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A STUDY ON THE EFFECT OF PERFORMANCE AUDIT IMPLEMENTATION ON ENHANCING THE EFFICIENCY OF HUMAN RESOURCES (WORKFORCE) IN PUBLIC SECTORS

***Sirous Fatahi¹, Mozaffar Jamali Nejhah¹ and Seyed Mohammad Nozari²**

¹Persian Gulf International Educational Branch, Islamic Azad University, Khorramshahr, Iran

²Payam Noor University, Asalooye, Iran

*Author for Correspondence

ABSTRACT

This study examines the impact of the implementation of performance audit n enhancing the efficiency of human resources in public sectors. The study is survey in terms of design and the survey instruments are two researcher-made five-choice questionnaires (Likert) that have been determined to audit the performance and efficiency. Both questionnaires have high reliability and validity. In terms of time, the score of this study is related to the time of collecting data between 2011 and 2012, and in terms of place the score of this study is related to the Supreme Audit Court. The number of samples needed was determined using the Cochran formula as 357 subjects representing the population size as far as possible. There were 3 hypotheses and T-student test was used in spss software to test the hypotheses. Since the data obtained by questionnaires are qualitative, so nonparametric tests (Pearson correlation coefficient) have been used and binomial tests and multiple regressions were used to test the hypotheses. Hence, to prove the hypotheses options (very much), (very), (somehow) were considered. Other statistics used in this research include Z test, F, T and R statistics, regression and path analysis equations. The results showed that:

1. Performance audit improves the human resources development.
2. Developing the human resources improves productivity and finally
3. Performance audit improves the human resource productivity.

Keywords: Performance Audit, Human Resources Productivity, the Supreme Audit Court, E Economy, Efficiency, Effectiveness

INTRODUCTION

In the early years of the third millennium, the world countries tend to allocate a greater share of world trade. Thus, to achieve this goal they should increase their competitiveness and this is not possible except through enhancing productivity. Iran does not have any mechanism other than promoting efficiency of the public sector in order to reach its development level to the developed countries. In today's competitive world, productivity as a philosophy based on improvement strategies is the main goal of any organizational and can involve a chain of activities in all sectors of the society (Taheri, 1999). So that, each organization's mission and the main goal of managers is effective and optimal use of various resources such as labor, capital, materials, energy and information (Vaziri *et al.*, 2010). This has led to the proper use of production factors such as goods and services to become a national priority and all societies believe that the continued existence of any society is not possible without productivity (Puyan and Masumi, 2009). The religion of Islam, as the last divine religion, claims to offer a complete and comprehensive program needed for the modern man and also provided novel and unique manners through the verses of the Qur'an and Imams about the productivity of doing the right things right namely the combination of efficiency and effectiveness (comparing results with objectives) (Ahmad, 2010). Employee empowerment is also one of the indicators of increased productivity. Therefore, these variables make up the field of improving productivity (Sabbagh, 2008). On the other hand, people or their representatives want to know that if the executives have acted correctly in their decisions or not? Are the overall goals of increasing efficiency, effectiveness, and affairs concerned in the public sector? The nature of the public sector requires that in this section, the performance audit is to be required in the context of

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financial accounting principles in addition to examining the financial statements. Therefore, the auditors are required to assess the quality of their management decisions and offer their improved conclusions and recommendations to improve management. So in this article it has been attempted to refer to the basic concepts of human resource productivity and investigate the different approaches and solutions to increase productivity through the implementation of performance audit. The question is: Is the implementation of performance audit effective on productivity indicators and enhancing the productivity of human resources? To answer this question, given the importance of the subject and since no comprehensive research has been done in this regard in our country, the aim of this study is to evaluate the impact of the implementation of performance audit on enhancing the efficiency of public sector human resources.

Statement of Problem (Subject)

Concepts and Principles of Human Resource Efficiency

Labor productivity is defined as the ratio of good output and the monetary value of the goods or services to the input work or the amount of work that has been used for the production of those products.

Increasing Factors of Labor Productivity

Zare (2000) introduces the factors affecting the human resource efficiency: Training staff, coordinating the participation, job security, fitness of training to the job, salary and benefits, overtime, non-cash prizes, rewards of increasing productivity, creativity, management, incentive leave, and mission right. One of the most famous views on the factors affecting labor productivity is owned by Hersey and Blanchard (1998). According to this theory, the labor productivity includes seven dimensions or variables related to effective performance management as follows: A) ability (knowledge and skills), b) transparency (understanding the role) c) support (organizational support), d) motivation (desire), e) evaluation (education and performance feedback), f) credit (valid actions and staff salaries), g) environment.

Improving the Manpower

Employee Empowerment

Employee empowerment is one of the indicators of increased productivity. Many management theorists consider the empowerment as the delegation and decentralization in decision-making that results in the similar emphasis on corporate management techniques, self management systems and so on. Therefore, these variables make up the field of improving productivity (Sabbagh, 2008). On the other hand, another factor affecting productivity is job satisfaction, and thus the increased job satisfaction leads to excessive power of their employees. They will be also committed to not only do their organizational tasks accurately and in less time (efficiency), but also aim to do the right things (effectiveness) (Seyyed, 2008). Studies on leadership and management skills showed that the activities associated with empowerment are the main components of effective management and organizational activities. Empowerment in organizations is a tool to facilitate the development of motivational behavior and the behavior to increase productivity (Yang and Choi, 2009). In other words, the empowerment moves to strengthen personal beliefs about the effectiveness, the process of changing personal beliefs or the self-efficacy that leads to increased motivation and productivity (Fluz *et al.*, 2007).

Human Resource Development

Development of human resources will be effective in any organizational task. When employees have the necessary development, productivity will be improved. In the process of human development, employees are equipped with a set of qualities that make the balance. One of the indicators of organizational developed human is his productivity and it does not mean that development is not related to act professionally but means that he has used his expertise in the form of productivity in the organization. Acting efficiently can be acquired and the employees should learn how to act in order to be productive. In general, the development of human resources helps the deployment of management cycle as follows: Staff will be familiar with the philosophy and mission of the organization; employees will be familiar with working, they will learn problem-solving techniques and using efficient techniques, and they will use information technology to improve productivity.

