Research on the Basic Framework and Construction of Intelligent Financial Sharing Platform

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Abstract:

With the rapid change of information technology and sharing the high speed development of economy, the increasingly fierce competition between enterprises, in order to deal with the new change, enterprises should improve their comprehensive management level, ensure the advantages in the market competition, intelligent financial sharing platform can promote the enterprise financial management level, the rapid reaction to market changes, improve enterprise in the market competition advantage. This paper discusses the potential real-world applications that intelligent financial management platforms can bring to corporate management, in order to construct the framework of intelligent financial sharing platform from two aspects of financial accounting and management accounting, and puts forward feasible construction suggestions.

Keywords: Intelligent finance; Sharing platform; The framework

I. INTRODUCTION

Ever since the advent of the internet, along with the information explosion and data mining technologies that came with it, companies have struggled with many challenges in the process of development. Corporate financial management plays an important role in resource conservation, financial decision-making, analysis and application of financial indicators, and plays an escort role in identifying business risks and avoiding business difficulties. In today's information development background, efficiency improvement in the area of financial management has become an important issue facing the development of enterprises. As an innovative product of the sharing economy in the era of big data, the intelligent financial sharing platform (hereafter refer to as IFSP) has a key part to play in the advancement of overall performance of the management of corporate finance.

II. THE INFLUENCE OF IFSP ON CORPORATE FINANCE

IFSP centers plays an important role in enterprise process reengineering, cost control and improvement of financial management level. It is an important means to enhance the efficiency and

performance of corporate finance and plays a positive role in promoting the development of enterprises[1].

2.1 Realize enterprise process reengineering

By realizing the centralized management of enterprises, the sharing platform increases the operation and management authority of enterprise branches and enhances the development scale and market influence of enterprises while expanding their business and promoting the diversification of enterprise development. The financial sharing platform integrates the work of a large number of professional financial personnel, optimizes the post setting, and optimizes the financial work flow through functional subdivision and centralized process processing by concentrating and dispersing a large number of repetitive and highly standardized work in the financial department.[2].

2.2 Control operating costs

The financial sharing platform can effectively integrate the financial work and combine the financial staff of the basic business of each branch, which can reduce the number of staff and reduce the cost of human resources. Financial sharing platform can scientifically allocate the use of enterprise funds, effectively improve the utilization rate of funds, and effectively reduce the operating costs[3].

2.3 Enhancing the Efficiency of Corporate Finance

IFSP achieves professional management of each branch, liberates the business personnel from the tedious financial work, improves the professional skills and quality of the staff, standardifies and refines the financial management, and improves the level of financial management[4].

III. IFSP FRAMEWORK CONSTRUCTION

3.1 IFSP framework

IFSP consisting of intelligent financial accounting sharing platform (hereafter refer to as IFASP) and intelligent management accounting sharing platform (hereafter refer to as IMASP), is a large sharing spanning the two financial work fields of financial accounting and management accounting, as shown in Figure 1. The IFASP includes the sharing of financial accounting work such as accounting and financial accounting reports, and the IMASP includes the sharing of capital management, fixed assets management, tax management, budget control, cost reduction, investment activities, performance and accounting records. Such architecture covers the integration of the internal system of the enterprise and the external system of the enterprise. The internal system of the enterprise refers to the business activities of the enterprise, while the external system includes the upstream and downstream enterprises,

investors and supervisors. The volume and type of internal and external data of an enterprise is large, and it needs to be processed by big data. Internal data of an enterprise mainly includes basic data, business data, financial data, management data, etc. External data of an enterprise mainly includes industry data, economic data, environmental data, etc[5].

