

## **Foresight of post-digital accounting and auditing interaction with other sciences, the position of psychology and behavioral sciences in between**

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### **Abstract**

Foresight is not a prediction or prediction of the future, but the acquisition of a vision of the future to illuminate the dark, risky, ups and downs of the path we have named the future. In other words, futures studies is a set of efforts to analyze resources and patterns in order to visualize and plan for potential futures. Futurism reveals how the reality of "tomorrow" is born from the changes of "today"

Foresight in accounting and improving the development and application of accounting and auditing standards with the advancement of knowledge, the combination of various sciences has enabled human beings to use knowledge and science to design the path of future life. The human psyche is a source of energy that Motivation, enthusiasm, progress and honors arise from it and enable people to accomplish valuable work. Behavior of the individual Approaching the science of psychology and its theories with accounting and auditing in the digital age to practical methods of accounting in the field of practice helps to meet and meet the new needs of users and decision makers in the economic and business environment. Modern industrial societies will enter a new phase of development in the future and into a new society; Will become 'post-industrial society'. The transition to a post-industrial society is no longer essentially based on industrialism, but in fact represents a stage of development that goes far beyond the industrial age. In this article, with the help of interdisciplinary studies in accounting and auditing with psychology, we intend to look at the future of the post-digital era in these two areas.

### **Keywords**

Accounting and Auditing, Foresight, Psychology, Digital Age.

## 1. Introduction

Predicting the future has always been one of the concerns of human beings. Foresight in accounting and improving the development and application of accounting and auditing standards with the advancement of knowledge, the combination of various sciences has enabled human beings to use knowledge and science to design the future life path. The digital age is referred to as the "Fourth Industrial Revolution" and media information systems, communications, business systems, artificial intelligence and cloud computing are important topics of this era that are currently entering the fields of industry and accounting. On the positive side, new technologies have made it possible to process information that we could not process before, and now we have millions of pieces of information in the world that need to be developed and promoted to set new standards. The accounting industry is changing very fast and the advances in technology have had a great impact on the future of accounting. Advances in technology have caused businesses to undergo many changes. Data analysis tools, new technology, and access to accurate and detailed information about the industry will all come together to help with accounting and auditing. Accounting is synonymous with human civilization and is as old as it is. Weaknesses in the accounting information system cause the information to not be provided to the users in a timely and correct manner and as a result, irreparable losses are inflicted on them. Accounting is defined as an information system whose job is to process raw data and convert it into comprehensible information (Gibson, 2007)

Periods of history means periods with the importance of world history, from ancient times to the present day. We live in the age of modernity, so modernity is the soul of the new age. Post-Industrial Society: During the last three or four decades, many thinkers have emphasized the transition from industrial society and have used different terms for this passage and change. In a post-industrial society, services such as health, education and research, and accounting are becoming increasingly important, and theoretical skills and techniques are becoming more important than

organizing material production and of course, it is desirable that it has both traces of liberalism and traces of socialism, which emphasizes more limited government intervention and the reduction of inequalities. (Amirzadeh, 2015)

About two centuries before the Industrial Revolution, it created industrial societies whose production systems and economies were based on the use of machines and new energy sources. Industrialization has undoubtedly had a major impact on social development over the past two centuries. But since the 1950s and 1960s, some social analysts have theorized that science and technology alone play a crucial role in social life. Thinkers believe that modern industrial societies will enter a new phase of development in the future and into a new society; and become 'post-industrial society'. The transition to a post-industrial society is no longer essentially based on industrialism, but in fact represents a stage of development that goes far beyond the industrial age. (Kashani, 2018)

Today, the complexity of factors and indicators affecting development is such that experts are unable to determine a specific model for studying development in a society. In the meantime, the impact and role of educational indicators in sustainable development is very important and fundamental. For this reason, when we talk about information development, a wide range of complex educational processes will come to mind. Paying attention to information development and addressing it from a technological perspective can solve many obstacles and educational problems in sustainable development. The present age, with the domination and revolution of information and communication tools, sees many possibilities in facilitating the process of information development; undoubtedly, the result of their scientific and correct application will be the achievement of sustainable development.

The phenomenon of information and communication technology (ICT), due to the breadth of its capabilities and potential possibilities, has provided suitable conditions and contexts for the application of technology in all aspects of human life.

Proper use of this global phenomenon enables all stages of production, processing, classification and transmission of information in the shortest possible time. It is not an exaggeration to claim that today the economic health of nations is measured by the level of their skills in information and communication technology, and in the meantime the role and position of education and development of scientific and practical skills will undoubtedly be very important and effective in information development. In this context, the existing view of education includes all the processes of data exchange and information in different volumes and forms and can be transferred by any means. It will be based on the exchange of information in different contexts of transmission. When it comes to information development, the position and influential role of information in the movement of society to improve production systems to the distribution of information will be well felt.

In information development topics, systematic management takes place on the process of data production, data processing and information distribution, and with this perspective, the status and right of citizenship to live in a free information society is defined. In such societies, where there is a definite definition and view on the subject of information guidance and information growth of society, conventional divisions and boundaries are eliminated and technological tools in the service of information development work in such a way that all citizens are able to exist in certain systems. A fundamental step towards the proper and up-to-date development of information in a knowledge-based society is careful coordination and needs assessment to determine the priorities and shortcomings required in the structure of the knowledge-based society. (Khosroshahi, 2015)

If we want to analyze the function of information development in a schematic way in a knowledge-based society, we must pay attention to both quantitative and qualitative indicators in information development. In other words, when we talk about quantitative indicators in a knowledge-based society, the main focus is on the longitudinal growth of the information society that can include the expansion of age groups

under training, expansion of information production volume, expansion and diversity in tools and sciences under training, etc. When we talk about quality indicators in the information development of a knowledge-based society, the function of the case, the expectation of these indicators will be to help increase transverse growth in the knowledge-based society. The educational indicators of this section include raising the scientific level, more accurate educational facilities and tools, more specialized educational sciences, and so on. (Khosroshahi, 2015)

The most important impact and function of such systems that are designed and defined for information development is in the first step positive feedback that the revenue of these systems themselves in such a way that whenever in educational processes aimed at developing information society, information systematically and it is provided to its trusted user with high speed and accuracy by technological tools. In fact, it raises the level of information of one of the elements receiving information in the system and allows it to play the role of transmitting information at a new level. Creating this cycle in the information development system can also take the internal guidance of the system and optimize the training process more quickly and accurately. IT changes are very fast and widespread. In the past, when there were not many facilities for providing information and the economic and market environment was not as complex as it is today, management information needs were provided by accounting systems, but with increasing information needs, accounting systems expanded, but this expansion with changes in the environment. Business emerged, it was not synchronized and the ground was prepared for the transition from separate and limited accounting systems to comprehensive and integrated management information systems (Roundtable - National Iranian Oil Company, 2006).

The human psyche is the source of energy from which motivation, passion, progress and honor arise and enables people to accomplish valuable deeds. It is the desire of every manager to motivate the employees, to activate their inner and latent force, and to provide a lively and lively environment for the

manifestation of the best talents. The entry of psychology into the ups and downs of accounting has led to the use of various theories and schools of psychology and the citation and establishment of human relationships to explain the personality and behavior of man. Man is the most precious essence of creation and its most unknown. Human behavior is a function of thoughts, feelings, motivations, inner desires and emotional and nurturing factors that appear in different situations. In order to get acquainted with the different dimensions of human existence and to create a better relationship and to create motivation and to maintain and ensure mental health in people, familiarity with the science of psychology and behavioral sciences is necessary. Fortunately, psychology has made significant strides in the field of accounting.

Bringing the science of psychology and its theories with accounting and auditing in the digital age to practical accounting methods in the field of practice helps to meet and meet the new needs of users and decision makers in the economic and business environment.

