

Original Article

## The role of skill development in improving the performance of agricultural extension agents in Iran using structural equation modeling and grounded theory

O papel do desenvolvimento de competências na melhoria do desempenho dos promotores agrícolas no Irã usando modelagem de equações estruturais e teoria fundamentada

M. Tayouri<sup>a</sup> , S. J. F. Hosseini<sup>a\*</sup>  and M. S. Sabori<sup>b</sup> 

<sup>a</sup>Islamic Azad University Science and Research Branch, Department of Agricultural Economics, Extension and Education, Tehran, Iran  
<sup>b</sup>Garmsar Branch, Islamic Azad University, Garmsar, Iran

### Abstract

Performance improvement is the main concept of development policy. Belief in strengthening and improving the performance of individuals and institutions in developing countries for success in development policy has gradually formed among development agents. Performance improvement at the individual level pays attention to individual needs in order to enhance performance. Development requires developed and trained people. Therefore, the better the human resources as wealth and national capital are cultivated, the smoother the development path will be. The dimensions of improving performance at the individual level include things such as abilities, needs, attitudes, psychology, motivations, talents and skills, which also raises the need for skill development. In this regard, the current research seeks to investigate the relationship between skill development and performance improvement in extension in Iranian agriculture. The statistical population includes agricultural jihad centers in five regions of the country (the division of the country's provinces according to the Ministry of Agricultural Jihad, where each region includes 6 provinces) which is 8142 people, and accordingly, Cochran's formula was used to determine the sample size and the number of sample size 366 people were obtained. A structured questionnaire was developed to collect data. Structural equation modeling was used to examine the skill development measurement model, the performance improvement measurement model, and the skill development model. The research results show the significant relationship of all the indicators extracted from the interview in the structural equations.

**Keywords:** empowerment, skill development, performance improvement, agricultural extension agent.

### Resumo

A melhoria do desempenho é o principal conceito da política de desenvolvimento. A crença no fortalecimento e na melhoria do desempenho de indivíduos e instituições nos países em desenvolvimento para o sucesso da política de desenvolvimento tem se formado gradualmente entre os agentes de desenvolvimento. A melhoria do desempenho a nível individual presta atenção às necessidades individuais, a fim de melhorar o desempenho. O desenvolvimento requer pessoas desenvolvidas e treinadas. Portanto, quanto melhores forem os recursos humanos cultivados como riqueza e capital nacional, mais suave será o caminho de desenvolvimento. As dimensões da melhoria do desempenho no nível individual incluem coisas como habilidades, necessidades, atitudes, psicologia, motivações, talentos e habilidades, o que também levanta a necessidade de desenvolvimento de habilidades. Nesse sentido, a presente pesquisa busca investigar a relação entre o desenvolvimento de habilidades e a melhoria do desempenho na extensão na agricultura iraniana. A população estatística inclui centros de jihad agrícola em cinco regiões do país (a divisão das províncias do país de acordo com o Ministério da Jihad Agrícola, onde cada região inclui 6 províncias) que é de 8142 pessoas e, nesse sentido, a fórmula de Cochran foi utilizada para determinar o tamanho da amostra e o número de tamanho amostral de 366 pessoas foram obtidas. Para a coleta de dados foi elaborado um questionário estruturado. A modelagem de equações estruturais foi usada para examinar o modelo de medida de desenvolvimento de habilidades, o modelo de medição de melhoria de desempenho e o modelo de desenvolvimento de habilidades. Os resultados da pesquisa mostram a relação significativa de todos os indicadores extraídos da entrevista nas equações estruturais.

**Palavras-chave:** capacitação, desenvolvimento de habilidades, melhoria de desempenho, agente de extensão agrícola.

\*e-mail: jamalfhosseini@srbiau.ac.ir

Received: May 28, 2023 – Accepted: August 9, 2023



This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

Currently, the most important program of the country is the implementation of the 20-year vision document, i.e. Iran Horizon 1404, according to which our country should have an excellent rank in the Middle East region in all fields. This will not be possible except by creating excellent and successful organizations and institutions that are a collection of successful people. The education of successful and capable people also requires a suitable educational program that is in line with the needs of the time strategy. Therefore, empowerment has its own definition in each specific situation. One of the most important characteristics of a capable person is having knowledge and skills. Skill includes all necessary primary abilities that make it practical to do the work in the determined conditions (Nasser et al., 2014). And mainly three areas of skills including technical skills, human skills and cognitive skills are considered for managers and employees. The benefit of key forces from skills and expertise in various fields is considered the most important need of organizations. Empowering employees basically means supporting employees, trusting their abilities, respecting their values, providing the necessary tools and resources, and creating suitable conditions to benefit from their greater participation. By delegating enough authority, organizations can simplify the decision-making process for employees and allow them to perform more effectively and quickly (Samakosh et al., 2022). In addition to increasing self-confidence, this process will also be effective in raising the success rate of employees (Kyani et al., 2023).

