

The Construction of Corporate Performance Evaluation System for Chinese Listed Companies Based on Balanced Scorecard

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Abstract

This article aimed to study the problem that corporate performance evaluation of Chinese listed companies pays too much attention to financial indicators, and the performance evaluation fails to take into account both the immediate interests and the long-term balanced development of enterprises. To solve this problem, this study constructed a corporate performance evaluation system for Chinese listed companies based on the theory of balanced scorecard, which constructed a total of 9 indicators from 4 dimensions, namely, financial dimension, customer dimension, internal business process dimension, and learning and growth, and utilized the system in combination with the example of A company. The data for this research came from the databases of China Securities Network and China Knowledge Network, and the following results can be obtained by constructing the evaluation system through the indicator weighting method and descriptive statistical analysis of the data:

First, the use of financial and non-financial indicators to evaluate the performance of the enterprise could reflect the performance of the enterprise more comprehensively, which is more conducive to the implementation of the strategic objectives of the enterprise.

Second, the balanced scorecard was conducive to strengthening the internal value chain management of the enterprise, which could further optimize the internal operation process of the enterprise and strengthen the internal governance efficiency of listed companies.

Third, the results of this study also implied that listed companies should not only focus on immediate financial data, but that non-financial data should play a more important role in the formulation and implementation of corporate strategic objectives. A comprehensive and integrated financial evaluation index system could enhance the long-term and lasting competitiveness of enterprises and promote their sustainable development.

Keywords: balanced scorecard; performance evaluation; financial indicators; corporate strategy

Introduction

Over the past 20 years since China's accession to the World Trade Organization, the scale of Chinese listed companies has developed rapidly along with the integration of China's economy and trade with the world. However, in the continuous development of Chinese listed companies, a series of problems in performance evaluation have been gradually exposed, for example, most of the listed companies' performance evaluation is based on financial indicators, which cannot take into account the current development trend of high technology and diversification (Ma, etc., 2016). Some listed companies have problems with the relevance of the performance evaluation subject and the orientation of the evaluation results (Yan, 2022). The performance evaluation method is unreasonable, which leads to the strategic objectives of listed companies can not be closely integrated with the daily operation of the company, and the strategic measures can not be effectively implemented. Constructing a scientific and effective enterprise performance evaluation system for listed companies in China can not only optimize the enterprise management process of listed companies, improve the efficiency of enterprise management, and promote the sustainable development of the enterprise, but also help the enterprise managers to make the correct strategic decision of enterprise development according to the current performance status and enhance the competitiveness of the enterprise.

With the development of the information society, the traditional practice of relying on the integration of new technologies into physical assets and strengthening the management of financial assets and liabilities can no longer gain a sustainable competitive advantage. In the information age, the development of information technologies such as the Internet of Things, big data, and artificial intelligence requires listed companies to have new capabilities to efficiently utilize their intangible assets, reasonably evaluate corporate performance and formulate corporate strategies. For Chinese listed companies in particular, there is a need for a new way of evaluating corporate

performance that balances long-term strategic development and short-term development goals. Currently, there is a lack of academic research in this area.

To enhance the scientific nature of corporate performance evaluation and solve the problems of over-emphasis on financial indicators in corporate performance evaluation and the inability of performance evaluation to balance immediate interests and long-term development, in the early 1990s, Robert and David (2004) of the Harvard Business School designed a new method of organizational performance management, the Balanced Scorecard (BSC). The BSC breaks down the strategic objectives of an organization layer by layer into a specific and mutually balanced performance appraisal system, evaluates the performance of an organization from four perspectives: financial, customer, internal business process, learning, and innovation, and realizes the balance between strategic management and internal governance, financial and non-financial indicators, and outcome and motivation indicators. The Balanced Scorecard provides an effective path for Chinese listed companies to build a scientific performance evaluation system. This study will use the balanced scorecard as the main theoretical foundation and take Company A, a listed company in China, as a case study to construct a performance evaluation index system based on the balanced scorecard for listed companies in China.

