

# The New Balanced Scorecard Evaluation System--With Midea Group Case

Huijuan Lin, Wanxin Li, Yanglin Li

Beijing Institute of Technology Zhuhai Campus, Zhuhai, China

## Email address:

taro\_930@126.com (Huijuan Lin), livisor@163.com (Wanxin Li), 124224699@qq.com (Yanglin Li)

## To cite this article:

Huijuan Lin, Wanxin Li, Yanglin Li. The New Balanced Scorecard Evaluation System--With Midea Group Case. *International Journal of Business and Economics Research*. Vol. 5, No. 4, 2016, pp. 107-112. doi: 10.11648/j.ijber.20160504.15

**Received:** June 26, 2016; **Accepted:** August 1, 2016; **Published:** August 3, 2016

---

**Abstract:** In the 21<sup>st</sup> century global economy and multicultural knowledge economy, business era, the traditional financial performance evaluation is not appropriate for today's enterprise management, and modern enterprise management has entered the era of strategic management. In 1996 years later, the big consulting companies to introduce the balanced scorecard performance evaluation system, through years of practice, most enterprises in our country on the use of the balanced scorecard performance evaluation system, are still in the field of performance evaluation, but the ultimate goal is to build a new performance management system "to achieve strategic direction", in order to ensure successful execution company strategy. Thus, the balanced scorecard is to enhance their strategic execution of the most effective strategic management tool. Based on the review and strategic dimensions of the Balanced Scorecard four-dimensional theory, and emphasized the importance and significance of the strategic dimensions of the Balanced Scorecard. Five dimensions and nineteenth determining factors using AHP weights to the Media group as an example of reasonable and effective verification of the five-dimensional Balanced Scorecard evaluation system constructed which tend to be effective practical tools for enterprises to achieve strategic management.

**Keywords:** Balanced Score Card, Five-Dimensional, Strategy

---

## 1. Introduction

After 1996, through major international consulting firm BSC introduced since then, the domestic consulting industry in its infancy, the Balanced Scorecard (hereinafter referred to as BSC) application did not get widespread attention, only a few international consulting firm to practice, so the domestic local enterprises do not have a greater influence. With the advent of the 21<sup>st</sup> century, human resource management has become a hot topic in the business sector; the concept of performance appraisal is widely understood and accepted. With the increasing emphasis on domestic enterprises the deepening of enterprise senior management performance appraisal reform, BSC put forward and promote the use of performance evaluation of domestic enterprises have a greater impact. And so far 20 years, BSC application in China still remain in the stage performance evaluation stage, in which the ultimate goal of the strategic practice did not achieve widespread use.

Every business is expected to have a thriving, however, most companies because of the lack of scientific management methods can not move forward. For the introduction of advanced scientific management methods, most companies do not understand the essence and core, but the overall identity and all learn eventually lead to BSC's application did not achieve substantial success. Based on the development trend of flat BSC used in the present study presents a five-dimensional BSC performance evaluation system, with emphasis on the importance and significance of strategic management dimensions of BSC. Five dimensions and nineteenth determining factors using AHP weights to the US group as an example to verify the rationality and effectiveness of the five-dimensional BSC evaluation system constructed propose effective practical tools for enterprises to achieve strategic management at the same time, improve performance management and assessment tools more in line with the modern enterprise strategy management needs.

## 2. Literature Review

Robert. S Kaplan and David P. Norton in 1993 and 1996 were published *Balanced Scorecard: "Improve efficiency measure"*, then *"Application of Balanced Scorecard"* and *"Balanced Scorecard for Strategic management system"* three papers, following the publication of a pick entitled *"the Balanced Scorecard: a revolutionary assessment and management system"* and *"the Balanced Scorecard -Conversion of strategic goals"* and other books, so that the theory and method of the Balanced Scorecard to systematize. The balanced scorecard theory is the core of enterprise strategy, which goals and evaluation index are derived from the organization strategy, its vision to the organization's mission and strategy into tangible goals and metrics. The balanced scorecard is a strategic management tool, strategy is the core of the balanced scorecard. [1]

In 1996, Robert. S. Kaplan and David. P. Norton officially published *"The Balanced scorecard Translating strategy into Action"*, a book marking the BSC theory system was officially formed. Robert. S. Kaplan and David. P. Norton subsequently published two books on BSC, further promote the development of the BSC performance management system. In the same year, Robert. S. Kaplan and David. P. Norton in *"Linking the balanced scorecard to strategy"* pointed out, not the financial and non-financial indicators combined evaluation of business performance, constitute a balanced scorecard, balanced scorecard the score card must only be combined with strategy and performance management indicators companies together. The implementation of the strategic management is indispensable to the balanced scorecard, the balanced scorecard is a strategic management under the guide of the balanced scorecard [2].