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Factors Reducing the Labor Productivity

In the case of failure to fulfill conditions for the promotion of human resources and by disregarding the true needs and understanding the capabilities and how to use them, the organizational conditions makes the qualified labor to spend its energy in mundane tasks and it means imposing additional costs and reduced productivity (Taheri, 2002). The most important factor in reducing the efficiency is the imbalance of revenue and cost that is the most important factor in motivating human resources. After that, the most important factors contributing to the decline in productivity within an organization are as follows (Kargar and Farajpour, 2009): Discrimination between employees (due to mismanagement), job insecurity, failure and reluctance on the medium to long term planning (poor management); improper workplace; lack of attention to the fundamental needs of employees; lack of control (stability in control programs); Inconsistency in the field of study and job, not using the expertise of jobs (poor management), lack of program management, lack of training (poor management); Inconsistency of individual talent and career (poor management); incompetence of administrator, lack of interest in the current work and consecutive transfer of staff, staffing inflation.

Almost all the reducing factors of labor productivity are associated with poor management; meanwhile the relationship of the individual with organization must be bilateral. Successful manager is someone who knows the cultural environment of his organization that is a significant factor in the behavior of employees and applies is to implement the programs of the organization. Rights and privileges of members should be determined based on the nature of the job, experience and practice to change the program. If performance is not carefully evaluated and rated according to their merit, or in other words the right people do not benefit from more points in the organization, the layoffs culture will be made in the organization. Low salary in Iran compared to the cost of living in recent years has led to layoffs and finding second and third jobs resulted in the more tired workforce, reduced efficiency and incidence of mental health problems for workers and their families and consequently had a negative impact on labor productivity. Unfortunately, it is observed that the organizations management is not founded on scientific principles. Managers in these organizations do not provide a clear picture of the organization's goals. Employees also do not have the ability and motivation to do the work. In parallel, organizational processes were not defined as a comprehensive approach and their performance were not measured (Kargar and Farajpour, 2009).

Concepts, Definitions and Principles of Performance Audit

Accountability is the foundation of any society that claims to be democratic. This sentence can be even expressed with more intense, democracy requires a suitable response system (Hughes, 2006). The accountability degree has long been under the influence of pressure on response-seeking. If a nation, parliament, media and professional associations ask for a better response, the state also will provide better information and thereby improve the transparency of its activities. Today, the globalization and the impact of countries taken from the financial situation of the overseas have added the international community to the answer-seekers. If we consider audit as a systematic process of collecting and evaluating evidence related to the financial events and activities to determine the degree of compliance with pre-determined criteria and report the results to understand stakeholders, supreme audit institutions can play an effective role in promoting accountability and transparency. Public audit in Iran is done by independent auditors of the Audit Court with certain authorities. Iran's Supreme Audit Court as an institution for financial supervision and with a very high position derived from the articles 54 and 55 of the constitution has a continuous supervision on the use of funds and the results across the country. Audit Court ensures the accountability of offender managers and in this regard the triple branches and all public institutions that use the whole budget of the country are required to answer. The results of the investigations by the auditors of the Audit Court and annually submitted to Parliament in the form of transparent and prepared financial statements. Court of Audit plays its role through the continuous presence in the executive agencies, including state-owned companies and evaluating their programs and activities on the basis of performance audit. So that it plays its role through the establishment and implementation of control systems for internal controls and the executive agencies in improving their

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operations and guide the economy of the country in micro levels by providing its insights into relevant units.

In line with the good survey of the Supreme Audit Court from the public sector, the performance audit is used as the primary means of the survey in order to investigate the efficiency degree of executive agencies and promote them. Common definitions have been expressed for the performance audit that can be stated as follows: 1. Development of duty audit to the entity's operations. 2. Using the performance audit services in the business units operations ranging from financial and nonfinancial operations. 3. Identifying opportunities for greater economy and efficiency of operations and improving operational effectiveness. 4. Control methods for evaluating the effectiveness of operational tasks. 5. Operational audit over financial operations. 6. Operational audit that is not related to the evaluation of financial reporting. 7. Audit method that evaluates the efficiency and economy with respect to available resources. 8. Performing the audit with an attitude of management. In recent years, different terms have been used in different texts as the synonymous with performance audit to explain the audit procedure and many words have been proposed. The mentioned items are as follows: management audit, value for money audit, operational audit, comprehensive audit, program audit, plan audit, non-financial audit, offices audit, comprehensive audit, functions audit, risk assessment audit, prevention audit, costs – benefits audit, compliance audit, economy and efficiency audit, effectiveness or results audit.

The Necessity of Performing the Performance Audit to Enhance the Efficiency of Human Resources:

In the vision of the Islamic Republic of Iran in 2025, it has been mentioned that Iran should reach the first place in economy, science and technology in the region. Therefore, the strategy determined for achieving first place in economy, science and technology in the region is enhancing the productivity. Productivity issue in global policies of the fifth plan and the Fifth Development Plan has been considered and promoting the contribution of productivity growth to one-third has been emphasized at the end of the plan. In Article 79 of the Fifth Development Plan, the development of a comprehensive program to improve efficiency and increase productivity contribution in ensuring growth in all economic activities is mentioned (Management and Planning Organization, 2003: 2004: 2000). On the other hand, given that in Article 20 of the Law on Civil Service Management Act of October 2007, the agencies were required to provide proper mechanisms of employee participation and receiving suggestions and their effectiveness on decision-making in order to motivate and increase the efficiency and utilization of their employees' thought and creativity. For this purpose, the enhancement of efficiency in public sectors especially the human resource productivity has been seriously taken into consideration and its related factors need to be identified and applied. Given that in the article (218) of the Fifth Development Plan the implementation of performance audit (operational) has been prepared, thus it is necessary to enhance the efficiency of the public sector by the Supreme Audit Court.

Human Resources Productivity Indices:

Creating Suitable Environments for Managers and Employees Creativity and Innovation:

This indicator reflects the affairs with new ideas, quality and speed. Thus, it is considered as an indicator of the advancement of the human resource.

Using Experienced Workforce:

Experienced workforce relieves bottlenecks in the shortest time possible and does the affairs with higher quality and effectiveness. However, it should be noted that the excessive sufficiency to the workforce may ignore the expertise of other staff. The research results of Khodabakhs (1996) and Ahmadi (2001) have shown that the experienced workforce has a significant impact on the productivity of workforce.

Work Motivation and Spirit in Employees:

The main factor that impacts on labor productivity is the motivation of working in human resources. Motivated workforce is influenced by two factors, material and immaterial. Salary levels are material factors in comparison with the price levels in society and meeting basic needs of people. While the immaterial or spiritual causes cover then management atmosphere and cultural atmosphere of the organization (Barati and Amin, 2011). Ebrahimi (2005) believes that one of the key issues in the efficient use of labor is motivation, especially the positive pressure to change behavior in the desired direction.