Knowledge-oriented employees play an important role in creating value for the organization. These forces try to solve their mental challenges and expand their technical knowledge. Developed human resources carefully examine the process of carrying out activities and try to make their knowledge and skills available to the organization in the best possible way (Atafar and Shari'atmanseh, 2006). A capable human force with its characteristics, expertise and ability can start its own business and manage it in the direction of development and progress. In this regard, education is an effort that is made to change people's behavior through the learning process and to increase their effectiveness, and in addition to bringing improvement and excellence, it promotes insight and insight and the necessary knowledge, skills and abilities to perform. Gives assigned tasks to people. Economic growth and development of countries is significantly affected by educational growth and development, and one of the most important parts of the education system of any country is the skill education system. Education leads to the accumulation of human capital in the individual and the society through the improvement of individual skills, abilities and competencies and develops the scope of freedom of the individual by increasing his abilities (Iftikharnejad et al., 2023). To explain the effect of education on human capital, there are two main approaches: the productivity approach and the capability approach (Mehdi and Mousavi, 2021). In the productivity approach, the goal of education is only to increase the productivity of the labor force, but in the capability approach to education,

improving the productivity of human resources is one of the intermediate results, and what is more important is the cultural and social improvement resulting from education (Dastfrosht et al., 2022). On the other hand, in the modern international system of division of labor, education has a central role in the division of the countries of the world, and the countries that have a better education system have been able to enjoy sustainable economic growth by using high-tech and knowledge-based products (Emamverdi and Bazdar Ardebil, 2023). Some shortcomings and shortcomings in the educational system, as well as the need for skilled and semi-skilled workers in industries, prompted the trustees of the educational system to make fundamental changes in the formal education structure of the society, to solve this basic need. The establishment and inclusion of skill training branches in the educational system is one of the results of this decision (Salehi-Sariqiyeh et al., 2022). These trainings are trainings that improve people's knowledge and skills and increase the possibility of actualizing people's latent talents. It should be mentioned that performance improvement is defined as creating a systematic and planned way and method to transform beliefs, attitudes, structure and training programs, which enables the organization to find a better compromise with the confusing pace of environmental changes. Based on this definition, performance improvement cannot be a temporary and short-term flow, but it should be considered a continuous program to improve the effectiveness of education, whose main task is to transform the behavior and organizational performance of people and skills (Hadavand, 2013). The emergence of performance improvement is related to development models that see improvement as the basis of sustainable development. The development of organizational performance is to improve the main tasks, achieve its mission and improve the overall performance and the ability to adapt to changing conditions (Simister and Smith, 2010). In today's era, with the introduction of the concept of human factor in development theories, one of the important indicators for measuring the development of any country is the status and level of empowerment. Empowerment is a dynamic and quantitative process that has been measured and described in various ways (Mahmud et al., 2012). With regard to the growth and development of human culture and the emergence of new ideas, attention is paid to the role of individuals in the continuation of the life of humanity in various political, social and economic fields. The reforms that have been made in the constitution and other codified laws of the territories and the renewal of opinions that exist in the amendment of the laws indicate the beginning of an intellectual revival, in this connection, empowerment is one of the dimensions of sustainable development (Khalvati, 2009). In order to achieve empowerment, various tools are used and several measures can be implemented. One of the things that affect empowerment is improving performance. A performance improvement plan is a document that helps employees understand their skills, identify training gaps, and set clear expectations for job roles. It is usually used when an employee fails to meet job expectations (Jamshidi et al., 2022). Among the positive effects of improving performance in empowerment, we can

increase income, improve consumption, improve property, improve agricultural income, improve non-agricultural income, improve industries, create direct and indirect employment (Eftekhari et al., 2018). He pointed out the expansion of education, empowerment of different sections of society, creation of social justice, equality of rights of minorities and integration in the whole society. The proper and effective performance of employees is one of the keys to the success of organizations. Good performance means productivity, quality, profitability and customer orientation (Akbari and Sarbandi, 2022). This is the reason why successful organizations in the world make a lot of effort to identify and manage the factors affecting the performance and behavior of employees and achieve the success of providing these factors on the performance of their employees (both in terms of amount and increase in terms of quality (Mohammadi et al., 2022). Also, improving performance in rural communities through empowering people increases empowerment and quality of life (Jovan Foruzandeh and Melabi (2012). Therefore, in today's world, empowerment has become more dependent on improving performance, especially improving rural performance.

In this regard, Salim et al. (2022). In a research, they improved the performance of employees and the effects of training and the workplace. The goal of this study is to investigate the impact of training and work environment on employee performance. This is an example of quantitative research. The total sampling technique was used to select 101 employees from the Bandung branch of the state savings bank. The data was examined using multiple regression analysis. According to the study's findings, training and work environment had no positive effect on employee performance at the state savings bank's Bandung branch, whereas physical evidence had a positive and significant impact on employee satisfaction at the state savings bank. Tampi et al. (2022). In a research, they discussed the effect of information technology users, employee empowerment and work culture on the performance of employees in the regional office of the Ministry of Law and Human Rights of Riau Islands. The results of this research examined the three independent variables of information technology, employee empowerment and culture, which relatively and simultaneously have a positive and significant effect on the performance of the employees of the Ministry of Law and the regional human rights office of the Riau Islands. Flegl et al (2022) In research, they looked at the effect of employee training on improving their performance. The results reveal that low number of training hours, together with excessive training of more than 166 hours per year has limited or no impact on the performance. In fact, when employees had more than 166 hours of training, the training was negatively related to their performance. Management of organizations should carefully plan the amount of provided training hours per each employee. The impact of training varies based on seniority and number of hours spent on training, but there are no significant differences between employees' gender.

