

Transformation of Financial Accounting to Management Accounting in the Era of Artificial Intelligence

Shouliang Zhou *, Zixuan Wang

Dalian University, Dalian Liaoning, 116622, China

* Corresponding author: Shouliang Zhou

Abstract: With the rapid development of the Internet, the era of artificial intelligence has become a trend in today's society, ushering in an intelligent revolution in various industries. The advent of the era of artificial intelligence has laid a solid information foundation and environmental support for the development and progress of the information age, which will greatly impact the traditional working methods and approaches of financial accountants. Basic and repetitive tasks such as issuing invoices and expense reimbursement approvals can be replaced by intelligent machines, allowing financial professionals to focus more on management accounting. The application of artificial intelligence technology can not only improve the efficiency of financial accountants, but also promote the transition from financial accounting to management accounting. Therefore, how to utilize artificial intelligence to assist financial professionals in management accounting work is an inevitable requirement for the development of the intelligent era, which presents more demands for management accounting. Based on this background, the development process of enterprises needs to transform the financial management model, enabling the technical aspects of data collection and organization to move towards more advanced and efficient directions. This article analyzes and studies the strategies for using artificial intelligence to help financial accountants acquire management accounting capabilities, achieve the transformation of financial professionals into management accountants, and provide support for the development of enterprises in the era of artificial intelligence.

Keywords: Artificial Intelligence; Financial Accounting; Management Accounting; Accountants; Strategies.

1. Introduction

In recent years, with the vigorous development and widespread application of artificial intelligence technology, financial work has faced unprecedented challenges. Traditional accountants are no longer able to meet the demands of current enterprise development, and there is an urgent need to enhance their comprehensive capabilities by cultivating high-quality talents. For an enterprise to enhance its development capabilities, it not only requires the necessary resources such as manpower, material resources, and financial resources, but also needs excellent management capabilities. For professionals engaged in financial and accounting work in various organizations, it is crucial to actively update their knowledge structure in response to the trends of the times. Currently, private enterprise reform has entered a critical period, with enterprises generating a large amount of data in their operations. The value of the financial department lies in obtaining massive data and providing it to the enterprise. Traditional financial work in terms of quantity and quality can no longer meet the needs of enterprise development. Financial transformation towards digitization is necessary, and existing management methods need to gradually adapt to changes in management models and industrial transformation to enhance the market competitiveness of enterprises. Financial professionals should have a comprehensive understanding of the significant role of management accounting, clarify the integration points between artificial intelligence and financial work, effectively utilize the functions of management accounting, and provide more comprehensive and effective financial management for the growth of enterprises, as well as provide conditions for improving internal management.

This article aims to provide assistance for the transformation of financial accounting into management accounting in the era of artificial intelligence, based on the gap between enterprise financial accounting and management accounting in the era of artificial intelligence, and analyzes and studies strategies for utilizing artificial intelligence to help financial professionals acquire management accounting capabilities.

2. The Necessity of Financial Accountants' Transformation towards Management Accounting in the Era of Artificial Intelligence

(1) Lack of data processing abilities

With the development of artificial intelligence technology, financial data exhibits complexity and diversity, and financial analysis requires personalized and complex demands. Financial professionals are lacking in data processing abilities and face the risk of being replaced by artificial intelligence technology. Many people equate artificial intelligence with deep learning, considering technologies such as autonomous driving, facial recognition, and speech recognition as artificial intelligence. However, in fact, it refers to the mechanization of thinking processes and the automation of human work. Artificial intelligence expert Reiner stated, "Intelligence is 10 million rules." Therefore, all tasks that involve logical reasoning and complex calculations can be accomplished with the help of computers. Learning artificial intelligence technology is crucial, and the lack of this knowledge is a disadvantage for financial professionals. For example, due to their unfamiliarity with data pivot tables or macros for filtering and analysis, financial professionals can only

manually select and analyze large amounts of financial data, which is time-consuming and labor-intensive. Different reports exported from ERP systems may appear identical, but due to differences in text formatting, it is impossible to establish connections using VLOOKUP formulas between different worksheets. The design of expense reimbursement robots in enterprises, driven by users' pursuit of technological perfection and user experience, requires improvement in user experience and human-computer interaction for financial professionals. When dealing with reports, financial professionals may overlook certain flaws if they fail to consider issues from the perspective of customers. Therefore, enterprises need to actively adapt to this trend, create an atmosphere for financial professionals to learn artificial intelligence technology, offer data processing training courses, strengthen management accounting capabilities and development, and enhance core competitiveness and market share of enterprises.

