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The impact of human resource development on social capital dimensions and financial performance: a case study of companies active in IT

Abstract. The present study aimed to identify the components of human resource development in order to improve the performance of Uzbek IT companies in two dimensions: social capital and financial performance. The type of research was quantitative-qualitative in terms of its purpose, application, and method, based on the method of data collection during 2020-2024 in IT companies in Uzbekistan. In the qualitative phase, by reviewing the literature and research background and talking to experts in the field of human resources and IT companies, the components of the two dimensions of social capital and financial performance were extracted, and then by forming a Delphi panel consisting of 15 experts in five rounds, the final components were identified. In the quantitative phase, 165 companies were selected based on the Morgan table. Sampling was carried out using the stratified sampling method. The results of structural analysis showed that all three dimensions have a significant role in the development of human resources of companies, and based on the T-test, the prioritization of all three dimensions was determined. Therefore,

the results of the research showed that the components of the two dimensions of social capital and financial performance have an impact on human resource development, leading to increased knowledge and skills, improved attitude and motivation of employees, and consequently increased financial and operational performance of companies.

1. Introduction and Brief Literature Review

The existence of complex and rapid changes in the present era has led to the increasing efforts of companies to accept structural and functional changes. Structurally, what plans and strategies to adopt and functionally, what factors and variables to use to continue their existence in these changing conditions (Yuliarmi et al., 2021; Furaijl et al., 2024). Recent developments, including demographic pressures, instantaneous innovations, the complexity of decision-making, and the difficulty of management processes, have led to the importance of IT companies becoming more apparent than ever (Nuryani et al., 2018). Currently, one of the factors affecting these businesses is appropriate financial performance, which provides an important condition for the survival of any company, and what level of performance companies can achieve in terms of profitability, sales growth, profit margin, market share, and product and service production. One of the important priorities in economic planning in developing countries is the establishment and support of IT companies (Al-Tit et al., 2022), because these businesses play a significant role in creating innovation, national production, creating jobs, and exporting. It can also be stated that companies, due to their complete control over the prevailing corporate conditions, can better adapt to changes and developments and respond to economic needs than larger businesses (Hussain et al., 2023); therefore, paying attention to the performance approaches, including the financial, innovation, and operational performance of these companies in the fields of IT, equipment, and electrical devices, is of great importance.

The oldest and most important approaches to evaluating corporate performance are the financial performance evaluation of companies, which provides financial analysis with important information about trends, correlations, quality of earnings and earnings per share, and ultimately, the strengths and weaknesses of companies and their financial status (Agyabeng-Mensah & Tang, 2021; Khamdamov et al., 2024). Also, capital market financing and credit play an important role in business success and are considered a critical factor determining emerging market performance.

Human capital management is the main task of the human capital developer. He is responsible for developing and creating value for employees by investing in them. Creating training opportunities, developing employee skills and paying attention to their future demands, preparing leaders and motivating employees towards desirable behavior are important dimensions of this role (Vale et al., 2022). Today, companies must determine their vertical chain in the field of strategy, business benefits and how to control it. Expanding the value chain develops the organization's business and expands for many reasons, including risk reduction, cost reduction, synergy, managerial decision-making and exploitation of limited economies. Regardless of the reasons mentioned, the factor determining the boundaries of the value chain is its impact on performance (Gubbins & Dooley, 2021; Makhmudov et al., 2024). Therefore, it is important to focus on key aspects of the value chain relationship as they relate to the outcomes of human investment (Salehi et al., 2022).

A study was also conducted by Ali et al. (2024) entitled Linking Operational and Financial Performance, and operational and financial performance were compared with two unique data sets. The results showed that the human resource structure plays an important role in the ability to release common stock value and is of managerial importance for effective outsourcing, contract design, and performance evaluation in a wide range of service industries.