After Robert. S. Kaplan and David BSC theoretical framework. P. Norton studied, other scholars have joined the ranks of research BSC. In 2002, the "concrete steps to implement the Balanced Scorecard" is Paul. R. Niven after Robert. S. Kaplan and David. P. Norton published writings, the BSC performance management system in the practice of specific operational level [3].

In the same year, David Tarantino will introduce Analytic Hierarchy Process to BSC four dimensions calculation, we explain how to calculate the index weight coefficient and BSC four dimensions weight and so on. In 2004, Geert J. M. Braam and Edwin J. Nijssen empirical findings, BSC itself does not automatically improve business performance, but how to use the BSC will have different effects on corporate performance [4]. It can be seen, BSC for evaluating corporate performance management of a utility, its role may not be that big, but good use of entrepreneurs but will bring unexpected results [5].

In 2007, well, Yang Juan in *"The Balanced Scorecard and trends"* in the BSC discussed the use of misunderstanding, not necessarily in the article indicates that the four dimensions of BSC Kaplan initially set to build, and has never Kaplan He stressed the BSC model can only learn and

grow four dimensions to think about or implemented [6] from a financial, customer, internal processes and operations.

2009 cattle Yamin his article *"Relationship corporate performance management tools and strategies,"* in-depth analysis of the commercial relationship Balanced Scorecard performance management tools and business strategies between, and further proposed Strategic Performance Management Balanced Scorecard, Balanced Scorecard scorecard performance management also noted that the construction of the contents of [7].

2015, Liu Fei Ran, Gao shuang in the *"Balanced Scorecard Review and Prospects"* in the inadequacies of BSC presented their views. The article shows that, at this stage, many Chinese enterprises affected by a number of domestic consultants, which they touted the Balanced Scorecard in the "four dimensions, four balance" concept misled [8].

## 3. Hypothesis

BSC application is a worldwide problem, though BSC widely in Western countries, but in the case of successful application, but very few, and because domestic BSC performance system is not complete, so the application is not satisfactory. In view of this, the present study a new perspective to build a five-dimensional model of BSC, and put forward the hypothesis that the four-dimensional

## 4. Construction of the Model

### 4.1. Establishment of AHP Matrix

A target layer is the successful implementation of a business strategy targeting criterion layer B {B1, B2, B3, B4, B5} are the new BSC of financial, customer, business operations processes, learning and innovation and strategic five dimensions, schemes layer C {C11-14, C21-24, C31-34, C41-44, C51-53} specific secondary indicators under the five dimensions.

### 4.2. Construction of Judgment Matrix

Judgment matrix is factor analysis system, at the level of guidelines for pairwise comparisons of the same layer as the level of each element of an important relationship. Due to the characteristics of enterprise performance evaluation system involving multiple dimensions, multiple levels, multiple indices and the relative weight of each index susceptible to various aspects, so according to five-dimensional model of the BSC performance system and Midea Group 2013- the actual 2015 data, we use AHP to confirm the right of each index weight, and calculates the index value is determined geometric mean is then normalized vectors, first to calculate the maximum value of the maximum features with judgment matrix consistency index CI (consistency Index) judgment matrix was established. In order to determine the multi-order matrix, the average range of random indicators, namely, consistency means R. I. (Random Index). In the calculation of random consistency ratio CR (Consistency Ratio), the test

is determined consistency thinking that with  $CR = CI / RI$ , where  $CI = (max-n) / (n-1)$ ,  $RI$  values can be judged according to Comparative.

Table 1. R. I. value.

