

Research on Financial Statements System Based on Enterprise Resource

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Abstract Financial statement is an important carrier to transmit accounting information to external users. With the development of social economy and the variation of users' demand, financial statements system should be improved and perfected. As the current Chinese financial statement system which based on enterprise assets has its limitations, this paper puts forward ideas about financial statement system based on enterprise resource according to the Resource Theory, and suggests statement which reflects corporation's competence, resource value and comprehensive income should be added to the current financial statement system. The financial statement system, based on enterprise resource, consists of balance sheet, income statement, cash flow statement, resources equity statement, comprehensive income statement, statement of goodwill index and the changes of its value. And the elements of basic statements and extensible statements should take different confirmation and measure methods.

Keywords Asset • Competence • Enterprise resource • Financial statement system

1 Introduction

As a business language, accounting provides information through financial statements. The financial statements system is not always static, but it is improved and perfected with the development of social economy and the demand of users. In fact, financial statements system of every country in the world is in the process

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of development and change. The trend is that species from single to multiple, the submit object from the inside to the outside and the content from simple to complex.

Domestic and overseas scholars and accounting professional groups have done a lot of research on financial statement system, among them the United States and the UK are in the lead [1]. American Accounting Association (AAA) made a suggestion to reform statement in 1991. It included self-generated goodwill should be recognized in the statement if it can be measured reliably, and add employees report and value added statement. The United States Financial Accounting Standards Board (FASB) rebuilt financial statement system in 1984, the system consisted of statement of financial position, income statement or comprehensive income statement, cash flow statement and statement of owners' investment and assignment to owners. The American Institute of Certified Public Accountants (AICPA) came up with an assumption to perfect statements in 1994, it included distinguish between core and non-core item, using mixed measurement attributes, and non-core items were measured at fair value. In 1997, FASB proposed that besides income statement, statement of comprehensive income should be prepared to reflect enterprise net income and other comprehensive income.

British accounting field also made great efforts on the improvement of financial statements. UK Accounting Standards Board (ASB) successively issued many reports, such as *corporate report*, *the future financial and accounting reports model*, *financial information preparation*. In 1992, ASB put forward the idea that adding "all have been confirmed gains and losses table" to report all of the enterprise performance. In 1995, ASB extended the basic financial statements to four, which is income statement, all have been confirmed gains and losses table, balance sheet and cash flow statement.

Recently, IASB and FASB do a lot of work about reformation on financial statements, and jointly issued *Preliminary Views on Financial Statement Presentation* in October, 2008. They changed balance sheet to statement of financial position, and combined the income statement and comprehensive income statement to comprehensive income statement, and classified all kinds of statements according to operating activities, investing activities, financing activities [2]. But statements after reformation still based on assets, they couldn't reflect the value of enterprise resources and changes in competence and couldn't provide the information of enterprise value and wealth changes.

Many domestic scholars conducted research on the issue of the financial statements from different points of view. Wang Songnian and Xue Wenjun (1999) proposed the establishment of a comprehensive performance reporting system [3]. Ge Jiashu and Chen Shoude (2001) studied the financial statement from the point of view of the quality evaluation system and put forward high-quality financial reporting evaluation criteria [4]. Xie deren (2001) conducted research from the perspective of the logical relationships between the financial statements, analyzed the reasons for the collapse of its logic and propose the target of reconstruction [5]. Zhu Kaixi (2007) put forward the direction of the reformation of the value reporting from the perspective of accounting errors and the accounting equation [6]. Huang Xiaobo (2007) built the model of financial statements from the respective

of generalized capital and property rights [7]. Zhan Meisong (2008) interpreted disclosure off financial statements from the perspective of the residual rights of control, and advocated the information which is important, measurable and consistent with the definition of the accounting elements shall be included in the financial statements as much as possible [8]. Zhang Jinruo and Song Ying (2009) conducted research on the issue of classification and presentation of financial statement [9]. Although academia and accounting standards-setting institutions all over the world have made great efforts for the improvement of the financial statements, financial statements in the current system remains flawed, it cannot meet the needs of the information consumer well. Based on this, this paper uses the resource theory, making a clear distinction between the resources, assets and capabilities, and builds a resource-based system of financial statements.