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Moshabaki (2001) argues that motivation is the inner state of a person and makes a behavior in him in order to achieve a specific objective. Motaghi (2005) also emphasizes that motivation is the tendency of an individual to enter the oriented activities and results from the commitment sense to goal. (Pour, 2005). An employee with commitment, motivation and higher education tends to remain in the organization and wants the productivity to remain high for a long time (Bunitz and Fitz, 2002). Results obtained from the research by Rao (2006) suggest that the motivational programs improve performance and productivity.

Continuous Professional Training for Managers and Employees:

Undoubtedly, one factor that affects productivity and can play an important role in the improvement is education. Some studies have shown that a strong correlation exists between education and productivity (Zare, 2000). For example, Verdi *et al.*, (2009) argue that education is among other factors affecting the productivity of human resources that took place in the final priorities related to training courses. Education is the process of transferring knowledge or skill. They argue that we learn the proper behavior through education. Education is an ongoing process that focuses on a specific aspect of organizational culture. Learning is a practice or set of procedures that causes the individual to learn the required skills, knowledge and insight to do something. On the importance of this factor in improving the efficiency of, Drucker (1999) states that productivity of employees is the 21st century's greatest challenge for managers (Heather 2003). New techniques and plans of improving efficiency cannot be used effectively without trained manpower at all levels of the organization. Strong positive correlation between education and productivity has been proven in many studies. Even the comparative studies between the economic progresses of different countries reflect the fact that each country that has trained manpower will have higher productivity and economic growth (Saber, 2005). Sweetman (2002) believes without a doubt the long-term productivity will be established as a mindset for Education and Culture and the manpower can have a significant impact on productivity. Efficiency and effectiveness of any organization largely depends on the correct application of human resources. The specialized knowledge of people can be enhanced by learning to better perform their duties and be prepared for higher responsibilities.

Improving and Higher Quality of Working Life of Employees:

Quality of work life is among topics that have been discussed for many years and there are still many disagreements about it. Quality of working life will cause the realization of participatory decision-making, job security, better working conditions and environment, a sense of ownership and autonomy, career opportunities, job enrichment and appreciation of the work and development to satisfy the needs of self-actualization and motivate people for sustainability in the organization. According to a number of experts, some parts of the slowdown in productivity and product quality in some countries are due to the shortcomings in the quality of working life and the changes in employees' interests and priorities. Attention paid to the quality of working life is a reflection of the importance that is emphasized by everyone. Low quality of work life means that the employee considers his/her job as a means to meet the economic needs and employees with such thinking, often have little loyalty to the organization and try to do other jobs to compensate for it.

Today, the productivity and quality of work life are the main constituents of organizational performance and the sentence of Joseph Juran that has called the twenty-first century as the “quality century” emphasizes the importance and necessity of knowing the subject (Tracy, 2006). Experience has shown that an organization can only be successful by relying on its employees. So virtuous organizations are working to continuously improve the quality of special interest and this behavioral pattern of managers in organizations will cause the reduction of wastes and improvement of product quality resulting in the increased productivity (Ahadi and Bitu). Considering the manpower training and development of staff within the organization, attempting to build morale and motivation and driving force of creativity and innovation in order to achieve the goals and missions of the organization will guarantee the growth of efficiency and increase of productivity. Important point in this case is that the productivity in organizations requires attention to the wants and needs of employees, and alignment with organizational goals including training and upgrading their skills, job promotion and career advancement based on qualifications and criteria and removing unfair discrimination, job security and confidence about the

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future, motivate staff and inspiring the creativity, initiative and participation, etc. (Nasraullah, 2005). Too much attention to the quality of work life, namely the mere provision of salaries and benefits, utilities and expects to achieve the higher productivity of human resources will create a culture of laziness and low unemployment, while the labor culture will increase through providing the welfare rights and benefits to higher productivity. Behavioral psychology suggests that productivity leads to success, and this feeling makes you feel motivated to work harder. If these successes are answered properly, people will be satisfied and satisfaction constitutes a major part of quality of work life. In summary it can be said that the high quality of work life is what states some issues in some people as follows (Sepasi, 1997): Proper and fair payment for a job well done, healthy and safe working conditions, the ability to learn new skills, building social cohesion in the organization, individual rights, the balance in the division of labor and unemployment.

Increased Consciousness (Commitment) and Social and Organizational Discipline

A committed employee is extremely valuable for the organization. He can be effective in increasing production and productivity by doing the works in a timely manner with a sense of responsibility. Managers can commit the employees to the organization by meeting the basic needs of employees, establishing mutual trust between them and creating a culture free from blame. Committing the employees is not merely enough but their commitment to the organization should be kept. One of the most effective ways to retain employees and keep their commitment to the organization is job and increasing their motivation. Appreciating the individuals for their superior performance is a motivation in saving the commitment of employees and their job satisfaction (Ahadi, 2005). The use of financial incentives such as increase in salary (benefits), payments, etc. are important in maintaining employees' commitment and their high productivity (Ahadi, 2005).

Removing the Discrimination between Employees (Due to Mismanagement)

An organization that discriminates among its employees usually does not have enough efficiency and has an atmosphere of mistrust and injustice in their enterprise environment. Such organizations have many problems in the process of doing affairs and always create problems for clients as well.

Eliminating the Inconsistencies between Individual Talents and the Employees' Field of Study With Their Jobs

Diagnosis and use of individual talents is one of the most important tasks of a manager that can be used as a powerful tool to enhance productivity. In organizations, especially large organizations, individual talents are not fully utilized and sometimes remain unknown, namely the potential talents are not used in order to increase productivity, which is a lost opportunity. Therefore, managers should try to discover the capabilities that have not been fully used and find better ways to use them in order to increase productivity (Ahadi, 2005).

Generating Thought in Employees (Institutionalizing Productivity in Thought)

Deployment infrastructure to improve productivity management cycle is to make the employees of an organization to think. Lack of organizations in terms of productivity, money, equipment, and resources is not material but is the lack of generating thought. Successful and productive organizations have taken special measures for the use of all intellectual and practical capacities of their employees in addition to the bureaucratic discipline. Despite the fact that the activities of researchers and scientific employees cannot be formulated, the leader organizations have achieved the mechanisms and procedures appropriate to the cultural context and synergy of efforts and thoughts of staffs. Effective management of scientists requires measures which results in the quantitative and qualitative development of accumulating knowledge, effective use of knowledge and the development of national and organizational level (Fereyduanian and Yousefi, 2001). In the case of thought and knowledge management, productivity will emerge in thought. Management of knowledge and ideas is the management of organizational knowledge which can include a range of features to improve organizational performance. In general, the efficiency in thought helps improving the productivity management cycle with the following mechanisms (Soltani, 2011; Azari, 2001).