Research Objectives

- 1) To construct the corporate performance evaluation system of Chinese listed companies based on the balanced scorecard.
- 2) Take Company A listed in China's A-share market as an example to evaluate its business performance.

Literature Review

Theoretical Foundations and Background Discussion

1) Theory of enterprise performance evaluation

Enterprise performance refers to the enterprise's operating efficiency and operator performance during a certain operating period. According to Lu (2012), the main body of enterprise performance evaluation in China can be categorized into four types: government evaluation, social evaluation, enterprise group internal evaluation, and enterprise self-evaluation. Wang (2019) analyzes the current situation of enterprise performance evaluation in China, taking the performance evaluation theory and the performance evaluation methods used by Chinese

enterprises as the starting point. She believes that enterprise performance evaluation indexes should be objective, reasonable, and scientific in the process of formulation and implementation, and should not be mixed with the subjective consciousness of managers. Each of the above performance evaluation methods has its advantages and disadvantages, and the performance evaluation theory based on the balanced scorecard was born based on reflection and improvement of the traditional performance evaluation theory, which is an important performance tool to enhance the utilization rate of the intangible assets of the enterprise in the era of information technology, to strengthen the implementation of corporate strategy landing and implementation, and to promote the sustainable development of the enterprise.

2) Sustainable development theory

The theory of sustainable development emphasizes the coordinated development of man and nature. The theory holds that sustainable development is a process of change in which the development of resources, the direction of investment, the direction of technological development, and institutional changes are coordinated with each other (World Commission on Environment and Development, 1997). At present, to cope with the common problems faced by all mankind such as climate change, "carbon peak" and "carbon neutral" have become the consensus and the road to global green development, and enterprises have been paying more and more attention to sustainable development, and the theory of sustainable development has been integrated into the performance evaluation system of many listed companies. The theory of sustainable development has been integrated into the performance evaluation system of many listed companies. Zhang (2014) constructed an enterprise performance evaluation index system based on the concept of sustainable development, and she believed that the main factors affecting the sustainable development of an enterprise include social environmental impact, internal enterprise impact, natural environmental impact, and other factors and that the enterprise must continuously improve its technology, reduce its energy consumption, and increase its energy utilization rate to comply with the development of society. The core idea of the balanced scorecard coincides with the concept of sustainable development. The idea of balancing financial and non-financial indicators, and balancing long-term and short-term goals in the balanced scorecard is a concrete embodiment of the concept of sustainable development in the evaluation of corporate performance. For Chinese listed companies, sustainable development is not only the strategic pursuit of the enterprise but also the enterprise optimizes the internal industrial chain management, insists on energy saving and emission reduction, and actively fulfills social

responsibility, etc. The concept of sustainable development is carried through them. It can even be said that the balanced scorecard, a performance evaluation tool, has also been developed and improved in line with the concept of sustainable development.

3) Theory of Strategic Management

Strategic management is the process of making decisions and managing the global and long-term development direction, goals, and tasks, as well as resource allocation of an enterprise. Since 1965, when Ansoff published his first book on strategy, *Corporate Strategy*, strategic management has become the starting point of business management research (Xu and Wang, 1999). According to Henry, etc (2014), competitive advantage is to be found from within the firm, by tapping into the value chain of the firm's internal resources and creating resources that are exclusive and scarce to the firm. The balanced scorecard focuses on the enterprise's financial and non-financial indicators, tangible and intangible asset indicators, focuses on creating a complete chain of cause and effect relationships within the enterprise so that the enterprise in the realization of the long-term strategic objectives under the premise of its resources combined with the balanced scorecard's four dimensions of the scientific configuration, which makes the balanced scorecard has a dual function of performance evaluation and strategy implementation.

Balanced Scorecard

Evaluation Metrics of the Balanced Scorecard

The Balanced Scorecard measures business performance in four dimensions: financial, customer, internal business processes, and learning and growth (Robert and David, 2004). Each metric in the four dimensions of the Balanced Scorecard is a link in a chain of cause and effect, mutually causative and driven by each other, ultimately pointing to improving the financial performance of the organization. Among these four dimensions, the financial dimension belongs to the traditional enterprise performance evaluation indicators, but because the financial indicators are only a measure of the financial situation that has already occurred, they cannot evaluate the future performance development of the enterprise. Therefore, the Balanced Scorecard adds non-financial indicators in the other three dimensions as indicators of future performance drivers to make up for the shortcomings of the financial indicators.