2 The Major Defects of the Current System of Financial Statements

2.1 IASB, FASB, ASB and China’s Current System of Accounting Reports

At present, national financial reports system mainly consists of balance sheet (statement of financial position), the profit and loss statement (income statement), cash flow statement, statement of comprehensive income or statement of owner’s equity. IASB, FASB, ASB and China’s current financial statements system is shown in Table 1.

Table 1 IASB, FASB, ASB and our current financial statements system

Standards-setting institution	IASB	FASB	ASB	China’s ministry of finance
The composition of the financial statements	(a) Statement of financial position	(a) Statement of financial position	(a) Profit and loss statement	(a) Balance sheet
	(b) Statement of comprehensive income	(b) Statement of comprehensive income	(b) All have been confirmed gains and losses table	(b) Profit statement
	(c) Cash flow statement	(c) Cash flow statement	(c) Balance sheet	(c) Statement of cash flow
	(d) Notes to the financial statements	(d) Notes to the financial statements	(d) Statement of cash flow (e) Notes to the financial statements	(d) Statement of owner’s equity (e) Notes to the financial statements

From Table 1, we can find that the current financial statements system of IASB is the same with FASB, they both combine income statement and statement of comprehensive income to the statement of comprehensive income, while China's financial statements system is the same with ASB, setting statement of owner's equity or total recognized gains and losses table to reflect gains and losses recognized besides profit statement.

2.2 The Major Defects of the Current Financial Statements System

Due to the restriction of traditional accounting concept, the formulation of accounting standards didn't jump out the frame that takes enterprise assets as the main accounting object. So that self-generated goodwill which reflects the core competence, competitive position and competitive advantage have not yet contained in the financial statements system. As a result, Philip Morris paid \$1.29 billion for Kraft Inc. in 1988, and 90 % was goodwill which didn't reflect in the traditional accounting statement. Although enterprise accounting standards which China issued in February, 2006, separated goodwill from intangible assets, the China's ministry of finance sets standard only for merger and acquisition goodwill, self-generated goodwill has still excluded from the financial statements. The most defect of the current financial statements system is that accounting information is incomplete, and it cannot reflect the influence on performance because of the value of enterprise competence (goodwill) and its change, so that contradictions between demand and supply of accounting information is serious [10].

This paper holds that the construction of financial statements system shall base on enterprise resources to make information better meet the needs of users.

3 Accounting Elements and the Accounting Equation Based on Enterprise Resources

Resource-based theory is a combination of resource-based view, competence-based view, knowledge-based view. The main point is as follows: (1) enterprise is a collection of resources; (2) the reason why enterprise profit is that it has scarce resources and product of low production cost or high differentiation; (3) the competitive advantage comes from internal not external, depended on the enterprise proprietary resources which is heterogeneity, scarce, difficult to imitate, efficient, invisibility and intellectual; (4) enterprises have continuously inner power to produce heterogeneous resources, and they can effectively use and maintain competitive advantage; (5) competence is built on the basis of knowledge, and knowledge is micro basis to create competence [11].

This paper holds that resource is equal to asset and competence. Assets and competence are important resources which exist in enterprise and can be used to create value. Li Yuju (2010) made in-depth analysis respectively from two aspects: the market and the enterprise and its interaction process and found that there is a close relationship between goodwill and competence. Goodwill is comprehensive evaluation to sustainable business performance of the enterprise, it comes from the enterprise and reflects that the enterprise adapts to development of the market. And goodwill is also the concentrated reflection of the core competence of the enterprise, and it is of great significance to reduce the risks and costs in market transaction. The conclusion is that goodwill is the external performance of competence, and competence is inner support of goodwill [12]. In this way can we realize the goal to accounting the value of resource through accounting assets and goodwill in accounting according to “resources = assets + competence” and “goodwill is a manifestation of the value of the competence”. Just because of this, resource-based theory can be used for the development of accounting theory, then the above equation can be turned into “resources = assets + goodwill”. According to the actual situation in China, we can add the gain and loss, goodwill to the existing accounting elements, and cancel the profit elements, and change the owner’s equity (equity) into the equity elements. Thus, accounting elements include assets, goodwill, liabilities, equity, income, gain, cost and loss. The accounting equation base on resources accounting is as follows:

The value of resources = liabilities + equity

The value of resources = assets + goodwill

Equity = stockholder’s equity + residual equity

Assets = liabilities + stockholder’s equity

Profit = income – cost + already realized controllable gains and losses

Profit from operation = income – cost

Comprehensive income = profit + controllable gains and losses + uncontrollable gains and losses

4 The Construction of Financial Statement System That Based on Enterprise Resource

With the development of economy, the contribution of intangible resources is increasing, resulting in the needs of the disclosure of relevant information. American Association of Investment Management (AIMR, 2003) surveyed investment analysts, corporate executives and directors in the form of a questionnaire survey about the quality and importance of the company’s accounting information disclosure, and the result showed that people considered the income statement, balance sheet, cash flow statement is very or extremely important accounted for 87 %, 90 % and 87 %; and goodwill information is very or extremely important accounted for 67 % [13].

According to the need of users and resource-based accounting elements and accounting equation, financial reporting system should be constituted by balance sheet, income statement, cash flow statement, resource equity, comprehensive income, goodwill index and changes of the value. Among them, the balance sheet, income statement, cash flow statement are basic statements, resource equity, comprehensive income, goodwill index and changes of the value are extensible statements, and now extensible statements can be yearly report. The new financial reporting system still retain the balance sheet, income statement, cash flow statement of the original reporting system, and add resource equity and goodwill index and changes of the value. The existing accounting recognition criteria can be used for basic statements elements: (1) Comply with the definition of the accounting elements; (2) The economic benefits which is related to the project is likely to flow into or out of the enterprise; (3) The cost or value of the project can be measured reliably. While the new recognition criteria should be developed for extension report elements: (1) Comply with the definition of the accounting elements; (2) The economic benefits which is related to the project is likely to flow into or out of the enterprise; (3) Measurability (it can be monetary measurement, it also can be non-monetary measurement) and verifiability. All statements should be reported by fair value eventually.

4.1 Resource Equity

Resource equity is the statement which reflects the component and the source of the enterprise resources. We can realize the component of the assets, goodwill, liabilities, shareholders' equity and residual equity through resource equity. Through resource equity in different periods, we can know the changes in the value of enterprise resources, so that corporate stakeholders can make the appropriate decisions.

4.1.1 The Design Ideas of Resource Equity

Changed assets into resources and increased the value of goodwill in the resource section, liabilities and equity take the place of liabilities and owners' equity, and increase the residual equity in the equity section. The specific method is to set the "goodwill" account and "residual equity" account, the value of goodwill should be confirmed by evaluation, goodwill tests are required to be performed regularly (a quarter or half a year), determine the goodwill value after change through the preparation of Goodwill Index, then prepare Resource Equity. The specific design of Resource Equity is shown in Table 2.

Table 2 Resource equity

Prepared by:				Month:	Year:		
Resource	No.	At beg of year	At end of period	Liabilities and equity	No.	At beg of year	At end of period
Total current assets				Total current liabilities			
Intangible assets				Total non-current liabilities			
Total non-current assets				Total shareholder's equity			
Total assets				Residual equity			
Goodwill				Total equity			
Total resources				Total liabilities & equity			

4.1.2 The Way of Increasing the Resource Equity

The Resource Equity this paper added is on the basis of balance sheet. Making some change on the basis of the current account: (1) increase “goodwill” and “residual interest”; (2) usual accounting goodwill index, through the certain goodwill metering method to determine the value of goodwill regularly or actual needs.