Interdisciplinary studies, which have been seriously discussed in the world for several decades, also shed light on the importance of paying attention to other sciences in accounting research. For example, Krishnan (2009; 4) states that the interdisciplinary subject has become a slogan in scientific discussions, being recognized as a desirable path by many research advocacy organizations in Europe and the United States. It has been said that the social sciences must expand themselves in this way, both in terms of teaching and research. In this regard, Golshani (2017), Professor of the Department of Philosophy of Science, Sharif University of Technology, states that without a broad vision, the world only sees its way and is deprived of relating its findings to other areas of knowledge. "Science education should go back to the emphasis on the unity and universality of science, and go beyond the monopoly effort of educating trained people in a particular field," he said, (quoting Weiskov), a prominent American physicist, of course, we must train a qualified specialist. But we also need

to bring the disciplines closer together and show the connection between the different disciplines of science" (Golshani, 2017) In relation to the discipline of accounting, Hewwood (2007) has raised the concern that over the years of accounting research It is more of an island or short-sighted and self-referential and has less innovation. It is a religious concern that the number of references to accounting in other disciplines is declining over time, as recent accounting research ignores new ideas from other texts. It seems necessary to pay attention to this issue, because this lack of attention can have an adverse effect on the quality and development of knowledge in the field of accounting (Hood, 2007).

## **2. Problem and research method**

The main issue in this study is generally the future of post-digital accounting and auditing interaction with other sciences, the position of psychology and behavioral sciences in the meantime and that accounting and auditing is currently considered as one of the social sciences to explore all sciences. It is towards interdisciplinary communication and the artificial walls and borders that were created between different sciences are being broken and different sciences are moving towards integration and the creation of a general and unified science. Therefore, the questions that this research seeks to answer are: - What are the features of futurism in the field of accounting and post-digital accounting? - How can foresight in the field of accounting and auditing communicate in various sciences, including psychology? The research type of this article is descriptive in which the literature review method is used and library studies and document review are used to collect information.

## **3. Theoretical foundations and background review**

### **• The concept of foresight in post-digital accounting and auditing**

Foresight consists of a set of efforts that visualize and plan for potential futures by analyzing sources,

patterns, and factors of change or stability. Futurism reflects how it is born out of change (or not change). "Tomorrow" Reality, "Today" The Law of Accelerated Efficiency We identify the law of the future of technology in the 21st century, and with the help of these predictions we can invent the technology of the new century because we know that in 2020 or 2030 the state of technology, communications, the size of technology, and knowledge What we will be like in the human brain, although we are not yet able to invent these technologies, but we can describe them a little more (Molaei, 2014) Instead of imagining methodologies and predicting "only one future", he makes systematic and rational speculations about "several imaginable futures". Prediction is a relative probability of drawing a definite future and predicting a present.

The future is definitely not determined in all its dimensions, but depends on the decisions that are made in the present. Topics of futures studies include the types of "possible", "probable" and "desirable" for change from the present to the future. The need for futures studies Today, changes are occurring more rapidly, technological changes and subsequent changes in other aspects of life, increasing interdependence of countries and nations, decentralization of existing societies and institutions, which has accelerated due to the spread of information technology, but the tendency Increasing globalization, along with the preservation of national, ethnic, and cultural characteristics and many other factors, necessitate a better understanding of future "and" changes for governments, businesses, organizations, and people. The future is fundamentally uncertain. However, traces of information and facts that are rooted in the past and present can be our guide to the future. Continuation of "decision-making only several possible futures based on past experiences" will lead to neglect of monitoring future changes and will face bitterness. (Mushfaq, 1390)

### • **Futuristic functions**

Martin and Air Wayne "categorize futuristic functions into five groups, which are:

- 1) Communication: Futurism creates a structure for communicating the various components of a system with the system
- 2) Long-term focus: In a systematic way, it encourages and directs people to focus and focus on the long-term.
- 3) Coordination: Futurism coordinates different groups around their future activities.
- 4) Consensus: Foresight provides the ground for implementation and use of the findings by creating a consensus on the findings of the foresight and gaining the necessary legitimacy.

Commitment: Foresight provides the ground for using the findings by creating a sense of commitment to the findings and creating a sense of responsibility and accountability of organizations (Shourini, 2013: 28). Regarding the most important feature and function of strategic foresight, the League believes: Strategic foresight is to help create an innovative and innovative government that, by providing appropriate information and perspectives on the future, provides appropriate knowledge and awareness for policy makers and decision makers. Provides the government with the capacity to anticipate the future and be prepared to face opportunities and threats (League, 2003: 42). Foresight differs in the principles and process of strategic planning for the long term. In fact, strategic foresight is a process that allows decision makers and policy makers to discover possible futures and also helps to design appropriate policies that lead to the desired results.

Here are five key pointers in moving forward with innovative and innovative governments:

- 1) Predicting issues that arise;
- 2) Identify unforeseen consequences;
- 3) Create a large image;
- 4) Mapping a wide range of information sources;
- 5) Attracting public cooperation (Lake, 2003: 52)

Regarding futuristic outputs, Jaoutsi and Sapio believe in information outputs versus instrumental and information outputs: futuristic achievements include inputs, results, and effects of futuristic activities; Outputs are tangible and intangible products and services; Outcomes refer to the benefits that

stakeholders gain after participating in the foresight project, and impacts refer to the consequences that affect stakeholders during and after the project. The nature of the achievements of futurism activities can be divided into two categories: tools and information. Information gains point to the use of foresight to improve our understanding of the current and future challenges of the innovation system and its components. Thus, intelligence gains do not necessarily mean that foresight activity will necessarily lead directly to specific actions, although intelligence gains may be a readiness to act in some uncertain future situations (e.g., identifying potential risks and discovering new windows). To facilitate opportunities) increase. (Khodadadi, 2011) Instrumental and information achievements mean not only information achievements, but also the use of foresight to support anticipated decision-making situations, for example, resource allocation positions and the formation of partnerships and joint strategic actions. Foresight can be considered as a useful tool for identifying different perspectives on the future, which aims to understand multiple ideas, opinions and perspectives on setting priorities, identifying and strengthening other options for forming coalitions and value networks, as well as exploring Alternative futures and the production of different perspectives (Jaoutsi and Sapio, 2013: 207-210).

In addition to the above, strategic foresight participates in other forms of public policy-making, which, by providing appropriate information, systematizes policies as much as possible in relation to trends and developments in the organization's environment and acts as a driver. Reflective, the learning process operates among policymakers and facilitates the creation of shared public policy perspectives. National strategic foresight, from another perspective, plays a role in public policy-making at three levels:

- The first level, identification activities aimed at systematically collecting changes in trends and their potential risks that should be done in public strategic affairs.

- The second level, promoting the reflective process of social learning among policy makers and crossing the conventional boundaries of political areas and government departments in interaction with social, economic, health, environmental and national security issues and achieving a general understanding of public policy requirements .
- Third level, helping public policy makers to better and more systematically regulate future visions and macro-political strategies (Tomer, 2011: 36-37).