Scandurra and Alberio (2021) pointed out the relationship between education attainment and skills and indicated that other factors are likely to affect skill acquisition. It is important to declare that skill formation

is a dynamic process that involves the interaction among different components. In their research, Elliot et al. (2018) referred to a trend, indicating that there is a need for adapting and upgrading the skills of workers to improve the national economy in the United States

Fathali et al. (2018) in a research related to the presentation of a skill-oriented program to optimize the presence of institutions and organizations in the process of skill training and employment stated that skill training is one of the basic elements in development programs due to the empowerment of human resources and especially Development is considered in the economic dimension, which can play an important role in achieving development goals, and in today's world, skill training, skill enhancement, and skill empowerment are used to create jobs, accelerate the process, and stabilize employment. Pedram (2011) in an article titled "Upgrading the productivity of human resources through skill improvement" points out that, in fact, human power is considered the most important infrastructure of any group or organization and country because it is the basis of moving towards development and excellence, and if the necessary skills in the field of his job, he will be able to get things under his control and it will be a promise of organizational excellence and productivity. Alam Beigi et al. (2009) in a research related to the improvement of elemental knowledge performance for the formation of entrepreneurial outcomes in the research results of Iranian agricultural research institutes stated that the improvement of knowledge performance consists of the components of knowledge creation, knowledge interpretation, and knowledge publication and distribution. and the dimension of knowledge creation and interpretation showed a significant effect on the formation of entrepreneurial research and development dimensions.

In a research, Lopez and Pastor (2015) investigated the effects of the implementation of the entrepreneurship program and the plan to improve the performance of education and business for the promotion and development of rural areas. The results of their research showed that in order to ensure the sustainability and application of future entrepreneurial plans, it is necessary to support and strengthen potential entrepreneurs through educational activities and performance improvement. Zasada et al. (2015) in a research using cluster analysis have investigated investment in performance improvement and provided a conceptual framework to achieve rural development policies and have come to the conclusion that investment in development performance improvement is one of the factors It is important in rural development and empowerment of villagers. In a study, Mohamad et al. (2013) investigated the improvement of performance, increasing education in rural society through participation in Malaysia. The results of their research showed that the readiness of the local community to accept changes and the effectiveness of participation are the key factors of performance improvement. Merino and Carmenado (2012) in research entitled Performance improvement in development projects provide a framework that is the basis for analyzing the important elements of capacity at each level (individual and social) and that promotes success over time and makes them It divides into three dimensions:

technical, behavioral and contextual. The results of this research showed that development plans in recent decades have been formed from focusing on providing physical and financial infrastructure to approaches focusing on training and improving performance to reduce poverty and improve the livelihood of local people. In a study conducted by Okada (2012) on skill development for Indian youth, challenges and opportunities, it is pointed out that the development of employability skills for Indian youth is necessary, that Indian youth who are employed as part of the Ministry of Agriculture have no capacity. They have nothing to do and they are more concerned about receiving salaries than fulfilling their duties. In a study using participatory evaluation method, Lennie (2005) investigated the role of improving the performance of rural areas to achieve sustainable development of rural society in Australia, their results showed that the practical participation of people in this project in increasing skills and Knowledge and facilitation of different forms of empowerment were effective and improving community performance is the most important strategy to achieve sustainable development in rural areas.

According to the conducted research, it was found that today the role of training specialized, skilled and efficient human resources in accordance with the needs of the labor market and improving the entrepreneurial power in the productivity of economic enterprises is undeniable. In this regard, economic development depends on increasing employment, without skills and skill training, it is not possible for human resources to enter the labor market. The relationship between skill training and the attitude of job creation and entrepreneurship to the development of sustainable employment in the agricultural promotion sector, the need for skills also increases. Skill training plays an important role in the development of employment and entrepreneurship, and this is very effective in achieving sustainable development in a society. Therefore, in order to have the effect of skill training as one of the important ways to solve the problem of unemployment, entrepreneurship and increasing the skill level, detailed and expert planning is needed. In this regard, the nature of skill development has been studied in some dimensions but not in relation to each other, but such a study has not been done so far, it is evident that some of the mentioned activities have been studied in related studies and the subject of the present study It has not been investigated before, therefore, the aforementioned areas are investigated with a holistic view.

