Research on the Current Situation and Innovation Strategy of Enterprise Performance Management in the Era of Big Data

Ming Dong[1], Lin Fan[1] & Xinyan Ma[1]

[1] Institute of Finance and Accounting, Chengdu Jincheng College, Chengdu, China

Correspondence: Ming Dong, Institute of Finance and Accounting, Chengdu Jincheng College, Chengdu, Sichuan, China.

Abstract

The widespread use of big data technology has brought various convenience to enterprise management, and the application of big data technology to the performance management segment can promote enterprises to further deepen the reform, help the organizational structure of enterprises to be optimized and employees' abilities to be fully exploited, and promote enterprises to gain advantages in market competition and move forward in the competition of creating value for organizations and society in the new era. This paper firstly elaborates the three core dimensions of enterprise performance management, then studies the current situation of performance management in Chinese enterprises, and proposes corresponding innovative solution strategies for enterprises to integrate big data technology into performance management.

Keywords: big data, performance management, innovation research, management accounting

1. Core Research Dimensions of Corporate Performance Management

1.1 Cost and Variance Measurements

Everything that is done in advance is done in advance, and everything that is not done in advance is not done. The preparation of a budget plan is a time-consuming but essential part of business operations. The key task of this part is to compare the actual performance achieved so far with the planned performance and to evaluate the company's progress in achieving the goals. Only by controlling all the indicators in the process can we ensure that the goals are achieved. Therefore, it is necessary to use appropriate budgeting methods and to analyze the variances between plans It is important to note that favorable variances and unfavorable variances are not indicators of good or bad performance, but rather they are standard indicators that tell us whether or not the company is meeting its budget. The cost variance analysis here is not only intended to identify those responsible for the problem and to strengthen the management of the corresponding link, but it is also the cornerstone for the subsequent performance evaluation.

1.2 Responsibility Centers and Reporting Segments

In a centralized organization, managers have little autonomy to make decisions, while in a decentralized organization, managers of individual departments have full decision-making power within the scope of their business activities. Decentralized management has become the basic model of modern business management, and the main form of decentralized management is departmentalization. The delineation of responsibility centers and reporting centers has multiple benefits for the performance assessment of the enterprise: First, financial reporting can use marginal contribution management accounting reports that are more applicable within the enterprise and can help managers improve their business methods and better measure the performance of managers who are accountable for short- and long-term costs. Second, the proper use of transfer pricing models in selecting the applicable transferables can both serve as an incentive for different divisions and increase the overall profit level of the company by keeping more of the profits on the side with the lower tax rate when the company has multinational segments. The establishment of responsibility centers helps companies to assign responsibility for an issue precisely to a department and then to an individual or specific part.

1.3 Performance Evaluation

Companies need to evaluate their performance in all aspects of cost, revenue, and investment. The profitability of products can be analyzed to determine which products are more profitable, which products need to be

re-evaluated in terms of price and cost, which products need maximum marketing investment and support, and which products need to be discontinued. The analysis of customer profitability is to measure the profitability of the customer, which requires a combination of financial and non-financial considerations. Identifying effective and ineffective customer-related activities and services allows us to determine which activities should be strengthened and which should be eliminated. Financial indicators provide managers with accurate, quantitative and objective data, but because of their inevitable lagging nature, companies must also focus on leading indicators. In addition, the design of KPI should be based on different aspects such as employee needs and job requirements, and the combination of quantifiable and non-quantifiable indicators should be used. the design and use of KPI is flexible and changeable, and its determination does not mean that the production and operation of the enterprise is carried out exactly according to such a model, and KPI should be adjusted accordingly as the external and internal environment of the enterprise changes.

2. Research on the Current Situation of Performance Management in Chinese Enterprises - Three Major Issues

2.1 Companies Have a Low Level of Application of Management Accounting in Performance Management

The origin of management accounting can be traced back to the 19th century, but it is still not widely used in the internal management of Chinese enterprises. The lack of thorough understanding of management accounting concepts and principles and the lack of in-depth research on the application of practical business problems is one of the major reasons why management accounting in performance management is a formality. The application of management accounting in enterprise performance management can provide managers with sufficient and important financial and non-financial data to help them make more accurate and efficient decisions. However, the practical application of management accounting has strength and capital requirements for the enterprise itself, and professional requirements for the enterprise staff, which lead to the limitation of its application, not to mention the further enhancement of the economic value of the enterprise. Failure to realize the full use of management accounting in the performance evaluation system will have a negative impact on all aspects of the enterprise's data management in the financial information platform, the construction of the performance evaluation system and the circular improvement mechanism.

