

# Iranian Journal of Educational Sociology

http://www.injoeas.com
(Interdisciplinary Journal of Education)
Available online at: http://www.iase-idje.ir/
Volume 5, Number 3, October 2022

# Developing a Pattern for Employee Valuation in the Banking System Based on Human Resource Accounting Approach

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## **Article history:**

Received date: 2022/08/24 Review date: 2022/09/28 Accepted date: 2022/10/22

## Keywords:

Human Resource Accounting, Human Resource Valuation, the Banking System, Human Resource, Evaluation **Purpose**: Today, with the transition from the industrial economy to a knowledge-based economy, the economic value of the human resource in the organization is more evident than ever. Human resource accounting is a relatively new approach to calculating the value of human resources as a part of the organization's capital and assets. This study aimed to identify the components of human resources valuation and design the employee valuation pattern in the country's banking network based on the human resources accounting approach.

**Methodology**: The study was conducted using a mixed method (qualitative and quantitative) in three consecutive phases. In the first phase, the components affecting the human resources valuation process were extracted through the content analysis of related studies. After extracting the general components, initial interview questions were formulated using them. In the second phase, additional components and indicators were identified through semi-structured interviews with elites and informants in human resource accounting. In the third phase, using quantitative methods, the validation and ranking of the components were done. Finally, the valuation pattern of the country's banking network employees was formed.

**Findings**: The final pattern included a total of 36 components in four categories: individual and personality characteristics (11 components), professional qualifications (9 components), social capabilities (7 components), and organizational costs (9 components).

**Conclusion**: The proposed pattern in this study can provide the possibility of a multi-faceted valuation of the banking network employees in Iran due to the coverage of a wide range of components affecting the valuation.

**Please cite this article as:** Poorkamali M, Amiri H, Parsa Moein K, Bikzadeh Abbasi F. (2022). Developing a Pattern for Employee Valuation in the Banking System Based on Human Resource Accounting Approach, **Iranian Journal of Educational Sociology.** 5(3): 67-82.

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#### 1. Introduction

Today, the value of skilled and specialized human resources and the role it plays in the effectiveness and efficiency of the organization is not hidden from anyone. Studies show that in the current competitive economy, financial assets and technological structures are no longer the basis of competitive advantage, because it is possible to replace these resources with more financial capital and more advanced technologies. What is difficult to find or replace is skilled, talented and motivated human resources. Lived experience shows that organizations with a lot of capital and huge physical resources may fail to achieve their goals in the absence of suitable human resources to do things, or two companies with the same financial assets that work in the same environment and labor market, they may have different returns due to differences in human assets (Herrera J, de las Heras-Rosas, 2020).

Over time and with the transition from the industrial economy to the knowledge-based economy, the economic value of human power in the organization became more apparent. Managers of organizations realized that in addition to fixed and visible assets, every organization also has intangible assets that create infinite value; Assets such as trademarks, exclusive rights, results of research and development activities and most valuable of all, the organization's employees (Rotich, 2015). Despite the consensus on the value of human resources, it has been difficult for organizations to quantify the experience, knowledge and capabilities of their employees. On the other hand, based on the principles of traditional accounting, only financial information can enter the financial statements, books and balance sheets of the organization, for this reason, in the traditional accounting system, it was not possible to include information on human resources in the financial calculations of the organization (Kumar, 2018).

Although in today's world terms like information economy and intellectual capital are very common and human knowledge is more important; however, entering the value of the organization's human resources as a part of capital and assets in financial statements is still an important challenge for organizations. Human resource accounting (HRA) is a relatively new approach in accounting science that was formed with the aim of helping to solve the aforementioned challenge. According to the human resource accounting approach, any spending to attract and maintain human resources as an asset is an investment for the organization (Hilorme, et al, 2019).

Studies show that the bigger the organizations are and the more valuable they are in the competitive market, the more attention they pay to the issue of human resource accounting and the inclusion of the resulting information in the decision-making system. Among them, financial organizations are more interested in human resource accounting than other organizations have been, as a financial organization; banks are known as the main focus of economic activities and play an important role in helping the economic growth of countries. Considering the growth of banks and credit institutions, it is vital to use competent and expert human capital with the aim of achieving superiority in the competitive environment and attracting capital. Therefore, today's banks are trying to be in the best possible conditions in terms of human capital by recruiting elite forces or training current forces (Gorton, 2015). If the human resources working in banks have the necessary qualifications, in addition to performing general duties, they will also be able to provide specialized services that are value-creating for the organization. Therefore, it is felt necessary to have a system that can determine the real value of services provided by human resources as the intellectual capital of each bank.