Index	1	2	3	4	5	6	7
R. I.	0	0	0.58	0.9	1.12	1.24	1.32
Index	8	9	10	11	12	13	14
R. I.	1.41	1.46	1.49	1.52	1.54	1.56	1.58

4.3. Consistency Test Results

After the judgment matrix is built, the need for consistency check matrix, each matrix is determined by whether the test.

4.4. All Levels Index Weight and Overall Goal Weight

With respect to the right of the target weight to calculate the total index,  $W_{ij} = W \times W_i$ . Specific methods: The first objective judgment matrix layer, the first layer to determine the weight of the index weight weights financial, customer, internal operational processes, learning innovation and strategic management level, five-dimensional BSC

Performance Evaluation System corresponding judgment matrix constructed; give the second layer weight program (measures) layer weight; and finally multiplied by the corresponding element of each weight by weight, relative to the rear to give in terms of the weight of the overall weight, the weight of each indicator of the series re-calculated by weight, to form a five Victoria Midea Group BSC performance Evaluation system model.

4.5. Comprehensive Performance Evaluation

First, determine the directional indicators, then the geometric mean of each index were standardized, calculated as  $Y = (X - \bar{X}) / SD$ , where  $X$  is the actual value 2015,  $(\bar{X})$  for the 2012--2014 and Midea Group geometric mean of three years, the standard for all samples  $SD$  index difference; evaluation verified by financial statements for 2015 home appliance industry. Finally, calculate the 2015 scores and overall performance scores, and BSC in four-dimensional model, using the same method to calculate the 2015 scores and overall performance scores.

Table 2. 2015 Midea Group Performance Evaluation System Table (five-dimensional model BSC).

Target layer	Layer Guidelines W (%)	Programme layer	Specific indicators	Wi (%)	Wij=W*Wi (%)	The actual value of 2015	The average value between 2012 and 2014	Standardization results	Performance scores (%)
Vision and Strategy	Financial dimension (29.49)	Solvency	Current ratio=current assets/current liabilities	29.95	8.83	1.3	1.14	4.28	37.77
			Quick ratio=liquid assets/current liabilities			1.15	0.9	4.06	22.50
			Asset-liability ratio=total liabilities/total assets			56.51	61.29	-4.21	-48.30
			Turnover ratio=turnover/average balance of assets			44.66	58.03	-1.99	-11.04
	Operational capability	Calculation of turnover=Days/turnover day=average balance of assets * Calculation of day/turnover	18.81	5.55	323.92	287.74	2.07	23.77	
		Profitability	Operating margin=operating profit/revenue*100%	38.89	11.47	10.77%	8.01%	2.49	28.61
	Capacity development	Revenue growth=Current year operating income increased volume/revenue last year*100%	12.35	3.64	-2.28%	11.60%	-1.66	-6.04	
	Customer satisfaction	The customer satisfaction survey is the number/number of customers surveyed*100%	39.43	4.20	97.37%	97.48%	0.14	-0.58	
	Customer dimension (10.65)	Customer Retention	Continue to and from the customer/old customer number*100%	19.69	2.10	85.45%	86.77%	1.62	-3.39
		Market share	Total business of the industry/business sectors with the total*100%	8.15	0.87	33.58%	36.02%	0.80	-0.70
	Internal operational processes (14.14)	Leading service time	Leading service time=After-sales service staff time/total staff working time*100%	32.37	3.45	20.13	24.45	4.79	-16.52
		New product development in the amount of	Fiscal year the number of development new product (1-5 points)	26.08	3.69	4	3.33	1.41	5.22
		Market research quality	Several times a year if market research (1-5 points)	18.64	2.64	3.5	3.17	1.41	3.73
		Management	Various functional management	7.13	1.01	4	3.83	0.27	0.27