(2) Demand for work efficiency in enterprises

In the era of artificial intelligence, all activity information of internal management of enterprises will be recorded, and those basic and highly repetitive work will be gradually replaced by intelligent technology. For example, after the launch of iFlyC's account reimbursement robot, it is committed to realizing the unmanned audit through intelligent filling, intelligent approval, intelligent audit and automatic payment, and liberates 5 million grass-roots financial reimbursement personnel through man-machine collaboration and cross-border integration. The efficiency improvement includes: the reimbursement time is reduced from the original 15 minutes to 5 minutes, and the efficiency is increased by 66%; The private audit was shortened from 290 person-days to 118 person-days, and the efficiency was increased by 60%. The public audit is shortened from 247 man-days to 172 man-days, and the efficiency is increased by 30%. If the labor cost is converted into value, the annual cost is saved by 4.5 million yuan; The efficiency of financial audit was increased by 52%, and 30% of the staff of the financial sharing center was released. This kind of work carried out in accordance with the established procedures will face the risk of being replaced by artificial intelligence, which prompts financial personnel to turn to business decision-making, predictive management, value screening, professional judgment and other more flexible and personalized work, that is, management accounting work. Management accounting can better help business managers make and implement decisions to achieve business goals and maximize profits. With the development and progress of science and technology, the competition of enterprises is becoming increasingly fierce, and the profits of enterprises are compressed, so that enterprises must devote their energy to internal management. Compared with traditional financial accounting, management accounting pays more attention to all aspects of the internal management process of enterprises, and combines artificial intelligence technology with work to be more precise, efficient and professional. For example, management accountants can help business managers identify and analyze various costs and expenses, and develop corresponding control and saving measures; Management accountants can also assist business managers in analyzing market conditions and consumer demand in order to optimize the pricing and quality of products and services.

(3) The development of the times is in urgent need of managerial talents

With the rapid development of Internet, artificial intelligence and other technologies, the transformation of financial accounting personnel to management accounting has become an inevitable trend of enterprise development. Compared with financial personnel, artificial intelligence robots can work 24 hours a day, three times as long as ordinary employees, not only with high efficiency, but also with high accuracy. The accounting data provided by traditional financial personnel is limited, while modern enterprises need more data analysis and decision support. Although artificial intelligence is very powerful, it is invented by humans after all, and it can imitate human wisdom, but it does not have the same thinking ability as people. Therefore, tasks that require human brain analysis, such as forecasting, financial analysis, budgeting, risk prevention and control, cannot be replaced by robots. Management accounting can provide more comprehensive and in-depth management information and decision support, and deal with work more flexibly. In addition, with the intensification of market competition, management accounting can help enterprises accurately grasp market, competition, cost and profit information, so as to better optimize resource allocation and improve efficiency, and improve the core competitiveness of enterprises. With the application of artificial intelligence and other technologies, management accounting can collect, process and analyze data more accurately, and provide enterprises with more accurate and effective management information and decision support. Therefore, enterprises should actively respond to this trend, promote financial personnel to actively learn the direction of management accounting work, to cope with the increasingly fierce market competition and rapid changes in the market environment.

