Path Analysis about the Integration of Enterprise Business and Finance under the Background of Big Data and Artificial Intelligence

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Abstract. With the intensification of globalization and the rapid development of information technology, the economic development of China has entered a new normal state. The change of this series of external management environment forces enterprises to transform and upgrade. As an important manifestation of the transformation and upgrading of financial functions, the financial integration plays an important role in the formation of enterprise competitive advantages and the promotion of value creation. This paper combed the problems in current integration of business and finance and proposes to promote integration of business and finance by establishing Financial Sharing Service Center, applying the process reengineering, strengthening financial management system, building the integration of business and finance team and establishing the effective communication channels.

Introduction

With the intensification of globalization and the rapid development of information technology, there is a deep integration of Internet, big data, cloud computing, artificial intelligence and real economy. In recent years, China's economic development has entered a new normal state, turning from a high speed growth stage to the high quality development stage which focus on the supply side reform. The changes in the enterprise's external management environment make the enterprise's transformation and upgrading become particularly urgent. The business model and business model are facing profound changes. The series of changes put forward new requirements for the financial work which supports the enterprise's future development. As an important information subsystem of the enterprise accounting, the management accounting plays an irreplaceable role in the econometric activities such as wealth measurement, value creation and resource allocation (Chen-yang XU et al., 2017)[1].

In order to promote the enterprise’s development in the big data and artificial intelligence era, the transformation of financial functions is particularly important. And the integration of business and finance is one of the important measures to realize the transformation and upgrading of the enterprise financial system. In June 22, 2016, the Ministry of finance of China issued the Basic Guidelines for Management Accounting, actively advocating the Chinese enterprises to integrate business and financial activities, and promote the extensive application of for management accounting[2].

The Important Significance of the Integration of Business and Finance in the New Era

Improving the level of enterprise financial management. The traditional financial accounting work focuses on the ex post accounting and supervision of the daily economic activities in enterprise. Influenced by the traditional division of labor cooperation, the accounting business has the defects such as irrational job division, low timeliness of information and too much emphasis on professional technology (Qing-long ZHANG, 2018)[3], which cannot meet the needs of the development of modern enterprises. The organic integration of business and financial activities is conducive to promoting the transformation from traditional accounting to modern management. In the era of big data, Financial personnel have to face a large number of non structural business information. It needs that financial
personnel participate in the formulation of enterprise prediction, decision-making and planning from the front end of business and do value management well in the process. At the same time, the development of artificial intelligence can realize the intelligentization of basic accounting work, simplify the accounting work process, improve the quality of accounting information, realize the real-time sharing and control of the financial information, and emancipate the financial staff from the tedious daily accounts to reduce the cost of human resource.

Promoting enterprise value creation. The integration of business and finance can make full use of the functional advantages of the two departments, find the common point of the value of business and financial activities, and realize the total value management based on the value chain. If the financial work is based on business process, with the help of management accounting tools, enterprise can facilitates the scientific and meticulous management of all links. At the same time, it can provide the solution and data information for manager, which can help to effectively solute the problems about production capacity, inventory, lever, cost and short board to strengthen the strategic, budget management, cost, operation, investment and financing, performance, risk management and so on.

Support for strategic planning of enterprises. The integration of business and finance can closely link the financial activities and business activities of the enterprises to form the "business support finance, the financial service business" pattern. Based on historical data and future trends, using the financial and non-financial information, internal and external information, manager can evaluate and analyze the business environment, competition ability, and financial situation comprehensively. After that, making financial budget program conclude the cost, revenue and risk prediction to support for enterprise planning, decision-making, control, evaluation and other activities.

Effectively avoid the risk. The integration of business and finance is beneficial to the financial personnel to understand the business process and the business personnel understand the meaning of the financial data. It is convenient for the enterprises to detect the abnormality in time, identify the risk quickly, and take measures to control the situation. Taking tax risk management as an example, the financial personnel should make tax planning and specific business activities according to the latest tax policy, improve the tax risk control mechanism, strengthen the enterprise tax management to effectively avoid the risk.

The Existing Problems in the Integration of Business and Finance

Business and financial goals are not unified. As the promoters and executors of specific business activities, the business department pays more attention to the efficiency and completion rate of the target business, and considers that performance indicators such as sales and income are the most important, so it seldom concerns about cost and cost control in the process. As the value manager of the enterprise, the financial department pays more attention to the cash flow, the rate of return on investment, the risk control, and the quality of management. The difference goal between the two departments is difficult for them to find a fit point to start the organic integration of business and finance.