Foresight is not about predicting or predicting the future, but about gaining insight into the future to illuminate the dark, risky, ups and downs of what we call the future. In other words, futures studies is a set of efforts to analyze resources and patterns in order to visualize and plan for potential futures. Futurology reveals how the reality of "tomorrow" is born from the changes of "today". (Khazaei, 2013) There are two approaches to futurism:

- 1) Exploratory approach: which tries to look at the past and understand the current situation, to make a reasoned and documented discovery about the future.
- 2) Normative approach: that planners draw a favorable future on their desired horizon (given the strengths and weaknesses of the indoor environment and the opportunities and threats of the external environment) and try to achieve the desired future from the current situation. . (Pedram, 2016)

Futurism means predicting future trends, based on scientific methods instead of speculation. The future of accounting and management accounting cannot be predicted in a vacuum without considering environmental factors. An examination of the accounting background and its logical inference shows that a set of causes and factors in the sequence interact with each other and affect firms and their information needs, which should be considered in predicting the accounting situation in any society. These factors include political and legal factors, economic and social factors and cultural and technological factors, each of

which in turn affect the future of management accounting (Malek Arai, 2009). We are in the middle of an exciting convergence. Technological advances and trends in advanced analytics, RPA robotic machine automation, and CI cognitive intelligence are rapidly shaping new business practices and improving production, enabling organizations to innovate, produce, and service. Relate to your customers. The widespread use of these advances is known as Industry 4.0 or the Fourth Industrial Revolution. Today, digital technology is a strategic priority for every business. In Information Systems Auditing, Ron Weber states that the accountant and the auditor must be superior to the client in the business in question. This is because, unfortunately, in the process of technology development, accountants and auditors have progressed slowly and there are many ways to document and forge documents that deceive accountants and auditors, which is a matter of much debate. Has (Mumtaz, 2017)

In the Extender Technology Outlook 2019 report, about 94% of the 6,600 IT business executives stated that the pace of technological innovation in their companies has accelerated significantly over the past three years, and that we are somehow approaching the post-digital age. . New technologies are the catalyst for the transition to the post-digital age. Technology-based interactions will give accounting and auditing a new identity. This is the key to understanding the new generation of accounting and auditing services we will experience in the post-digital age. (Accounting, 2020) Since accounting is in great need of new technologies, for its survival in the world, it is necessary to step into the field and equip accounting standards with new information technologies. All the disciplines that have progressed a lot throughout history have achieved this progress by combining with other disciplines. Accounting science has moved away from this issue and the time has come for accounting to move quickly with other disciplines. A good and successful accountant is an accountant who strives in the development process and is fully acquainted with management, economics and information technology. (Foroozesh, 2016) Having accurate, accurate, relevant

and reliable information is important. It is the most important decision-making element, and since accountants and auditors provide the information needed by management, attention to accountants and auditors is one of the most fundamental factors in creating competitiveness. Therefore, considering the technological advances and perspectives, the expansion of global markets and globalization, as well as the theoretical concepts of accounting, it is necessary to develop a 20-year plan for accounting and determine the necessary tasks and skills for accountants with emphasis on information technology and digital. . (Khodamipour, 2009)

The Fourth Industrial Revolution, "Industry 4.0" refers to the new digital industrial technology, the digital transformation and the fourth stage of technological progress. That enhances future industrial production CPS virtual physical systems and the Internet of Things (I o T) are the mainstays of industry 4.0, which are improving manufacturing systems and business processes with cutting-edge innovations. Industry 4.0 with integrated production and procurement processes, increasing interaction between robots and humans and data flows (information) in global value chains, will have a significant impact on all business processes. In this regard, accounting systems that are very important for businesses need to redefine the entire accounting system as well as redesigned strategies, with industry 4.0 new potential for transformation in the accounting process through digitalization and use It offers new tools in Industry 4.0, such as big data (big data) analysis, networking, and systems integration (blockchain). (Shurki, 1399)

#### • **Industrial revolution and digitalization of the field**

In the digital age and cyberspace, we have a new life ahead of us. We are witnessing more rapid and rapid developments in various fields. These developments have covered all components of human life. In the field of accounting and economics, the format of production has changed. The former production, which was based on mass production, became customer-oriented and demanded production in the era of

industrial economy and digital age, and created a new event in the production process. Digital age accounting has changed in all its branches. The basic concept of accounting has changed. If accounting was difficult before the digital age, but in the digital age accounting has become data accounting, accounting has been processed. Digitalization greatly helps to increase visibility and transparency and allows companies to monitor all organizational information well. Today, major accounting systems that rely on blockchain technology have many obstacles and shortcomings in this area. Have been removed. (Foroozeh, 2016)

#### • **Events of the Industrial Revolution**

The continuation of the Industrial Revolution in nineteenth-century Europe required the establishment of large and larger factories and the implementation of large-scale projects such as the construction of national rail networks, which required large sums of capital. Providing such capital was beyond the financial means of one or more investors, and on the other hand, one or more capitalists were not prepared to accept the commercial risk of such large activities. Therefore, using the two great and useful achievements of the Industrial Revolution, namely organization and cooperation, companies were formed whose owners' liability was limited to the amount of their investment, and in the form of such partnerships, small capitals were equipped and the solution It provided a good source of capital and distribution of business risks. Any sudden and fundamental change in the structure of economic and production relations is considered a revolution and occurs when technology causes a fundamental change in the economic structure and means of production. The first fundamental change in the human way of life, from the collection of food to agriculture, occurred about 10,000 years ago with the domestication of animals. The agricultural revolution combined human labor and domesticated animals as means of production and transportation, which led to improved food production and the establishment of larger masses of the human population. Then came the Industrial Revolution in a broad and evolving sense from the second half of the

eighteenth century, driven by the power of machinery and leading to the information revolution (Bell, 1973). Discussions related to the Fourth Industrial Revolution were first introduced at the 2011 Hanover Exhibition in Germany to describe how digital platform-based industries can transform the value chain in the world. In 2015, Klaus Schwab at the World Economic Forum emphasized the speed of technological progress and used the phrase "the fourth version of the Industrial Revolution" to show how to use such advanced technologies to change the productive paradigms of production (World Economic Forum Report 2015). . Accordingly, in the process of the Fourth Industrial Revolution, with the formation of global intelligent factories, the virtual and physical systems of its production, on a global scale and in flexible ways, participate with each other. This process has led to the production of products with a complete customer-oriented approach that will create new operational models for production (Herman and Petke 2017). Until then, the world had only experienced the agricultural revolution, which improved the food production process and combined the activities of animals and humans to meet goals such as production, transportation, and communication. So far, many articles have been written about the Fourth Industrial Revolution and its effects, but the impact of the Fourth Industrial Revolution on the field of accounting and financial sciences and its subdivisions is felt. So far, four industrial revolutions have occurred, the description of each of these revolutions and the important effects of each of the industrial revolutions on accounting are as follows: (Jafari Mumtaz, 1397).

The First Industrial Revolution The invention of the steam engine led to the industrialization of production and its acceleration, first in Britain and then in other countries. It is after this incident that industrial accounting enters the field and is used by manufacturers. 2. The Second Industrial Revolution This revolution, which is the age of steel, electricity and oil, is the technological revolution, with the creation of moving assembly lines invented by Henry Ford, economies of scale and mass production, vertical integration, standardization of accounting and cost

control. Brought with him. 3- The Third Industrial Revolution This revolution, which was accompanied by the invention of PLCs, mainframe computers, PCs, and recently the Internet, in addition to their use in the production process, led to the emergence of mechanized financial and administrative systems, which also caused speed. Enabling information processing and computing has become more complex, as well as helping managers and experts analyze data and, ultimately, moving toward systems and information integration. During this period, various and various softwares including integrated financial mechanized systems were designed, produced and offered.

4. The Fourth Industrial Revolution With the advent of smart factories and two-dimensional and three-dimensional printers that have the ability to produce intermediate and final products, major changes occurred in production methods. In addition to producing products that are exactly the same as the previous product line, they also produce completely unique products. In the Fourth Industrial Revolution, where mass-produced production lines are customized, what should be done? Due to the fact that the production lines are completely flexible, they will be able to produce other different products in terms of color, dimensions, shape and even other applications immediately after the production of a product, all that is needed is the electronic file of the desired product design. It is designed and stored in the relevant computer and transferred to a smart production line or 3D printer for production with an order. In the future, even their own customers can send the desired design to the production lines according to their taste. Imagine the day when the right medicine is produced with each person's own gene; That is, medical services are also personalized and medical services are provided for each person according to his needs and medicine is prepared and produced. In the future, pharmacies or printers will probably be available in pharmacies that will produce or print tablets and capsules tailored to your genes at a specific dose that can only be used by you. They even combine and offer liquid medicines based on the severity of your specific

disease and according to your gene (Jafari Mumtaz, 1397).