## 2. Material and Methods

The current research was conducted using a combination of quantitative and qualitative approaches in order to investigate the role of skill development in improving the performance of agricultural extension agents in Iran using structural equation modeling and grounded theory. Qualitative research can be used in a wide range of settings and includes multiple methodologies based on phenomena and issues with limited literature. The present study analyzed data collected through individual interviews using a grounded theory (GT) research design. The GT

method was used to assess respondents' perceptions of the relationship between skill development and performance. This method is used to describe the structure and process of phenomena. The participants in the research were agricultural extension and the purposeful sampling method was used to select the respondents. The snowball sampling method was used to select the sample. Also, sampling continued until data saturation. Interview data were saturated through in-depth individual interviews with 18 participants.

According to the quantitative approach, the survey method has been used to collect data. The statistical population consists of the agricultural sector (N=8142) who are employed by agricultural centers in the five main regions of the country as determined by the Ministry of Agriculture. To determine the sample size, using Cochran's formula, 366 promotion agents were selected as the research sample population (Table 1).

A structured self-determined questionnaire was developed, and data were collected by interviewing the respondents. This research used descriptive methods to provide information about the opinion of respondents. Table 1 presents calculated information about the mean, mode, median, and standard deviation for each question. The model of measuring the performance of agents was analyzed using Structural Equation Modeling (SEM). The collected data were analyzed by using AMOS software to use the SEM method to identify the relationship between variables. The structural model is employed to determine the model's predictive capabilities and the association between dependent and independent variables.

Combined reliability (CR), convergent validity, divergent validity, R<sup>2</sup> criterion, Q<sup>2</sup> criterion, Redundancy criterion, and goodness of fit criterion were measured to determine the reliability of the model. The conceptual model includes (Table 2; Figure 1):

## 3. Results

According to the information in Table 3, it was found that about 40% of the respondents with the highest frequency are in the age range of 31-40 years, the lowest frequency is related to the respondents of 20-30 years. Also, based on the collected information, it was found that 79% of the respondents are male and 21% are female. Most of the respondents have 11 to 20 years of work experience, which accounts for about 39% of all respondents, and

**Table 1.** Sample population.

Sample Group	Number of People
Region 1	72
Region 2	61
Region 3	58
Region 4	122
Region 5	53
Total	366

**Table 2.** Indicators extracted from the interview.

Open coding	Decryption coding	Selective encoding	Indicator
Identify skills and abilities	Staff training	Causal factors	Skill development
Identifying training needs by studying their duties in an organization			
Holding brainstorming sessions	Strengthen the spirit of learning		
Defining meaningful and valuable goals for education			
Meaningful definition and value for education			
Providing targeted training	Acquisition of individual skills		
Identify skill gaps and fix them			
Appropriate and long-term policy making to use the high potential of human resources	Policy makers	A central phenomenon	
Necessary policymaking for the interaction of effective groups in order to solve the existing challenges			
The effectiveness of the ruling educational system in the Ministry of Agricultural Jihad	Educational factors		
The institutionalization of skill as an intangible strategic asset in planning			
Accurate definition and proper implementation of support mechanisms	Collaborative factors		
The existence of a suitable platform for monitoring, refining and cultivating ideas			
Creating an environment for training and acquiring new skills by providing learning opportunities	Monitoring the educational process	Strategic conditions	
Direct interaction to improve educational performance			
Adopting appropriate assessment methods and establishing a connection between assessment results and skill development programs	Evaluation of the educational process		
Measuring the effectiveness of training courses			
Attention to work progress	Supervision of the individual development process		
Attention to the development of individual skills			
The existence of a suitable platform for turning ideas into products	underlying factors	Background conditions	
Existence of deficiencies in infrastructure capabilities and communication network used in the promotion department			
Use of information technology	Information factors		
Using new technologies in education			
The institutionalization of skill as an intangible strategic asset in planning	Educational achievements		
Accurate definition of the dimensions and skill enhancement process			
Identifying and strengthening potentials	Attention to individual skills	Conditions of intervention	
Self-study courses			
Encouraging employees and creating a sense of competition between them	Attention to individual creativity		
The flourishing of talents and movement in the path of growth			
Implementing the process and monitoring the progress of the process	Supporting senior managers in skill development		
Attention to the needs of employees in order to develop skills			
Attention to the dimensions of teamwork	Creating a spirit of participation in strategic planning	Consequences	
Existence of free and active media covering the field of skill development			
Respect for freedom of speech and free expression of opinion	Interaction and organizational communication		
Having a proper understanding of the feeling of doing work and expressing gratitude			
Healthy and safe working conditions	Increasing the productivity of manpower		
Protection of individual rights			

almost 28% of the respondents have 1 to 10 years of work experience, which naturally has the lowest frequency. Also, the results of the table indicated that the majority of the respondents have a bachelor's level of education, which accounts for 59.29% of all respondents, and 5.74% of the respondents have a doctorate education, which is naturally the least frequent.

