in 1995. Most of the management team had left the company. Bill Catucci, former president and CEO of the company credited the BSC with providing the strategic framework that enabled senior management to turn the organization around. "It took financial measurements out of the center and got our people to understand the business," he says.

- Mobil Oil's US. Marketing & Refining Group

In order to transform Mobil's business from a highly centralized, production-driven oil company to a decentralized customer-driven convenience store operation, the BSC was introduced in 1993. Mobil had become the biggest profit maker in the industry by 1995, where it remained for the next four years. Mobil's ROI is the envy of the industry.

2.3 Critique of the balanced scorecard

BSC has already proved to be an effective system of performance measurement, but McAdam and O'Neill (1999) criticized BSC and pointed out two major defects of BSC are as follow:

1. BSC remains an organizational tool rather than a means of deciding strategy. Sun Tzu's thirteen chapters of "Art of War" are centered around strategy and its philosophical justification. If coupled with Sun Tzu's philosophy of how to decide strategy the BSC will become a complete strategy tool.
2. The BSC does not indicate how new customers and markets can be identified. The BSC only focuses on internal and existing issues. Customer perspective is only referring to the target market that the organizations can identify with. With the rapid introduction of new technology and globalization, organizations will have big problems of focusing on the identified "customers". It therefore seems more appropriate to replace "customer perspective" with "market perspective" in order to extend the scope of focus from near-sighted "customer" to a bigger and wider "market" perspective .

Financial perspective is not applicable to all institutions. For example, non-profit-organizations don't really measure their performance on financial measures. However, Martinsons *et al.* (1999) argue that "traditional financial accounting measures (like the ROI and payback period) offer a narrow and incomplete picture of business performance and that reliance on such data hinders the creation of future business value". There is a need to evaluate performance in an holistic manner, and a need to monitor multiple perspectives of the working environment.

Due to the three major defects of BSC that clearly stated above, this researcher feels that there is a need to modify BSC with Sun Tzu's strategy to enhance its completeness and functions.

3. Sun Tzu's The Art of War

3.1 The theory

Some time around 400 B.C., during a period in China known as the Age of Warring States, there arose a general from the state of Ch'i known as Sun Tzu. His ability to win victories for his warlord gained him fame and power.

To hand down the wisdom he had gained from his years of battles Sun Tzu wrote a book, *The Art of War*, that became the classic work on strategy in China. His book, which details a complete philosophy on how to decisively defeat one's opponent, has given guidance to military theorists and generals throughout the ages, both in the East and the West. In *The Art of War*, military readers found a holistic approach to strategy that was powerful and deep--it is truly a masterpiece on strategy. Table I outlines the content of Sun Tzu's philosophy in strategy.

Today, Sun Tzu's appeal has extended beyond the military realm into the world of business.

Because business by definition deals with competition, Sun Tzu's principles are ideally suited to competitive business situations. Because business, like warfare, is a contest of wills, dynamic and fast-paced, based on both morale and machines, and deals with the effective and efficient use of scarce resources, many business people across the globe have found value in Sun Tzu's teachings.

Table I System Analysis of Thirteen Chapters of Sun Tzu's "Art of War"

System Analysis of Thirteen Chapter of Sun Tsu's " Art of War"			
System	Characteristics	Chapter	Rules of War
Strategic Thinking	War Guidance	1	Calculations
		2	Doing Battle
		3	Planning Attacks
		4	Formation
Tactical Thinking	The Usage of Army	5	Force
		6	Weakness & Strength
		7	Armed Struggle
	Battle Judgment	8	Nine Changes
		9	Army Maneuvers
		10	Ground Formation
	Special War	11	Nine Grounds
		12	Fire Attacks
		13	Using Spies

Source: (Wang, 1985)

3.2 Current practice

Many Western business people and scholars are searching for inspiration and advice on how to excel in competitive situations from Sun Tzu's "Art of War" (Sawyer, 1994a; 1994b). Wee stated:

The idea of an analogy between the world of business and that of the battlefield is not a novel one. The metaphor is accepted, consciously or not, in such familiar phrases as the US Japan trade war, and a militaristic turn of phrase in the boardroom now borders on being a cliché (Wee *et al.*, 1991).

In reality, Sun Tzu's study is still on the list of highly recommended readings of top Japanese CEOs, the top of the list is Sun Tzu's Art of Business Management, it could be interpreted as follows (Lee *et al.*, 1998). Firstly, understand the actual situation; decide on the plan of action. Secondly, analyze and compare both internal and external conditions, it terms of both negative and positive factors. Thirdly, correct information and proper preparation will help to make a strategic implementation more successful.