Equity is an important element of financial statements, it represents a claim of internal stakeholders on the particular accounting entity resources. The definition, recognition and measurement of equity have a direct impact on the confirmation and report of the financial position of accounting entity and the calculation and allocation of operating income. This paper argues that the equity consist of stockholders equity and residual equity. The stockholders equity can be confirmed and measured through the current confirmation metering method; the residual equity is the value implied by the enterprise capabilities, it can be confirmed and measured with the recognition and measurement of goodwill. The value of goodwill is the amount of residual interest that the enterprise possesses.

4.2 Comprehensive Income Statement

Comprehensive income statement is a report that reflects overall income status of the enterprise during a period. Through comparison of comprehensive income statement during different period, users can realize the enterprise financial performance and wealth changes. By analyzing the reasons of change, enterprise performance and management of the business performance and the future development potential of the enterprise can be evaluated [14].

Table 3 Comprehensive income statement

Prepared by:	Month:	Year:	
Item	Current month	Current year	Prior year
1. Net profit			
2. Other comprehensive income (with “-” for loss)			
The unrealized profits and losses of the securities			
The changes of profit and loss of goodwill			
3. Comprehensive Income(with “-” for loss)			
Net earnings per share			
Diluted earnings per share			
Comprehensive income per share			
Diluted comprehensive income per share			

The author deems that the current comprehensive income statement does not reflect enterprise’s income completely and does not include the information about the changes of enterprise goodwill. In order to better meet the information user’s demand for accounting information, the comprehensive income statement should be improved.

4.2.1 The Improvement Ideas of Comprehensive Income Statement

Increase the changes in profit and loss of goodwill on the basis of the current comprehensive income statement, and the data about the changes of goodwill is calculated according to the goodwill measure model. The comprehensive income statement is as shown in Table 3:

4.2.2 The Way of Improving Comprehensive Income Statement

In this paper, improvement of comprehensive income statement is built on the basis of the existing comprehensive income statement at home and abroad. The data about the changes of goodwill is calculated according to the goodwill measure model that the author built, and its recognition bases on the build of the goodwill index.

4.3 The Statement of Goodwill Index and the Changes of Value

4.3.1 The Design Ideas of the Statement of Goodwill Index and the Changes of Value

The statement of goodwill index and the changes of value is a statement that reflects the goodwill index of the corporate and its changes, also reflects the value

of goodwill. Through comparison by the goodwill index and the change of its value during different periods, we can analyze the production and operational efficiency, the competitiveness of enterprises and the change of the ability to achieve sustainable development, and the existing problem and investment value, so that stakeholders make appropriate decisions.

According to the research of Li Yuju, goodwill comes from competence, the core element of the goodwill is sustainable business performance capabilities of the enterprise, while competence consists of comprehensive operation efficiency, industry potential and development potential [15]. Comprehensive operation efficiency reflects operational efficiency and effectiveness, it can judge by ten indicators: total sales income per capita, total sales revenue margins, net profit margin, cost-profit ratio, energy consumption per 10,000 yuan of sales income, liquidity turnover rate, net asset growth rate, digitization and network management coverage, itself reason the accident rate, authigenic accident disposal cumulative hours. Industry potential epitomizes the company's products, the level of services and its market position, it can judge by six indicators: leading products market share and its sales growth rate, new products and new market sales to total sales revenue, assets capital ratio, the new branding expenses to total sales revenue, complaints changes from social and consumer. Development potential mainly reflects the ability to achieve long-term stable development, it can be measured by 10 indicators: equipment investment accounted for proportion of sales revenue, expense for development of strategy research accounts for proportion of sales revenue, new research and development expense accounts for the proportion of sales revenue, the number of personnel engaged in research and development directly, new patents, the number of large-scale production of new products, new increased staff training expenses, full average years of education, marketing and R & D personnel accounted for the proportion of all employees, employee incentive expenses accounted for proportion of the total wage expenditure. Then the statement of goodwill index and the changes of value can be designed as shown in Table 4.