Target layer	Layer Guidelines W (%)	Programme layer	Specific indicators	Wi (%)	Wij=W*Wi (%)	The actual value of 2015	The average value between 2012 and 2014	Standardization results	Performance scores (%)
		functions	responsibilities are clear (1-5 points)						
		The completion of the company's strategy	Whether the performance of various departments around the company's strategy is complete, you can clearly determine whether completion (1-5 points)	48.16	6.81	4	4.17	0.71	-4.82
		Innovation Efficiency	New product innovations volume/total income amount×100%	49.34	3.18	57.00%	0.63%	1.17	-3.71
	Innovation and Learning (6.45)	Employee Satisfaction	Employee Satisfaction Survey is the number/total number of employees surveyed×100% (Annual average number of employees - turnover number)/total annual number of employees×100%	8.04	0.52	93%	92%	1.46	0.76
		Staff retention	The annual total number of hours of training organization/the total number of bank employees×100%	30.25	1.95	87%	86%	0.53	1.04
		Staff training efficiency	SO, WO, ST, WT strategy and performance evaluation of the degree of matching (1-5 score)	12.37	0.80	20.84%	19.29%	3.51	2.80
	Strategic Management (39.27)	SWOT	FP, CP, SP, IP performance evaluation of each situation and the degree of matching (1-5 score)	55.00	21.60	4	3.67	1.41	30.54
		SPACE	Corporate strategic objectives fall into each quadrant score (1-5 score)	20.98	8.24	3.5	3.17	1.41	11.65
		GSM		24.02	9.43	4	3.83	0.71	6.67
Integrated scores									80.24

Table 3. 2012-2014 Midea Group Performance Evaluation System Table (five-dimensional model BSC).

Target layer	Layer Guidelines W (%)	Programme layer	Specific indicators	Wi (%)	Wij=W*Wi (%)	The actual value of 2015	The average value between 2012 and 2014	Standardization results	Performance scores (%)
Vision and Strategy	Financial dimension (53.17)	Solvency	Current ratio=current assets=current liabilities			1.3	1.14	4.28	36.20
			Quick ratio=liquid assets=current liabilities	15.92	8.46	1.15	0.9	4.06	34.33
		Operational capability	Asset-liability ratio=total liabilities=total assets			56.51	61.29	-4.21	-35.65
			Turnover ratio=turnover=average balance of assets			44.66	58.03	-1.99	-10.58
	Customer dimension (16.58)	Profitability	Calculation of turnover=Days=turnover day=average balance of assets*Calculation of day=turnover	10.00	5.32	323.92	287.74	2.07	11.02
			Operating margin=operating profit=revenue×100%	20.68	11.00	10.77%	8.01%	2.49	27.43
		Customer Retention	Revenue growth= Current year operating income increased volume=revenue last year×100%	6.57	3.49	-2.28%	11.60%	-1.66	-5.79
			The customer satisfaction survey is the number=number of customers surveyed×100%	5.43	0.90	97.37%	97.48%	-0.14	-0.12
	Market share	Continue to and from the customer=old customer number×100%	6.54	1.08	85.45%	86.77%	-1.62	-1.75	
		Total business of the industry=business sectors with the total×100%	3.26	0.54	33.58%	36.02%	-0.80	-0.43	

Target layer	Layer Guidelines W (%)	Programme layer	Specific indicators	Wi (%)	Wij=W*Wi (%)	The actual value of 2015	The average value between 2012 and 2014	Standardization results	Performance scores (%)
Internal operational processes (22.09)		Leading service time	Leading service time=After-sales service staff time÷total staff working time×100%	1.35	0.22	20.13%	24.45%	-4.79	-1.07
		New product development in the amount of	Fiscal year the number of development new product (1-5 score)	10.29	2.27	4	3.33	1.41	3.21
		Market research quality	Several times a year if market research (1-5 score)	4.07	0.90	3.5	3.17	1.41	1.27
		Management functions	Various functional management responsibilities are clear (1-5 score)	1.61	0.36	4	3.83	0.27	0.10
		The completion of the company's strategy	Whether the performance of various departments around the company's strategy is complete, you can clearly determine whether completion (1 - 5 score)	6.12	1.35	4	4.17	-0.71	-0.96
Innovation and Learning (8.16)		Innovation Efficiency	New product innovations volume÷total income amount×100%	4.02	0.33	57%	63.33%	-1.17	-0.38
		Employee Satisfaction	Employee Satisfaction Survey is the number÷total number of employees surveyed×100% (Annual average number of employees - turnover number)÷total annual number of employees×100%	0.66	0.05	93%	92%	1.46	0.08
		Staff retention	The annual total number of hours of training organization÷the total number of bank employees×100%	2.47	0.20	87%	86%	0.53	0.11
		Staff training efficiency		1.01	0.08	20.84%	19.29%	3.51	0.29
Integrated scores									62.74

### 5. Conclusion

Based on the studies, with the US group relatively objective data to verify the five-dimensional BSC performance evaluation model and found that it can be more objective and correct analysis of the presence of the US group the advantages and disadvantages, the results have a certain rationality and science. However, in calculating the index value, the process is quite complicated, strong representation, not all the indicators are applicable to the US group, and from the US group's own performance evaluation system developers wood has a good effect on other businesses that have a certain reference.