3.3 Critique of the Sun Tzu's "Art of War"

Fundamental management texts list three steps in the process of strategic management: 1) the establishment of objectives, 2) the direction of efforts to attain those objectives and 3) the measurement of the results achieved (Anonymous, 1999). In the Sun Tzu's philosophy, most of the contents discuss the process of the establishment of objectives and the direction of efforts to attain those objectives. Sun Tzu's strategy never describes or mentions the details of the measurement, probably because there is only two results of ancient battle, i.e. win or loss.

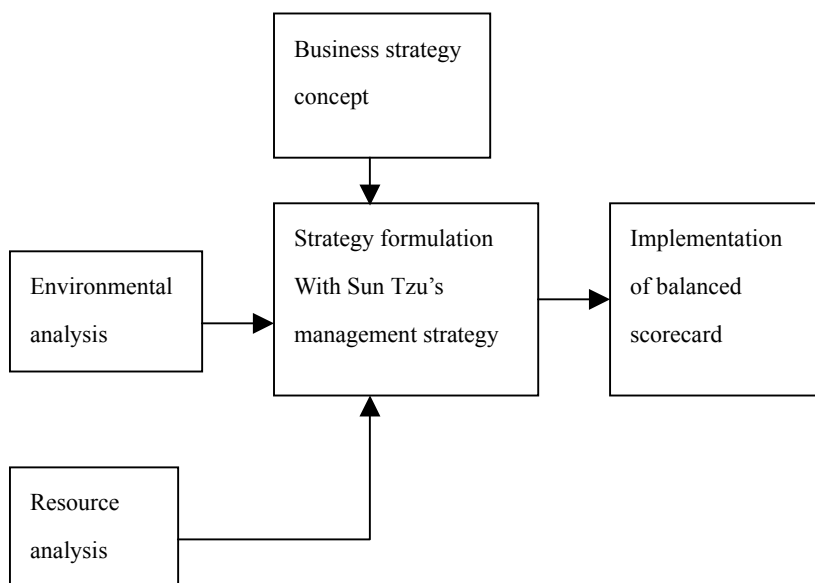
Sun Tzu's philosophy is based on military situations. Without proper interpretation into actual business environment in the modern time, Sun Tzu's strategy is only a theory. A recent article (Lee and Ko, 2000) interpreted and summarized Sun Tzu's military strategy into Sun Tzu's "The Art of Business management Strategies". Appendix A summarizes the content of the article.

4. Creating Sun Tzu scorecard

4.1 Definition of Sun Tzu scorecard

Sun Tzu's business strategy serves as a guide and a tool to achieve two major steps of strategic management: 1) the establishment of objectives, 2) the direction of efforts to attain those objectives. For measurement of result, it can incorporate the BSC. The BSC has already proved to be an effective and efficient business measurement system. Therefore this researcher concludes that the BSC is the best complement of Sun Tzu's strategy. Sun Tzu scorecard then emerges as a complete strategic management system." Figure 2 illustrates the linkage between Sun Tzu's business strategy and the BSC.

Figure 2. Sun Tzu's Business Strategy Links The Balanced Scorecard



Source: Adapted from "Environmental Scanning and Strategic Planning" (Wilson,1990)

5. The Evolution of Sun Tzu scorecard

Martinsons *et al.* (1999) criticize the original BSC for not meeting need to evaluate performance in a holistic manner, and the need to monitor multiple perspectives of the working environment. These authors address the productivity paradox on the application of the BSC to information systems (IS). These authors discover that managers find it difficult to demonstrate tangible returns on IS expenditure because of the fact that IS enhances value in ways that are not captured by conventional input-output accounting measures. Martinsons *et al.* (1999) state that “evaluation methods that rely on financial measures are not as well-suited for newer generations of IT applications” (such as e-commerce) where there is need to include less tangible criteria. Therefore, these authors adapt the traditional scorecard to make it appropriate for IT. The Martinson’s balanced IS scorecard uses the following perspectives to replace the traditional financial, customer, internal and learning perspectives of Figure 1:

- (1) business value (management view);
- (2) user-orientation (end-user view)
- (3) internal process (operational-based view); and
- (4) future-readiness (organizational view).

Table 2 shows the differences and similarities among the scorecards discussed above.