Financial Dimension. There are two considerations for the setting of financial dimension indicators, one is to be able to measure the financial and economic status of the enterprise in the past period, and the other is that the indicators of the financial dimension are the ultimate pursuit of all the indicators. For listed companies, their financial indicators can be different at different

stages of development. Generally speaking, the main financial indicators are total assets growth rate, net income, earnings per share, economic value added, etc. As a listed company, the specific choice of which financial indicators should be determined in conjunction with the current strategic objectives of the enterprise and the process of strategy implementation.

Customer dimension. Customers, as the most important stakeholders of the enterprise, are the most important service objects of the enterprise, maintaining existing customers and identifying potential markets are the main elements to be considered in the customer dimension. The main indicators of customer dimension are market share, customer retention rate, customer acquisition rate, customer satisfaction, and so on.

Internal Business Process Dimension. Internal business processes are set up based on the optimization of the internal process value chain, which aims to improve the efficiency of corporate operations and the effectiveness of internal governance. Indicators of internal business processes include innovation processes, operational processes, after-sales service processes, etc.

Learning and Growth Dimension. Human resources, as the largest capital of an enterprise, are directly related to its operational performance. Enhancing employee training and improving employee innovation is the main dimension of the Balanced Scorecard. The learning and growth dimension is mainly evaluated through the indicators of employees' work and innovation ability, information system ability, motivation, and collaboration.

Advantages of the Corporate Performance Evaluation System for Listed Companies Based on the Balanced Scorecard

1) Balancing the current development of the enterprise and focusing on corporate strategy

The balanced scorecard can not only measure the current financial situation of the enterprise but also can take into account and focus on the implementation and promotion of corporate strategy, the balanced scorecard has evolved into a strategic tool for enterprises. According to Robert and David (2008) in "Strategy-Centered Organizations – The Winning Strategy of the Balanced Scorecard", all the metrics in the Balanced Scorecard are derived from the organization's vision and strategy. Through the creation of a strategy-centered organization, it can realize the focus and synergy of corporate resources, and enhance the efficiency of the utilization of resources such as employees, funds, technology, processes, business units, etc., to achieve the strategic goals of the enterprise.

2) Balancing corporate financial and non-financial indicators

Although financial indicators reflect the financial data of enterprises that have passed, short-term financial indicators are more likely to be adopted by listed companies because they can more intuitively reflect the short-term performance of enterprises, and this financial indicator coincides with the traditional evaluation based on accounting information (Robert and David, 2004). These reasons have led to the neglect of non-financial indicators, such as long-term corporate sustainability and corporate strategy implementation, by some companies (Liu, 2023). The balanced scorecard takes the pursuit of corporate profitability and financial performance as the ultimate purpose in the design of indicators and selects financial and non-financial indicators with cause and effect relationships, which can maximize the transformation of corporate strategy into daily corporate actions, gather all resources of the enterprise, and promote the realization of strategic objectives.

3) Beneficial to the optimization of listed companies' internal management process

As the basis of daily operation and management, the degree of optimization and operational efficiency of listed companies' internal management processes are closely related to corporate performance. The Balanced Scorecard emphasizes the establishment of a completely internal process value chain, and the objectives of these internal process value chains are based on the corporate strategy expected by shareholders and target customers, taking into account the strategic objectives, financial objectives, and risk management objectives of the enterprise, and accordingly providing a comprehensive measurement of corporate performance (Robert and David, 2004). In addition, the indicators of the four dimensions of the balanced scorecard are both independent and interrelated with each other and have inherent causal links, which play an important role in strengthening the efficiency of the internal governance of listed companies.