### 3.1. Examining the fit of the research model

In this research, several criteria were used to check the fit of the structural model of the research, the first and most basic criterion being the significance coefficients of  $t$ . The fit of the structural model using  $t$  coefficients is such that these coefficients must be greater than 1.96 in

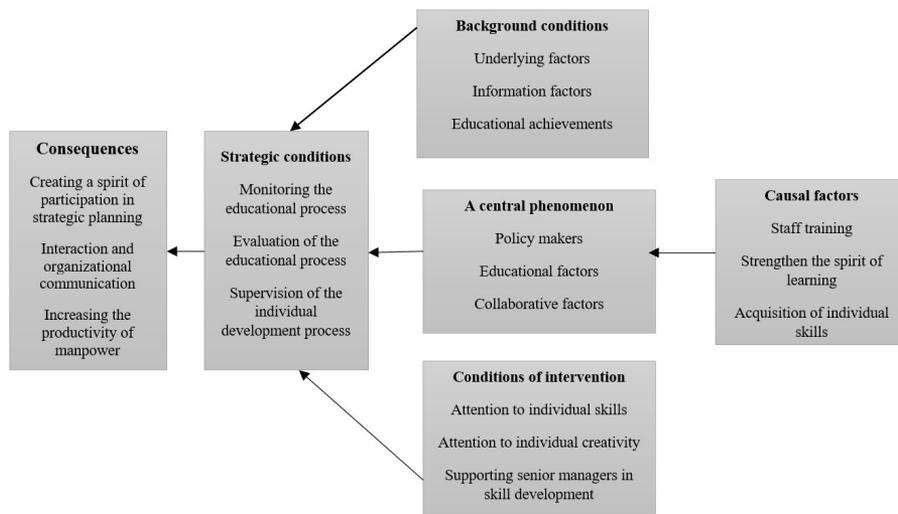


Figure 1. The pattern of the paradigm.

Table 3. Frequency distribution of demographic characteristics.

Age Group (Years Old)	Frequency	Percentage
20-30	43	11.75
30-40	147	40.16
41-50	125	34.15
51 >	51	13.93
Total	366	100
Gender	Frequency	Percentage
Male	290	79.23
Female	76	20.77
Total	366	100
Work Experience (Years)	Percentage	Frequency
1-10	28.14	103
11-20	39.34	144
21-30	32.51	119
Total	100	366
Education	Percentage	Frequency
Bachelor's degrees	59.29	217
Master's degrees	34.97	128
Ph.D.'s degrees	5.74	21
Total	100	366

order to confirm their significance at the 95% confidence level; The significant results of the coefficients based on the t-statistic value are reported in the graphs below. Standard numbers above 0.4 are acceptable.

3.2. Validation of the model with partial least squares method

Before testing the research hypotheses, the fit of the conceptual model was examined. Structural equation

models are typically a combination of measurement models (representing sub-components of latent variables) and structural models (representing relationships between independent and dependent variables). The strength of the relationship between the factor (latent variable) and the observable variable is shown by the factor loading. Factor load is a value between zero and one. If the factor load is less than 0.3, the relationship is considered weak and it is ignored. A factor between 0.3 and 0.6 is acceptable, and if it is greater than 0.6, it is very desirable. SmartPLS software calculates composite reliability and average contribution (AVE) for fitting measurement models and provides an R2 value for fitting structural models. Values greater than 0.5 for average sharing, greater than 0.7 for composite reliability, and greater than 0.3 for R2 indicate appropriate model fit. The results of the validity of the research variables are presented in Table 4.

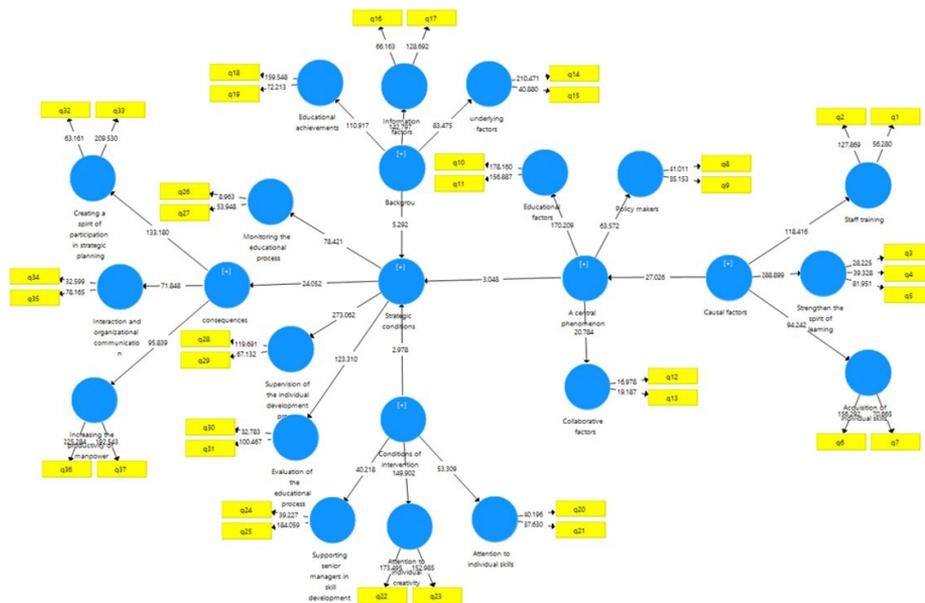
As can be seen in the table above, the average extracted variance (AVE) is greater than 0.5, so there is convergent validity. Also, Cronbach's alpha of all variables is greater than 0.7, so the reliability is confirmed. On the other hand, the composite reliability value (CR) is also greater than AVE and in all cases it is greater than the threshold of 0.7, so the third condition is also met. The coefficient of determination (R^2) of the endogenous structures of the research model is desirable because this criterion varies between 0 and 1, the closer it is to 1, the more suitable it is. Also, in this research, the GOF criterion for the overall model fit was found to be 0.515, which is smaller than 0.1, which indicates a strong fit of the model (Figure 2).