IMSP covers the single use of new technologies, including but not limited to Mega Data Processing, AI, Mobile Network, Cloud Computing, IoT and other expert system support, the Robotic Process Automation (RPA), robot, Optical Character Recognition (OCR), electronic signature, the Internet of things, face Recognition, voice interaction, etc., realize sharing function.
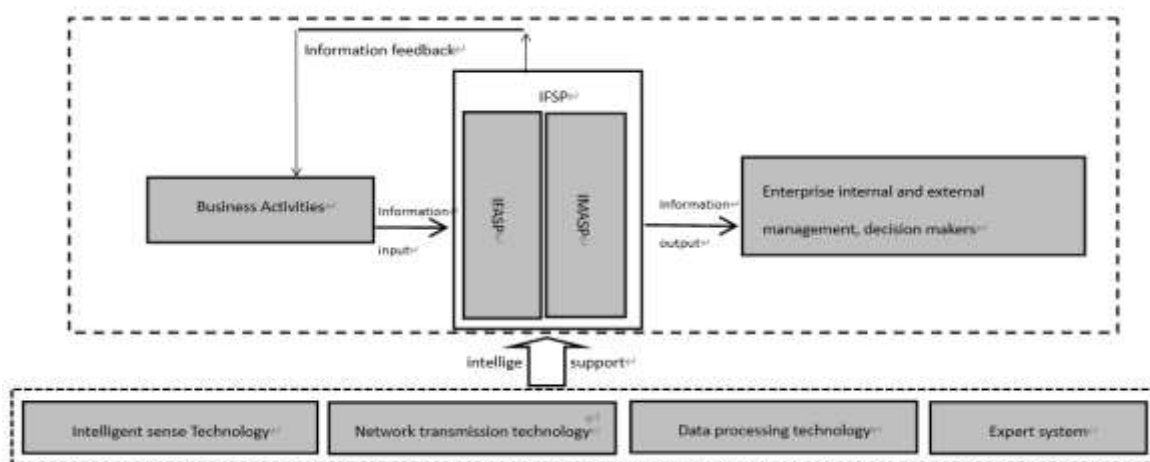

Figure 1. IFSP framework diagram

3.2 IFASP

The IFASP involves five types of business, including accounting, financial accounting report, capital settlement, tax accounting and accounting file management. Intelligence sharing platform and peripheral docking system of financial accounting, including the enterprise internal sales management system, cost management, procurement management system, expense reimbursement system, asset management system and salary management system of six class system, enterprise external group accounting control system, the banking system, tax management system, invoice and travel service system platform system, as shown in figure 2.
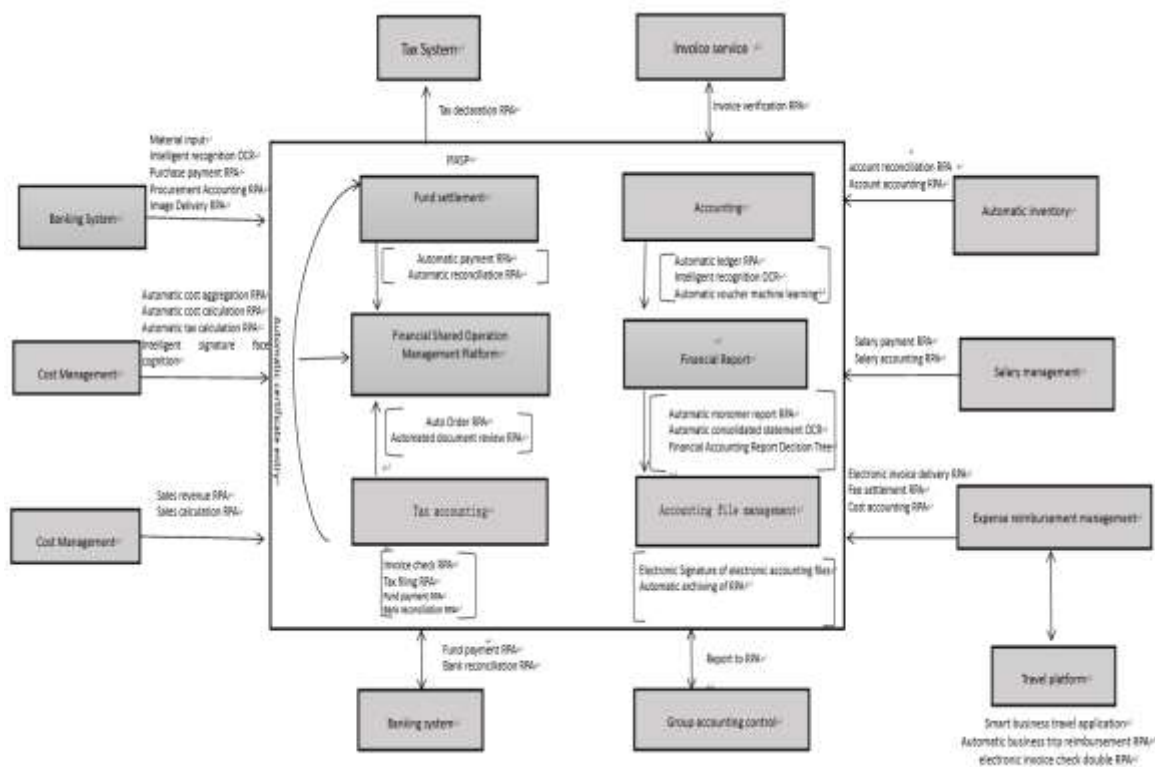
Figure 2. Architecture of IFASP