Scope of application of the corporate performance evaluation system of listed companies based on the balanced scorecard

The Balanced Scorecard details the strategic objectives of listed companies into measurable and specific indicators in four dimensions: finance, customer, internal operation, learning, and growth. "Balanced" in a balanced scorecard means balancing financial and non-financial performance, balancing corporate strategy and daily operations, balancing departmental performance and corporate performance, and motivating teamwork and employee participation, etc., to provide strong support for the strategic development and strategic management of the

enterprise. This aspect is also the biggest difference between the balanced scorecard and the Wall score method, the economic value-added method, and the key performance indicator method.

The balanced scorecard is highly applicable and flexible, not only to listed companies in China but also to other companies and organizations. This is because the setting of the indicators of the four dimensions of the balanced scorecard is flexible, and listed companies can set them according to their corporate strategic goal-setting and implementation, as well as their financial characteristics. The balanced scorecard evaluation index system constructed in this study based on the situation of Chinese listed companies can be said to have filled the gap of research in this area to a certain extent.

Conceptual Framework

Construction of Corporate Performance Evaluation System for Chinese Listed Companies Based on Balanced Scorecard

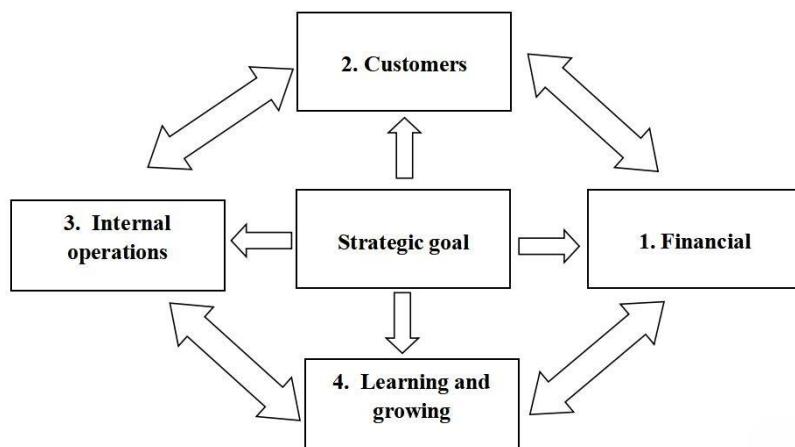


Fig.1 Dimensions of the Balanced Scorecard

The balanced scorecard measures the business performance of an enterprise in four dimensions: finance, customers, internal business processes, learning, and growth, and the ultimate point of its index system is to create profits. This part of the construction of the corporate performance evaluation system of Chinese listed companies based on the balanced scorecard is mainly based on the theory related to the balanced scorecard and adopts the literature method for the selection of indicators. By searching the contents of China Knowledge and other databases about the balanced scorecard performance evaluation system of Chinese listed companies, and

comparing and analyzing the literature, the key indicators of each process of the balanced scorecard are identified.

1) Financial Dimension

Profitability is one of the most important indicators to measure the economic performance of enterprises. Jiang (2015) evaluates the intangible assets of listed companies through the weighted average return on assets and believes that this method can integrate the intangible assets of listed companies as part of the overall assets of the enterprise into the return and risk of the enterprise's assets, and can truly reflect the discount rate of the enterprise's intangible assets. It can be seen from the above studies that many researchers have attached great importance to the profitability and sustainability of the enterprise, given this, this study defines the financial indicators from the perspectives of profitability, solvency, and operational capacity, and identifies the financial indicators as: earnings per share, gearing ratio, and weighted average return on net assets.

2) Customer dimension

The customer dimension of a listed company is determined based on the listed company's market segments. Robert and David (2004) identified the core group of customer measures as market share, customer retention, customer acquisition, customer satisfaction, and customer profitability, and they argued that firms can modify these metrics according to their financial objectives. Based on the above analysis, this study categorizes customer dimensions into customer satisfaction and customer retention rate.