To check the significance of the relationships of the variables of the model, the bootstrap method has been used, which gives the t statistic. At the 5% error level, if the value of the bootstrapping statistic is greater than 1.96, the observed correlations are significant. The t statistic and bootstrapping value to measure the significance of relationships are also shown in the Figure 3 below.

As it can be seen that the rate is significant for all observed variables. So, in general, it can be said that all the considered factors have been confirmed.

**Table 4.** External validity of structures.

	Cronbach's Alpha	Composite Reliability	(AVE)	R2	Q2	GOF
A central phenomenon	0.833	0.881	0.564	0.512	0.270	0.684
Acquisition of individual skills	0.799	0.908	0.832	0.790	0.625	
Attention to individual creativity	0.938	0.970	0.942	0.854	0.768	
Attention to individual skills	0.781	0.862	0.757	0.736	0.533	
Backgrou	0.904	0.928	0.684			
Causal factors	0.914	0.932	0.662			
Collaborative factors	0.713	0.744	0.593	0.500	0.286	
Conditions of intervention	0.877	0.909	0.629			
Creating a spirit of participation in strategic planning	0.789	0.903	0.824	0.842	0.659	
Educational achievements	0.803	0.910	0.835	0.836	0.664	
Educational factors	0.936	0.969	0.940	0.868	0.780	
Evaluation of the educational process	0.787	0.904	0.824	0.841	0.666	
Increasing the productivity of manpower	0.949	0.975	0.951	0.829	0.754	
Information factors	0.770	0.897	0.813	0.908	0.708	
Interaction and organizational communication	0.797	0.831	0.711	0.794	0.541	
Monitoring the educational process	0.792	0.721	0.575	0.783	0.432	
Policy makers	0.776	0.860	0.754	0.768	0.555	
Staff training	0.765	0.894	0.809	0.853	0.660	
Strategic conditions	0.876	0.910	0.637	0.570	0.334	
Strengthen the spirit of learning	0.769	0.867	0.685	0.950	0.620	
Supervision of the individual development process	0.782	0.902	0.821	0.940	0.739	
Supporting senior managers in skill development	0.764	0.892	0.806	0.664	0.503	
consequences	0.903	0.926	0.680	0.446	0.279	
underlying factors	0.746	0.885	0.794	0.790	0.592	



**Figure 2.** Model validation output with partial least squares method.

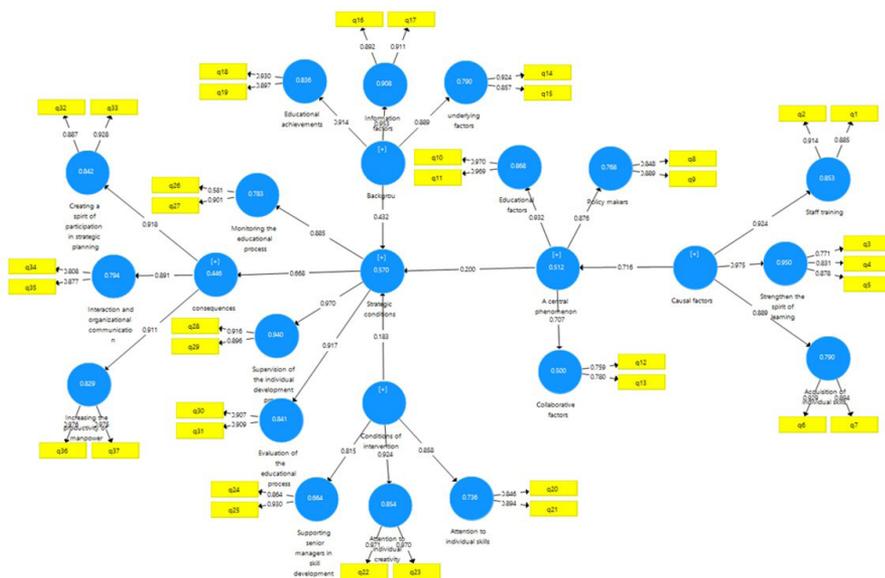


Figure 3. Significance of variable relationships with partial least squares method (bootstrapping).