3. The Difference between Financial Accounting and Management Accounting

There is a certain difference between the financial accounting method and the management accounting method in the economic activities. Understanding the difference between the two can effectively promote the transition from the financial accounting method to the management accounting method and give full play to its function. Financial accounting plays an important role in the operation and management of the company. Its main responsibility is to provide the financial management information required for the decision-making process of the company through specific financial management projects, focusing on the record of various economic businesses in the business activities of the company, and only processing the accounting information that has already occurred. The main work of financial accounting is to collect, sort out, analyze, register and report the original documents, which can provide useful information for the development of the company, so the company's activities can be regulated and the standardization of the company's activities can be enhanced. In addition, accounting personnel must be familiar with relevant national laws and have a certain understanding of industry knowledge. At the same time, the tedious work puts forward higher requirements for the psychological quality and professional quality of accounting personnel. Through financial accounting work, the management status of the company's management can be evaluated, the words and deeds of managers can be restricted, and the growth of the company can be promoted.

Management accounting is in a basic position in the asset management of a company. It focuses on providing effective information for the decision-making level of an enterprise, promoting the implementation of enterprise strategies, and reflecting the real financial information and operating results of an enterprise to external investors and other stakeholders. It can not only effectively control the financial information of the company, but also obtain information accordingly and establish various information indicator systems. This kind of information index system plays a key role in the company's investment decision, and promotes the company's investment decision to be more correct. The way of management accounting is much more flexible than financial accounting, and it can forecast the business situation and development strategy of enterprises. The company has put forward a development strategy, but it does not mean that the goal is immutable, and the strategy needs to be adjusted according to the actual situation of the company. Thus, it can better adapt to the needs of enterprises, but it will also lead to the need for rich enterprise data as the basis, management accounting can provide data for the company through the specific situation of the company. Management accounting personnel need to master rich and systematic financial theoretical knowledge, timely understand customer needs, pay attention to the dynamic changes in the market, through the combination of management accounting, can master the specific trend of management policies, help to use relevant research results to assist the company to implement performance assessment.

4. In the Era of Artificial Intelligence, Financial Personnel Should have the Ability to Manage Accounting

(1) Resource information integration ability

In the era of artificial intelligence, with the wide application of IPA technology and financial robots, the work focus of financial personnel needs to shift from highly repetitive and basic business handling to grasping the core contradictions of enterprises, and then make the best adjustment to adapt to existing technologies, and apply a series of practical operating tools to solve the daily problems and bottlenecks of enterprises, so as to improve enterprise performance. Generally, the larger the scale of an enterprise, the more complex the management process, and the efficiency of management will decrease accordingly. This process and efficiency problem is reflected in the financial data from a financial point of view. The internal departments of the company are usually set according to the value chain of R & D, procurement, production, quality and sales. The multi-department setting makes the management interface more complicated, often resulting in information waste or missing conflicts, resulting in internal friction. For example, the goal of the procurement department is to reduce the procurement cost. There are two kinds of machines, M and N, in which machine M has a low price and a short service life, while machine N has a high price and a long service life. Integrated procurement into the production process may make machine N more cost-effective. Therefore, at the current level of technology, artificial intelligence technology poses challenges to the resource information integration ability of financial personnel. Financial personnel need to consciously abandon some low value-added work, cultivate individual ability to solve management conflicts, and obtain more favorable information as much as possible and integrate it to

provide decision support for financial management.

(2) Information technology skills

Compared with financial accounting, management accounting is mainly for the internal service of enterprises, to meet the needs of enterprise development, the work content is more extensive, and the information acquisition channel is wider. The improvement of the management level of financial personnel plays a vital role in the development of enterprises. Under the background of artificial intelligence, management accounting must have the ability to deeply mine information from complex networks, which requires management accounting personnel to be skilled in the application of computer technology, write code programs for technical development, pay more attention to data mining and value creation, and efficiently use various tools and applications to analyze data and deal with problems. From the passive provision of financial information to let the data explore value, let the data actively for the management of scientific decision-making service. For example, financial personnel use ERP system to control the internal financial processing process of enterprises, and achieve the purpose of timely and comprehensive grasp of internal and external information data through various IT means, so that the management level and service ability have a qualitative leap.