Are the strategic objectives can be effectively implemented in the enterprise is an important factor in business success or failure of a pivotal, investors determine the enterprise value of the most important non-financial factors. In the commercial competition, BSC, as a practical management tool has been from the beginning of the strategic management of performance appraisal of use, especially in the field of implementation of the strategy, can effectively and objectively provide constructive advice to companies to achieve the vision.

First, the five-dimensional BSC Performance Evaluation System compared to the four-dimensional BSC performance

evaluation system can better help enterprises to implement strategic objectives. It is the realization of a practical business management tools corporate strategic goals landing. At the same time, it will play the greatest role in BSC's effectiveness.

Second, the five-dimensional BSC Performance Evaluation Model of enterprise strategic management dimension as the core, according to the various stages of the implementation of mobilization layers expand to corporate strategic goals for the center.

Third, the five-dimensional BSC performance evaluation system can help enterprises solve problems and evaluate the implementation of the strategy, managers should be even more strategy execution processes and methods consistent with the actual situation of enterprises in-depth study, so that the implementation of the strategy can be effectively carried out.

Four, five-dimensional BSC performance evaluation system in the practical operation, the various departments need to work together to take advantage of the various departments. Therefore, in the actual application, business managers should make full use of the advantages of BSC, so that various departments and employees at all levels to understand its value in order to achieve corporate strategic objectives, rather than determine the salaries of personnel performance evaluation bonus purposes. Reduce staff concerns, reduce obstacles to the use of BSC, otherwise, to

promote the use of BSC difficult to achieve results.

The strategic dimension integrated into enterprise performance evaluation system is the need for strategic management, corporate strategic management is an effective use of tools. Corporate vision affected corporate strategy, corporate stakeholders such as multiple factors, the evaluation system must pay attention to improve their core competence and ability to innovate, improve enterprise operational processes, emphasis on the needs and customer value, improve learning ability and creativity of staff, so corporate strategic objectives can be successfully achieved.

---

## References

- [1] Yang Juan Balanced Scorecard and Its Development Trend [D] Shijiazhuang: Shijiazhuang University of Economics, 2007.
- [2] Kaplan, David Norton. The Balanced scorecard-Translating Strategy into Action [J]. Harvard Business Review. 996: 9-10.
- [3] Jeffery. The search for the best financial performance measure [J]. Financial Analysis. 1997 (53): 6-7.
- [4] Baolijia consultant strategy implementation - Balanced Scorecard Design and Practice [M] China Social Sciences Press, 2003: 11-14.
- [5] Niu Yamin, Based on the Balanced Scorecard performance management system construction [J]. Modern Business Trade Industry, 2009, (12): 23-25.
- [6] Liu Feiran, Gao shuang. Balanced Scorecard Review and Prospects [M] Market Modernization, 2015 (24): 214-215.
- [7] Sun Xiaojie Business stakeholders and legal regulation [J]. 006: 48-49.
- [8] Wang Qunying, Internal Audit and Risk Management [J] Chinese Chief Accountant, 2011, (23): 87-88.
- [9] Zhang Jiannan. Balanced Scorecard Research [D] in our Dalian: Dalian Jiaotong University, 2010.
- [10] Chen Weirong. BSC based performance evaluation system of corporate strategic analysis and application of [D] Shanghai: Central China Normal University, 2013.
- [11] Zhang Bin. Establish design ideas and indicators of enterprise performance evaluation system [J] Commercial Research, 2003, (23): 41-45.
- [12] Zeng wenting, Deng Yunxian, Yang baoling. The use of the balanced scorecard in Lenovo group from performance management to strategic management [M] Market week-ly, 2016, (1): 23-26.
- [13] Wu yicheng. JC group based on the balanced scorecard strategic management system to build [M]. The second half of the financial economy. 2016, (2) 160-161.