Considering the importance of human resources valuation issue for the organization and considering the lack of internal studies in this field and in the context of the country's banking network, the current research sought to take advantage of the mixed research approach and based on the optimization of previous researches and models. Design a model to value employees in the banking network as the heart of the country's economic system based on the human resources accounting approach. In this regard, the present study sought to answer the following questions:

- 1. What are the components of valuing the employees of the country's banking network?
- 2. What is the validity of each of the evaluation components of the employees of the country's banking network?
- 3. How is the prioritization of the valuation components of the country's banking network employees?
- 4. What is the pattern of valuing the employees of the country's banking network?

The review of studies conducted in the field of human resource accounting shows that researchers in developing countries have paid special attention to the effects of using this method. For example, in a research by Kemjika, Kingsley, Osita (2021), they investigated the impact of human resource accounting on organizational development. The results of this research showed that the development of human resources through human resource accounting has a vital role in organizational development. Also, based on the results of this study, employee training and their attendance at educational conferences had a significant impact on organizational development. In another study, Mohammed (2021) investigated the level of awareness and attention of Iraqi companies regarding the presentation of human resources accounting information in the financial statements of these companies. According to the findings of this study, in none of the Iraqi companies, human resource accounting was not considered and used, and all companies were weak in valuing human resources and presenting it in financial statements.

Khan (2021) investigated the impact of human resource accounting on the performance of organizations in Saudi Arabia. In this research, various aspects of organizational performance such as human capital efficiency, organization profitability, asset return and shareholder legal return were considered. According to the results of the research, human resource accounting had a positive and significant effect on the efficiency of human capital, organizational profitability, and the legal return of shareholders. Also, the findings indicated that human resource accounting did not have a significant impact on the organization's asset performance. In a research in Jordan, Al-Tahat & Al-Zoubi (2020) investigated the challenges of applying human resource accounting in the auditing organizations of this country. The most important challenges identified in this study were: the possibility of fraud by managers (interference and lack of transparency) in the evaluation of human resources, the lack of accounting consensus in the method of valuing human resources in financial statements, the possibility of creating a feeling of disappointment in the employees who scored less in the evaluation and this frustration will reduce their productivity.

Ali, Hossain & Anik (2021) in a research in Bangladesh evaluated the level of attention paid to human resource accounting in the financial organizations of this country. The results of this research showed that there is a positive and significant relationship between the size of the organization and the amount of attention paid to human resource accounting. On the other hand, there was a positive and non-significant relationship between the number of employees in the organization and attention to human resource accounting. The life of the organization had a negative and significant relationship and the profitability of the organization had a negative and insignificant relationship with the amount of attention the organization paid to human resource accounting. In a 2018 study, Inua & Oziegbe investigated the characteristics of human resource accounting and financial performance of banks in Nigeria. The findings of this research showed that there is a statistically significant difference between the cost of employees, the strength of employees, the size of organizations and the financial performance of banks in terms of return on assets. On the other hand, there was no statistically significant relationship between managers' compensation and banks' financial performance.

A review of the conducted studies shows that most of the foreign studies have been conducted with a quantitative approach and by analyzing secondary data obtained from financial reports of organizations. These studies were implemented in different types of organizations, especially organizations and financial institutions. In total, three general approaches in foreign studies could be identified: 1. Focus on evaluating the current state of attention to human resource accounting in organizations (Mohammed, 2021; Al-Tahat & Al-Zoubi, 2020; Ibarra & Cosico, 2016; Ijeoma, Bilesanmi & Aronu, 2013; Verma & Dewe, 2008)

2. Investigating the impact of using this method on indicators such as organizational development and organizational profitability (Kemjika, Kingsley, Osita, 2021; Khan, 2021; Khan, 2020). 3. Focus on evaluating the relationship between organizational indicators such as organizational life, organization size, market size and number of employees with the organization's attention to human resource accounting (Ali, Hossain & Anik, 2020; Inua & Oziegbe, 2018; Oladele, Olugbena, Lateef & Ajayi, 2018).