2.2 Mismatch Between Enterprise Performance Management System and Enterprise Development Life Cycle Stage

In the early stage of enterprise establishment, the overall scale of the enterprise is small, the main business is single, and the organizational level is small, so most of the enterprises do not pay special attention to the part of performance management in this stage. After the enterprise enters the growth period, the overall development speed is accelerated, the capital input and output are gradually expanded, as well as the number of personnel and technology level are significantly improved compared with the initial stage, and the urgent point to be solved in the enterprise becomes the management and utilization of resources. At this time, in order to meet the needs of the rapid development of business operations, the design of a perfect performance appraisal system becomes the most important issue. When the company enters the maturity stage, all aspects are basically stabilized, and the internal systems of the organization have been more perfect, no major changes are needed, and more attention is paid to the training of internal employees. However, many companies lack the ability to make timely adjustments to their performance appraisal plans when necessary, making the performance management system mismatched with the development life cycle of the company.

2.3 Companies' Performance Evaluation Practices Are Not Always Oriented to Strategic Goals

The reasons for the failure of the performance appraisal system to bring about practical and significant results in the enterprise are manifold, and the process of improvement should not be singularly focused on a single aspect of the problem. Many times the performance appraisal steps not only do not bring positive effects to the enterprise but also cause conflicts among internal employees, and do not play a motivating role for employees with excellent performance, and do not play a spurring role for employees with low performance, and even the appraisal results are not convincing and do not have the practical significance of accurately reflecting the effectiveness of work. From a comprehensive point of view, the fundamental reason why the above-mentioned problems occur is that the overall strategic objectives of the enterprise are not taken as the guide. If the strategic goal of the enterprise is not clear and prominent, the behavior of employees in all aspects of performance appraisal will be inconsistent with the expectations of the enterprise, and the problems cannot be found in time and the corresponding shortcomings can be improved, which eventually leads to the defects of the overall performance management system. The direction of the strategic goal is the direction for the whole staff and management of the enterprise to move forward, and if the cognition of the strategic direction is not unified across

the enterprise, it will certainly lead to various confusions in the performance management link.

3. Innovative Solution Strategies for Integrating Big Data Technology into Enterprise Performance Management

3.1 Optimize Data Analysis in Performance Evaluation System Through Database Construction

In the mature stage of enterprise development, the internal organizational structure is stable but also more complex and large, and there are also various reporting divisions for performance appraisal, at this time, the different responsibilities and business of each department will inevitably cause the indicators used in performance appraisal to be very diverse, and then the data needed for appraisal will become more and more huge and redundant. In such a situation, the use of big data technology to build a suitable database model can provide a powerful help for data analysis in the performance evaluation process. The use of database not only can significantly improve the efficiency of data processing, but also improve the accuracy of the inspection results and reduce the probability of errors in data retrieval. In addition, this technology can also be combined with many data visualization tools, and used in conjunction with ERP, MRP and other tools to strengthen the enterprise's ability to control and analyze the entire production and operation process, and provide managers with a richer and more diverse data presentation, so that they can more intuitively and accurately understand the key issues in each aspect of the performance evaluation and make timely decisions.

3.2 Using Big Data Technology to Compare Performance Management Methods of Similar Companies Horizontally

In the era of big data, information collection already has its unique technical advantages, and managers can use the relevant technology to compare the performance management methods used by enterprises with comparable market shares and enterprise scale in the industry, to take the essence and remove the dross, and to learn and study the shortcomings of their own enterprises and the specific ways of handling the same type of enterprises. At the same time, management methods such as benchmarking and best practice analysis can also be applied in practice. Companies are in a constantly changing environment, and when designing information collection procedures using big data technology, it is also important to make timely adjustments to performance evaluation plans based on the constantly updated data situation. Internal resources are always limited, and computer technology can help us analyze the best way to allocate them, then implement them into practice and continuously improve them.