Table 2. The comparison of different scorecards

Kaplan & Norton’s BSC	IS scorecard	Sun Tzu scorecard
Financial perspective	Business value perspective	Competitive advantage perspective
Customer perspective	User-orientation perspective	Market orientation perspective
Internal perspective	Internal process perspective	Internal process perspective
Innovation & Learning perspective	Future-readiness perspective	Future-readiness perspective

5.1 Sun Tzu scorecard

This researcher believes that the BSC’s “financial” and Martinson’s “business value” should be replaced by competitive advantage; while BSC’s “customer orientation” and Martinson’s “user-orientation” should be replaced by market-orientation that gives a broader global view of competition.

The Sun Tzu’s scorecard shown in Figure 3 uses the following perspectives. Table 3 summarizes the Sun Tzu’s thirteen chapters and describes the relationship of each chapter to the four perspectives of BSC.

Figure 3 The Sun Tzu Scorecard

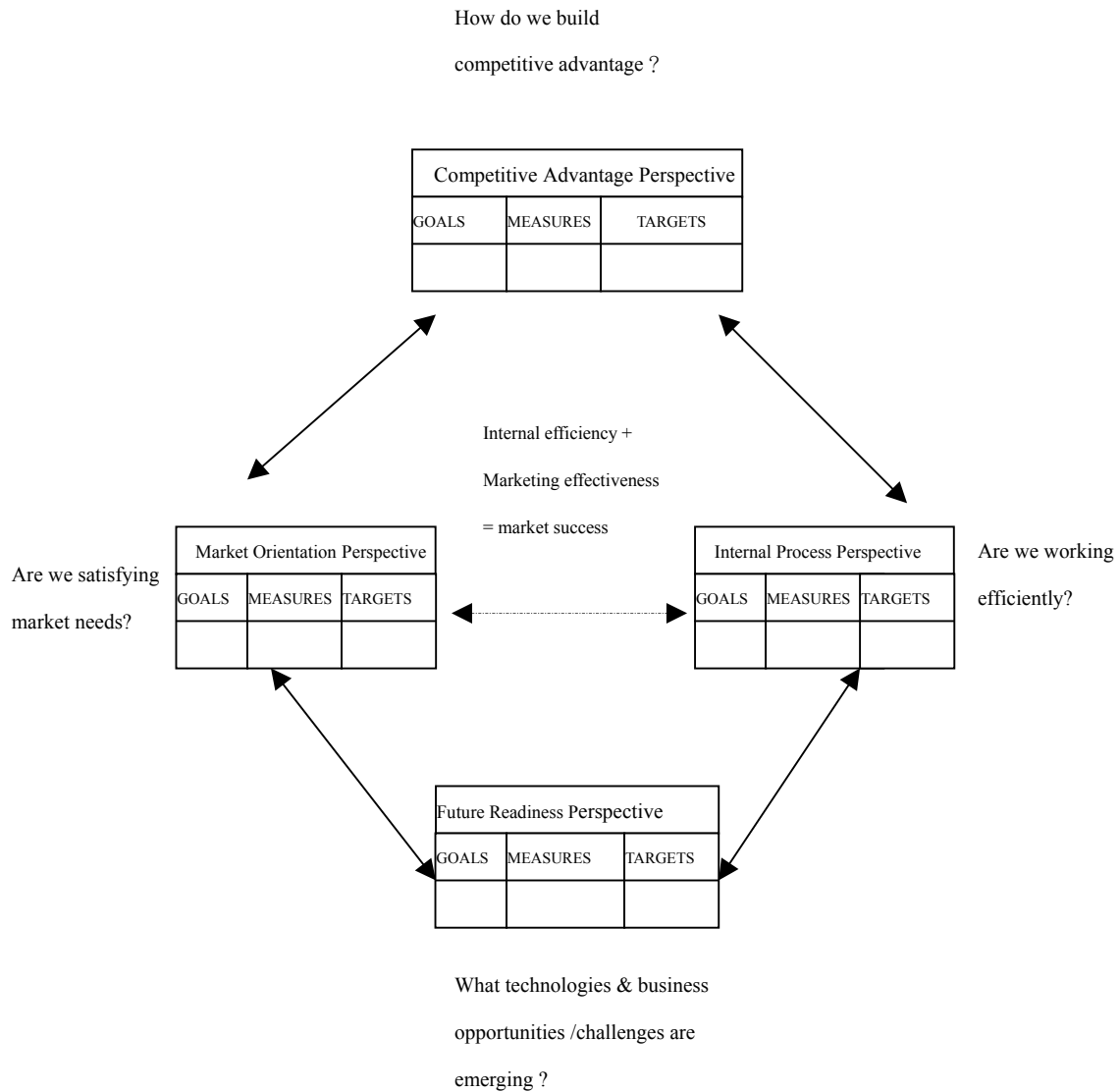


Table 3 Four perspectives of Sun Tzu's BSC

Characteristics	Chapter	Rules of War	Lee and Ko's interpretation of Sun Tzu
Competitive Advantage Perspective	1	Calculations	Planning – planning of strategies
	2	Doing Battle	Resources and competitive actions
	3	Planning Attacks	Competitive strategy and wisdom
Market Orientation Perspective	6	Weakness & Strength	Control – control of market situation & climate
	7	Armed Struggle	Management of conflict and avoidance of confrontation
	9	Army Maneuvers	Observing & maneuvering –
	12	Fire Attacks	Destroying and decision
Future Readiness Perspective	8	Nine Changes	Flexibility and adaptability
	11	Nine Grounds	Competitive conditions and offensive strategy, alliance and vision
	13	Using Spies	Intelligence and information
Internal Process Perspective	4	Formation	Positioning – strengths & weakness estimation
	5	Force	Opportunity, timing and management structure
	10	Ground Formation	Competitive situations and causes of failure

5.2 Four perspectives of Sun Tzu scorecard

(1) Competitive advantage perspective (management view);

The ultimate goal of Sun Tzu is to win the victory in the battlefield. In order to win, the top management must consider all the factors from all perspectives. It requires careful examination of all conditions before achieving the victory.

Sun-Tzu said:

Warfare is a great matter to a nation; it is the ground of death and of life; it is the way of survival and of destruction, and must be examined. Therefore, go through it by means of five factors; compare them by means of calculation, and determine their statuses: One, Way,