In internal studies, unlike external studies, the combined approach was used as a research method. For example, Demouri, Sabakrou and Razavi Heydari (2021) identified the value-creating indicators of the human capital of the National Bank of Iran based on the non-monetary valuation approach and then prioritized them. According to the results of this research, for bank employees, considering customers as the real capital of the bank, desire for the survival of the organization, trustworthiness at work and avoiding betrayal are the most important indicators of human capital valuation, respectively. Also, familiarity with a foreign language, job turnover and performance evaluation scores were also estimated as the least important indicators. Mohammadi-Moghadam, et al (2021) in a combined research designed a model for aligning human resource strategies with organizational strategies in Refah Bank. According to the results of this study, the most important factors affecting the alignment of human resources and organizational resources are creating a suitable organizational environment, improving the quality of human resources, coherent planning, and the ability of managers and paying attention to welfare mechanisms. Hosni-Azer Dariani, Mashaikh and Hejazi in a research in 2018 designed the human resource valuation model and its reporting in National Iranian Oil Company and its subsidiaries. In this research, various models proposed in the field of human resources valuation were investigated and finally, according to the advantages and limitations of each model, a combination of Myers and Flowers models and the monetary value of the margin Irana and Maheshwari were chosen as role models. In another study, Amiri, Mirsepasi and Rahnamai Roudpashti (2017) designed a suitable human resource accounting model in Islamic Azad University. The aim of the researchers was to provide a model that can be implemented in the form of four human resource management systems (attraction, supply and adjustment system; training and improvement system; preservation and maintenance system; application and effective use system) and provide the necessary tools for human resource decision makers in the university to provide

By reviewing the conducted studies, especially internal studies, we can conclude that quantitative studies have been conducted with the aim of identifying the employee valuation indicators in the banking network and presenting a model for this purpose. Human resource accounting requires valuation more than costing (Chaudhry Naveed & Muhammad, 2010), for this reason, the present research was designed with the aim of identifying the employee valuation indicators in the country's banking network.

#### 2. Methodology

The current research was applied from the point of view of purpose and exploratory from the point of view of methodology, which is included in the category of mixed research. The research was conducted in four consecutive phases and a combination of qualitative and quantitative methods. The purpose of the first phase of the research was to identify the known components in human resources valuation through the review of related texts and researches. In this phase, Persian and English databases were searched in order to obtain related researches. The keywords of human resource accounting, human resource valuation, and employee pricing (and the English equivalent of the keywords) were used to search for articles. In the second phase, initial interview questions were designed using the findings of the first phase. Then, by conducting in-depth semi-structured interviews with experts and informants in the field of human resource accounting, the components, and supplementary indicators and, in fact, the summary of the extracted indicators were identified. The group of experts included 15 professors and researchers in the field of human resource management and bank managers of the country. The details about the gender, expertise and position of the people in the expert group are presented in Table 1. The data collected from the interviews were analyzed based on the steps proposed by Graneheim & Lundman (2004). Based on this method, after conducting each interview, the text of the interview was implemented at the first opportunity and the audio files were typed as text. Primary codes centered on a central concept were placed inside a subclass. Then the subclasses were reviewed several times and compared with each other based on similarities and differences. Finally, classes and themes were formed. The analysis of each interview was done immediately after the implementation of the interview and after each interview (if needed) the research questions were modified. In the third phase, a scale for validating and ranking the identified components was designed

and provided to the expert group for completion. The experts were asked to assign a score from 1 to 10 to each of the components according to its importance in the employee valuation process. After conducting statistical investigations using valid components and considering the final rating, the initial model was designed to value the employees of the country's banking network. After compilation, the initial model was provided to the group of experts and their corrective comments were applied. In terms of the reliability of the findings obtained from the content analysis of the texts and interviews, the four evaluation criteria of Lincoln & Guba (1985) were used under the title of credibility, transferability, dependability (reliability) and conformability, In order to achieve the reliability of techniques such as coding by two people and the use of another coder in order to ensure the same point of view of the coders and the appropriateness of the categories, providing data analysis and its results to the experts and also to the interviewees in order to confirm the selected categories. Continuing the interviews until encountering duplicate data and reaching saturation, continuous note taking during the research and self-review during the process of data collection and analysis were used. To increase the reliability of the research, an effort was made to accurately describe all the details related to the research field. Verifiability means an effort to achieve objectivity index in the research, for this purpose in this research raw data, documents and recorded interviews are protected for subsequent reviews. In the present study, quantitative data were analyzed using t-test and Friedman tests in SPSS-23 software environment. The significance level was considered 0.05 in all calculations.

