

# Profound Influences of Evolution of Management Theories on Development of Accounting Science

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**Abstract**—Reflection and embodiment of management thoughts in the sector of accounting science enrich and promote the development of accounting theories and, under some circumstances, guide practices of accounting. Accounting practices and formation of accounting theories are inseparable from the needs of management practices. This paper believes that each internal change of management thoughts has profound influences on accounting theories, promoting the prosperity and scientific and overall development of accounting practices.

**Keywords**- *Management Theory; Accounting Science*

## I. INFLUENCES OF CLASSICAL MANAGEMENT THEORIES UPON ACCOUNTING SCIENCE

According to development history and contents, management theories are divided into three phases, namely, theories of classical management, theories of behavioral scientific management and theories of modern management. As management theories are getting increasingly mature, they have generated profound influences on the development of accounting science.

Schools of classical management theories mainly include theory of scientific management, as represented by Taylor, theory of administrative management, as represented by Fayol, and theory of administrative organization as represented by Weber.

### A. *Taylor's theory of scientific management and its influences upon accounting*

The theory of scientific management of Frederick W. Taylor has not only promoted development of traditional industries but also set up a cultural foundation for the organizational structure in the West.

The influences are embodied in a concentrated way in cost-management accounting, which is generated and develops under the influence of Taylor's theory. With the purpose of improving producing and working efficiency, Taylor and other engineers set up scientific standards for requirements of labor and material for a given amount of output by means of working analysis as well as research on time and action. By doing this, Taylor became the first person who distributes indirect manufacturing fee to the cost of products and sets a method for accounting management with scientific management

characteristics. The method focuses on cost budget, standard cost method and differentiation analysis. The purpose of cost accounting is, under the precondition that strategic orientation and management decisions have been fixed, to help the enterprises concerned to settle problems like how to improve production efficiency and economic effects and how to reduce cost in the process of implementing the strategy and decisions. In this period, it is required for calculation of standard cost to conduct overall collection and reasonable distribution of all cost calculations, separating products that have been sold from those still in stock in terms of products and their cost. Thus, objective and clear methods are stressed for the distribution of all costs.

The core of Taylor's theory is the requirement for enterprises to reduce damages and wastes to the lowest degree. For this purpose, the theory requires management to carry out "most perfect system for calculation and supervision", which, in accounting at that time, was realized by scientific stipulation of "standard cost" and strict implementation of "budget control" and "differentiation analysis". This is a great progress in calculation and supervision due to the need of accounting to cooperate with wide applications of Taylor's theory.

In addition, influences of Taylor's theory upon modern accounting are also far-reaching. For instance, main influences of principal contents of Taylor's theory, namely, theory of matching-up of ability and job, standard theory, training of workers and separation of planning and implementation, upon accountants include:

#### 1) *Requirements of Standards on Basic Work of Accounting of China:*

- Only licensed accountants are allowed to do accounting.
- Accountants shall strictly follow moral standard for the profession of accounting and obey related rules and regulations on accounting in their professional practices.
- Separation of duties of accountants. Cashiers shall not be concurrently responsible for accounting examination, keeping of accounting files as well as registration of accounts of cost, claims and liabilities.

- Article 8 and article 11 in Chapter 3 of Rules on Continuous Education of Accountants of China stipulate that accountants have the right and obligation to participate and receive continuous education, and that annual time for training (classroom teaching) shall not be less than 24 hours.

2) *Stipulation of Law of the PRC on Certified Public Accountants and System for Follow-up Training of CPA*

- Only a CPA is allowed to sign on audit reports.
- In-job accountants shall receive follow-up education not less than 180 hours in 3 years and not less than 40 hours each year; off-job accountants shall receive follow-up education not less than 120 hours in 3 years and not less than 20 hours each year.

B. *Fayol's theory of administrative management and its influences on accounting*

I believe that two points of the theory of Henri Fayol, the "Father of Modern Management", have imposed profound influences upon accounting.

1) *According to the theory of Fayol, all business activities of industrial enterprises are divided into 6 categories:*

- Technical activity (production, manufacturing, processing);
- Commercial activity (purchase, sales, exchange);
- Financial activity (collection and best use of capital); safety activity (protection of assets and personnel);
- Accounting activity (jobs regarding assets examination, balance sheet, cost, statistics, etc.);
- Management activity (planning, organizing, commanding, coordinating and control).

The primary contribution of Fayol's *Industrial Management and General Management* is: distinctively separate finance from accounting. This book not only regards finance and accounting as two important sectors in enterprises' business activities, but also includes basic contents of finance management and accounting management into the process of finance and accounting, clarifying not only the parallel positions of separate job responsibilities but also contents of finance and accounting in enterprise.