For intelligent factories whose production process is multi-stage, just as the two methods of product production, namely mass production and custom production, have been combined to create custom mass production, the calculation of the cost of the products of these factories is also based on costing. A combination can be used. Of course, the same method should be used for smaller batches and finally for each custom product, but for products produced by 3D printers, whether they produce similar and identical products or different products, the work order method should be used, because the process Production is grouped together and generally involves design and execution; Therefore, their direct and even indirect costs can be easily identified and the cost of the product can be calculated. If the design is done outside the collection or even by the customer, the ordering method is easier and more accurate. However, in the fourth wave of production lines, the flow of information is accompanied by the flow of production, and the information systems are also externally integrated, and the data is available. This is just a proposal that I hope will challenge and deepen the issue (Jafari Mumtaz, 1397).

### **3. Research background**

In 1976, Hostfeld evaluated accounting research on the analysis of the quantity and quality of interaction with more basic social sciences and more applied disciplines by analyzing references. The results of his research indicated that the behavior of accounting research was in a pre-paradigmatic state, but that state was evolving.

Dickman et al. (1984) reviewed citations to evaluate the contribution of the Journal of Accounting Research and, consequently, its impact on academic (scientific) accounting research over a period of 20 years (from 1963 to 1982). The speed of interdisciplinary adaptation in accounting research had increased during that period.

Baba Jani et al. In 1399 in a study entitled Management Accounting Futures Research, achieved

that from the perspective of education and research in the process of globalization, company competition is inevitable. For this purpose, the existence of efficient and capable management accountants is absolutely necessary for consulting and guiding managers, and management accountants must provide the necessary preparation to provide the services required by managers through conscious and intelligent planning. This also requires moving forward with a conscious and planned foresight and in accordance with the progress and developments of society. In their research, they identified and presented the driving forces of management accounting in the field of education and research over the next 20 years and came to the conclusion that the situation of management accounting is not favorable and redoubled efforts should be made to improve its future. According to experts in the fuzzy Delphi stage, the crisis of education and research is the most important driving force in the future, and this indicates that the situation of education and research is and will be unsatisfactory, as experts have confirmed its conditions as a crisis. The relationship between universities and industry is in second place and indicates that in the future, universities will redouble their efforts to improve their relations with industry.

Dehghan et al. In 1400 in a study that examined the tendencies of accountants' ethical behaviors, auditor independence on auditors' professional attitude, it is argued that the principles of accountants' professional ethics require an effective professional attitude, thus auditing firms. They must keep the level of professional knowledge and skills of the pillars of their organization (organizational socialization) at an acceptable level so that their services are provided in an acceptable manner and based on the latest developments in the profession and existing laws and regulations.

Shirzad et al. In 1399 in a study that examined the sociability of professionalism and professional skepticism in auditing, concluded that auditors who have appropriate professional training and professional values and roles They get audited, they become better socialized, and they need more professional

skepticism. Such people are better prepared to enter the auditing profession and are probably more successful than those who are less sociable. In 2008, Zanjidar et al., In a study of 119 companies listed on the Tehran Stock Exchange between 2006 and 2010, compared a selected portfolio based on a behavioral model with an emphasis on subjective accounting and a selected portfolio based on the Markowitz standard model. The results showed that the selected portfolio based on classical financial assumptions (Markowitz model) has higher returns than the selected portfolio based on the behavioral model, but the selected portfolio based on the behavioral model has lower expected risk than the selected portfolio based on the Markowitz model. These findings indicate that the main factor in the investment risk model is the tendency of investors to form a portfolio with less risk.

Mulla Nazari and Ismaili Kia in 1396 in a study entitled Identifying the psychological characteristics affecting the auditors' skills in performing audit judgments concluded that the psychological characteristics of responsibility in the planning stage, the psychological characteristics of distinguishing between relevant and unrelated information and compatibility In the transaction test phase, the perceptual psychological characteristic of attention in the balance sheet test phase and the automated psychological characteristic in the audit report publication phase have the greatest impact on the auditors' appropriate judgment.

In 2015, Sedaghati in a study entitled Psychology in Behavioral Finance concluded that one of the most vital research programs of financial knowledge today, which is at the forefront of rejecting the theory of efficient markets, is the theory of financial behavior, which is the result of joint efforts between financial sciences and It is a social science and has deepened our knowledge of financial markets. Behavioral finance is a new branch of financial knowledge. At the macro level, behavioral finance challenges classical financial theories, especially capital efficiency theory. At the micro level, behavioral finance shows that in the real world, investor behavior is incompatible with the fundamental assumption of rationality in classical

finance, and that investors' cognitive and emotional inclinations, which we call behavioral biases, play an important role in It has economic decisions. Behavioral finance Paying attention to the basic assumptions of theories in the field of financial economics and capital markets, like other branches of science, in addition to better understanding them, makes our use as a guide more effective in practice. In valuing securities and financial products in stock exchanges, one of the most basic assumptions is that the behavior of investors is rational, that is, they seek to maximize their profits, and in addition to their response to opportunities for profit and risk. Losses are predictable.

Lak et al. In 1399 in a study entitled Future Studies in Accounting Research and Education concluded that in recent years, accounting research and education has been under various pressures to change its current research methods and different institutions in The world, including the Commission for Change in Accounting Education (AECC) 1 and other professional bodies, have pioneered changes in accounting research and education by issuing statements emphasizing creative research and teaching methods and their importance in the development of accounting research. have. In his research, he discovered the appropriate criteria for forecasting and foresight in accounting and improving the development and application of accounting standards. In fact, the study of the future of accounting research and the discovery of issues related to improving accounting learning style. Future accounting research and studies at the international level in order to measure the social effects of financial and accounting reports and perform the role of social stewardship and emphasis on measuring and reporting the effects of transactions on the community around them, bringing accounting research and research to practical accounting methods In the field of practice, efforts to develop international accounting standards to meet the needs of the profession at the practical level and in multi-purpose organizations and institutions and to develop new accounting methods to meet the new

needs of users and decision makers in the economic and business environment. Be a new job.

In a study conducted by Mahdavi et al. In 2018 entitled "Study of the interaction of accounting with other sciences and academic disciplines from a research perspective" which is the result of analysis of articles published by 14 scientific and research journals of accounting during 1371 Until 2016, in terms of the participation of researchers with complementary expertise in various fields, it is presented in Table One. This table shows that 100% of the articles published in 1992 were published by accounting researchers in collaboration with researchers in other related fields. Meanwhile, out of 395 articles published in 2016, by these 14 journals, 80.5% by accounting researchers, 2.5% by accounting and financial researchers, 2.3% by accounting and economics researchers, 0.3% With the participation of accounting and psychology researchers, 6.8% with the participation of accounting and management researchers, 0.3% with the participation of accounting and statistics researchers, 1.5% with the participation of accounting researchers and other disciplines. The status of researchers' participation in other years under analysis can be seen in this table.

1.Year of publication2. Number of releases

1.Accounting only 2. Accounting with finance 3..Accounting with economics 4.Accounting with Psychology 5..Accounting with management 6..Accountant with statistics 7..Financial accounting and economics 8..Management Accounting and Economics 9..Management and mathematical accounting10.. Accounting with other disciplines11. Only related strings 12..Unknown string