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Increasing Innovation in Tasks and Responsibilities of Employees

Innovation of employees in doing tasks is one of the most important indicators of productivity. The index is done through doing tasks as fast as possible and makes the other employees to take steps in doing things in a competitive basis to achieve organizational goals.

Job Satisfaction and Organizational Management Support

Reward and compensation systems are the factors affecting the productivity of human resources. Reward systems play an important role directly and indirectly through motivating employees in increasing human resources productivity (Maleki and Nabatchi, 2002). Reward system should be such to consider individual differences among members of the organization and what is important to each of them. Obviously money is not the only factor motivating people, but if the people salaries are very low it will cause the loss of their motivation. As a result, the financial reward continues to be a strong motivation for them. Thus, try to use rewards as a way to encourage employees to share in the success and productivity not as a motivating factor. In other words, the employees must know that they are contributed in productivity. The biggest motivator for people is to show them that they are contributed to the organization ownership and this is sharing employees in their productivity which in turn leads to increased productivity (Ahadi, 2005).

Promoting the Good Behavior and Proper Conduct of Leaders and Managers

If managers do not have professional ethics, they will disrupt the organization system causing seizures atmosphere. Thus, they must think about promoting ethics and behavior to boost employee motivation and improve productivity.

Promoting Employees Based on their Competencies

Only employees who have the motivation and the ability to be necessary can increase productivity. But if a person is promoted without any competencies she/she will cause the resentment and dissatisfaction of other competent employees and will feel insecure and all of which lead to lower activity and productivity. Considering employees as human beings and expressing interest in the welfare, health, desires and their dreams will result in better performance and enables the productivity increase. When the performance system of an executive organization has discrimination, the promotion method of employees is not based on their competencies and irregularities will be caused in the organization. Those who do not deserve to be promoted are easily removed and on the contrary the competent people will be frustrated that leads to the reduced organizational productivity.

Staff Development (Efficient use of Expertise and Talents of Employees)

Staff development means the development of individual talents. If these talents are not fostered, the promotion trend of organizational productivity will become slow. Even if the employees do not use their talents effectively, the productivity trend of organizational productivity will become slow.

Research Background

Productivity of Human Resources

Numerous factors affect the labor productivity and their most important factors are motivation, training, employee communication with manager and the work environment. Among these factors, training is one of the most important tasks of a human resources manager in the organization (Iliyani and Zakeri, 2009). Bowman (1986) considered Adam Smith as the first person who has paid attention to the relationship between employment and productivity. In his opinion, if someone spends a lot of time to be trained and enters a job consistent with his/her skills and expertise, will be more valuable than an expensive car. Alaolmaleki *et al.*, (2002) conducted a comparative study on the identification of ways to increase manpower productivity at Semnan University of Medical Sciences. They conducted a descriptive-inferential study on 200 financial and health care staff to identify the material factors of motivation, training and organizational structure to increase productivity. The results of studies by Nayyeri *et al.*, (2004); Hijazi *et al.*, (2005) also indicate that the effective assessment can increase productivity. Alvani *et al.*, (2002) in their comprehensive model introduced the practical and public training as the factors affecting the productivity of human resources. They considered the research courses and seminars, to comply with job-related knowledge and education, the general and specialized study related to jobs and using computer and Internet technologies as the educational factors affecting the productivity. Abili *et al.*,

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(2009) identified the factors associated with training and educational opportunities as effective organizational factors on middle managers' productivity.

Allahveri *et al.*, (2009) conducted a cross-sectional-descriptive study in the first half of 2009 and showed that observing the factors related to the management style with the mean score (4.41) are identified as the most important factors affecting the productivity of human resources. Factors related to the individual, culture, organizational structure, reward systems, training courses and factors related to the physical environment of the organization are in the next categories. Alvani (2002) in his model considers factors such as physical and mental health, demographic characteristics, work experience and the spirit of competition among the individual characteristics that affect the productivity of human resources. He also introduced the perceived fairness of salary and benefits, payment commensurate with qualification and experience, putting the welfare of employees, employee acknowledgement, providing information to individuals and notifying the employees, employee satisfaction, opportunities for advancement in career, the personnel of the organization's reliance on personal life, paying attention to family members of employees of the organization, using technology, job rotation and job development and participation in decision-making. Tavari *et al.*, (2008) showed the influence of individual factors on productivity as the third priority. They considered issues such as possessing job consciousness, suitable conditions for growth and job promotion and adherence to laws and regulations as the features of appropriate productivity culture.

Alvani and Qasemi (2000) in a study showed that there is a direct significant relationship between the quality of work life and labor productivity. Sabokru *et al.*, (2010) presented an article entitled "the productivity of insurance companies' employees in the light of emotional intelligence and the quality of work life". They showed that the quality of work life and employee productivity is significantly and positively associated with each other. A significant alignment has been found between the abundance of research results including research conducted by the researchers: Shikdar *et al.*, (2009) in a study entitled "the sociological study of manpower productivity in education system" used the survey method and questionnaires, collected data from the boys and girls high school teachers at five different areas of Isfahan city. In line with Parsons theoretical model, the manpower productivity of public school in Isfahan was associated with the components of innovation, organizational health and job satisfaction and productivity of human resources at the organizational commitment was at the lowest level.

A study was also conducted on the organizational productivity and its influencing factors and concluded that factors such as professional training of managers and staffs, promoting the motivation among employees for more and better working, establishing appropriate field of innovation and creativity for managers and staffs, establishing appropriate system of performance-based payment and punishment and reward systems, discipline and social consciousnesses, the evolution of the system and activity methods that have major roles are factors affecting organizational productivity (Mirkamali and Mirsanayi, 2001). Mahmoudzade and Asadi (2007) examined the impact of ICT on labor productivity growth in Iran's economy using time series data from 2007 and concluded that the overall productivity and non-information technology capital have the greatest impact on labor productivity in Iran's economy. Effects of human capital and ICT capital on labor productivity are positive and significant.