two, Heaven, three, Ground, four, General, five, Law. The Way is what causes the people to have the same thinking as their superiors; they may be given death, or they may be given life, but there is no fear of danger and betrayal. Heaven is dark and light, cold and hot, and the seasonal constraints. Ground is high and low, far and near, obstructed and easy, wide and narrow, and dangerous and safe. General is wisdom, credibility, benevolence, courage, and discipline. Law is organization, the chain of command, logistics, and the control of expenses. All these five no general has not heard; one who knows them is victorious, one who does not know them is not victorious.

(Chapter One: Calculations) (Anonymous, 2002)

The five factors that mentioned above could be translated into five factors of competitive advantage perspective in modern business world as illustrated in Table 4.

Table 4. Five Factors of Competitive Advantage Perspective

	Five Factors of Competitive Advantage Perspective
1. Way	Vision, culture
2. Heaven	Opportunities, threats
3. Ground	Strengths, weaknesses
4. General	Management, discipline
5. Law	Logistic, cost control

(2) Market-orientation (marketing view)

Formless

In Sun Tzu's best strategy in market is being "formless". Being formless is to be invisible to enemies, i.e. to keep the company strategy confidential within the organization. All the competitors have no idea to prepare, defend against the attack from the company. It is highest guideline of market orientation perspective.

Sun Tzu said:

Therefore, if the enemy is at ease, be able to exhaust him; if the enemy is well fed, be able to starve him; if the enemy is settled, be able to move him; appear at places where he must rush to defend, and rush to places where he least expects. To march over a thousand li without becoming distressed, march over where the enemy is not present. To be certain to take what you attack, attack where the enemy cannot defend. To be certain of safety when defending, defend where the enemy cannot attack. Therefore, against those skilled in attack, the enemy does not know where to defend; against those skilled in defense, the enemy does not know where to attack. Subtle! Subtle! They become formless. Mysterious! Mysterious! They become soundless. Therefore, they are the masters of the enemy's fate. (Sun Tzu's "Art of War"Chapter Six) (Anonymous, 2002)

First Mover Advantage

In Sun Tzu's view of marketplace, the top management must proactively enter the market before the competitors, which is the effect of the so-called "first mover advantage". The term "first mover advantage" refers to pioneering brands that enjoy long-term market share advantages, along with possible advantages in distribution, product-line breadth, and quality. With the right strategy getting to the market first provides a bonus to the firm. Short-term risks and costs can be set against long-term market share benefits. If an extra 5 per cent market share derived from "first mover" status more than makes up for the extra risks of "pioneering" then getting in first is the right decision (Chen and Pereira, 1999).