**Table 1.** Information of the interviewees in the expert group

Row	Row gender Age		degree of education	organization level	Relevant work experience (years)		
1	Man	39	Master of Public Administration	Head of Department	14		
2	Man	37	Master of Public Administration	Head of Department	15		
3	Man	41	PhD in human resource management	Faculty member	12		
4	Female	36	Master of Public Administration	Head of Department	10		
5	Female	32	Master of Public Administration	Head of Department	9		
6	Man	46	PhD in human resource management	deputy	16		
7	Man	39	PhD in human resource management	deputy	15		
8	Man	47	PhD in human resource management	Faculty member	20		
9	Man	52	Master of Public Administration	Human Resources Manager	17		
10	Female	53	PhD in public administration	Faculty member	22		
11	Female	42	PhD in business management	Faculty member	15		
12	Man	38	PhD in human resource management	Faculty member	17		
13	Female	49	PhD in human resource management	Human Resources Manager	18		
14	Female	52	Master of Public Administration	Human Resources Manager	20		
15	Man 54 Master of Public Administration		Human Resources Manager	21			

#### 3. Findings

After reviewing related texts and researches, a list of components affecting employee valuation was prepared. Then, the extracted components were classified into four main categories: individual and personality components, components related to professional qualifications, components related to social capabilities, and components related to

organizational characteristics and costs. The details of each of the components and their extraction source can be seen in Table 2.

Table2. Factors affecting employee valuation, extracted from related texts

main category (theme)	Components	References		
	Gender, age, percentage of physical and mental health	Zare, Rabiei 4(2014) Soltani and Sheikh (2013) Azbarmi and Taleghani		
	Risk-taking, ideation, using mental capabilities in doing things, learning speed	(2010) Jovanmard and Mohammadian (2009) Azar , Ahmadi and Vahid-Sabat		
	Doing new things, following up and completing things	Tabarsa, '(2014) Soltani and Sheikh (2007) Ghafouri and Thabiti		
	Personal attraction, ability to persuade, ability to motivate	(2016) Shafiei Roudpashti and Bahram (2013) Zare, Rabiei Azbarmi and Talegha		
	Honesty and truthfulness, avoiding limitations, preferring complexity over simplicity, using mental capabilities	'(2007) Bozbora, Beskese & Kahraman (2009)Azar , Ahmadi and Vahid-Sabat		
Individual and	Accountability, belonging to the organization, positive energy, avoiding doing useless things, doing things with added value	Amiri, 4(2014) Soltani and Sheikh (2017) Mirsepasi and Rahnamai Roudpasht		
personality	Intelligence, invention and initiative, steady step, self-confidence, adaptability, willingness to take risks, motivation to achieve the goal	(2013) Zare, Rabiei Azbarmi and Talegha		
	Bias and defense of the organization, goodwill towards the organization, sacrifice	'(2007) Tabarsa , Ghafouri and Thabiti (2016) Ahmadi, Lashkari & Arghan		
	Belief in Bait-al-Mal, being useful, being productive, little need for external controls, doing organizational work outside the job description.	(2008) Sheibani (2014) Soltani and Sheil		
	humor, leadership qualities, strong communication, motivation, self-confidence, intelligence, behavioral stability	(2016) Shafiei Roudpashti and Bahram (2015) Salehi, et al		
	Having initiative, competitiveness, hard work	(2009)Azar , Ahmadi and Vahid-Sabat		
	Reliability, flexibility, discipline, perseverance	Demouri, Sabakrou and Razavi Heydari (2017)Danaei and Rashmeh (2021)		
	Level of education, tacit knowledge, job category	'(2010)Jovanmard and Mohammadian (2018) Ghasemi, Shahin & Safari		
	The number of professional certificates	Zare, Rabiei (2019) Hilorme, Perevozo (2013) Azbarmi and Taleghani		
D 6 . 1	Number of upgrades	Thiptanamanee, (2016) Arkan Phornlaphatrachakorn & Suwannara (2018)		
Professional qualifications	experience (years)	(2014) Soltani and Sheikh		
quamications	The number of honors	Garg (2018)Arogundade, Ohwo & Aud (2017)		
	The score obtained from the performance evaluation system	Thiptanamanee, Phornlaphatrachakorn (2018) Suwannarat		
	Analysis power, job mastery, technical and specialized information	'(2009)Azar , Ahmadi and Vahid-Sabat (2014) Pandey		
	Awareness of the organization's current issues, attending meetings	'(2007)Tabarsa , Ghafouri and Thabiti (2015) Boselie		
Social abilities	Willingness to work in groups and avoiding isolation, teamwork skills	(2007)Tabarsa , Ghafouri and Thabiti		
	Maturity and social ethics	(2016) Shafiei Roudpashti and Bahram (2013) Zare, Rabiei Azbarmi and Talegha		