Shaikhi (2007) also found that there is a relationship between organizational atmosphere and employee productivity in the office of Tehran's tax affairs and among the factors of organizational atmosphere, rewards, risk-taking, intimacy, support, standards, conflict and identity forecast the productivity. Rahmati (2005) investigated the relationship between organizational atmosphere and employee productivity in Tehran education department and concluded that the components of organizational atmosphere are correlated with productivity. Zare (2007) found that there is a relationship between organizational atmosphere and employee productivity in public hospitals of Iran University of Medical Sciences. A study was conducted by Bordbar *et al.*, (2009) entitled "the relationship between organizational culture and productivity of the workforce in the insurance industry". This research is descriptive-correlational and the method of data collection was library-field. The results of this study indicated that there is a significant positive correlation between organizational culture and productivity of managers and the

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dimensions of creativity, support, integrity control, identity, reward system, compromise with conflict phenomenon and communication patterns of productivity.

Renani and Sabzi (2009) in a study entitled “Prioritizing the organizational factors influencing the improvement of manpower productivity in small industries” came to the conclusion that; 1. There is a significant relationship between organizational factors including the improvement of quality of life, empowerment of staffs and motivation of staffs in improving manpower productivity. 2. There is a significant relationship between factors affecting quality of work life including method of administration, human factors engineering and communication with staff on improving workforce productivity. 3. There is a significant relationship between the variables of available resources, the emergence of creativity context, employee training and employee participation in improving the productivity of human resources. 4. There is a significant relationship between the variables of feedback, self-employment, performance appraisal; employee needs to improve workforce productivity. In a study by Farshad (2009) entitled “the factors affecting the productivity of human resources in industrial and agricultural cooperatives in Kermanshah province” used the stratified random sampling method. The results showed that the factors of education, motivation and innovation, consciousness, administration, lawfulness and discipline, conservation and proper system of payment affect the productivity of human resources.

Vaziri *et al.*, (2009) conducted a study entitled “Identification and prioritization of factors affecting manpower productivity (A Case Study of Employee of Education System in Hormozgan Province)” and used the ranking technique (MADM) with descriptive survey research methods and also library-field data collection methods. The results of applying the technique (MADM) such as TOPSIS and AHP suggest that job-related factors were prioritized. These results indicate that the quality of work life has the highest effect on the productivity of manpower compared to other components of the factors associated with job. Among the factors related to the physical and psychosocial factors of work environment, the factors of mental health in the work environment, supportive atmosphere among the employees in the organization and proper and up to date facilities and equipment in the workplace are the most important parameters for improving employee productivity in the employees of Hormozgan education system. Among the factors related to the individual parameters, mental and physical health factors were the most effective factors in improving employee productivity. Finally, the components of intimacy and collaboration were ranked. Dignity in the workplace had the highest impact on manpower productivity than the other factors related to the factors of creating intimacy and collaboration and the factor of constructive engagement with employees and managers is in the next rank. The study was conducted using the correlation and stratified random sampling and for data analysis, descriptive statistics and inferential statistics methods including ANOVA, regression and Pearson's correlation coefficient were used. Doctor Hassan *et al.*, (2004) showed that there is a significant relationship between creativity, risk-taking, leadership, support, integrity control, identity, reward system and the efficiency of physical training managers. According to the results of the investigation it was found that there is a significant relationship between organizational culture and managers' efficiency at 99% confidence level. Zare (2000) states the factors affecting labor productivity as material and non-material factors including: staff training, coordination of partnerships, job security, salary, creativity and so on. Ho also showed that there is a strong positive correlation between education and productivity.

Habibi (2004) shows that there is a significant positive relationship between suggestions system and job satisfaction of employees and also the motivation of employees in the field inspection and supervision organization of prices and distribution of goods and services. Sheykholeslami (1998) conducted a study on factors affecting the performance of employees in public organizations and showed that the compliance of job with the expertise level increases the productivity of employees. Discrimination and applying the influence have a negative impact on employee productivity and increases the feedback and contact of employees with the managers. There is also a positive significant correlation between education and productivity. Results of the study by Taheri (1999) showed that job training, motivation, innovation and creativity in order to create the appropriate fields, making the system suitable for the establishment of performance-based payment system, motivating discipline, work ethic, social discipline,

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governance, and development of systems and procedures, domination of corporate policies are the factors affecting the productivity of human resources.

Tavari *et al.*, (2008) introduced the individual factors on as the second set of factors affecting the productivity of human resources. In a similar result, Gordon believes that the most important asset of a company is its human resources, thus motivational forces are considered as a major factor for the success of the organization. Shojaei (2003) argues that investing in the field of human resources and improving the quality of the labor force is one of the major issues and ways to increase productivity. Also, factors like the feeling of safety and comfort in the workplace, asking the views of the employees by managers, facilities and welfare services to get respect in the workplace have a tremendous impact on employee productivity. There is a significant direct relationship between the quality of working life and labor productivity; it means that if we invest in creating quality work life, the productivity of the enterprise will be added (Ghasemi, 2000).

The findings of the study by Karimi and Piraste (2004) imply that the training of workforce has a positive significance on increasing manpower productivity and human resource management and the culture governing the organization are the determinants of productivity (Asadi and Rahavi, 2004). A second study showed that the effective evaluation can increase the productivity (Nayeri *et al.*, 2005). If the labor benefit from higher education and this education is useful, an improvement will occur in the quality of the labor force and increase the production rate (Hejazi, 2005). In other words, with the increase of skill level and expertise, labor productivity will increase (Amini and Hejazi, 2007). Saatchi (2007) pointed out that factors such as job burnout, communication networks, employees' attitude, motivation, individual differences and mental health affect productivity.

Other researchers also say that various processes, methods and techniques have been proposed for creating motivation in a competitive environment in the Third Millennium, one of which is the discussion of the quality of work life that has a tremendous impact on employee productivity (Zarepour and Mehr Ara, 2008). Rasouli (2008) argues that the manpower is the most important factor in improving productivity and paying attention to the points such as acquiring new skills for the promotion of employee training, suggestions system, keeping the physical health of employees, assigning work to others and putting people in the right jobs, creating good conditions for work and leisure, and relationships with staff management increase the productivity of employees. Doayi (1998) states that there is a strong and positive significant relationship between training courses and the improvement of employees' performance. Researches carried out in industrialized countries especially in Europe indicate that the low productivity largely depends on the low level of staff skills. Thus, to increase employee productivity, organizations need to train their employees. Henry and colleagues (2006) confirmed the positive correlation between labor productivity and motivation. Wright and colleagues (2008) in their study in China evaluated the role of organizational culture on employee motivation to increase productivity and improve their effectiveness.