According to the description of the problem statement and the literature review presented in the research background regarding the impact of human resources on social capital and financial performance (Yuliarmi et al., 2021; Yamali et al., 2024), as well as link of the research variables, the hypotheses and conceptual model of the research are proposed. In the presented model,

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the human capital development variable plays a role as an independent variable, financial performance as a dependent variable, and the social capital variable as independent-dependent variables in the research. The hypotheses are considered as follows:

H1: Human capital has a positive and significant impact on social capital.
H2: Human capital has a positive and significant impact on Finance.
H3: Social capital has a positive and significant impact on Finance.

2. Method

IT companies are one of the influential factors that should be considered because they create job opportunities with low capital, create new methods and innovate products. Therefore, the statistical population of this study included IT companies in Uzbekistan. This study was conducted utilizing structural equation modeling employing SPSS version 23 and Smart PLS version 3 software. The Cochran formula was utilized to evaluate the sample size, and by using this formula with an error of 5% it is equal to 148 samples during 2020-2024.

The present study was a hypothesis-analytic and quantitative study. Data collection was done through a standard questionnaire with a 5-level Likert scale filled out by company managers. To better explain the statistical population, 200 questionnaires were distributed among the statistical population, of which the questionnaire return rate was 69%. In fact, 138 questionnaires were analyzed. To ensure the process of measuring variables by the questionnaire, the validity and reliability of the questionnaire were also conducted and the opinions of expert professors were used.

In the first stage, 52 indicators, divided into two dimensions of social capital and financial performance, were given to the panel members and they were asked to determine the importance of each indicator, state if another indicator could be effective in the development of human resources, and provide their opinion on the arrangement of the indicators in the three factors. Accordingly, by eliminating several indicators with an average of less than 5 and adding the indicators suggested by the panel, 56 indicators were again judged by the experts in the second Delphi round. In this stage, after the panel members judged and eliminating similar cases and indicators with an average of less than 5, finally 60 indicators advanced to the third stage and with the closeness of the results of the third and fourth rounds (62 indicators) and a small difference in the change in the Kendall coefficient, the Delphi test was completed. Details of the number of indicators obtained in each stage are presented in Table 1.

Table 1:
Indicators obtained in different stages of Delphi implementation

Period	Value	Finance	Cronbach's alpha	Kendall's coefficient	Confidence
First	28	24	0.301	0.21	Low
Second	30	26	0.411	0.45	Moderate
Third	31	29	0.751	0.71	Good
Fourth	32	30	0.812	0.89	High

Source: Authors' own findings based on Uzbek Companies' data active in IT during 2020-2024

Considering the value of the Kendall coefficient and Cronbach's alpha coefficient, it can be seen that the reliability and validity of the data have been established in the third and fourth rounds and can be used for information analysis.

3. Results

In the present research, confirmatory factor analysis was used to obtain a classification of the indicators obtained from the Delphi stage and to examine the strength of the latent trait indicators of human resource development components in IT companies with the approach of increasing performance in the dimensions of human capital and financial performance.

For this purpose, SEM and factor analysis were used. The reason for using second-order factor analysis is related to the type of causal effects in the abstract model of the research. In the designed model, it is observed that the twelve factor structures form a separate factor structure at the second level. Second-order factor analysis was used to rank the effects of each of these structures and also to examine its significant effect on the three independent variables mentioned in this section. For each of the estimates obtained from the structural

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analysis, goodness-of-fit indices were reported, and the indices proposed by Stone (2021) were used to examine the fit of the model. These indices include the goodness-of-fit index (GFI), the comparative fit index (CFI), where values greater than 0.85 indicate a good fit, the adjusted goodness-of-fit index (AGFI), where values greater than 9.8 are acceptable, and the root mean square error of approximation (RMSEA), where values less than 0.05 indicate a good fit of the model (Table 2).

In order to accurately examine the validity of the construct, the indices (CR reliability of the latent variable) and (AVE convergent validity) are calculated using standardized factor loadings obtained from CFA. As the tables presented show, the level of this index for all variables is more than this standard value (0.5). The result can be considered satisfactory, which indicates the existence of internal consistency in each of the research variables. Considering the values of factor loadings and CR and AVE indices related to the latent variables in the study, it is determined that the research instrument has construct validity.