	Helping colleagues, training colleagues and newcomers	'(2010) Jovanmard and Mohammadian (2014) Soltani and Sheikh
	Organizational job category	(2018) Arogundade, Ohwo & Audu
	The number of registered violations	(2019) Muda & Erlina
	On-the-job and on-the-job training	(2017) Monday
0	Individual operating cost	(2013) Zare, Rabiei Azbarmi and Taleghani
Organizational	Surrogate's property	(2018) Al-Hanini
costs	The number of transfers based on the needs of the organization	Guembour (2020)
	Attending the workplace on time, refraining from work violations, following the rules and regulations of the organization	Tabarsa , ' Soltani and Sheikh (2014) Monday '(2007) Ghafouri and Thabiti (2017)

The initial questions for the interview with the group of experts were formulated based on the extracted information in the first phase of the research. Interview questions were designed around individual characteristics, professional qualifications, social capabilities and organizational components affecting employee valuation. In addition, each of the interviewees was asked to add to the list the items that they think have been neglected in each class of components. The findings of the content analysis of the conducted interviews are presented in Table 3.

**Table3.** Factors affecting the valuation of employees of the country's banking network extracted from the interviews

Main categories	Subcategories	Primary codes	Evidence				
	Creativity	Creativity and initiative in performing tasks	Today, in leading organizations, creativity is considered the most valuable characteristic of the workforce (Interview 1).				
	Physical and mental health	Not suffering from physical and mental diseases	The fact that the members of the organization are physically and psychologically healthy and balanced increases their value (interview 5).				
	responsibility	Giving importance to assigned tasks	Considering the sensitivity of work in the banking system how important employees are to their responsibilities is very important (Interview 5).				
Individual and	Commitment to the organization	Organizational Commitment	Organizational commitment is very important, especial high-level bank managers. It has sometimes happened the strong and extraordinary managers of our bank gone to another bank with a better financial of Therefore, in equal condition, the force that organizational commitment is a better capital (interview				
personality traits	Desire to acquire knowledge and skills	Willingness to learn new ways of doing tasks	Working in the banking system is sometimes very complicated. Sometimes a model or directive can transform all processes. In such a situation, without a doubt, are employee who is thirsty to learn new methods is more valuable (interview 9).				
	ideation	Ability to generate ideas	We had colleagues who suggested consolidating branche and switching to electronic banking a few years ago. But the managers thought too late due to ignorance and caused the system to fall behind. Therefore, a force that has the ability to create ideas is a better capital for the organization (interview 10).				
	Ability to persuade	Ability to convince the other party	Sometimes you only have a few seconds to attract a customer or investor and you can only say a few words. At employee whose value is exemplary is one who can convince the other party (interview 12).				
	Leadership ability	Leadership ability	An important issue, especially in higher-level managers, i leadership ability (interview 12).				

	Work Experience	Work Experience	One of the key factors is the work history of each person. Of course, this factor can be a necessary condition, but it will not be sufficient (interview 1).
Professional	Complete familiarity with banking terms	Full familiarity with banking products and services	Professional skills include skills related to a person's job, such as complete familiarity with banking products and services; including deposits, facilities, and obligations (interview 2).
qualifications	and processes	Technical knowledge about terms and events	A person's technical knowledge of terms, events and processes is also very important (interview 10).
	Professional knowledge	Relevant education and specialized knowledge	Features such as a person's education, level of experience, organizational position, work ethic and skill can be included in the valuation model if it can be measured objectively. (Interview 9)
Social abilities	Empathy and participation in group activities	Empathy/ teamwork ability	The person has the ability to empathize with other forces and work towards the goals of the organization (interview 7). Teamwork ability is the most important component in employees' social skills. Of course, the willingness to work as a group in the bank must be balanced because we have processes that are better done individually (interview 13).
	Appropriate behavior	Behave appropriately with the situation	The employee must be able to behave appropriately in any situation. Conducting inappropriate behavior can endanger and damage the reputation of the group (Interview 8).
	Recruitment costs	Selection and recruitment cost	The cost of the organization for selecting and hiring people should also be calculated in the costs related to the valuation of human resources (interview 14).
	Costs spent on employee training	Costs spent on employee training	How much has been spent so far for each force, especially in the matter of training, is an important point that can be brought in the financial form (interview 9).
Organizational costs	violation		The amount of violation and lawlessness of the employee is very important (Interview 11).
	Compliance and adherence to the rules and regulations of the organization	Legality and attention to the rules of the organization	Employees who follow the rules and do not seek to circumvent the rules increase the intrinsic value of the organization (Interview 4).
	Salaries and other payments to employees	salary and benefits	Salaries and benefits paid to employees as compensation for services should be considered in the valuation (Interview 6).