3) Internal Business Process Dimension

Robert and David (2004) created the internal business process value chain model, which consists of three main business processes, namely, the innovation process, operation process, and after-sales service process. To improve customer satisfaction, enterprises should first solve the product production problem from the enterprise operation dimension, for which they can optimize the internal business process through the research and development of new technology and new products. Li and Zhang (2022) argues that enterprises improve product quality and develop new products through R&D innovation, and express the effectiveness of enterprise R&D in terms of the new product conversion cycle, and she identifies the internal business process indicators as the new product conversion cycle, inventory turnover, cost and expense ratio, and other indicators. The above scholars have attached great importance to the creation of the internal process value chain, based on the research of related scholars, this study identifies the internal business process

indicators as accounts receivable turnover, and inventory turnover. Because the accounts receivable turnover rate reflects the turnover speed of enterprise accounts receivable, the higher the rate, the faster the turnover speed of accounts receivable, and the short-term solvency of the enterprise will be strengthened; inventory turnover rate measures the efficiency of inventory operation in all aspects of production and operation of the enterprise, and the higher the efficiency, the better the ability of the enterprise to realize its assets, and the faster the speed of capital turnover.

4) Learning and Growth Dimension

The learning and growth dimension is an important foundation for other dimensions of the balanced scorecard. Human resources, as the most valuable resources of the enterprise, can only provide a constant internal driving force for the development of the enterprise by enhancing the learning ability of the enterprise employees and promoting their continuous growth. Li and Zhang (2022) believe that in the era of big data, the learning ability of enterprise employees is very important, and she measures the learning and growth dimension from indicators such as employee training fees, the proportion of enterprise R&D personnel, and the ratio of enterprise R&D investment. Yi and Xu (2023) argued that in the context of increasing labor costs in enterprises, in the learning and growth dimension, enterprises should aim to increase the number of R&D and technical layer personnel, control employee turnover, etc., to encourage employees to innovate and promote the long-term development of enterprises. Based on this, for the learning and growth level, this study measures the indicators of the percentage of highly educated employees and the ratio of R&D investment to operating revenue.

Research Methodology

- 1) To construct a corporate performance evaluation system based on the balanced scorecard for listed companies in China, this study first adopts the literature method by obtaining relevant literature on platforms such as the China Knowledge Network database and then combs through the main indicators to construct the index system of this study and analyze the advantages of this index system.
- 2) This study adopts the case method to analyze the feasibility and necessity of implementing the balanced scorecard in Company A, which is listed in China's A-share market, as an example, to verify the effectiveness of the evaluation index system constructed in this study.

3) This study adopts the indicator weight assignment method to assign the weight of each indicator. This is done by inviting relevant experts to score the relevant indicators in conjunction with the case of Company A. The specific weight of each indicator is then calculated according to the indicator weight formula, and the final weight ratio is the indicator weight of the four dimensions of Company A's balanced scorecard.

Research Results

To verify the feasibility and effectiveness of the evaluation system constructed in this study, this study takes Company A, which is listed in China's A-share market, as an example to evaluate its corporate business performance. The main findings of this study are as follows:

Performance Management Status and Problems of Company A

Founded in 2007, A Automobile Co., Ltd. made its initial public offering of A shares in 2020 and was listed on the Shenzhen Stock Exchange in China, with its headquarters in Beijing (Company A Profile, 2023).

Company A has established and implemented human resources policies on employment, training, remuneration, assessment, promotion, rewards, and punishment that are conducive to the company's sustainable development, and has taken professional ethics and professional competence as important criteria for selecting and employing employees, and has regularly provided employees with business skills training and follow-up education and training, so that the quality of its employees has been continuously upgraded, with more than 80% of the company's staff in the R&D sector.

The main performance evaluation method of Company A is KPI, which is a kind of quantitative management index to measure the performance of processes by setting, sampling, calculating, and analyzing the key parameters of the inputs and outputs of the internal processes of the organization, and it is a tool to decompose the strategic objectives of the enterprise into actionable work objectives, which is the foundation of the enterprise's performance management. the biggest shortcoming of the KPI assessment is that the application of the performance results cannot be comprehensively applied. the shortcoming is that the application of performance results can not be comprehensively promoted, and lack of targeted improvement measures, in addition, this evaluation method adopts a top-down approach, which is not conducive to improving the professional competence and performance level of employees (Zhang, 2023).

Table 1 Key data from Company A's annual report.