(3) Professional competence

Based on modern management science, management accounting aims to improve economic benefits by taking a series of specific technologies and methods as a means to plan, make decisions, control and assess the overall business activities of enterprises, and the work content involves risk prediction, data analysis, information collection, report preparation and other aspects. The work is complex, need to have strong professionalism, must fully understand the responsibilities of accounting, all work lines should follow accounting standards. Relevant financial personnel need to organize and proofread the accounts of various transaction activities, have a certain understanding of tax activities, use appropriate tools, and complete the necessary financial reports for the internal and external aspects of the company in accordance with laws and regulations. Through the flexible use of accounting, statistics and mathematical techniques in daily work, management accounting succinctly describes all economic activities of a complex nature. Management accounting integrates, supplements and corrects basic financial information through intelligent systems, and makes horizontal and vertical comparisons. Financial personnel can forecast, analyze and plan various costs to provide comprehensive information for decision makers, so as to better serve the overall strategy of the enterprise, maximize the value of the enterprise, and consolidate the foundation for the future development of the enterprise.

5. AI Helps Finance Staff Make Management Accounting Transformation Decisions

(1) Strengthen the awareness of financial personnel to master management accounting ability

With the development of artificial intelligence, enterprises need to strengthen the transition from financial accounting to management accounting to better meet the needs of enterprises for data analysis and decision support. Traditional financial accounting focuses mainly on accounting and reporting, while management accounting focuses on data

analysis and decision support. Therefore, it is one of the necessary measures for enterprises to transform from financial accounting to management accounting, establish new scientific and technological concepts, and improve management accounting capabilities and levels in the era of artificial intelligence. First, the artificial intelligence robot provides staff training courses, which are explained and demonstrated by the robot, saving training costs, improving the management accounting ability and application skills of employees, establishing the correct management accounting concept, and cultivating financial talents with management thinking and data analysis ability. At the same time, employees need to learn data processing, data visualization, data analysis and other skills in order to better understand and use corporate data for decision support. Second, establish and improve the management accounting system and process, standardize the collection, processing, analysis and reporting process of enterprise data, and improve the quality and reliability of data; Artificial intelligence robots will clearly divide the responsibilities of financial accounting and management accounting, effectively avoid repeated data collection and analysis, and improve the efficiency and accuracy of data analysis; Ensure effective implementation of data analysis and decision support. Third, in the era of artificial intelligence, enterprises need to use advanced technical means to improve the ability of data analysis and decision support. The introduction of advanced financial information system can realize automatic unmanned data collection, processing and reporting processes. After obtaining information, financial personnel can use intelligent system to conduct online analysis and forecast risks, improve the efficiency and accuracy of data processing and analysis, and provide strong support for management decision-making. At the same time, financial information systems can also provide data visualization and analysis tools to help enterprises better understand and use data for decision support. All in all, it is necessary to strengthen the transformation of enterprise financial personnel to management accounting. Enterprises can achieve this goal by intelligent employee training, establishing and improving management accounting systems and processes, and introducing advanced financial information systems, so as to improve management accounting capabilities and levels and adapt to the development requirements of the era of artificial intelligence.

(2) Establishing and improving the digital environment

Establishing and improving artificial intelligence information technology and creating a digital environment can effectively improve the risk prevention ability of enterprises and improve work efficiency. On the one hand, when designing and developing computer operating system, enterprise personnel should not only make the setting of operating system reasonable, but also supervise and track the reasonable operation, so as to find and deal with the errors in the operating system in time. In addition, companies must set up user management systems to strengthen control over access to key users. The company must determine the application field of the company's internal personnel according to the specific needs of the job, and set up access to the reading and editing information of different jobs. For developers outside the company, control the overall amount of information and control access to the most critical modules to prevent the leakage of customer information. Do a good job in the integration and innovation of financial accounting and management accounting, establish a unified and standardized

data interface, especially at the software login level, scientifically set the use of methods, comparative analysis of different systems, and set permissions. In computer technology, network security should be paid attention to, improve network security, prevent illegal intrusion, and implement password protection for key information. On the other hand, artificial intelligence technology accelerates the efficiency of traditional accounting work, which is a cutting-edge technology. Enterprises must have professionals involved in the development stage to guide financial personnel to use technical procedures at any time, so as to master the application of various basic software of the technology, so as to do a good job in the future development of related product applications and make full use of the role and advantages of professionals. To improve the comprehensive competitiveness of enterprises.