After adapting and aggregating the components obtained from the review of the texts with the categories and subcategories obtained from the content analysis of the interviews, we reached the primary themes in order to formulate the valuation model of the employees of the country's banking network. A total of 38 components were identified in four general classifications. In order to validate the findings of this section, a 10-point Likert scale of 38 indicators was prepared and provided to the group of experts. In order to validate the extracted items, a sample t-test was used.

Table4. One-sample t-test results to check the significance of the calculated components

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Components	Average	The standard deviation	t	Degrees of freedom	meaningful	mean difference
Age	7/20	1/69	5/01	14	0/001	2/20
Creativity	8/80	1/01	14/51	14	0/001	3/80
Physical and mental health	8/60	1/05	13/20	14	0/001	3/60
The amount of responsibility	9	0/925	16/73	14	0/001	4/00
speed of learning	8/20	0/774	16/01	14	0/001	3/20

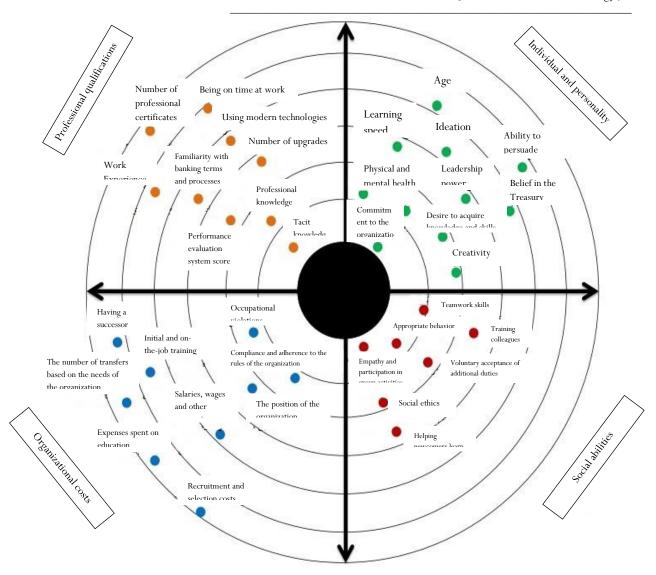
Commitment to the organization	9/80	0/506	33/16	14	0/001	4/80
Desire to gain knowledge and skills	8/40	0/507	25/96	14	0/001	3/40
ideation	8	1/13	10/24	14	0/001	3/00
Ability to persuade	7/60	0/827	12/16	14	0/001	2/60
Leadership power	7/80	1/20	8/94	14	0/001	2/80
Belief in the Treasury	7/80	0/774	14/01	14	0/001	2/80
Work Experience	7	1/30	5/91	14	0/001	2/00
Familiarity with banking terms and processes	7/20	2/48	3/43	14	0/004	2/20
Related education	5/15	1/65	1/24	14	0/090	0/115
Professional knowledge	8/60	0/507	27/49	14	0/001	3/60
The number of professional certificates	6/80	1/52	4/58	14	0/001	1/80
Number of upgrades	7/60	1/54	6/50	14	0/001	2/60
The number of honors	5/10	1/20	1/05	14	0/107	0/10
The score obtained from the performance evaluation system	8	1/30	8/87	14	0/001	3/00
Implicit and general knowledge	9	0/654	23/66	14	0/001	4/00
Being on time at work	7/20	1/78	4/78	14	0/001	2/20
Using modern technologies	7/80	0/414	26/19	14	0/001	2/80
teamwork skills	8/80	0/774	19/01	14	0/001	3/80
Empathy and participation in group activities	9	0/925	16/73	14	0/001	4/00
Appropriate behavior	8/80	0/774	19/01	14	0/001	3/80
Social ethics	8/80	1/01	14/51	14	0/001	3/80
Voluntary acceptance of additional duties	8/40	0/507	25/96	14	0/001	3/40
Training colleagues	8/20	1/65	7/48	14	0/001	3/20
Helping newcomers learn	8/20	1/65	7/48	14	0/001	3/20
Expenses spent on education	6/60	1/05	5/87	14	0/001	1/60
Organizational position	8	1/30	8/87	14	0/001	3/00
On-the-job and on-the-job training	7/60	0/507	19/85	14	0/001	2/60
Salaries, wages and other payments	7/60	1/05	9/59	14	0/001	2/60
The amount of occupational violations	8/60	1/05	13/20	14	0/001	3/60
Adherence to the rules and regulations of the organization	8/60	1/06	13/20	14	0/001	3/60
Recruitment and selection costs	5/40	0/507	3/05	14	0/009	0/40
Having a successor	7	0/925	8/36	14	0/001	2/00
The number of transfers based on the needs of the organization	6/80	1/20	5/77	14	0/001	1/80