4.3.2 The Way of Increasing the Statement of Goodwill Index and the Changes of Value

According to the research of Li Yuju (2010), the author established the index system which composed of 26 indicators for the three competences according to the principle of objective, quantitative, data can be easy to get and no overlapping, and build goodwill index econometric models to determine the goodwill index and the value of goodwill, then prepare the statement of goodwill index and the changes of value.

With the perfection of information technology, the breakthrough of measurement technology and method and the improvement of financial personnel diathesis and the ability of information users to read the statements, the income statement and the comprehensive income statement can be combined to the comprehensive income statement, and resource equity replace the balance sheet (statement of financial position).

Table 4 The statement of goodwill index and the changes of value

Month: Year	Pre-index		Index changes		
	Current index	The same period last year	The base period	Year-on-year growth	The growth than in the base period
Comprehensive operation efficiency (E)					
Industry potential (P)					
Development potential (Q)					
Goodwill index (G)					
The value of goodwill (S)					

5 Conclusion

1. Financial statements are important carrier to output accounting information. Financial reporting system is not static, but it is improved and perfect based on the development of social economic and demand of users.
2. The current financial reporting system is built on the basis of assets. It is unable to provide enterprise value, complete comprehensive income information and the information of enterprise capabilities that reflect the competitive advantage and the changes of wealth. It is not enough to meet the development of social economic and demand for accounting information users. The contradiction between supply and demand of accounting information is obvious.
3. The financial statements system based on enterprise resources should be built to solve the contradiction between supply and demand of accounting information, that is to increase resources equity, comprehensive income statement, the statement of goodwill index and the changes of value on the basis of the existing reporting system. The elements of basic statements and extensible statements use different recognition criteria and measurement methods.
4. The construction of financial statements system which based on enterprise resources, must based on the development of traditional accounting theory, the construction of the new financial accounting conceptual framework, and confirmation and measurement of goodwill.

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References

1. Ge Jiapeng, Du Xingqiang (2005) Accounting theory. Fudan University Press, Shanghai, pp 78–85
2. IASB & FASB (2008) Discussion paper: preliminary views on financial statement presentation. Australian Accounting Standards Board (AASB), Australia
3. Wang Songnian, Xue Wenjun (1991) The improvement of financial statement. *Account Res* 20(7):2–8
4. Ge Jiashu, Chen Shoude (2001) Study on assessment of the quality of financial reporting. *Account Res* 22(11):9–18
5. Xie Deren (2001) The logic of financial statements: disintegration and reconstruction. *Account Res* 22(10):28–35
6. Zhu Kaixi (2007) Accounting report, accounting equation and accounting deviation. *Account Res* 28(9):12–18
7. Huang Xiaobo (2007) Financial report based on generalizing capital. *Account Res* 28(10):3–10
8. Zhan Meisong (2008) An analysis on disclosure off financial statements from the perspective of residual control right. *Account Res* 29(10):25–30
9. Zhang Jinruo, Song Ying (2009) Study on information classification and presentation in the business financial statements. *Account Res* 30(9):29–35
10. Li Yuju (2010) The research of goodwill measurement method based on the enterprise ability. *Manage World* 31(11):174–175
11. Grant RM (1991) The resource-based theory of competitive advantage: implications for strategy formulation. *Calif Manage Rev* 33(3):114–135
12. Li Yuju (2010) The reference from resource theory. *Account Mon* 31(3):92–94
13. AIMR (2003) Member survey of global corporate financial reporting quality and corporate communications and disclosure practices. Association for investment management and research. <http://www.aimr.org>. Accessed 20 Feb 2005
14. Cheng Chunhui (2001) Research on comprehensive income. Northeast University of finance and economics press, Dalian, pp 41–42
15. Li Yuju, Zhang Qiusheng (2006) The research of accounting elements on the basis of enterprise resources. *Account Res* 27(1):54–62