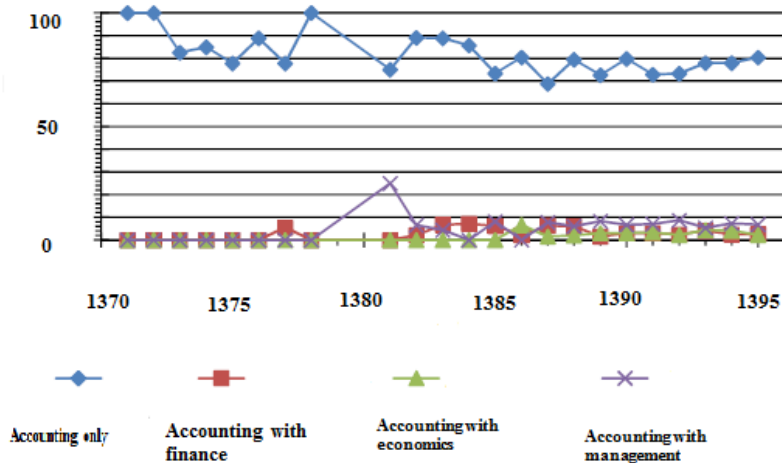
In the study of the interaction of accounting with other sciences and academic disciplines, which is the result of analyzing the results of research during the years 1992 to 2016 in terms of the participation of researchers with complementary expertise in different disciplines is presented in Table One. This table shows that 100% of the research was published in 1992 by accounting researchers without the participation of researchers in other related fields. Meanwhile, out of 395 researches published in 2016, 80.5% by

accounting researchers, 2.5% by accounting and financial researchers, 2.3% by accounting and economics researchers, 0.3% by accounting and psychologists 6.8% with the participation of accounting and management researchers, 0.3% with

the participation of accounting and statistics researchers, 1.5% with the participation of accounting researchers and other disciplines. The status of researchers' participation in other years under analysis can be seen in this table. (Mahdavi et al., 2018)

**Table 1: Summary of information related to 14 accounting scientific and research journals**

12	11	10	9	8	7	6	5	4	3	2	1	NOR	y
0	0	0	0	0	0	0	0	0	0	0	100	6	1992
0	0	0	0	0	0	0	0	0	0	0	100	18	1993
0	17.4	0	0	0	0	0	0	0	0	0	82.6	23	1994
0	15	0	0	0	0	0	0	0	0	0	85	20	1995
0	22.2	0	0	0	0	0	0	0	0	0	77.8	9	1996
0	11.1	0	0	0	0	0	0	0	0	0	88.9	9	1997
0	16.7	0	0	0	0	0	0	0	0	5.6	77.8	18	1998
0	0	0	0	0	0	0	0	0	0	0	100	4	1999
0	0	0	0	0	0	0	25	0	0	0	75	4	2000
0	2.2	0	0	0	0	0	6.5	0	0	2.2	89.1	46	2001
0	0	0	0	0	0	0	4.4	0	0	6.7	88.9	45	2002
0	7.1	0	0	0	0	0	0	0	0	7.1	85.7	42	2003
0	10.2	2	0	0	0	0	8.2	0	0	6.1	73.5	49	2004
0	6.5	2.2	0	0	0	2.2	0	0	6.5	2.3	80.4	46	2005
0	15.6	0	0	0	0	0	7.8	0	1.6	6.3	68.8	64	2006
0	5	5.1	0	0	0	0	6	0	2	6	79.5	200	2007
0	13.3	0.8	0	0	0	0.4	8.3	0	3	1.5	72.7	264	2008
0.3	6.6	0.3	0	0	0	0.3	6.6	0	3	3	79.8	302	2009
0.3	10.7	2	0	0	0	0.6	7.1	0	3.4	3.1	72.9	354	2010
0	10.5	1.1	0	0	1.4	0.5	8.6	0	2.2	2.4	73.2	370	2011
0	6.4	0.7	0.2	0.2	0.2	0.2	5.4	0	4.4	4.2	77.9	407	2012
0	6.3	1.6	0	0	0	0.3	7.3	0	4.2	2.4	78	381	2013
0.3	5.6	1.5	0	0	0	0.3	6.8	0.3	2.3	2.5	80.5	395	2014
0.1	8.1	1.1	0	0.03	0.2	0.3	6.6	0.03	2.9	3.2	77.53	3076	Total



**Figure 1: The trend of changes in the percentage of participation of accounting researchers with researchers in other fields**

Also, in 1992, out of a total of 68 citations related to articles published in this year, 69.1% and 27.9% were cited to other publications / sources. Meanwhile, in 2016, out of a total of 12839 citations related to 395 articles published in this year, by 14 journals, 50.5 percent to journals / accounting resources, 11.6 percent to journals / sources Financial, 7.1% refer to journals /

resources of economics, 1.5% to journals / resources of psychology, 5.7% to journals / resources of management, 9.8% to other academic journals and 13.2% to other sources. Is. The percentage of referrals of accounting researchers to other academic sciences and disciplines in other years under analysis can be seen in table2.

**Table 2. Table 2: Percentage of accounting researchers using different sciences and disciplines in the publications of 14 annual accounting journals**

9	8	7	6	5	4	3	2	1	N	y
27.9	0	0	1.5	0	0	1.5	69	68	6	1992
24.4	1.7	0	1.2	0	0.6	0	72	172	18	1993
21.6	3.5	1.7	1.2	0	2.2	1.3	68	231	23	1994
21.7	2.5	0	2.2	0	3.7	1.2	71	161	20	1995
12.5	6.3	0	0	0.9	3.6	9.8	66	112	9	1996
11	1.4	0	0.9	0	4.1	17	60	73	9	1997
13.5	3.8	1.7	6.8	11	6.3	3.8	57	237	18	1998
6.7	4	0	3.8	0	2.7	4	83	75	4	1999
35.5	5.9	0	0	1.5	1.5	8.8	40	68	4	2000
13.8	8.3	0	4.4	0.1	3.2	14	56	956	46	2001
14.9	8.1	1.7	2.1	1.4	3.6	22	47	970	45	2002
12.4	9.3	0	1.1	0.8	5	22	47	10.14	42	2003
1.9	9.9	2.9	2.3	0.2	5.3	18	47	12.2	49	2004
12.2	11.7	2.8	2.2	1.1	3.9	21	47	10.97	46	2005
12.5	12	2.2	2.3	0.1	5.3	26	39	12.99	64	2006
13.5	8.9	1	3.6	0.3	7.7	18	45	46.1	200	2007
15.6	8.4	1.6	4.7	0.1	9.3	16	45	58.4	264	2008
13.6	9	1.2	4.9	0.3	8.1	16	48	71.31	302	2009
15.4	10	1.6	4.5	0.4	8.1	14	45	89.17	354	2010
12.6	9.1	1.1	6.6	0.5	6.6	14	49	99.72	370	2011
12.8	9.4	1.3	6.4	0.4	7.9	14	49	11386	407	2012
12.7	10.7	0.7	6.3	0.8	8	13	48	10861	381	2013
13.2	9.8	0.9	5.7	1.5	7.1	11.6	50.5	12839	395	2014
13.6	9.5	0.8	5.5	0.7	7.4	14.4	48.1	79309	3076	total

- 1. Year of publication 2.Number of releases
- 1. Number of referrals 2. Accounting 3. Financial
- 4.Economy 5. Psychology 6.Management 7. Statistics
- 8. Other 9. Journal of References

The general situation of the participation of accounting researchers with researchers in other fields in 3076 articles published by 14 accounting journals, from 1992 to 2014, shows that of these articles, on

average, 77.5% by accounting researchers, 3.2% with the participation of accounting and financial researchers, 9.2% with the participation of accounting and economics researchers 0.03% with the participation of accounting and psychology researchers, 6.6% with the participation of accounting and management researchers, 0.3% with the participation of accounting and statistics researchers, 0.2% with the participation of accounting researchers

with finance and economics, 0.03% with the participation of accounting researchers with management and statistics 0.3% with the participation of accounting researchers with management and mathematics, 1.1% with the participation of accounting researchers and other fields, 8.1% by other researchers Strings and 0.1% have been published by

researchers with unspecified ovulation. Figure 2 shows the trend of change in the partnership of accounting researchers and accounting researchers with financial, economics and management researchers during the years 1992 to 2014. To avoid confusion and to better understand the process of change, only these 4 types of partnerships are presented in the chart.