Table 2:
Goodness-of-fit indices of the tested research model

Parameter	GFI	CFI	AGFI	RMSEA
Social capital	0.90	88.23	89.11	0.017
Human development	0.92	81.98	89.01	0.011

Source: Authors' own findings

The significance of the factor loadings is confirmed or rejected based on the t-value significance numbers. Based on the determination coefficients obtained from structural equations, the recruitment and employment system is 92%, the training system is 91%, the career development and promotion system is 88%, the performance evaluation system is 87%, and the salary and reward system is 93% dependent on the human resources development dimension. Considering the fitness indicators, it can be stated that the tested model also has a good fit.

Based on the determination coefficients obtained from structural equations (Table 3), organizational culture and climate 94%, management strategies 96%, individual characteristics 88% and communication 97% are dependent on the social capital dimension. In other words, organizational culture and climate 94%, management strategies 94%, individual characteristics 88% and communication 97% of the changes in the social capital dimension are explained. Also, considering the fit indices, it can be stated that the tested model has a good fit.

Table 3:
Determination coefficients of structural model

Variable	Parameter	The value of the coefficient of determination
Human development	Recruitment and employment system	92
	Training system	91
	Career development and promotion system	88
	Performance evaluation system	87
	Salary and reward system	93
Social capital	Organizational culture and atmosphere	94
	Management strategies	96
	Personal characteristics	88
	Communications	97

Source: Authors' own findings

Finally, the t-significance numbers are a criterion for measuring the relationship between variables in the structural component model. If the value of these numbers exceeds 1.96, it indicates the accuracy of the link of the structures and, as a result, the confirmation of the research hypotheses at different confidence levels. Also, the effect size criterion has been used to measure the intensity of the link of the research variables for each of the paths. The appropriate value for this criterion for small, medium and large effect sizes has been determined to be 0.02, 0.15 and 0.35 (Nuryani et al., 2018). The results of three paths have a desirable and strong effect size and the results of two paths are inclined to the desirable effect size. In general, considering the results of all criteria, the results of the research hypotheses are described in Table 4, which shows the confirmation of all research hypotheses.

Table 4:
Hypotheses testing results

Hypothesis	Effect size	Path coefficient	T-coefficient	Result
1. Human capital development → social capital	0.56	0.62	8.45	confirmed
2. Human capital development → financial performance	0.18	0.37	3.11	confirmed
3. Social capital → financial performance	0.10	0.23	2.13	confirmed

Source: Authors' own findings

4. Conclusion

Given the importance of human resources in IT companies and their undeniable impact on promoting and improving the performance of enterprises, the current research was conducted with the aim of identifying the components of human resource development in IT companies. The impact of human resources was assessed in two dimensions of social capital and financial performance of companies. The findings indicated that in the current turbulent conditions, the appropriate use of all capital, especially human capital, is a factor in the success of businesses and human resource development is a strategic technique to attract, develop, manage, motivate and achieve the commitment of key resources of the organization. If human resource measures are successfully implemented, it can be expected that the social capital created will bring long-term strategic benefits to the organization. Considering this issue, the purpose of the present study is to investigate the effect of human resource development measures on the dimensions of social capital and the strategic performance of companies. The outcomes of the research show that human resource measures have a positive and distinguish impact on the dimensions of social capital and finance activities. This study helps IT companies understand the concept of human resource development and its benefits for creating positive changes in their financial statements. According to the main hypothesis, it can be suggested that in order to increase the improvement of employee performance, they should pay special attention to human resource development; on the other hand, strategies can be designed in this regard and, considering this indicator, solutions can be proposed for employee performance so that organizational goals can be improved by using it. Active people in the company can be trained with appropriate and modern training using new knowledge management, which can also be an effective step towards creating productivity and long-term goals of the company and lead to increased organizational performance.

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