Sun Tzu said:

Whoever is first in the field and awaits the coming of the enemy, will be fresh for the fight; whoever is second in the field and has to hasten to battle will arrive exhausted. Therefore the clever combatant imposes his will on the enemy but does not allow the enemy's will to be imposed on him. By holding out advantages to him, he can cause the enemy to approach of his own accord; or, by inflicting damage, he can make it impossible for the enemy to draw near. (Sun Tzu's "Art of War" Chapter 6) (Giles, 1910)

Focus

Porter defines the focus strategy is to build around serving a particular target very well, and each functional policy is developed with this in mind. The strategy rests on the premise that the firm is thus able to serve its narrow strategic target more effectively or efficiently than competitors who are competing more broadly (Porter, 1980). Sun Tzu has the similar view in fighting against the competitors as the follows:

Sun Tzu said:

If our army is at full force and the enemy is divided, then we will attack him at ten times his strength. Therefore, we are many and the enemy few. If we attack our many against his few, the enemy will be in dire straits. (Chapter Six: Weakness & Strength) (Anonymous, 2002)

Movement

Yoffie and Kwak define movement as the one of three principles of Judo strategy. The first key skill is using movement to weaken your opponent's position by destroying his balance. As one early judo expert wrote, "Before an opponent can be thrown there must be movement (Yoffie and Kwak, 2001). Therefore, movement is the first skill to attack which is confirmed by Sun Tzu as the follows.

Sun Tzu said:

To achieve an advance that cannot be hampered, rush to his weak points. To achieve a withdrawal that cannot be pursued, depart with superior speed. Therefore, if we want to do battle, even if the enemy is protected by high walls and deep moats, he cannot but do battle, because we attack what he must rescue. If we do not want to do battle, even if we merely draw a line on the ground, he will not do battle, because we divert his movements. (Chapter Six: Weakness & Strength) (Anonymous, 2002)

(3) Internal process (operational-based view); and

In Sun Tzu's view, it is essential to know all the preparation of both competitors & us. Sun Tzu emphasizes on the conditions of internal process. Sun Tzu already puts SWOT analysis into his strategy.

Sun Tzu said:

If we know that our own men are in a condition to attack, but are unaware that the enemy is not open to attack, we have gone only halfway towards victory.

If we know that the enemy is open to attack, but are unaware that our own men are not in a condition to attack, we have gone only halfway towards victory.

If we know that the enemy is open to attack, and also know that our men are in a condition to attack, but are unaware that the nature of the ground makes fighting impracticable, we have still gone only halfway towards victory.

Hence the experienced soldier, once in motion, is never bewildered; once he has broken camp, he is never at a loss.

Hence the saying: If you know the enemy and know yourself, your victory will not stand in doubt; if you know Heaven and know Earth, you may make your victory complete. (Sun Tzu's "Art of War" Chapter 10) (Giles, 1910)

(4) Future-readiness (organizational view).

Sun Tzu is very concern about the internal readiness for the future. In an ever-changing environment and competitive situation, the top management must carefully observe the external & internal environments and invest heavily on the readiness of the future.

Foreknowledge of competitors

The best strategy to conquer the enemies is to have foreknowledge of them. Sun Tzu emphasizes the "foreknowledge" of enemy and considers it as one of the key success factors of achieving victory.

Sun Tzu said:

What enables the enlightened rulers and good generals to conquer the enemy at every move and achieve extraordinary success is foreknowledge. Foreknowledge cannot be elicited from ghosts and spirits; it cannot be inferred from comparison of previous events, or from the calculations of the heavens, but must be obtained from people who have knowledge of the enemy's situation. (Chapter Thirteen: Using Spies) (Anonymous, 2002)

Alliance

During Sun Tzu time, China was divided into many states. Sun Tzu highlights the important of alliance and says that knowing alliance is one of the important matter of being a ruler.