3.3 Set Scientific and Reasonable Performance Assessment Target Values for Enterprises

Selecting appropriate performance appraisal indicators and determining weights, setting objective evaluation criteria, choosing appropriate performance appraisers, and clarifying sources of appraisal information are key aspects of designing appraisal indicators. In the era of big data, enterprises can now use scientific and reasonable analysis software to complete this complex work. What should also be emphasized is the use of qualitative indicators and process indicators in the process of performance appraisal. Quantitative indicators occupy an important position in the performance appraisal index system, which plays an important role in the fairness and objectivity and accuracy of the appraisal results, but at the same time has the fatal defect of lagging, so the importance of qualitative indicators should not be ignored. For example, when companies use the balanced scorecard for performance analysis, they need to use both financial and non-financial indicators, and it is the combination of qualitative and quantitative assessment that makes the balanced scorecard an important tool for effective implementation of corporate strategy.

3.4 Sound Performance Coaching Mechanism to Promote Interactive Communication Within the Team

Managers timely counsel and evaluate the work of employees and give relevant information back to employees is a vital but easily overlooked part. A competent manager will not just complain about the staff's ability and poor work, but will promptly ask questions and give help. Managers should reasonably mobilize resources within the scope of their authority to support the work of their subordinates, and all these tasks can be recorded and tracked using the big data platform, which can gradually stimulate employees' passion for their work and enhance their work efficiency in communication again and again. If certain matters exceed the scope of their responsibilities, managers can also pass the big data platform to timely report the problem to the relevant decision makers, as soon as possible to solve the problems in the work of subordinates. Combining results and process, this can really achieve effective performance appraisal, avoid misunderstanding or contradiction in work, create a good team working atmosphere, and thus improve the overall work efficiency.

3.5 Uphold the Correct Performance Management Concept and Build a Performance Management Model With Corporate Characteristics

In the background of big data era, the innovation of enterprise performance management mode is actually to innovate the mode of talent management. Using big data to analyze and compare the behavioral patterns and learning abilities of managers and shop floor workers in the usual work production, and draw a "learning curve", can help employees grow and develop in their work and further improve their own abilities. On the other hand, by combining relevant data from similar enterprises, companies can integrate a set of performance management models that suit their own characteristics. In the process of updating the big data platform and performance management plan, timely training and learning will be organized for employees, which will help them better adapt to and use this perfect system, and at the same time, identify and solve problems to ensure the implementation of every aspect of performance management, and together with managers, drive the performance management of the company to the next stage.

4. Conclusion

With the continuous development and advancement of management accounting in enterprises, big data technology has added wings to it, and the application of the two in the enterprise performance evaluation process has become an increasingly important issue nowadays. As an important way to give full play to the value of human resources, performance management plays an important role in improving the overall economic efficiency of enterprises. Managers should pay more attention to the rational use of enterprise related data and make the most of its value, optimize the enterprise's own organizational system, innovate management methods, realize the implementation and penetration of strategic orientation in each link, build a more scientific and perfect performance management system, and help the sustainable development of the enterprise.

References

Fan, Y.-H., & Li, R.-G. (2020). Research on innovation of enterprise human resource performance management in the era of big data. *China Business Theory,* (2), 253-254.

Wang, X.-H., & Wu, Y. (2020). Research on platform-based e-commerce reputation management model-Based on reputation sharing mechanism and liability recourse strategy synergistic matching perspective Tian. *Research on Finance and Economics*, (8), 92-100.

Wen, X.-C. (2020). Trial discussion on rationalization of assessment indexes for promoting enterprise performance management in the era of big data. *Small and Medium-Sized Enterprise Management and Technology*, (6), 29-30.

Wu, J.-M., & Zhou, C.-J. (2020). Research on cross-border e-commerce regulatory performance assessment index system based on balanced scorecard. *National Circulation Economy*, (6), 21-23.

Xu, S.-F. (2018). Exploration of enterprise performance management in the context of big data Tian. *Pearl River Water Transport*, (10), 98-99.

Yang, J-X. (2021). Thinking about the change of enterprise human resource management in the era of big data. *Investment and Cooperation*, (2).