Communication between business personnel and financial personnel not smoothly. The financial personnel and business personnel are influenced by the independence of their own departments and the limitations of their professional knowledge. They are familiar with the contents and processes of their respective areas of work and have little knowledge of other departments’ work. In the process of financial integration, it is easy to form two “information isolated islands”. The financial personnel do not know the specific content of the business activities, and the business personnel do not understand the meaning of the financial data. The two departments cannot communicate effectively, so it is difficult to integrate the advantages of them. As a result, the conversion between financial language and business language cannot be directly realized, resulting in the integration of business and finance cannot be carried out smoothly.
Lack of the sense of integration. Due to the long-term social division of labor, there is a clear departmental and functional boundary between the business personnel and financial personnel. Their goals are different, and there is no positive sense of integration. The business personnel think that the integration is only the matter of financial personnel, it is not closely related to themselves. (Yong-qing GUO, 2017) \(^4\). In addition, it is easy to form a situation that financial department plays a leading role and business departments passive participate in the integration, so that the degree of integration is not deep. In particular, when the financial personnel are assigned to the business department to carry out their work, the business personnel may regard him as the regulator, so they reluctantly cooperate with financial personnel with negative feelings, which leads to the integration only on the surface. Certainly, the synergies between business and finance doesn't work.

Lack of the support of efficient information system. If there is no mature and efficient information system providing technical support, there will be a lot of problems and difficulties in the conversion and connection between business data and financial data. If we simply rely on the traditional way to communicate and transfer information, the data cannot be obtained in time, which leads to the timeliness of information. On the other hand, the business department and financial department have different rules about dealing with the same kind of economic activities, the statistical caliber and coding standard are not consistent. An efficient information system can solve those questions, which rely on Internet technology to improve the authenticity, accuracy and timeliness of financial and business data. But the construction and information management of information system need strong financial support, which may cause economic burden to the enterprises. Therefore, it is not easy to realize the management of big data and the establishment of a financial sharing service center.

**The Important Way to Realize the Integration of and Business and Finance**

In the complex and changeable operating environment, the enterprise who wants to realize the financial function’s transformation and upgrade and form the competitive advantage needs to comply with the requirements in the era of big data and artificial intelligence by promoting the integration of and business and finance, putting value management into practice, and providing support and service for the business management. To achieve the organic integration of business and finance, enterprise should start with the following aspects:

Establish the Financial Sharing Service Center. Using the Internet technology and efficient information system can realize the information management and sharing, which integrate the business and financial data, transform the financial language into the business language. First of all, the enterprise should perfect the ERP system, integrating the production, sales, market, logistics, financial, manpower and other modules organically, and then integrate with the other enterprise systems like the budget, fund, contract management system and so on. Then, establishing the unified measurement calibre and coding rules for the business and financial data, using scientific methods to standardize those data, which can realize automatic docking between financial and business systems to form internal data warehouse. On this basis, enterprises should use data mining, data visualization and other technical means to collect comprehensive internal and external information, financial and non-financial information, to achieve the effective integration of mass data information and improve the data warehouse. Moreover, the development of artificial intelligence has provided us with powerful data processing tools. We should use relevant software, set rules according to the requirements, quickly extract and organize useful information from the data warehouse, realize the automatic generation of accounting vouchers by business driven and real-time accounting. Bridge Reporting and other tools can help financial staff to make dynamic analysis of some key financial indicators of the enterprise using the horizontal and vertical data. Multidimensional analysis provides managers with decision-making basis to reduce the cost of decision implementation and transaction. In addition, it is necessary to realize the automatic consolidation of financial statements between subsidiary and parent company. Using XBRL (extensible commercial Reporting Language)can share data and provide clear financial reports for the internal and external stakeholders of the enterprise.
Last but not least, in the financial sharing service mode, to implement dynamic monitoring of the information system can guarantee the security and accuracy of data. The visual early warning model (Xi-dong MI, 2018)\(^5\) can be established by using the software like power BI, which can effectively identify and prevent potential risks. At the same time, the security and security of the information system (Hua-hong YAN and Ying-ying ZHANG, 2017)\(^6\) are ensured through the maintenance of system software and hardware, the improvement of the internal control system, and the strengthening of technical personnel management.