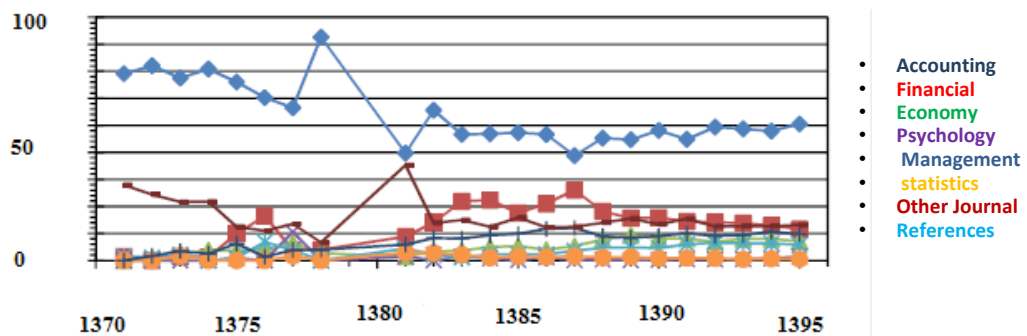


Figure 2: The trend of changes in the percentage of accounting researchers' use of different sciences in published research

#### 4. Behavioral sciences in accounting and auditing

Accounting is a system whose results are used by different individuals and groups. For this reason, the behavioral effects of accounting are of interest to researchers and enthusiasts, and the question always arises as to how accounting information is used in practice and why in some cases, different and unpredictable results are observed as a result of using this information. Is it possible? With regard to the above, a new school of accounting research has emerged, which is referred to as behavioral accounting research. Attention to the behavioral effects of accounting information and its impact on accountants and non-accountants is the subject of behavioral science with the aim of understanding, explaining and predicting human behavior. Since the purpose of accounting with all its sub-branches is to provide information to decision makers, the behavioral effects of accounting information and the reaction of

producers and users of this information are of interest to researchers. Behavioral research in accounting was first introduced in the 1960s and expanded during the 1970s with research by Ashton and Libya (Dagen & Ayman, 2011). The development of psychological issues and behavioral decision-making has played a major role in the emergence of behavioral research in accounting. In addition, the development of behavioral research in other sciences, such as experimental economics, has contributed to the growth of accounting behavioral research. The main purpose of this research is to examine how users of accounting information make decisions and their information needs. This research, in addition to examining the technical field of accounting, also examines its psychological and social fields. Increasing attention of various sciences, especially accounting on behavioral research, lack of scientific resources and the lack of this research in the country emphasizes the need to pay attention to this area of accounting research. (Saei, 2015)

Behavioral accounting is a child of accounting and behavioral sciences, which shows the application of behavioral science methods and perspectives to accounting problems. The purpose of mental accounting is to trace, explain, and predict human behavior in various accounting situations or contexts. Behavioral accounting seeks to refine and enrich traditional approaches to accounting theory in which the perceptions, attitudes, values, and behaviors of the producer and user are of little importance. Professor Belkawi defines behavioral accounting as "the application of behavioral sciences in accounting, with the primary goal of explaining and predicting human behavior in all possible areas of accounting." Behavioral accounting is a measure of behavior and can be behavior-oriented. As long as accountants make assumptions about human behavior in accounting, accountants should re-examine their behavioral assumptions to gain a better understanding of the behavioral sciences. Behavioral accounting is the part of accounting that seeks to express an understanding of the cognitive (perceived) and emotional (emotional) elements of human behavior that affect the decision-making process in all areas and settings of accounting. This particular area of accounting addresses aspects such as human information processing behavior, judgment quality, and accounting errors created by users and providers of accounting information and user decision-making skills. (Roodpashti, 2011)

Behavioral finance is a new field of finance that is rooted in traditional financial behavioral economics and psychology and helps to identify biases and irrationality and the process of making decisions about financial issues and try to provide ways to deal with them to achieve Has better decisions. The first observation of psychology in the field of finance was made in 1965 by Daryl Yem. In this period, the efficient market hypothesis was proposed and the dominant hypothesis. Then came the first articles on financial behavioral attitudes in the 1970s, in which Kahneman and Torsky played a key role in the study. The vision theory project was founded by them in this decade and issues such as risk aversion and intuition representing the judiciary in conditions of uncertainty,

taking into account the costs lost in decisions and in this period were raised. In the 1980s, although theory was the dominant model of logic maximization, behavioral finance studies were conducted, and topics such as framework theory, hot hand phenomenon, escape from remorse, and the study of extroverted tendencies were discussed along with other issues in this period. The 1990s can be called the decade of conflict between the efficient market and behavioral financial hypotheses. In this period, following the previous studies, the characteristics of extroverts and introverts and the effect of these characteristics on individuals' decisions, the effect of age on decisions and the effect of the confidence feature in decisions were studied extensively. 2000s Following the trend of previous studies, the subject of the effect of household money and the characteristics of anger, gender, group behavior were considered in further studies. Also in 2005, neural finance was introduced as a new financial field. In the current decade, studies and articles have been conducted to complete and expand the former topics such as fear, anger, age and risk aversion, etc., and efforts have been made to provide descriptive models. Nervous finance has also grown relatively well over the past decade. (Chained, 2014)

## **5. Psychology in the field of accounting and auditing**

A look at the literature of humanities (especially in the fields of management and accounting), shows that these sciences during their lifetime of development from a mechanical state, abstract, logical, abstract and away from the factors influenced by behaviors and mental norms (Classical) epistemology has changed to a flexible, operational, realistic situation and in accordance with the norms and psychological realities of human beings (neoclassical or modern) (Moshiri, Jalili, 2009). Although this has been the case for all fields of the humanities, the history of this event has not been the same for all of these sciences. For example, while this starting point in management was realized in the 1930s with Hawthorne's famous research, this shift in accounting (and subsequent

financial management) was delayed until the development of accounting and auditing in the late 1950s. Accounting is no exception and has begun and experienced such a turning point (especially in the last decade), that this experience and challenge is more focused on those tasks and tasks of accounting and auditing in the field of macro decisions. And is generally placed cognitively and judgmentally. The application of psychological theory to the study of accounting techniques began with the work of Argris (1953, 1952). He examined how the motivations and issues of social psychology affect the performance of management accounting, although today the impact of behavioral factors and norms - managers' psychology in the field of accounting and auditing decisions is a crucial issue, and in this way, usually a difference of opinion. There is no difference between experts and researchers, but the effect, the amount of impact, quantity and quality, reliability and continuity, etc. Psychological factors for decision-making in accounting and auditing, as well as environmental and organizational variables and above. Factors are among the challenging topics that can be a good research subject in this regard. In fact, the accounting information system as a comprehensive information system is influenced by various environmental and environmental factors and various behavioral considerations and components. The impact of psychology and behavioral factors in the field of accounting is discussed by both information providers of accountants and auditors and major users of managers' information. The question that arises in this passage is whether the behavioral factors are individual or involve a set of complexities that people have in interacting with others and the environment. In answer to the above question, behavioral components can be classified into two levels, micro and macro. Behavioral components at the micro level include individual behavior and group behavior. Behavioral components at the macro level include the behavior of the organization as a whole and environmental conditions. Therefore, accounting can be introduced based on the criteria of behavioral components in four

areas: individual, group, organization and environmental conditions. (Taqwa, 2014)

The difference between cognition, motivation, and social psychology theories for organizing the next three sections is based on covenants, customs, and occasions. The three sub-branches are not mutually exclusive. Theories that mystics are classified into different subcategories often share similar assumptions, and the given theory can sometimes be applied to more than one subcategory. The theory of cognitive anomaly considers the phenomenon of cognition (how individuals respond to cognitions that are inconsistent in every way), the phenomenon of motivation examines how inconsistent cognition takes steps to prevent and eliminate them, and The social phenomenon examines how inconsistent cognition can be avoided, affecting intra-organizational communication and the characteristics of others. Most accounting and financial issues require decision-making. The study of the subject is how people interpret information to make decisions based on their analysis of the impact of events on their minds, which may violate the general principle of rationality. In accounting, we seek to understand and explain the effects of human emotions on the decision-making process. Humans tend to keep certain events in their minds in the form of perceptions, these perceptions sometimes affect people's decisions more than the events themselves. (Islami Bigdeli, 2010)