Jacobs *et al.*, (2000) in a paper analyzed the technological changes in the Netherlands' economy sector. The results showed that the research and development variables have a positive effect on increasing productivity and growth theories based on research and development explain the growth process better than the models based on human capital development. Richard (2002) conducted a study in the Montreal region; the results indicated that there is a significant relationship between motivation and quality of work life. In this study, the factors of the quality of working life were most associated with increased employee productivity including job safety and proper procedure, good physical environment, incentives to encourage success, recognition and promotion, speed and quality of work. Conrad and Mamengal (2000) conducted a study entitled "the impact of work life programs on firm productivity" and its results indicated a positive impact of work life programs on productivity.

Becker and Gerhart (1996) conducted a review of research and stated that the human resource management decisions such as autonomous work teams, job rotation, quality circles, suggestion systems, improve organizational performance by improving the efficiency of the organization that results in the reduction of costs or increase of organization revenues. Wuhan (1983) in a study entitled "the relationship

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between education, training and experience of the manager with the organizational environment and productivity” that conducted in the retail unit of a computer company found that the organizational environment is related to productivity. The correlation between education levels, productivity and economic growth showed that the higher education and work experience ultimately lead to the improved productivity (Brooks, 2006).

Nemertz (2005) states that the important measures that can improve staff productivity and lead to an increase in their wages are as follows: Education, local states and governments, healthcare and material factors. Taylor (2005) states that if you want to improve individual productivity you should focus on education. Resk (2004) believes that higher education increases individuals' skills and enables them to acquire the skills necessary for high levels of employment and skilled labor increases productivity. Nemertz (2005) states that the measures that focus on collaboration and communication will enable the employees work together more efficiently and successfully. If such circumstances arise, innovation and creativity will occur in groups and it will ultimately lead to greater productivity. Orhill (1972) conducted a study to determine the factors influencing the productivity of human resources. The results showed that social factors such as the monitoring supervisors, motivation and job satisfaction are among the factors affecting productivity.

Clegg and Dankerly (1980) argue that training employees, choosing the most appropriate method for doing things, and material rewards are factors determining productivity. Michael Spenz, the winner of Nobel Prize, (Quoted in Shivalier, 2004) considers further investment in staff training as an important factor to increase productivity. Kudiba (2003) also conducted a research on the factors affecting the improvement of employee productivity. The findings showed that the employees' skills can be improved and organizational efficiency can be provided through proper training, guidance and participation of employees. The study results of Seonghi and Harton (2006) suggest that the organizational efficiency increases due to the development of human resources. According to the studies of Kenreli (1996) on 20 managers and 97 employees at a hospital in America, there is a positive relationship between management practices and productivity, job satisfaction and organizational commitment of employees. The research also showed that the relationship between the behavior of managers as a key to productivity and employee satisfaction organizational commitment is high with (Locke *et al.*, 1999).

Performance Audit

Ahmad (2005) in his master's thesis (Industrial Engineering, Islamic Azad University, Najaf Abad) evaluated the interaction of value engineering and performance audit in the productivity of civil engineering projects. This study investigates the implementation of value engineering in the ease of implementation of the performance audit as the insurer of the implementation of value engineering proposals. In addition to the research hypotheses and questions, the views of consultants, contractors, experts, etc. were asked and in addition to confirming the hypotheses (the interaction of value engineering and performance audit in the productivity of development projects). Finally, several suggestions were made to make the value management and cost reduction better.

In another study by Mohsen (2002-2003) entitled as “A review of barriers to implementation of operational audit within insurance industry (property insurance), concluded that the lack of management control system and documented empirical patterns on operational audit with 95% confidence level, the administrative barriers of operational audit were identified. Mohammadi (1998) in his thesis for a master's degree examined the problems and obstacles in the implementation of the operational audit. In the above study, the researcher examined the barriers and problems in different directions. In the first hypothesis, he examined the executives unaware of the benefits of operational audit and in the second hypothesis reviewed the unfamiliarity of university graduates in the operational audit. In the end, he concluded that the operational audit is not fully understood in Iran and also there is not enough training in this field. A study by Jooypa (2010) was carried out entitled “the pathology of the implementation of performance audit by the Supreme Audit and providing recommendations for its improvement”. He knows the following factors in order of importance as the barriers to performance audit by the Supreme Audit Court. These factors include: lack of education and skills are necessary and sufficient for GAO auditors,

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improper budgeting system, lack of appropriate indicators for assessing the performance of executive, non-executive directors, lack of transparency in response to GAO auditors, improper system for collecting and maintaining operational and financial statistics, and lack of legal authority (the Supreme Audit Act) to conduct performance audits.

Alireza (2001) in his Master's thesis (Tehran University, School of Management) investigated the role of performance audit focused on motivating managers. Moreover, due to the fact that the performance audit is a coherent process consists of components, indicators, scales, etc., basically there are other purposes for this study. The purposes include whether any of the components and benefits of performance audit such as recommendations to improve operations and identify opportunities, capabilities and improving strategies have a role in motivating the managers or not. The research hypotheses were confirmed.

Research Hypotheses

According to the history and exploration of research, research questions can be summarized as follows:

- Performance audit develops and improves human resources.
- Human resource development and improvement promotes the productivity.
- Performance audit improves the productivity of human resources.

Research Methodology

The subject of this study has been selected to investigate the impact of the implementation of performance audit on enhancing the productivity of human resources in public sectors. This research provides the theoretical principles relating to performance audit and productivity of human resources and then explains and discusses the factors that can enhance the productivity of human resources in public sector by performing the performance audit. In this study, in order to identify the views of professionals, a questionnaire was used for data collection.

Methods of Data Collection

This study is descriptive – analytical in terms of inference, is survey in terms of research design and the survey instrument is questionnaire. Also this study is comparative- inductive in terms of research methodology. In other words, the hypotheses were conducted based on comparative reasoning and data collection based on inductive method. To confirm or reject the hypotheses, the data were collected from selected samples using a questionnaire and then the hypotheses are rejected or approved through collecting and analyzing the obtained data. On the other hand, this study used a correlational study. This method attempts to study the change degree of one or more factors in one or another factor (Khalatbari, 2008). This study is applied in terms of purpose and case study in terms of investigation. Library method was used to collect data and history of literature through articles, books, magazines and reputable sites.

Scope of the Study

- In terms of time, the scope of this research relates to the data collection time between 2011 and Mordad 2012.
- In terms of place, the scope of this research relates to the Supreme Audit Court in the provinces' capitals.
- In terms of subject, the scope of this research relates to the impact of the implementation of performance audit on enhancing the productivity of human resources in public sectors.