According to the findings of Table 4, among the calculated components, only components No. 14 and 18 (related education and number of honors) did not have a significant average difference with the theoretical average of the components, and for this reason, they were excluded from the analysis process. In order to rank the remaining 36 components, Friedman's non-parametric test was used (Table 5).

**Table5.** The results of the Friedman test for ranking the components

<b>Table5.</b> The results of the Friedman test			Average	•	Average rank	rank
Age			7/20	7	14/53	21
Creativity			8/80	8	22/97	10
Physical and mental health			8/60	9	24/93	6
The amount of responsibility			9	9	24/60	8
speed of learning			8/20	8	21/10	12
Commitment to the organization			9/80	10	25/03	1
Desire to gain knowledge and skills			8/40	8	23/53	9
ideation			8	8	16/87	16
Ability to persuade			7/60	8	13/87	22
Leadership power			7/80	8	18/30	14
Belief in the Treasury			7/80	8	15/50	18
Work Experience			7	6	12/93	24
Complete familiarity with banking terms and processes			7/20	9	16/50	17
Professional knowledge			8/60	9	24/67	7
The number of professional certificates			6/80	7	9/20	27
Number of upgrades			7/60	8	17/90	15
Points earned from the performance evaluation system			8	9	20/67	13
Implicit and general knowledge			9	9	27/73	3
Being on time at work			7/20	8	12/70	25
Using modern technologies			7/80	8	15/43	19
teamwork skills			8/80	9	25/57	5
Empathy and participation in group activities			9	9	28/53	2
Appropriate behavior			8/80	9	26/60	4
Social ethics			8/80	8	22/97	10
Voluntary acceptance of additional duties			8/40	8	23/53	9
Training colleagues			8/20	8	21/73	11
Helping newcomers learn			8/20	8	21/73	11
The expenses spent on their education			6/60	7	6/97	29
Organizational position			8	9	20/67	13
On-the-job and on-the-job training	7/60	8	13/77		23	- 10
Salaries, wages and other payments	7/60	8	15/33		20	
The amount of occupational violations	8/60	9	24/93		6	
Compliance and adherence to the rules and regulations of the						
organization	8/60	9	24/93		6	
Recruitment and selection costs	5/40	5	3/07		30	
Having a successor	7	7	9/60		26	
The number of transfers based on the needs of the organization	6/80	7	8/77		28	

After extracting, validating and ranking the components of employee evaluation, according to the classes of components and their importance in employee evaluation, the final model was compiled (Chart 1). In the presented model, not only the classes and relationships of the components, but also their priority based on proximity to the center of the design are considered.



**Diagram 1.** Valuation pattern of employees in the banking network of the country

## 4. Conclusion

Today, the role of employees for the organization is as important and cannot be ignored as the role of oxygen for human life. Paying attention to employees and evaluating them in order to achieve the goals of the organization has long been the focus of managers, employers and researchers in various subject areas. However, developing a tool that can comprehensively value employees has always been a challenge. The reason for the difficulty of developing a tool for valuing human resources is the variety of indicators that are involved in valuing employees (Toulson & Dewe, 2004). However, despite the difficulty and breadth of the subject, many researchers have tried to value human resources with different approaches, and some have presented models in this field. The current research was also an attempt to formulate a suitable model for valuing employees in the country's banking network.

According to the results of the research, 36 components in four general categories of individual and personality characteristics (11 components), professional qualifications (9 components), social capabilities (7 components) and organizational costs (9 components) had an impact on the evaluation of employees in the country's banking network. The first identified category (theme) was individual and personality characteristics with 11 components, which

specifically emphasized the individual and psychological characteristics of the country's banking network employees. The components introduced for this category, in order of importance, were commitment to the organization, physical and mental health, level of responsibility, willingness to acquire knowledge and skills, creativity, learning speed, leadership power, idea generation, belief in Beytolmal, age of employees and ability to persuade. . Since most of the components presented in this group were taken from scientific texts and previous researches, therefore, the findings of this part of the research can be considered aligned with the general findings of previous similar researches, including the researches of Soltani and Sheikh (2014), Zare, Rabiei Azbarmi and Taleghani (2013), Shafiei Roudpashti and Bahrami (2016), Salehi, et al (2015) and Danaei and Rashmeh (2017).