Due to the breadth of the field of psychology, various sub-disciplines have been developed in this discipline, although the overall goal of all these sub-disciplines is to understand thoughts and behaviors, but they differ in the specialized topics that are discussed in each of them. . Subjects in the sub-disciplines of psychology related to accounting and auditing include cognitive psychology, which examines how people think, and social psychology, which focuses on the impact of the structure of the social environment on how people think and behave. In the following, these two categories will be examined according to their application in accounting. The change in accounting is accelerating to improve itself and align with the world around it. In recent

years, accounting research and training has come under various pressures to change its current research methods, and various institutions around the world, including the Commission for Change in Accounting Training (AECC) and other professional bodies, have issued pioneering statements. There have been changes in accounting research and education. These statements emphasize creative research and teaching methods and their importance in the development of accounting research. (Lak, Pour-Ali and Mansouri Rad, 2020)

- Discovering appropriate criteria for forecasting and foresight in accounting
- Improving the development and application of accounting standards,
- Explore the future of accounting research and discover issues related to improving accounting learning style
- Future accounting research at the international level to measure the social impact of financial reporting and accounting
- Acting as a social steward and emphasizing the measurement and reporting of the effects of transactions on the community around them,
- Bringing accounting research and research to practical accounting methods,
- Efforts to develop international accounting standards in order to meet the needs of the profession at the level of practice and in multi-purpose organizations and institutions
- Development of new accounting methods in order to meet and meet the new needs of users and decision makers in the economic and business environment (Lak, Pour-Ali and Mansouri Rad, 2020)

## **6. Cognitive psychology**

Cognitive psychology is the most important feature of human beings in receiving information from the environment and processing information within themselves. . Cognitive psychology examines the inner processes of the mind, such as problem solving, memory, perception, cognition, language, and decision making. Individuals 'frame of mind is determined by

their cognitive style, and individuals' cognitive stylistics play the role of an intermediary between accounting information and decision-making. In accounting and auditing, according to problem-solving processes, which include problem identification, problem definition, problem-solving strategy and organization in organizing problem-solving, is closely related to cognitive psychology. Problem solving is cognitive processing to turn a given situation into a desired situation while the solver does not have a clear method to solve it. Problem solving is thinking and behaving to achieve a goal that is not readily available. This definition includes four basic ideas. First, problem solving is a cognitive matter, that is, it occurs within the mind or cognitive system of the solver, so its existence can only be deduced indirectly from the solver's behavior. Second, problem-solving is a process that involves manipulating information in the cognitive system or mind of the solver (ie, performing cognitive operations on internal symbolic representations). Third, problem solving is directional, meaning that the purpose is to solve a problem. The fourth and final idea that problem solving is a personal matter means that the difficulty of transforming a given state from a problem to a desirable state depends on the current knowledge of the problem solver. A problem exists when a given situation initially exists and the solver wants that situation to change for the better. (Hejazi, 2009)

## **7. Social psychology**

Social psychology is the scientific and methodological study of the way human beings think, feel and behave in the direct and tacit presence of others. Issues such as group competition, conflict, cooperation, overtaking, leadership, and group interactions in general are some of the most important topics studied in social psychology. Behavior is influenced by personality and environment. Social psychologists believe that a person's behavior is determined by both social status and personality traits. Aristotle believed that humans are naturally inclusive. And there is a necessity that allows us to live together (a person-centered approach). While Plato felt that the state controls the

individual and strengthens and promotes social responsibility through the social context (a socially oriented approach). (Shams, 2017) Hegel (1770-1831) proposed the concept that society is inevitably linked to the development of the social mind. This led to the idea of the group mind, which is very important in the study of social psychology. Lazarus and Stintal wrote about the superiority of English Europeans in 1860. Walker Psychology also emerged with a focus on the idea of the collective mind. This case emphasizes the concept that personality develops due to cultural and social influences, especially through language, which are the social product of society as well as the means of encouraging specific social thinking in the individual. Hence, Woodett (1920-1900) hoped for methodological studies of language and its impact on social society (McNemara, 2016). Social psychology studies the effects of the presence of others on the behavior of the individual or the behavior of the individual under the influence of the group. It is clear that the influence of others on the individual requires the existence of interactions between the individual and others, and therefore in another definition social psychology is known as the science of study and interaction between humans or the science of studying human interaction. According to Gordon Allport, social psychology is a system that uses scientific methods to "understand and explain how people's thoughts, feelings, and behaviors are affected by the real, imaginary, or tacit presence of other human beings." Social psychology looks at a wide range of social issues, including group behavior, social perception, leadership, nonverbal behavior, homosexuality, aggression, and prejudice. It should be noted that social psychology is not only about considering social influences, but also social understanding and social interactions are necessary to understand social behavior. (Rouhi, 2017)

Autocline Berg (1954) characterizes the current state of social psychology with three characteristics: First, social psychology is an experimental science; That is, it uses experiments and scientific methods, and currently many theories and principles in social psychology are based on laboratory experience, and

various experiments are performed on topics related to social psychology every day. Second, social psychology is a comparative science; That is, on the one hand, it uses information and results obtained, and on the other hand, it uses sociologists, anthropologists and other scientific disciplines, and on the other hand, it uses information from the principles obtained from social psychology in other branches of science. Are used. Third, social psychology is a practical science; This means that the principles and results obtained from it are used daily in various social fields such as politics, propaganda, education and in general the formation of people's behavior and thoughts. (Rohi, 2017)

## **8. The relationship between social psychology and other sciences**

What is clear is that there is no clear boundary between social psychology and other disciplines of the social sciences. Social psychology overlaps with political science and economics and cultural anthropology and is inseparable from general psychology in many respects, as is sociology. Oh you. <sup>1</sup>. Ross was the author of the first book published in Social Psychology, a sociologist. This field has a special interest in the social nature of people. In contrast, political science, sociology, and cultural anthropology in their work deal with the political, social, and cultural systems that govern the environment in which one lives. These disciplines are interested in following the course of society without paying attention to the individual, while social psychology is interested in knowing how each member of society is affected by environmental stimuli. Social psychology is directly related to both psychology and sociology. This discipline examines the interaction of an individual with a group or community. In other words, social psychology studies the effect that society or a group has on an individual. Sometimes, in the case of some social phenomena, there is no clear boundary between social psychology and sociology, but in short, in relation to the social group, sociology is primarily concerned with group behavior and social psychology

is interested in individual behavior in a group situation. Shows. (Vilgon ,2018)

➤ **Verbal neural programming in accounting and auditing Professional**

Behavior represents a set of ethical rules and virtues, and these ethical rules are essential for the existence and continuity of the profession. Therefore, due to the importance of professional ethics and behavior, and to empower people in a profession, they are obliged to do things honestly, flawlessly and correctly, and also the organizers of the accounting and auditing profession are required to lay down rules, regulations and principles of behavior. They are professionals. These laws typically include honesty, truthfulness, loyalty, respect, a sense of responsibility, concern for the interests of others, prudence, justice, and adherence to laws and regulations. Accountants and auditors, like other professions, need these principles or more, because the results of their work affect their clients, their community, and others. Therefore, they must abide by the rules of ethics and professional conduct in order to make a constructive impact. On the other hand, deviant behaviors in the workplace is one of the factors that have been less addressed in accounting and auditing studies and research, which can be greatly helped with the help of psychology and behavioral science.