Statistical Population and Sample

Statistical Population

The statistical population of the study is consisted of 2000 managers, assistants, auditors, experts at the Supreme Audit Court in 31 provinces and the Central Headquarters of the Supreme Audit Court. The statistical population of the study is consisted of individuals who had the professions of audit, inspection and monitoring and their academic disciplines were accounting, economics, law, construction, engineering (IT) and... and were constantly in relation to the laws and regulations, governmental financial reporting, standards, and professional measures. The Supreme Audit Court was chosen because of the following reasons:

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- The Supreme Audit Court as the regulatory arm of the Iranian Parliament is concerned directly with the financial and operational affairs of the public sectors and is aware of the situation of executive agencies.
- Implementation of performance audit as one of the new audits was carried out by the Supreme Audit Court and became more functional every day, so that a lot of performance audit reports have been implemented in recent years or are being implemented currently. Thus it is more specialized compared to the other organs of the State Comptroller (especially performance audit).
- Developing research topics is performed in the Supreme Audit Court under the supervision of Department of Education and Research with the approval of the Committee on Standards and Guidelines, thus it has technical capabilities of scientific research and high functionality of these studies.
- The vast majority of scientific studies and research is carried out in the Supreme Audit Court at the national level that is due to the organization’s support at the macro level and disseminating the required information and presenting it in some cases to the desired researcher. However, this is only possible for the Court of Auditors and other stakeholders.

Statistical Sample

Sampling Method and Sample Size:

In this study, a multistage cluster sampling and random sampling were used and collect information from the statistical population; sampling is done using Cochran formula (Vantling Team, 1997). In this study we identified various sub-sections and at each stage, the required sample was selected using krejcie and Morgan table. Obviously, in each part the number of subjects was selected in proportion to the number of employees. To determine sample size, since the analysis of small sample groups has a very large size, the number of 357 was randomly considered. Thus, to calculate the number of samples required to represent the population, Cochran formula (Equation 1) was used as follows:

Equation 1. Cochran formula

**

Descriptive Characteristics of the Sample:

Among 357 selected subjects, 329 subjects were auditors, 28 subjects were experts and 310 of them were male and 47 were female. Among these, 10 subjects had an associate degree, 251 had bachelor's degree, 91 of them had master’s degree and 5 of them had a doctoral degree. Their average work experience was 15 years ranging from 1 year to more than 30 years.

Tools for Collecting and Measuring Data, Validity and Reliability:

Data collection tool in this study was a researcher made questionnaire that used the valid standard questionnaires. After confirming the reliability and validity of the questionnaire, the sample was studied. Likert scale was used to measure data (Ganji, 2001). To convert the qualitative attributes into the quantitative questionnaire for each of the options for numeric values shown in table (1) is applied. After collecting the questionnaires, the scores for each question is calculated Grdd.sps a statistical analysis is conducted and the results of the research are obtained.

Table 1: Numerical values of the questionnaire items

Ver y high	high	somewh at	low	very low	Number of question	Questionnaire Name
5	4	3	2	1	27 - 40	Impact of performance audit on the development, improvement and empowerment of human resources (B-1)
5	4	3	2	1	27 - 40	Impact of the development, improvement and empowerment of human resources on productivity (B-2)

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Data Analysis

After data collection, the data were analyzed using SPSS version 18 coded and entered the data originally Shdnd.sps software using descriptive and inferential statistical methods in data were analyzed three parts. Thus, the first to describe the first and second sample comments regarding the questions of frequency distribution tables and percentages, mean and variance using the information posted on the significance level (sig = 0 to sig =.05) p value was performed. Then, in the third part of the research hypotheses based on the results of the survey questions and exploratory statistics were analyzed using ANOVA. The multiple regression analysis and path analysis, and Excel software was used to plot graphs.

Descriptive Analysis of the Data:

To investigate the research questions, descriptive statistics were used to adjust the frequency distribution tables (tables and graphs to show the distribution of the target population) and brought to the central indexes arithmetic mean index of dispersion, standard deviation is.marh→ descriptive study including mean, median, maximum, minimum and standard deviation of the data is calculated and presented is presented in Table (2). Cross represents the mean, variance, standard deviation, frequency, and age and experience and the percentage of men and women and their educational level and the prevalence and frequency of options for each question that people have responded to it. In this section uses tables to describe the demographic characteristics studied. Tables of the most important tools for assessing and measuring data from a study of human society considered. The ultimate goal of tables is qualitative and quantitative study of reality and to the extent possible to provide an accurate picture.

Table 2: Frequency distribution of respondents in terms of central indicators

Central indicators		gender	age	marital status	Literacy	position	history	employment
N	Valid	349	352	342	354	329	347	344
	Missing	8	5	15	3	28	10	13
Median		1.00	2.00	2.00	3.00	3.00	3.00	4.00
Mode		1	2	2	3	3	3	4

Exploratory Data Analysis:

Hypothesis 1

There is a significant relationship between the performance audit and the development and improvement of human resources in public sectors.

The independent variable of the performance audit was discussed in the interval and on the other hand, the dependent variable of the development and improvement of human resources in public sectors has been measured in the interval. Thus, the Pearson technique was used to test this hypothesis. Statistical hypotheses can be written as follows: Null hypothesis: $H_0: P = 0$ and hypothesis 1 as $H_1: P > 0$. In null hypothesis, we assume that there is no relationship between performance audit and the development and improvement of human resources in public sectors and the other hypothesis indicates the presence of a relationship.

Table 3: Testing the first hypothesis

Significant level	Pearson coefficient	SD	average	variable
0.000	.501	.655	3.69	Performance Audit
		.662	4	Improvement of human resources in public sectors

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Table 3-1: Descriptive Statistics

	Mean	Std. Deviation	N
Performance Audit	3.69	.655	357
Improvement of human resources	4.00	.662	357

Table 3-2: Correlations

		Performance Audit	Improvement of human resources
Performance Audit	Pearson Correlation	1	.501**
	Sig. (2-tailed)		.000
	N	357	357
Improvement of human resources	Pearson Correlation	.501**	1
	Sig. (2-tailed)	.000	
	N	357	357

Table 3-3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 ^a	.854	.854	.301

Table 3-4: ANOVA b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	188.067	1	188.067	2078.607	.000 ^a
	Residual	32.119	355	.090		
	Total	220.186	356			

Table 3-5: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.474	.091		-5.210	.000
	Performance Audit	1.109	.024	.924	45.592	.000

According to the above tables, for the significance test of the relationship between the implementation of performance audit and improvement degree of human resources in public sectors, Pearson technique was used. As can be seen from the table results, the level of implementation of the performance audit is 3.69 and the average n improvement of human resources in public sectors is 4. The Pearson correlation coefficient ($r = 0.501$) indicates the high correlation between the two variables and this coefficient is positive and has a forward direction, in other words by increasing the performance audit, the improvement of human resources in public sectors will increase. Since the significant level is smaller than 0.05, the null hypothesis is accepted at 99% confidence level and the null hypothesis is not accepted. The path equation will be as follows given the following tables in order to confirm this hypothesis:

Equation 2: Hypothesis 1

$$\alpha 4V4 (\text{Improvement of human resources}) = -.474 + 1.109 \times (\text{performance audit}) + .115$$

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Figure 1: Path analysis test for hypothesis 1

Hypothesis 2

There is a significant relationship between the development and empowerment of human resources and the productivity in public sectors.