Sun Tzu said:

Therefore, one who does not know the intentions of the rulers of the neighboring states cannot secure alliances. One who does not know the mountains and forests, gorges and

defiles, swamps and wetlands cannot advance the army. One who does not use local guides cannot take advantage of the ground. One who does not know any one of these matters cannot command the army of a ruler. (Chapter Eleven: Nine Grounds) (Anonymous, 2002)

6. Directions for Future Research

This article is wholly theoretical. The intention with this article is to present a framework to incorporate Sun Tzu's strategy formulation with the measurement of balanced scorecard into one model – Sun Tzu Scorecard. Future studies are needed to empirically examine the following research questions:

Research question 1

What are the key success factors of adopting Sun Tzu Scorecard? Future studies on Sun Tzu Scorecard might consider investigating the key success factors such as managerial support, understanding of Sun Tzu strategy, comfort with new measurement system, etc.

Research question 2

Can Sun Tzu Scorecard be applied to government sectors? Sun Tzu strategy emphasizes more on offending than defending, so does Sun Tzu Scorecard. Most of government sectors are not sensitive to market response. The government sectors are more or less influenced by the opinions of law-makers and officials.

Research question 3

Which scorecards would managers prefer, Sun Tzu Scorecard or balanced scorecard? Future studies might investigate the preference of managers with a questionnaire survey. With the details of two scorecards provided in the questionnaire, managers can express their preference in the survey.

7. Conclusion

The Sun Tzu's scorecard is better than either Kaplan and Norton's BSC or the IS scorecard alone due to the completeness and broadness of scope that any business should pay full attention to. Martinson's IS scorecard (Martinsons *et al.*, 1999) provides a more theoretical view of the application of BSC. While it retains the traditional philosophy of Kaplan and Norton, the IS scorecard replaces the *customer perspective* with the end-user and *financial perspective* with that of business value. Their assumption is that some organizations like IS is not an income generator, but a service provider, which uses IT for the operation of the business. In business reality, there are many organizations' performance can't be measured by traditional financial measurement.

This researcher agrees with Martinson that the BSC is a good design of measurement system, but there is a room for improvement in order to meet the demand and application of all kinds of organizations. Sun Tzu's business strategy is a good complement of the BSC. This paper demonstrates the compatibility of Sun Tzu's business strategy and the BSC, and produce a brand-new framework of Sun Tzu's scorecard. While Sun Tzu scorecard retains the framework

of IS scorecard, the Sun Tzu scorecard replaces the *competitive advantage* with the business value perspective the *end-user* with the market orientation perspective. This researcher believes that instead of building up internal consensus of company strategy, the management should relentlessly build up the competitive advantage by carefully monitor the changes of customer needs and market trend. It is a more holistic view to see the total market instead of the end-user. This researcher believes that end-user is a limited segment of the target market. It is no guarantee that the organization can totally own their end-users if they try their best to satisfy the end-users. The history of IBM tells us the exact story of how a company achieved great success in financial measurements and business value, as well as the customer and end-user, but IBM faced the biggest loss ever, simply because IBM lost its competitive advantage and market to the competitions.

During the late 80's and early 90's, IBM was the dominant market leader in mainframe computing and executed its tactical operations in the market extremely well. However, they had very inefficient strategic direction - characterized most blatantly by being in the wrong business - the mainframe marketplace was not growing at all having reached a stagnant growth rate with the acceptance of the PC in the corporate computing marketplace. IBM's sales force and operational personnel were better than any in the world. Yet, they were in the wrong business - mainframes. This condition would have led to a "slow death". When other computer manufacturers were creating success in developing and selling PC to households, IBM still tried its very best to serve their best end-user i.e. corporate account with mainframe computer. Needless to say, IBM had a huge loss at the beginning of the 1990s. It is the result of targeting the wrong end-users. If IBM had set up its strategy to focus on the total market of computer, it would have been a different story (Johnson, 2002).

Few authors (Lee and Ko, 2000) believe that by first implement SWOT analysis, to develop a set of strategies that makes sense, will serve as a stepping-stone towards the actual implementation of the BSC. Sun Tzu's business strategy already includes the SWOT analysis in its thirteen chapters. The details of strength & weakness are clearly stated in Sun Tzu's "Art of War" Chapter 4 Strengths & Weakness. The contents of threat analysis are described in Sun Tzu's "Art of War" Chapter 8 Nine Changes. The contents of opportunity analysis are described in Sun Tzu's "Art of War" Chapter 11 Nine Grounds.

The creativeness of Sun Tzu scorecard is to apply the best part of Sun Tzu's business strategy, i.e. formulating the strategy by providing the establishment of objectives, as well as the direction of efforts to attain those objectives. The major function of the BSC is still retained, that is to measure the performance of the organizations. Sun Tzu scorecard has great flexibility, and potential for application be done in many more research in other organizations and industries, warranting further research.