	In 2022	In 2021	Increase/decrease in the current year over the previous year	In 2020
Operating income (RMB)	947,136,760.38	1,272,277,551.86	-25.56%	821,045,368.83
Net profit attributable to shareholders of listed companies (RMB)	80,875,393.83	205,360,226.29	-60.62%	110,935,073.49
Net profit attributable to shareholders of listed companies after extraordinary gains and losses (RMB)	88,571,814.66	189,739,239.49	-53.32%	100,171,376.83
Net cash flows from operating activities (RMB)	47,721,800.31	182,052,014.30	-73.79%	60,846,675.99
Basic earnings per share (RMB/share)	0.1643	0.4419	-62.82%	0.2581
Diluted earnings per share (RMB/share)	0.1641	0.4398	-62.69%	0.2581
Weighted average return on net assets	3.28%	12.03%	-8.75%	8.48%
	2022 year-end	2021 year-end	Increase/decrease at the end of the year over the end of the previous year	2020 year-end
Total assets (RMB)	3,335,426,285.55	3,416,135,457.86	-2.36%	2,105,618,468.32
Net assets attributable to shareholders of listed companies (RMB)	2,426,564,491.28	2,516,786,264.00	-3.58%	1,471,741,365.27

Source: Company A official website (2023)

According to the annual report of this Company A, the enterprise's weighted average return on assets in 2021 and 2022 were 12.03% and 3.28%, respectively, with a relatively large decline; the net profit attributable to shareholders of listed companies was RMB 80,875,393.83, a

year-on-year decline of 60.62%. Company A believes that in the face of the impact of multiple unfavorable factors, there is a certain amount of downward movement in revenue and profit amount, and the company is also securing market business development through multiple forms (Company A Profile, 2023). Company A focuses on the evaluation of financial performance and does not pay enough attention to the assessment of non-financial indicators such as the company's customer dimension, internal operation, learning, and growth.

The necessity of constructing a performance evaluation system based on the balanced scorecard in Company A.

Company A's performance evaluation system based on a balanced scorecard is necessary for the company's current development. The construction of the balanced scorecard performance evaluation system will help Company A to realize and implement its strategic objectives. Utilizing the balanced scorecard as the performance evaluation system of Company A is more conducive to promoting the implementation of the company's corporate mission and business philosophy.

In addition, as a newly listed innovative technology company, there are still many areas to be optimized in Company A's business philosophy and internal business processes. The balanced scorecard can be constructed not only from the perspective of the company as a whole but also for departments with a complete internal value chain. By constructing a balanced scorecard system at multiple levels, it can help to improve Company A's strategic management and competitiveness.

Application of the performance evaluation system of Chinese listed companies based on the balanced scorecard in Company A.

1) Setting of Indicator Weights

The setting of the weights of each indicator in the balanced scorecard determines the strategic orientation of corporate performance evaluation, and is the focus and core of balanced scorecard performance evaluation. Using the weighted average method, a group of 10 business administration PhD participants and relevant industry experts were invited to solicit opinions based on the company's performance appraisal indicators designed for this study. Each questionnaire is worth 150 points, with 10 questions of 15 points each. Among them:

"5" for "Very important";

"4" for "Important" ;

"3" for "Average" ;

"2" for "Not important";

"1" for "Very unimportant".

After the questionnaire is collected, the initial score of each indicator is obtained, and the formula for calculating the weight of the indicators is:

The mean score of indicator values/total number of mean scores of all indicator values = formula for calculating weights of design indicators.

Table 2 Weighting statistics of corporate performance evaluation indicators based on balanced scorecard for Company A.