The second identified category was professional qualifications with 9 components. In this category, job qualifications and capabilities were generally considered. It can be said that in the banking profession, like other jobs, there is a set of qualifications and professional characteristics that can be used to differentiate between good and bad workforce. These 9 components were work experience, full familiarity with banking terms and processes, specialized knowledge, number of professional certificates, number of promotions, points obtained from the performance evaluation system, tacit knowledge, being on time at work and using modern technologies. The findings of this part of the research were consistent with the findings of previous researches, including the findings of Arogundade, Ohwo & Audu (2018), Hilorme, Perevozova (2019) and Arkan (2016). In the conducted interviews, components aligned with the components extracted from scientific texts were also mentioned. However, the component of complete familiarity with banking terms and processes was a new component that was added to the study only through interviews with the group of experts. This component refers to the employees' knowledge and their familiarity with banking terms, terms, events and banking processes.

The third identified category, which included the components of teamwork skills, empathy and participation in group activities, appropriate and appropriate behavior, social ethics, voluntary acceptance of additional tasks, training colleagues and helping newcomers in learning (7 indicators), was named social capabilities. It is clear that in the banking profession, due to the type of services and extensive communication with clients and customers, the social capabilities of employees will be of particular importance. The findings of this part of the research were consistent with the findings of Soltani and Sheikh (2014), Jovanmard and Mohammadian (2010), Shafiei Roudpashti and Bahrami (2016). The fourth category included 9 components that referred to organizational costs spent on employees and some organizational characteristics. These components, in order of importance, were: expenses spent on training, organizational position, on-the-job and on-the-job training, salaries, wages and other payments, the amount of occupational violations, compliance and adherence to the rules and regulations of the organization, recruitment and selection costs, Having a substitute and the number of transfers based on the needs of the organization. The findings of this part of the research were also in line with the findings of Muda & Erlina (2019), Zare, Rabiei Azbarmi and Taleghani (2013), Arogundade, Ohwo & Audu (2018), Monday (2017) and Guembour (2020). In the conducted interviews, most of the components of organizational costs were emphasized; however, special attention was paid to the costs spent by the organization for hiring and training employees.

In this research, by using 36 approved components and considering their importance in the valuation system, the valuation model of the employees of the country's banking network was designed. In the proposed model, an effort has been made to cover all the variables affecting the evaluation of employees. The components in four basic areas form the four sides of Siebel's valuation. The model presented in the current research, unlike other models (mostly cost-based models and value-based models), does not have a one-dimensional view of employees as human resources of the organization. In most cost-based models, such as historical cost model (Likert, 1967) or standard cost (Rani, 2016), the focus of the model is only on the cost of the individual for the system, while in the current proposed model, individual and personality components are of special importance, to the extent that a person's commitment to the organization is considered the most important component in his valuation. On the other hand, in the field of social capabilities, the proposed model includes 7 components with high density in the layers close to the core, which indicates

the importance of these components in the valuation system. In terms of paying attention to the personality and social dimensions of employees, it can be said that the current model is similar to Likert's sociological-psychological model. In the Likert model, attention to components such as honesty, method and behavior of employees, their motivation and feeling in valuation was evident. The model proposed in the current research, in addition to the personal and social dimensions of employees, also pays attention to professional qualifications and organizational costs. For example, in this model, like the Low and Schwartz model, the salary and wages of employees, or like the Flamholtz model, the job position of people in the organization has been considered as a criterion for valuation (Gupta, 2021). It seems that the model proposed in this research can provide the possibility of multi-faceted valuation of the employees of the country's banking network due to the coverage of a wide range of components affecting the valuation.

It should be noted that part of the findings of the research was obtained by using a qualitative approach and from interviews with experts and specialists. For this reason, the limitations of qualitative studies also apply in the present study. The researchers tried to neutralize the effect of the factors threatening the internal validity of the research by observing the necessary considerations; however, it is better to generalize the findings to other contexts and other types of organizations with caution. By identifying the components of employee valuation in the banking network, the present research provides the basis for further studies. It is suggested that in the future researches be organized with the aim of investigating the methods of measuring each of the identified components and how to realize the value of employees in the country's banking network.

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