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Appendix A.

A translation of Sun Tzu's Art of Business Management Strategies in Strategic Planning into modern business management strategies (Lee and Ko, 2000)

Strategy 1. Planning of strategies, estimation and leadership

- Understand the actual situation; decide on the plan of action.
- Analyze and compare both parties' conditions, both favorable and unfavorable.
- Business is very much related to tactics and strategic planning.
- Right information and proper preparation will help business making a success.

Strategy 2. Resources and competitive actions

- Make a good and realistic estimation on the actual expenses before entering into business.
- Speed and quick decision help in business.. Organization structure should be clear and effective.

Strategy 3. Competitive strategy and wisdom

- Understanding strategy helps to win competition.
- Use wisdom and best strategy instead of aggressive tactics for success.
- Understand the situation and act flexibly.
- Decisions should be taken at appropriate company level - more delegation of responsibility.

Strategy 4. Positioning and targeting, strengths and weaknesses estimation

- Strengthen the internal before competition.
- Attack right to the target and defense keeps top secret.
- Beware of business and situation changes; never be content with the present position.
- Careful planning of the whole situation would enable the business under control.

Strategy 5. Opportunity, timing and management structure

- Good organization helps to define responsibilities.
- Business tactics require flexible managing policy.
- Move quickly to explore business opportunities.
- Offer some advantages and trap by strategy.
- Right person gets the right job.

Strategy 6. Control of market situations and climate

- Keep ahead of competition through innovations.
- Knowing the competitors but not allowing them to know you that enables you to concentrate effectively.
- If one over-diversifies, the business can easily be challenged. Concentrate your effort

when you are strong.

- Even though the competition is keen, the competition can still win by better understanding of the market requirement and prove successful.
- Change constantly according to the changing needs of market situation.
- Business tactics never remain constant and should take any form.

Strategy 7. Management of conflict and avoidance of confrontation

- Business competition is most difficult when confronting competition head-on.
- There is not only disadvantage but also danger in competing for a favorable position.
- Know the potential partner well before entering into joint venture.
- Motivate your people for a common goal through good communication.
- Strengthen the organization and plan business strategies.

Strategy 8. Flexibility and adaptability

- Consider both favorable and unfavorable factors in business.
- Fatal weakness of management should be understood.

Strategy 9. Observing and maneuvering

- Take the best approach during difficult market condition and stay away from difficult situations.
- Get away from dangerous situation as quickly as possible.
- Observe competitors' position and plan strategy accordingly would have better reaction.
- Wait until the situation clears before reentering into market competition. Good and accurate decision makes proper investment in business.
- Thoroughly understand the market situation to avoid potential problem and identify pitfall.
- When a competitor has low morale, it means their leadership is poor. Prestige and authority of senior management are both essential.
- If everyone does what they should do diligently, both the management and workforce will benefit and trust each other and have good relationship.

Strategy 10 Competitive situations and causes of failure

- Gain advantages over the competition when they are unprepared.
- A good manager takes the business advantage without taking personal fame and gain and admitting failure without shirking responsibility.
- Treat your employees as your family and they will share your vision.
- A skilled manager reallocates his resources without losing his direction and purpose.

Strategy 11. Competitive conditions and offensive strategy, alliance and vision

- Market situation can be different according to the way business is conducted.
- By making market alliance, stronger market control and strategy will be obtained.

- Never attack your competitor when your resources are not focused.
- Skilled managers would advance when it was to their advantage and halt when situations were unfavorable.
- Aware of business situation and react speedily and use innovative approaches.
- Align the workforce to the vision of the company.
- Company who does not understand the intention of potential partner cannot form alliance with them.

Strategy 12. Destroying and decision

- Key to success is recognizing good opportunities.
- Always stay ahead of your competitors.
- Remain flexible and adapt in accordance with the changing situations.
- Build on achievement. Never sit on the present situation and continuously keep on innovation.
- A simple mistake could ruin the whole business.

Strategy 13. Intelligence and information

- Ignorance of the competitor's situations is danger that may lead to waste of resources.
- Achieve extraordinary accomplishments by good management of people who clearly understand the market situation.
- Use many ways of gathering information from the market.
- Information gathering is always possible.
- Detailed information of the market is essential.
- Recognize and try to recruit talented people to work for your company.
- Recognize talented people's achievement in your company to achieve great task.