Dimension	Key indicators	Definition or formula	Totals	Average score	Indicator weights
Corporate Performance Evaluation System of Chinese Listed Companies Based on Balanced Scorecard	Earnings per share	Earnings per share mainly reflect the profitability of listed companies. The formula is (net profit – preferred share dividend) /average number of common shares issued and outstanding.	37	3.7	11.9%
	Gearing	The gearing ratio mainly reflects the listed company's ability to raise debts and operate. The formula is (total liabilities/total assets) x 100%.			
Financial dimension	Weighted average return on equity (ROE)	Weighted average return on equity (ROE), is the ratio of an investment fund's net income to the amount of net assets at the end of the period over a given period. It is calculated as total net income / total net assets at the end of the period x 100%.	38	3.8	12.2%
	Customer Satisfaction	Can be satisfied with a product or additional service.			
Customer Dimension	Customer retention rate	Customer retention rate = number of customers closed in the previous period/number of customers closed in the previous period * 100%.	45	4.5	14.4%
	Accounts receivable turnover ratio	The accounts receivable turnover ratio is the average number of times accounts receivable are converted into cash within a certain period, which mainly			
Internal business processes			34	3.4	10.9%

	measures the liquidity of accounts receivable of listed companies. It is calculated as follows: Revenue from main business/average amount of accounts receivable×100%.			
Inventory turnover	The inventory turnover ratio is mainly used to measure the level of operation of listed companies for each segment and the supply chain. The formula is: operating cost/inventory × 100%.	38	3.8	12.2%
Learning and Growth Dimensions	The percentage of highly educated employees emphasizes the educational attainment of employees and refers to the total number of employees with bachelor's degrees and above as a percentage of the overall number of employees in the company.	29	2.9	9.2%
R&D investment as a percentage of operating income	The ratio of R&D investment to operating revenue mainly reflects the R&D capability of the enterprise. The formula is R&D investment/operating income×100%.	33	3.3	10.6%

Through the above statistics, it can be concluded that the indicator weights of the four dimensions of Company A's balanced scorecard are 36.3% for the financial dimension, 27.2% for the customer dimension, 23.1% for the internal process dimension, and 19.8% for the learning and growth dimension.

2) Guarantee Measures for Balanced Scorecard Performance Management in Company A.

The application of a performance evaluation system based on a balanced scorecard cannot be separated from the support of enterprise leadership. As Company A, it needs to improve the safeguard measures in terms of forming a performance evaluation management team, establishing institutional safeguards, and strengthening employee training.

Establishment of institutional guarantee. To ensure the implementation of the balanced scorecard performance evaluation system, Company A should improve the system construction and develop a special promotion system for the implementation of the balanced scorecard.

Strengthen employee training. Company A should focus on the advantages, significance, and implementation of the balanced scorecard performance appraisal system, such as the implementation of the precautions, and targeted training for employees to enhance employee participation and recognition.

Discussions

1) The Balanced Scorecard is of great significance in guiding the improvement and refinement of the performance evaluation system of Chinese listed companies. However, due to its short time of creation and introduction into China, Chinese scholars and enterprise managers have not fully grasped the premise and connotation of its operation, and often there are some misunderstandings in the process of introducing the balanced scorecard. For example, the balanced scorecard should have flexibility in the setting of each index and should be set up by the actual situation of the enterprise.

2) In addition, although the Balanced Scorecard has mature use in Western enterprises, there are big differences between Chinese enterprises and Western enterprises in terms of strategic objectives, organizational structure, management system and corporate culture. In this regard, Chinese companies should also revise the balanced scorecard to the actual situation of the company.

Knowledge from Research

Based on the theory of balanced scorecard and from the actual situation of Chinese listed companies, this study takes Company A as an example, adopts the literature method and index weighting method, and constructs the performance evaluation system of Chinese listed companies with basic balanced scorecard in this study by analyzing and counting the data from China Securities Network Database and China Knowledge Network Database. This is a relatively new evaluation system for Chinese listed companies, which can enrich the evaluation tools and means of enterprises' performance. The evaluation index system constructed in this study also has important gains for the performance evaluation of enterprises in China and even in other countries, i.e., we should not only pay attention to the financial performance of enterprises, but also pay

attention to the non-financial performance, and when evaluating the performance of enterprises, we should take into account the sustainable development of the enterprise, and the planning and management of the long-term strategic goals.