According to the personality types of accountants and auditors, they can be easily contacted and acted in the direction of the organization, which is the transparency of financial statements. Personality types in NLP are divided into visual, auditory, sensory, and tactile categories. Many important parts of our lives, such as learning or communicating, are directly influenced by the personality type that NLP has categorized for us. People with different personality types have different approaches and actions according to the topics. One of the important uses of NLP is to influence the subconscious of individuals. When a person receives information from their environment (with the five senses), the neurons in his brain form a neural pathway that transmits the information from one neuron to

another. When this exchange of information is repeated, the above neural pathway thickens and a behavior is formed. Now if you identify a behavior that is negative and you want to change it, you can replace it with an effective behavior by building a new neural pathway. The important point is that unconscious messages can not be used to detect a wrong habit or behavior, because according to NLP defaults, each of our negative habits and behaviors has a good intention. NLP is the knowledge of the effect of spoken and non-spoken language (non-verbal behavior) on the nervous system. Non-verbal language refers to physical changes and behaviors such as eye, hand, foot movement, etc. (Shams, 2017) NLP can be used to enhance your ability to behave positively and constructively. Verbal Neural Programming (NLP) techniques help us to reach a mutual understanding when communicating with people and to speak in a way that is understandable and understands others as well. In the NLP model, we use patterns and language skills to ask more powerful and effective questions in our conversations and get positive results. NLP (Verbal Neural Programming) teaches us to understand what results we want from a particular situation and then to see if we are moving towards that result or moving away from it. This approach teaches us how to be flexible in changing behavior and get the results we want. Personality traits are able to predict situational behaviors, these traits are balanced with situations and environments, and thus determine behavior and how to interact with others. Given this, we can expect that how people interact and communicate with others, like many other activities, is influenced by their personality (Shams Amiran, 2017)

Academic studies in the field of accounting began mainly in the early fifties. These studies can be classified into three general groups as follows:

- The Impact of Individual Behavior on the Design, Implementation and Use of the Accounting System This area of behavioral accounting studies the impact of management attitudes and philosophies on the nature of accounting controls and segmentation of the organization. For example, a manager who-

risk- It is elusive, it requires different financial control systems than the manager who is risk-averse. In this way, the weakness or severity of accounting controls affects the behavior of individuals.

- The impact of the accounting system on people's behavior. This area of behavioral accounting focuses on studying the impact of the accounting system on motivation, productivity, decision making, job satisfaction and coordination. For example, a budget based on ambitious goals will instill in people the belief that budget goals are unattainable and therefore no effort will be made to achieve them. Conversely, it may lead to carelessness, underwork and waste in production
- Methods of predicting human behavior and strategies to change it. In this area, the main focus is on how the accounting system can be used to influence people's behavior. For example, such studies may intensify or reduce accounting controls, change reward plans, or change the form and content of performance and financial evaluation reports. (Zoff, 2003)

Unprofessional job behaviors can be categorized from different perspectives, but in general, many researchers agree on several types of deviant work behaviors, which are: a) financial deviations; B) administrative deviations; C) Aggression of a person, which means expressing hostility and committing acts of aggression towards others and their rights; D) Political deviation in order to support certain individuals or groups that may expose the lives of others to harm (Mahdad, 2013). Some studies have suggested that deviant ethics and behaviors can be important factors in maintaining the independence of accounting and auditing and their more effective function in accounting and auditing institutions; Therefore, recognizing these deviations and reducing deviant behaviors and factors affecting the success of this field will be (Karimi, 2014).

## 9. Conclusion

Foresight is not intended to predict or foretell the future, but to gain insight into the future to illuminate

the dark, risky, ups and downs of what we call the future. In other words, futures studies is a set of efforts to analyze resources and patterns in order to visualize and plan for potential futures. Futurology reveals how the reality of "tomorrow" is born from the changes of "today". The accounting industry now speaks a new language of business, and this language is considered to be the language of future generations of accounting professionals. Advances in accounting technology will face strong growth potential in the future. Advances in this industry at various levels have brought new opportunities for accountants. And behavioral science, as well as the changes that have been made to information technology over the years. Interdisciplinary studies, which have been seriously discussed in the world for several decades, also better clarify the importance of paying attention to other sciences in accounting research. At present, accounting and auditing are considered as one of the social sciences. It is interdisciplinary and the artificial walls and borders that were created between different sciences are being broken and different sciences are moving towards integration and creating a general and unified science. Psychology has come to the aid of different sciences in order to benefit from psychology. In accounting and auditing, we addressed the issue that by recognizing the personalities of people in this industry and understanding their morale with the nlp method, important points can be reached in companies and financial statements. The goals of the organization and the company can be achieved by recognizing the personality of individuals by looking closely at the personality traits of the accountant and auditor. Foresight research methods and methods are largely based on human judgment. Prediction is one of the things that can not be complete. According to Hermann Kahn, a leading researcher of the twentieth century, "the most wonderful future is to have nothing surprising." The future is based on chance and probability; Psychology can be used to accurately predict some complex systems: population, transportation, environment and agriculture, communications, monetary systems, international politics, education, religion and spirituality, culture

and health, new technologies, etc. are components that Accounting and auditing in the current transition must adapt to them in order to grow in this interaction and provide mutual service.

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## آینده نگاری تعامل حسابداری و حسابرسی در پسا دیجیتال با سایر علوم، جایگاه روانشناسی و علوم رفتاری در این بین

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### چکیده

آینده نگاری، پیش بینی یا پیشگویی آینده نیست، بلکه تحصیل بینشی از آینده است تا راه تاریک و پرمخاطره و پرفراز و نشیبی که نامش را آینده گذاشته ایم، روشن سازد. به بیانی دیگر، آینده پژوهی مجموعه تلاش هایی است جهت تجزیه و تحلیل منابع و الگوها به منظور تجسم آینده های بالقوه و برنامه ریزی برای آنها. آینده پژوهی آشکار می کند که چگونه از دل تغییرات «امروز» واقعیت «فردا» تولد می یابد. آینده نگری در حسابداری و بهبود تدوین و بکارگیری استانداردهای حسابداری و حسابرسی با پیشرفت دانش، ترکیب علوم گوناگون این امکان را به بشر داده است که با استفاده از دانش و علوم، مسیر زندگی آینده را طراحی کند روح و روان انسانها سرچشمه‌ای است از انرژی که انگیزه، اشتیاق، پیشرفت و افتخارات از آن برمی خیزد و افراد را قادر می سازد کارهای ارزنده‌ای به ثمر برسانند ورود روانشناسی به عرصه پرفراز و نشیب حسابداری سبب شد تا با استفاده از نظریه‌ها و مکتب‌های گوناگون روانشناسی و با استناد و برقراری روابط انسانی به تبیین شخصیت و رفتار فرد پرداخته شود نزدیک کردن علم روانشناسی و تئوری های آن با حسابداری و حسابرسی در عصر دیجیتال به روشهای عملی حسابداری در حوزه ی عمل کمک شایانی در جهت پاسخگویی و رفع نیازهای جدیداستفاده کنندگان و تصمیم گیرندگان در فضای اقتصادی و کسب و کار می کند. جوامع صنعتی مدرن در آینده وارد مرحله نوینی از توسعه خواهند شد و به جامعه جدیدی؛ جامعه فراصنعتی، تبدیل خواهند گردید. انتقال به جامعه فراصنعتی دیگر اساساً مبتنی بر صنعت گرایی نیست و در واقع نمایانگر مرحله ای از توسعه است که به کلی فراتر از دوران صنعتی است. در این مقاله ضمن بررسی روند تعامل حسابداری و حسابرسی و مقالات این حوزه با رشته های مختلف نشان خواهیم داد که روند رو به رشدی در خصوص افزایش مطالعات میان رشته ای در حوزه حسابداری و حسابرسی وجود دارد که این تعامل به عنوان مثال با حوزه روانشناسی مورد بررسی قرار گرفته است. مرور ادبیات و تحقیقات با رویکرد آینده نگاری نشان میدهد مولفه های جمعیت، حمل و نقل، محیط زیست و کشاورزی، ارتباطات، نظام های پولی، سیاست بین الملل، آموزش، دین و معنویت، فرهنگ و بهداشت، تکنولوژیهای نوین... مولفه هایی هستند که حسابداری و حسابرسی در گذار فعلی بایستی خود را با آنها تطبیق دهد تا در این تعامل رشد کرده و خدمات متقابل باعث توسعه مبانی نظری، تدوین استانداردهای متناسب و نیز تکامل نرم افزاری و سخت افزاری حوزه حسابداری و حسابرسی گردد.

**کلمات کلیدی:** حسابداری و حسابرسی، آینده نگاری، روانشناسی، عصر دیجیتال