#### 4. Discussion

Continuous performance improvement creates synergies for organizations that can drive growth and development. Governments and organizations make a lot of effort in this matter without examining and gaining awareness of the progress and achievement of goals and identifying the challenges of the organization’s progress and getting feedback and information about the implementation of formulated policies and identifying things that need improvement. Continuous operation will not be possible. All things are not possible without measurement and evaluation. The present study was conducted in order to investigate the relationship between skill development and performance improvement in agricultural promotion in Iran using structural equation modeling and grounded theory. After the interview, indicators for skill development (training, strengthening the spirit of learning, acquiring individual skills, policy factors, educational factors, participatory factors, monitoring the educational process, evaluating the educational process, monitoring the individual development process, infrastructure factors, information factors, educational achievements, attention to individual skills, attention to individual creativity, senior managers' support for skill development, creating a spirit of participation in strategic planning, interaction and organizational communication, increasing human resource productivity) were extracted. The research was used that the first and most basic criterion is the significance coefficients of t. The fitting of the structural model using t coefficients is such that these coefficients must be greater than 1.96 to confirm their significance at the 95% confidence level. To check the significance of the relationships between the variables of the model, the bootstrap method has been used, which gives the t-statistics. At the 5% error level, if the value of the bootstrapping statistic is greater than 1.96, the observed

correlations are significant. So, in general, it can be said that all the considered factors have been confirmed and have significant relationships with each other.

- Continuous revision and modification of programs based on environmental requirements.
- Accurate needs assessment should be done in order to identify obstacles and limitations.
- It seems necessary to hold in-service training courses for promoters.

#### References

AKBARI, H. and SARBANDI, F., 2022. Investigating the relationship between health safety management and job satisfaction and improving employee performance in production centers (Study case: Hakopian Garment Industrial Unit Company). *Occupational Health and Health Promotion Quarterly*, vol. 6, no. 2, pp. 256-268.

ALAM BEIGI, A., MALEK MOHAMMADI, I., ASADI, A. and ZAREI, B., 2009. Improving the performance of elemental knowledge for the formation of entrepreneurial outcomes in the research results of Iranian agricultural research institutes. *Research and Planning in Higher Education*, vol. 58, pp. 117-133.

ATAFAR, A. and SHARI'ATMANSEH, M., 2006. An investigation of the characteristics of key human forces and their roles in value creation for organizations. In: *The 8th International Conference of Quality Managers*, 2016, Tehran, Iran. Iran: Iranian Society of Quality Managers.

DASTFROSH, S., SALEHI, A.A., FARGANI, & SHAPOUR., 2022. The impact of strategic thinking on the development of human resources with the mediating role of educational effectiveness (case study of Afragaster Golzar). *Management Science Research*, vol. 10, no. 4, pp. 68-86.

EFTEKHARI, A.R., TAHERKHANI, M. and SOJASI GHIDARI, H., 2018. Analysis of dimensions and factors affecting the development of agricultural entrepreneurship in rural areas: a case study of the villages of Khodabande city. *Village and Development*, vol. 12, no. 3, pp. 43-72.