3.3 IMASP

The IMASP covers eight work areas of strategic management: budgetary tasks, cost optimization, operations, corporate investment activities, performance and accounting, and risk reduction reports formed by management accounting activities. The IMASP includes eight core tasks, namely, fund management, asset management, tax management, budgetary tasks, cost optimization, corporate investment activities, and performance and accountingreport, which can be illustrated in the diagram below:
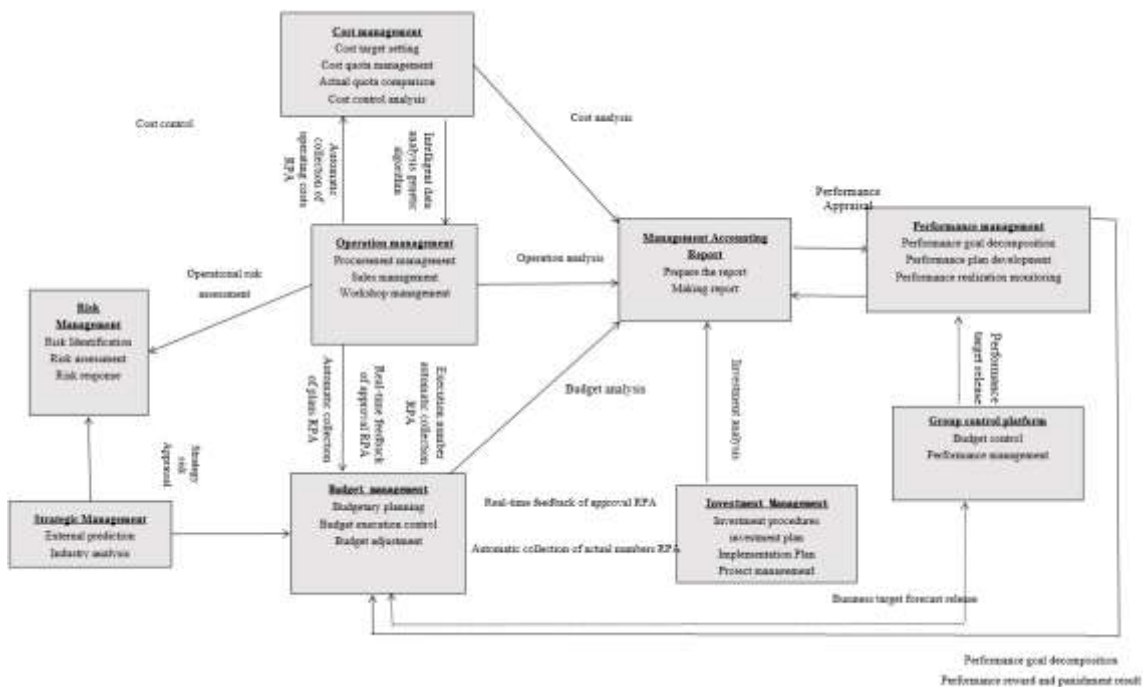
Figure 3.Illustration of IMASP

3.4 Construction of IFSP framework

The construction of the IFSP aims to achieve intelligence through standardization, digitization and integrated construction. It is essential to construct the IFASP and the IMASP[6]. The specific construction items are shown in Table 1 and the implementation steps of the shared financial platform are as follows in table 1:

Table 1. Key points of building an IFSP

Smart finance sub-platform	Core Construction Logic	Fundamental construction target	Key construction foundation	Key construction contents
IFASP	Business process driven	Standardization and automation of accounting Centralized and automated capital settlement Automation of tax calculation and declaration Accounting file management electronic automation	Accountant course The form attachments Accounting rules Management mode The business process Compliance	The business process Intelligent operation The form attachments Data standards The information system responsibility

			standard	System file
IMASP	Management standardization	Automated budgeting analysis Budget control is per-automated Automated cost collection calculation Standardization of project management Intelligent tax declaration	Information management Integrated way Data standards Data interchange Safety standards	Data standards Intelligent operation responsibility System file