2) *Fayol brought forward problems regarding quality of administrators and management education*

According to Fayol, abilities of skill, commerce, finance and management are based on the following qualities and knowledge:

- Body: healthy, energetic and agile;
- Mentality: energetic and flexible;
- Morality: perseverant, strong, responsible, innovative, loyal, being self-knowledge and self-respected;
- Common knowledge: having a wide range of knowledge in addition to those about his job;

- Experience: capable of learning from practice and obtaining lessons.

These theories later imposed profound influences upon professional morality and basic requirements of accountants. For instance, Standards on Basic Work of Accounting of our country stimulate clearly on qualifications of leaders and chief accountants in accounting institutions, including requirements in 6 sectors:

- Ideological requirement: Sticking to principles and being honest in performing his official duties;
- Professional requirement: Holding qualification certificate for accounting;
- Experience requirement: Having the experience of in charge of accounting of a unit or a department of a unit for at least 2 years;
- Legal requirement: Be familiar with laws, rules, regulations and polices of finance and economy of our country, and understanding knowledge on management of accounting;
- Requirement on organizing ability: Strong organizing ability;
- Health requirement: Be healthy enough to do one's job.

C. *Max Weber's theory of administrative centralized organization and its influences on accounting*

Max Weber, "Father of Organization Theory", proposed "ideal" theory on administrative organization system (Bureaucratic Centralization Theory) from his research of sociology. According to Weber, all organizations are based on power, which is divided by Weber into three types: reasonable and legitimate power, traditional power and divine power, and only the former one is the base of administrative organizations because it can guarantee successive and reasonable business operation and management, select people in accordance with their ability and exert power as per legal procedures. Obviously, the efficiency of traditional power is the lowest among the three powers in pure state, because leaders under this condition are not chosen in accordance with ability and the management is only for the purpose of preserving traditions in the past. Being emotional and irrational, divine power is based on mysterious or sacred inspirations. Thus, the other two powers are not suitable to serve as the base for administrative organization systems.

Then, what is legitimate power? Weber's standards are described in details. Of course, these standards play an irreplaceable role in guiding organization regulations about accounting. According to Weber, rational and legitimate power has the following fundamental characteristics:

- It is a successive organization that functions as per regulations. As a trade organization of Chinese certified public accountants, the Chinese Institute of Certified Public Accounts is a mass organization as a legal person established as per Law of the PRC on Certified Public Accountants and Regulations on Registration of Social Organization.

- It has a clear range of authority. The Chinese Institute of Certified Public Accounts stipulates management regulations on self-disciplining of the trade, violators of which will be punished; The institute organizes examinations for CPA applicants; The institutions has other rights and obligations, such as organize and promote training of its members.
- Administrative organs are organized by levels and series, that is, each lower level organ is under the control and supervision of a higher level organ, and a lower organ has the right to complain and express dissatisfactions. It is stipulated in Accounting Law of China that the State Council is in charge of accounting works nationwide and the financial department of people's government at or above county-level is in charge of accounting work in its jurisdiction area. In other words, accounting in our country is under the control of financial departments and the management mechanism for accounting is "Unified Leadership and Level-based Management."
- Rules guiding the behaviors of an organ. In the future, only persons who have received proper technical training can be qualified to become members of and serve in an organ. It is stipulated by article 4 of *Regulations on CPA Registration of China* that, those who satisfy one of the following requirements and have done audit job in China for at least two years are allowed to apply for registration to a provincial-level institute of certified public accountants: Have passed national examination for CPA candidates; Have obtained CPA qualification after legal evaluation or examination.
- It is not allowed for any person in any rational organization to abuse his power. It is stipulated by article 4 of *Regulations on Practicing of CPA* that a CPA shall follow professional morality standards of Chinese CPA (abbreviated as professional morality standards) and quality control standards of accountant firm. It is not allowed to abuse power and conduct job by violating the rules.

## II. THEORY OF BEHAVIORAL SCIENCE AND ITS INFLUENCES ON ACCOUNTING

From perspectives of psychology and sociology, behavioral science stresses research on individual demand and behavior, group industry, organization behavior and methods for stimulation and leadership. It suggests that enterprises shall put people, rather than matter, in the core place. The theory's influences are primarily represented in management accounting.

The function of modern management accounting is actually a behavioral function. It is impossible for information of management accounting to practically influence operations of businesses unless by means of actions and functions of people. Therefore, in order to give a full play to modern management accounting, it is a must to stress researches on behaviors of

people, and this is a basic direction for development of modern management accounting.