The independent variable of the development and empowerment of human resources was discussed in the interval and on the other hand, the dependent variable of productivity in public sectors has been measured in the interval. Thus, the Pearson technique was used to test this hypothesis. Statistical hypotheses can be written as follows: Null hypothesis: $H_0: P = 0$ and hypothesis 1 as $H_1: P$. In null hypothesis, we assume that there is no relationship between the development, improvement and utilization of human resources and the productivity degree in public sectors and the other hypothesis indicates the presence of a relationship.

Table 4: Testing the second hypothesis

Significant level	Pearson coefficient	SD	average	variable
0.000	0.574	0.786	3.61	Improvement and development of human resources
		0.567	3.9	Public sector productivity

Table 4-1: Descriptive Statistics

Research variables	Mean	Std. Deviation	N
Public sector productivity	3.90	.567	357
Improvement and development of human resources	3.61	.786	357

Table 4-2: Correlations

		Public sector productivity	Improvement and development of human resources
Public sector productivity	Pearson Correlation	1	.574**
	Sig. (2-tailed)		.000
	N	357	357
Improvement and development of human resources	Pearson Correlation	.574**	1
	Sig. (2-tailed)	.000	
	N	357	357

According to the above tables, for the significance test of the relationship between development, improvement and utilization of human resources and the productivity degree of public sectors, Pearson technique was used. As can be seen from the table results, the average rate of development and improvement of human resources is 3.61 and the average productivity of the public sector is 3.9. The Pearson correlation coefficient ($r = 0.574$) indicates the high correlation between the two variables and

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this coefficient is positive and has a forward direction. It means that with increasing development of human resource, the productivity degree of public sectors will increase and since the significant level is smaller than 0.05, the null hypothesis is not accepted with respect to 99 confidence level.



Figure 2: Path Analysis Test of Hypothesis 2

These results are consistent with the studies of Iliyayi and Zakeri (2009), Bowman (1986), Alaolmaleki *et al.*, (2002), Nayeri and others (2004), Hejazi and others (2005), Mustafa *et al.*, (2009), Alvani (2002), Tavari *et al.*, (2008), Alvani *et al.*, (2002), Abili *et al.*, (2009), Alvani and Ghassemi (2000), Sabokru and others (2010), Zaki (2009), Mirkamaly and Mirsanayi (2001), Mahmoudzade and Asadi (2007), Shaikhi (2007), Rahmati (2005), Zare (2007), Bordbar *et al.*, (2009), Ansari and Sabzi (2009), Farshad (2009), Vaziri and others (2009), Amupur *et al.*, (Bita), Hassan and others (2004), Zare (2000), Habibi (2004), Shaykholeslami (1998), Taheri (1999), Tavari *et al.*, (2008), Shojaee (2003), Ghasemi (2000), Karimi and Piraste (2004), Assadi and Rahavi (2004), Nayeri *et al.*, (2005), Hejazi (2005), Amini and Hejazi (2007), Saatchi (2007), Zarepour and Mehrara (2008), Rasouli (2008), Doayi (1998), Henry *et al.*, (2006), Jacobs *et al.*, (2000), Richard (2002), Conrad and Mamngal (2000), Becker and Gerhart (1996), Wuhan (1983), Nemeertz (2005), Taylor (2005), Resk (2004), Orhill (1972), Clegg and Dankerli (1980), Michael and Kudiba (2003), Seonghi and Harton (2006), Conroli (1996) and many other researchers.

Hypothesis 3

There is a significant relationship between performance audit and productivity of human resources in public sectors.

The independent variable of performance audit was discussed in the interval and on the other hand, the dependent variable of human resources productivity in public sectors has been measured in the interval. The path analysis technique is used as follows:

Table 5: Path analysis test of third hypothesis

Total effect	Indirect effect	Direct effect	variable name
0.1848	0.924*0.2	---	the implementation of Performance audit- the productivity of human resources (HR)

Based on the data of the above table after calculating the direct and indirect effects of independent variables on the productivity of human resources, the variable of implementing the performance audit was an additive effect on the productivity of human resources in the public sector according to the all direct and indirect causal directs. When the implementation of performance audit is high, the productivity degree of human resources in the public sector will increase.

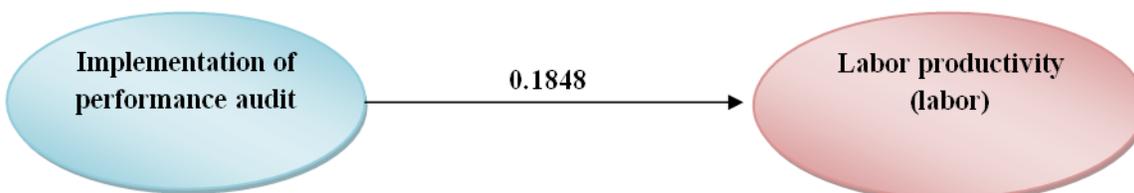


Figure 3: Path analysis test of third hypothesis

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CONCLUSION

1. Performance audit develops and improves human resources.
2. Human resource development and improvement promotes the productivity.
3. Performance audit improves the productivity of human resources.

Research Suggestions

1. The regulatory agencies, especially the Supreme Audit Court are suggested to provide management advices on implementing performance audit in the public sector in order to enhance the productivity of human resources (personnel and manpower).
2. It is suggested to conduct this study in other target population or statistical methods to assess the impact of performance audit from different aspects.
3. It is suggested to use the measures used in this study, particularly human resource productivity indicators using rating techniques in future studies.
4. It is suggested to use the impact of the performance audit on basic aspects of productivity such as efficiency, and cost effectiveness of the public sector in future studies.
5. It is suggested to consider the quality of implementation of the performance audit and its relationship with auditor characteristics in future studies.

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