The first step is business process analysis. Firstly, according to the integration of business and financial management needs, sort the business process. The process of the current system business process is analyzed and discussed to see whether the original business process is reasonable. The process of building IFSP is a process of process reengineering, and the process should be sorted out. Organize the existing business processes, optimize the existing business processes, establish the business processes under the intelligent financial sharing mode, highlight the intelligent scene design and the matching application of new technologies. The process can be sorted with the help of business, financial and management integration flow chart and information flow matrix, the establishment of the top-down division level, the establishment of business, financial and management integration of enterprise business flow chart. Secondly, form attachment carding to realize the standardization and data of form attachment. The construction of IFSP realizes accounting automation through business-driven financial process. According to specific business nodes, the accounting forms and attachments generated in the process of business occurrence are sorted out, including form code, form name, form format, form data items, data item attributes, form logic relationship, etc[7].

The second step is data standard analysis. The construction of IFSP provides a good opportunity for enterprise data standard combing. The shared platform needs unified data standards. Data standards analysis, in the form of the lowest level business process node, extract data items from the internal management reports that are being used and may be used in the future, merge similar data items, and standardize the key attributes of data items such as name, meaning, reference source, usage dimension[8].

The third step is system design. The construction of IFSP is the process of information system reengineering. On the one hand, it is necessary to adopt new technologies through production and operation, cost management and investment management to realize intelligent financial sharing system. On the other hand, need to upgrade the smart financial relevant business systems, financial accounting and management accounting systems, in order to solve the problem of intelligent system in the course of the construction of financial docking and overall system optimization problems, so as to realize the

digital of the file attachment, financial processing automation, automation and electronic accounting files the collection.

The fourth step is to establish the model algorithm. The construction of IFSP realizes service business operation and auxiliary decision support through data-driven management. According to actual problems, multi-dimensional analysis model and data mining model are designed by using big data analysis application. Model algorithm carding is based on the enterprise internal basic data, business data, financial data, management data and enterprise external economic data, to achieve business, financial and management of multi-dimensional analysis.

IV. CONCLUSION

The construction of intelligent finance is a significant reform of enterprise financial management, which needs to optimize the existing business management mode and business operation mode of enterprises. The construction of IFSP can be promoted according to the three logics of business-driven finance, management-standardized business and data-driven management, highlighting the four construction concepts of big sharing, big integration, big data and big management. Its core task is to build innovative intelligent sharing platform and build new financial management mode. Among them, the intelligent financial platform covers IFASP and IMASP, need to use intelligent scene design and new technology, establish intelligent financial operating principles and smart financial management mode, intelligent finance the establishment of Shared rules of operation and management is the key to constructing new financial management mode.

The leaders in charge of the enterprise should directly lead the development and design of the IFSP, and the leaders in charge of the enterprise should directly participate in improving the financial personnel's understanding of the importance of the application of the IFSP. The finance department, information department and business department work closely together, with the help of consulting agencies, software providers and enterprise field work teams to promote the project implementation. Realizing the sharing of financial information will, without a doubt, help to enhance the performance of corporate financial management, while at the same reduce the time needed for control measures to take place for enterprises, so as to improve the competitiveness of enterprises.

Acknowledgement

REFERENCES

[1] Liu Meiling et al. Research on the basic framework and construction ideas of intelligent finance. Accounting Research.2020 (3) : 179-192

[2] Yang Yin et al. Research on the transformation of enterprise financial intelligence: architecture and path process. Friends of Accounting. 2020 (20) : 145-150

[3] Hu Hong. Improvement of financial management level based on financial sharing center. Finance & Economics, 2019 (11): 112 -- 113.

[4] Li Wenyi et al. The choice, realization elements and path of intelligent financial sharing. Friends of Accounting, 2019(8) : 115-121

[5] Cai Yonghong et al. Research on Theory and Method of Accounting Informatization in the Era of Big Data. China Market, 2015(9) : 52-53

[6] Asatiani A, Penttinen E. Turning robotic process automation into commercial success-Case OpusCapita. Journal of Information Technology Teaching Cases, 2016, 6(2): 67-74.

[7] Grabowski R, Siegel B, Johnson C, et al. Finance in a Digital World: Technology as A partner, not a threat. The Journal of Government Financial Management, 2019, 67(4), 18-23.

[8] Huang Feiqi, Miklos A. Vasarhelyi Applying Robot Icprocess automation (RPA) inauditing: Aframework. International Journal of Accounting Information Systems, 2019, 35.