The influences of behavioral science upon modern management accounting are as the following:

- It helps enterprises to correctly conduct multi-target decision-making, the method of which changing from stressing optimization to satisfaction.
- It helps enterprises to conduct multi-layer and multi-target coordination so as to make consistent the targets of enterprise on the one hand and the targets of departments and individuals on the other.
- It helps to replace the method of compulsory management with one that make full use of effective stimulating measures so that each department and individual make their biggest contributions to the materialization of the overall goal of the enterprise. At the same time, each department and individual can get utmost satisfaction by the realization of their goals and demands.
- By means of diverse data system, it calculates, evaluates and controls performance so that initiatives of each department and individual of an enterprise will be motivated to complete the desired target system by giving a full play to their abilities.

## III. THEORIES OF MODERN MANAGEMENT AND THEIR INFLUENCES ON ACCOUNTING

The most outstanding characteristic of this phase compared with those of previous phases is numerous schools of thoughts, with new theories, thoughts and methods of management science emerging one after another. The common points of management theories in this phase are: (1) Emphasis on system; (2) Emphasis on the factor of people; (3) Emphasis on "non-formal organizations"; (4) Wide application of advanced management theories and their methods; (5) Strengthening of information work; (6) Combination of efficiency and effectiveness; (7) Stressing the importance of connection of theory and practice; (8) Emphasis on ability of "prediction"; (9) Emphasis on continuous innovation. This paper only makes a detailed introduction to theory of management science, theory of strategic management and theory of humanistic management and their influences upon accounting.

### A. *Theory of management science and its influences on accounting*

Influences of this theory upon accounting are displayed in a concentrated way in three sectors: First of all, by means of introducing quantitative method of management to accounting, including application of statistics, optimized model, information model and computer model, it helps the science of accounting to increasingly make use of methods and achievements of natural sciences, gradually changing the key points of accounting from reflection of economic process and post-process analysis to control of economic process and in-advance estimation and decision-making.

Secondly, activities of enterprise are a huge system and the key point for enterprise management is how to coordinate relations of sub-systems as well as relations with external systems so as to make this system highly effective. In this period, management information system came into being due to wide application of information theory and computer. The purpose of management information system is to provide useful information, including financial information, to management departments at all levels within enterprises for the planning and control of economic activities.

Finally, contingency theory of management is widely applied in management accounting. The essence of this theory is that a business shall adopt management method that is most suitable for it and make adjustments in accordance with changes of conditions. This essence as displayed in management accounting is that management accounting adopts methods of other subjects, such as information theory, operation research and computer technology, and, in accordance with demands of practical decision-making, flexibly uses various methods, which are not limited by the existing framework and are evaluated only by whether they can provide useful information for decision-making.

The influences in these sectors are displayed in a concentrated way in the establishment of accounting systems with the help of computer, such as computer-assisted accounting system. These systems are effective in improvement of efficiency and accuracy of data-processing in accounting, improvement of settlement level and quality in accounting, and reduction of working intensity of accountants; help accounting management to transform from post-process management to in-process control and before-process prediction; promote innovations of skill, method and theory of accounting and drive its further development.

#### *B. Ideology of strategic management and its influences on accounting*

Since 1950s when the world began its post-industrial era, science and technology have accelerated its speed, resulting in continuous emerging of new industries, diverse demands of customers and more fierce competition among enterprises. Under this condition, for the sake of survival and development, enterprises transform professional and functional management to comprehensive decision-making management, which leads to improvement of strategic level of management and generation of strategic ideas and management.

The influence of ideology of strategic management upon certified public accounts is that it requires accountants to have the ability to evaluate risk, as evidenced in *Company Strategy and Risk Management in Standards of Certified Public Accountants*.

#### *C. Ideology of humanistic management and its influences on accounting*

Regarding employees as the most important resources of enterprises, the ideology of humanistic management believes that employees shall be designated to suitable posts in

accordance with their overall conditions, such as ability, specialty, interests and mentality. It also believes that initiatives and creativity of employees shall be fully motivated by means of sufficient consideration to their personal development and value, scientific management, overall development of human resources and construction of enterprise culture. Thus, employees will improve efficiency and performance in their jobs, making utmost contribution to the realization of goals of enterprises.

The ideology of humanistic management leads to the birth of humanistic accounting. At the later period of the development of behavioral accounting when it became extreme mechanism, humanistic accounting, which was a new school focusing on research of development of personality and value of accountants and accounting, established its system and research methods. Humanistic accounting believes that, as accounting activities have particular characteristics of their own, research on colorful accounting activities shall not be conducted by fixed concepts and methods. It stresses research on personal accounting activity, trying to make development of personal accounting activity healthy and sufficient. It not only does not exclude traditional scientific methods of research, but also expands original scope of research of accounting. The purpose of this is to solve problems such as accounting information and value of accountants, which were not included in the research scope of accounting in the past. Humanistic accounting shows its wish to enhance its system in the sector of scientific methodology.

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