- ELLIOT, M., DURAN, L. and ORDER, A., 2018. *Partnerships for skills gains: investing in frontline workers*. New York: Economic Mobility Corporation.
- EMAMVERDI, G. and BAZDAR ARDEBIL, P., 2023. The role of training in the productivity of adult human capital in the road freight transport. *Road*, vol. 31, no. 114, pp. 165-178.
- FATHALI, M., NOURI, H. and GHANBARZADEH HESSARI, A., 2018. Presenting a skill-oriented program to optimize the presence of institutions and organizations in the process of skill learning and employment. In: *The 2nd International Conference of Modern Developments in Management, Economics, and Accounting*, Tehran, Iran. Tehran: Iranian E-Commerce Scientific Association.
- FLEGL, M., DEPOO, L. and ALCÁZAR, M., 2022. The impact of employees' training on their performance improvements. *Quality Innovation Prosperity*, vol. 26, no. 1, pp. 70-89. <http://dx.doi.org/10.12776/qip.v26i1.1665>.
- HADAVAND, S., 2013. Investigating the relationship between in-service training and professional empowerment of employees. *Scientific Quarterly Journal of Management Studies on Police Education*, vol. 2013, no. 28, pp. 35-52.
- IFTIKHARNEJAD, F., JAHANGIRFARD, M., ASHRAFI, A.M. and MOJIBI, T., 2023. Identifying and prioritizing the dimensions and components of the skills-based human resource training and development strategy in the banking industry in the digital age (case study: bank Mellat). *Human Capital Empowerment Journal*, vol. 6, no. 2, pp. 1-13.
- JAMSHIDI, M., ALIABADI, K., AHMADABADI, M.N. and ZAVARAKI, E.Z., 2022. The effect of mobile learning on improving the performance of Allameh Tabatabai University employees. *Educational Psychology Quarterly*, vol. 18, no. 65, pp. 7-22.
- JOVAN FORUZANDEH, A. and MELABI, Q., 2012. The concept of a sense of belonging to a place and its constituent factors. *City Identity*, vol. 5, no. 8, pp. 27-37.
- KHALVATI, M., 2009. An investigation of the empowerment of housewives and the factors that influence it in Shiraz. *Journal of Social Research*, vol. 2, no. 4, pp. 153-171.
- KYANI, M.S., NAZARI, L. and SHAHBAZPOUR, L., 2023. Predicting organizational procrastination based on employee empowerment in sports and youth departments. *Applied Research in Sports Science*, vol. 2, no. 1, pp. 15-29.
- LENNIE, J., 2005. An evaluation capacity-building process for sustainable community IT initiatives: empowering and disempowering impacts. *Evaluation*, vol. 11, no. 4, pp. 390-414. <http://dx.doi.org/10.1177/1356389005059382>.
- LOPEZ, M. and PASTOR, R., 2015. Development in rural areas through capacity building and education for business. *Procedia: Social and Behavioral Sciences*, vol. 197, pp. 1882-1888. <http://dx.doi.org/10.1016/j.sbspro.2015.07.250>.
- MAHMUD, S.N., SHAH, M. and BECKER, S., 2012. Measurement of women's empowerment in rural Bangladesh. *World Development*, vol. 40, no. 3, pp. 610-619. <http://dx.doi.org/10.1016/j.worlddev.2011.08.003>. PMID:23637468.
- MEHDI, M. and MOUSAVI, E.S., 2021. The role of information technology and the application of communication skills in the development of human resources based on education and good governance. *Specialized Quarterly Journal of Public Administration Education*, vol. 4, no. 16, pp. 62-75.
- MERINO, S. and CARMENADO, I., 2012. Capacity building in development projects. *Procedia: Social and Behavioral Sciences*, vol. 46, pp. 960-967. <http://dx.doi.org/10.1016/j.sbspro.2012.05.231>.
- MOHAMAD, N.H., KESAVAN, P., RAZZAQ, A.R.A., HAMZAH, A. and KHALIFAH, Z., 2013. Capacity building: enabling learning in rural community through partnership. *Procedia: Social and Behavioral Sciences*, vol. 93, pp. 1845-1849. <http://dx.doi.org/10.1016/j.sbspro.2013.10.128>.
- MOHAMMADI, S.H., HABIBI, D., NOWROZI FARD, H. and NAVEIDINIA, S., 2022. Explaining effective solutions and empowering human capital in increasing efficiency and improving the performance of municipalities. *Quarterly Journal of Urban and Regional Sustainable Development Studies*, vol. 3, no. 2, pp. 68-83.
- NASSER, M., GHOLAMREZA, M., AKBAR, A.T., BIGIREZA, N. and MEHDI, A., 2014. Identifying organizational excellence standards in the government sector. *Development and Transformation Management Quarterly*, vol. 11, no. 4, pp. 6.
- OKADA, A., 2012. Skills development for youth in India: challenges and opportunities. *Kokusai Kyoiku Kyoryoku Ronshu*, vol. 15, no. 2, pp. 169-193.
- PEDRAM, M., 2011. Improving human resource productivity. *Productivity Quarterly*, no. 181, pp. 25-28.
- SALEHI-SARIQIYEH, P., ALI, A.A. and SALEHI FARGANI, S., 2022. The impact of strategic thinking on the development of human resources with the mediating role of educational effectiveness (case study of Afragaster Golzar). *Management Science Research*, vol. 10, no. 4, pp. 68-86.
- SALIM, N.A., SUTRISNO, S., MAANGO, H., YUSUF, M. and HARYONO, A., 2022. Employee performance and the effects of training and the workplace. *Jurnal Darma Agung*, vol. 30, no. 2, pp. 549-558.
- SAMAKOSH, H., ASOEH, K.N., AKBAR, A. and QASEM, A., 2022. The effect of employee empowerment on knowledge management among employees of Babol municipality. *Jahan Navin*, vol. 19, no. 5, pp. 61-77.
- SCANDURRA, R. and ALBERIO, M., 2021. A classification of factors affecting adults' skill distribution. *SAGE Open*, vol. 11, no. 2, pp. 1-14. <http://dx.doi.org/10.1177/21582440211019738>.
- SIMISTER, N. and SMITH, R., 2010 [viewed 28 May 2023]. *Monitoring and evaluating capacity building: is it really that difficult?* [online]. England: INTRAC. Praxis Paper, no. 23. Available from: <https://www.intrac.org/wpcms/wp-content/uploads/2010/01/Praxis-Paper-23-Monitoring-and-Evaluating-Capacity-Building-is-it-really-that-difficult.pdf>
- TAMPI, P.P., NABELLA, S.D. and SARI, D.P., 2022. The influence of information technology users, employee empowerment, and work culture on employee performance at the Ministry of Law and Human Rights Regional Office of Riau Islands. *Enrichment: Journal of Management*, vol. 12, no. 3, pp. 1620-1628. <http://dx.doi.org/10.35335/enrichment.v12i3.628>.
- ZASADA, I., REUTTER, M., PIORR, A., LEFEBVRE, M. and PALOMA, S.G., 2015. Between capital investments and capacity building: development and application of a conceptual framework towards a place-based rural development policy. *Land Use Policy*, vol. 46, pp. 178-188. <http://dx.doi.org/10.1016/j.landusepol.2014.11.023>.