Implement process reengineering. Information system is the technical guarantee for the integration of business and finance, and financial and business processes are the basic conditions. (Qing-long ZHANG, 2017)\(^2\). The traditional business process and financial process have distinct professional characteristics and strong independence, especially the traditional financial accounting process is mainly around the post accounting and supervision, so some business activities have not been involved, which needs to reengineer the business and financial process to realize the sharing of business and financial information. On the one hand, The business department provides relevant business information for the financial department at all stages of the business process, such as the information of suppliers, contracts in the procurement link, the production cost, inventory and other information in the production link, the sales order, sales, income, and customers in the process. Only the financial department participate in the whole process, quantifying the information of each link, and discovering the non value-added links, to help the business department to optimize and standardize the process and achieve the final goal of reducing the cost and increasing the income for the enterprise. On the other hand, traditional bookkeeping is not applicable. It needs the financial department to simplify the process of daily accounts processing, and use the Financial Sharing Service Center to check the related business information at any time to reduces the cost of manual accounting, save manpower and material resources, and avoids the problems of manual transmission delay errors, and ensures the integrity, authenticity, improve the efficiency and quality of financial information generation, and meet the differentiated needs of information users.

Strengthen the financial management system. In order to achieve financial integration, it is necessary to actively promote management accounting in the enterprise activities of planning, decision-making, control and evaluation. Combining the actual situation, using various management accounting tools, participating in every link of the business process, monitoring and controlling in real time can help enterprise value management. Therefore, enterprises need to improve the enterprise management system construction. For instance, overall budget management, as an important organizational planning method, can effectively consider all the business activities, co-ordinate and distribute human, material and financial resources. It is guided by the enterprise strategic objectives and the target cost to forecast the cost, income and follow up the budget execution, promoting the implementation of scientific and fine management in the process of business activities and controlling the risk in an all-round way. It is an important means to ensure the implementation of strategic decision and an effective management mode to promote the integration of business and finance. Cost management, as an important part of management accounting, runs through every aspect of the value process. The financial participate in specific business activities can help them understand each operation process, then make a cost prediction and analysis to quickly identify the non value-added links, achieve the goal of value management. Performance management can evaluate the performance of the business sector through the key indicators, economic value added, balanced scorecard and other scientific and effective methods, reflecting the specific situation of the budget execution, and checking whether the business activities need to be further optimized. At the same time, establishing effective incentive and constraint mechanism, making the results of performance assessment to link salary, can encourage staff to improve their performance, so as to ensure the consistency of individual goals, departmental goals and organizational goals, and to improve the overall performance of the enterprise.

Building the integration team. To promote the integration of industry, it is necessary to establish a consistent and cohesive team with complementary advantages and use professional knowledge and skills to promote the realization of team goals. Therefore, the enterprise should pay attention to the
training of financial and business personnel, which can make them have wide professional knowledge and skills about strong information processing or logical analysis to promote the integration of business and finance. Firstly, the team should have a clear statement about responsibilities within the team that clarifies the internal division of labor and let team members know what they “can” and what they “should” do. Business personnel should focus on the specific implementation of business activities, while financial personnel focus on the financial aspects of the professional proposal, breaking the business financial barriers to achieve complementary advantages. Secondly, enterprises should make a training plan. For business personnel, it is necessary to strengthen the training of basic financial knowledge except for the professional knowledge, which let them familiar with some basic rules and regulations, daily reimbursement knowledge and the meaning of cost, income, profit in the statement. For financial personnel, it is not only limited to dealing with vouchers and statements, but also should pay attention to the operation. If so, business personnel and financial personnel can understand the activities and change mind easily and fluently.

Establish effective communication channels. The integration of business activities and financial activities requires frequent communication between business department and financial department. Enterprises need to improve communication mechanism, provide smooth communication channels and platforms for the later work. The flat organization structure is good for communication. In order to promote business and finance integration, enterprises should replace organizational structures with less management levels and wider range. Providing a communication environment for employees where they can directly communicate and get feedback quickly can facilitate the transmission of information and reduce distortion (Gong-fu ZHANG and Min GAO, 2017)[7]. Furthermore, building an equal enterprise culture is important. Under the new development situation, business personnel and financial personnel should make clear the vision of the development of enterprises and establish a firm sense of mission and responsibility. Enterprises should create a common atmosphere of equal communication and use various formal and informal channels, such as business daily meetings, departmental exchanges, quality development, fellowship and internal social platforms, to encourage employees to actively share something, enhancing professional learning and emotional communication. Managers should actively adopt suggestions or opinions on the integration of business and finance, taking corrective actions against problems and giving feedback in a timely manner. In addition, there should set up some courses to help them improve communication skills dealing with conflicts.

References