Conclusion

This study combines the relevant literature on the performance evaluation of listed companies in China, and constructs a corporate performance evaluation system for listed companies in China based on the balanced scorecard theory with a total of 9 indicators in 4 dimensions, namely, financial dimension, customer dimension, internal business process dimension, and learning and growth, and utilizes the system with Company A as a case study. The enterprise performance evaluation system constructed in this study sets the strategic vision of listed companies as the overall goal to pursue, emphasizes the landing and implementation of enterprise strategy, and can closely incorporate personal growth and development into the index system, thus changing the drawbacks of the current enterprises that pay too much attention to financial indicators, providing a new perspective for the enterprises to strengthen the strategic management and strategy implementation, and to improve the level of enterprise performance management and sustainable development, both theoretically and practically. It provides a new perspective for enterprises to strengthen strategic management and strategy implementation, and enhance the level of corporate performance management and sustainable development in theory and practice.

Suggestions

1) Chinese listed companies can build their evaluation indexes according to their basic situation, based on the balanced scorecard evaluation index system constructed in this study, which can not only take into account financial indexes, but also non-financial indexes, with strong applicability and flexibility, and can be used to guide the formulation and implementation of the enterprise's strategic objectives.

2) To provide adequate conditions for the implementation of the balanced scorecard. For example, business leaders should fully support the development and implementation of the balanced scorecard, in addition to the establishment of a series of security systems, and strengthen the training of employees, to ensure the effectiveness of the implementation of the balanced scorecard.

3) To strengthen the strategic development and strategic management of the enterprise and promote the sustainable development of the enterprise. We should make full use of the balanced scorecard as a strategic tool, scientifically configure the resources of the enterprise and the indicators of the scorecard, focus on the balanced development of various indicators of the enterprise's performance, and enhance the enterprise's sustainable development capability.

References

Company A Profile. (2023). *Alt automotive corporation*. Retrieved September 12, 2023, from, <http://www.iat-auto.com/about.php>

Jiang, X. Y. (2015). On the defects and improvement measures of weighted average return on net assets – based on the analysis of financial statements of listed companies. *Journal of Jilin Province Economic Management Cadre College*, 4, 40–42.

Henry, M., Joseph, L., & Sumantra, G. (2014). The strategy process: Concepts, contexts, and cases. (4th ed.). Beijing: People's University of China Press.

Li, M. Y., & Zhang, T. (2022). Discussion on the application of balanced scorecard in enterprises. *Cooperative Economics and Science*, 22, 107–109.

Liu, Z. Q. (2023). The application of financial indicators in enterprise performance evaluation and management. *Taxpaying*, 17(16), 70–72.

Lu, Y. Y. (2012). Review & prospect of research on business performance evaluation of enterprises. *Finance, and Accounting Communication*, 5, 57–58.

Ma, X. Y., Yang, W. P., & Wang, B. N. (2016). Research on corporate performance management based on KPIs and BSCs—taking tobacco commercial enterprises as an example. *Value Engineering*, 35(33), 93–95.

Robert, K., & David, N. (2004). *Balanced scorecard – turning strategy into action*. Guangzhou: Guangdong Economic Press.

Robert, K., & David, N. (2008). *Strategy-centered organizations – the winning strategy of the balanced scorecard*. Beijing: Renmin University of China Press.

Wang, X. L. (2019). Theory and methods of enterprise performance evaluation. *Accounting Learning*, (09), 180–181.

World Commission on Environment and Development. (1997). *Our common future*. Changchun: Jilin People's Publishing House.

Xu, E. M., & Wang, Z. H. (1999). Development and Schools of Enterprise Strategic Management Theory. *Journal of Capital University of Economics and Business*, (1), 25–29.

Yan, X. K. (2022). Research on problems and countermeasures in enterprise financial performance evaluation. *China Cement*, (3), 65–70.

Yi, X. Q., & Xu, Z. H. (2023). A study of balanced scorecard performance in enterprises. *Mall Modernization*, (6), 98–100.

Zhang, C. X. (2023). The application of KPI in performance appraisal practice. *Human Resources*, (10), 96–97.

Zhang, Y. H. (2014). Research on the construction and application of enterprise sustainable development performance evaluation index system. *Finance and Economics*, 12, 151.