(3) Actively adjust and optimize the structure of financial personnel

In the era of artificial intelligence, the financial personnel structure of enterprises can affect the development of enterprises to a certain extent. Good financial personnel structure not only needs to have a perfect overall planning ability reserve, exquisite professional quality, but also good at innovation, skilled in technology, and brave to change. Therefore, enterprises need to continuously take measures to improve and optimize the structure of financial personnel in the course of development, which is conducive to the planning and management of enterprises, and simplify the work flow of financial personnel, improve the efficiency of financial work, and reduce unnecessary cost and capital investment. The structure of financial personnel needs to be adjusted on the whole in the process of realizing the transformation of management accounting. In this process, it is necessary to cultivate a group of professional managers, use artificial intelligence to explain and train professional knowledge of management accounting, manage and plan the operation of personnel in various business departments and projects, and input programs to intelligent robots for intelligent control. Finally, the accounting transformation can be carried out smoothly. At the same time, it can also use artificial intelligence software for automated management, such as the self-controllable MATE ERP system developed by Huawei, which has a self-developed operating system, development language compiler and database, and realizes completely independent technology from the underlying technology to the application, which greatly improves the management level and internationalization level of China's large enterprises. Huawei has a mature and complete management model, which can effectively manage each employee, and can export management experience to other central enterprises and private enterprises through the MATE ERP system. According to the financial accounting system constructed by the concept of management accounting, many changes have taken place in the construction of the financial system at this stage, and the structure of financial personnel should also be adjusted appropriately. In the specific adjustment, all human resources should be optimized and appropriately distributed, and the financial information obtained should be processed by computer equipment and analyzed and collected, so as to reduce the burden of financial personnel and improve work efficiency.

6. Conclusion

In summary, under the background of big data in the era of

intelligence, financial accounting has a certain basis, which is also the inevitable development of the situation. The advent of the era of artificial intelligence is providing a new challenge and opportunity for enterprise accounting management. Enterprise financial personnel must conform to the trend of the development of The Times, adapt to the new call of society, and change from traditional financial accounting to modern management accounting. In the process of the transformation of financial personnel to management accounting, the intellectual function of management accounting and the value it brings to enterprise management cannot be ignored. Enterprises need to face the difficulties in the transformation, such as insufficient soft and hard conditions of management, limited professional competence of financial accounting employees, and imperfect digital management. In view of these difficulties, enterprises should establish and improve the construction of software and hardware environment, improve the comprehensive quality of professional accounting personnel, improve the information system to support financial transformation, change the concept, and look at the transformation problem from the perspective of development. According to the actual conditions of enterprises themselves, using modern computer technology, a series of countermeasures are formulated to accelerate the transformation of enterprise financial accounting to management accounting, effectively improve the management level of enterprises, improve the overall

strength and competitiveness of enterprises, and promote the healthy and long-term development of enterprises.

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References

- [1] Shutian X .Analysis of the Transformation from Financial Accounting to Management Accounting under the Background of Artificial Intelligence[J]. Accounting and Corporate Management, 2023.
- [2] Weimei C .On the Transition from Financial Accounting to Management Accounting in the Era of Artificial Intelligence[J]. Advances in Vocational and Technical Education,2021.
- [3] Shen X .Research on the Transition from Financial Accounting to Management Accounting in the Era of Artificial Intelligence [J]. E3S Web of Conferences,2021.
- [4] Guo X .Research on the Transition from Financial Accounting to Management Accounting under the Background of Artificial Intelligence[J].Journal of Physics: Conference Series,2019.
- [5] Zhuang Y .Study on the Transformation of Financial Accounting of Small and Medium-Sized Enterprises to Management Accounting in the Age of Artificial Intelligence [C]//, 2020.