Impact of Social Capital on Sharing Human Resources in Science and Technology in Vietnam

Impacto do Capital Social no Compartilhamento de Recursos Humanos em Ciência e Tecnologia no Vietnã

Impacto del Capital Social en la Compartición de Recursos Humanos en Ciencia y Tecnología en Vietnam

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ABSTRACT

This study analyzes the impact of social capital factors such as structural social capital, cognitive social capital, relational social capital, sharing behavior, sharing desire, and sharing capability on the effectiveness of sharing human resources in the field of science and technology in Vietnam. The survey was conducted using a questionnaire to collect data through convenience sampling method. The study collected 478 responses from lecturers and researchers at several universities, research centers, and institutes in Vietnam. The research hypotheses were tested using a multivariate regression model. The findings show that structural social capital, relational social capital, sharing behavior, and sharing capability positively impact the effectiveness of sharing human resources in science and technology. Based on these findings, the study proposes several solutions for developing human resources in science and technology by promoting social capital and knowledge sharing processes.

Keywords: Impact; social capital; sharing; human resources; science; technology; Vietnam.

RESUMO

Este estudo analisa o impacto de fatores de capital social, como capital social estrutural, capital social cognitivo, capital social relacional, comportamento de compartilhamento, desejo de compartilhamento e capacidade de compartilhamento na eficácia do compartilhamento de recursos humanos no campo da ciência e tecnologia no Vietnã. . A pesquisa foi realizada por meio de questionário para coleta de dados por meio do método de amostragem por conveniência. O estudo coletou 478 respostas de professores e pesquisadores de diversas universidades, centros de pesquisa e institutos no Vietnã. As hipóteses de pesquisa foram testadas por meio de modelo de regressão multivariada. As conclusões mostram que o capital social estrutural, o capital social relacional, o comportamento de partilha e a capacidade de partilha têm um impacto positivo na eficácia da partilha de recursos humanos em ciência e tecnologia. Com base nestas conclusões, o estudo propõe diversas soluções para o desenvolvimento de recursos humanos em ciência e tecnologia, através da promoção do capital social e de processos de partilha de conhecimento.

Palavras-chave: Impacto; Capital social; compartilhamento; recursos Humanos; Ciência; tecnologia; Vietnã.

RESUMEN

Este estudio analiza el impacto de factores del capital social como el capital social estructural, el capital social cognitivo, el capital social relacional, el comportamiento de compartir, el deseo de compartir y la capacidad de compartir sobre la efectividad de compartir recursos humanos en el campo de la ciencia y la tecnología en Vietnam. . La encuesta se realizó mediante un cuestionario para recopilar datos mediante un método de muestreo por conveniencia. El estudio recopiló 478 respuestas de profesores e investigadores de varias universidades, centros de investigación e institutos de Vietnam. Las hipótesis de investigación se probaron mediante un modelo de regresión multivariado. Los hallazgos muestran que el capital social estructural, el capital social relacional, el comportamiento de compartir y la capacidad de compartir impactan positivamente la efectividad de compartir recursos humanos en ciencia y tecnología. A partir de estos hallazgos, el estudio propone varias soluciones para desarrollar recursos humanos en ciencia y tecnología mediante la promoción del capital social y los procesos de intercambio de conocimientos.

Palabras clave: Impacto; capital social; intercambio; recursos humanos; ciencia; tecnología; Vietnam.

1. INTRODUCTION

In the era of the Fourth Industrial Revolution, Vietnam stands at a pivotal point to bridge the developmental gap with advanced nations worldwide. To effectively integrate scientific and technological advancements into the economy, a high-quality workforce, especially in the fields of science and technology, is essential. However, the existing scientific and technological organizational network and workforce quality in Vietnam remain relatively low; the country lacks pioneering experts and robust research institutions capable of addressing significant scientific and technological challenges on a national and international scale (Do Tuan Thanh, 2018). Both theory and practice have demonstrated that to drive industrialization, modernization, and socio-economic development, science and technology play a pivotal role. Therefore, the development of a skilled scientific and technological workforce holds immense importance. This workforce comprises individuals engaged in scientific and technological activities, involving research, innovation, teaching, management, and operations.

Human resources in the field of science and technology play a vital role in shaping the development and progress of science and technology, as well as the industrialization and modernization efforts in general. They are at the forefront of receiving advanced technology transfers, applying them effectively in the Vietnamese context, and driving the industrialization and modernization of the country (Nguyen Thi Huong Giang, 2018). In the current phase, the Communist Party of Vietnam has emphasized the development of human resources linked to the advancement of science and technology. This is essential to meet the demands of the digital economy transformation and to adapt to the fourth industrial revolution. The Party has identified three strategic breakthrough stages, with the second breakthrough focusing on “the rapid development of high-quality human resources, particularly by innovating the fundamental national education system and closely integrating human resource development with science and technology advancement and application” (Communist Party of Vietnam, 2011). Therefore, the strategy for building high-quality human resources must prioritize the development of individuals in the field of science and technology. This requires support from social capital, a crucial factor in enhancing the effectiveness of this strategy.

In 1912, American researcher Lyda Judson Hanifan (1879-1932) introduced the concept of social capital in her article "the Rural School and Rural Life" (Hanifan, L. J., 1912). She defined social capital as "the tangible entities that impact most activities in people's daily lives" (Hanifan, L. J., 1912). Subsequently, various authors have offered different explanations of social capital. James Coleman emphasized the role of social capital in families and communities in shaping human capital for future generations (Coleman, J. S., 2000), while Robert Putnam described social capital as the resources individuals access and utilize through social networks based on trust, values, and social norms to achieve personal goals (Putnam, Robert, 1995). Despite differing research approaches, authors agree that social capital encompasses broader social relationships, including social cohesion. Components of social capital include network connections, trust, interaction, and norms and rules.

The relationship between social capital and the effectiveness of knowledge sharing has been a topic of interest among scholars. Chow and Chan (2008) found that social networks and shared goals significantly impact attitudes towards knowledge sharing, indirectly influencing knowledge sharing intentions (Chow, W. S. and Chan, L. S., 2008). Ganguly, Talukdar, and Chatterjee (2019) discovered that social capital (structure, relationships, and cognition) is crucial for knowledge sharing, subsequently affecting organizational innovation capabilities (Ganguly et al., 2019). However, research on the impact of social capital on the effectiveness of sharing scientific and technological human resources in Vietnam is still in its infancy. Therefore, studying the role of social capital in the effectiveness of sharing scientific and technological human resources is necessary to provide a specific and in-depth understanding of the influence of social capital on the development of high-quality human resources in Vietnam. The results of this study will contribute to enhancing the effectiveness of sharing scientific and technological human resources by promoting social capital and knowledge sharing.

2. CONCEPTUAL FRAMEWORK

Social capital consists of three different dimensions: structural, relational, and cognitive (Nahapiet, J and Ghoshal, S., 1998). These dimensions are widely used in knowledge management (Ganguly et al., 2019). Margaret Heffernan has highlighted the importance of social capital for an organization to operate effectively. According to the author, social capital is trust, knowledge, reciprocity, shared standards to create a quality of life, and make a group stand out. In a group, there may be many outstanding individuals, but what matters most is the connection among members, sharing of ideas, care, contribution of opinions and ideas from others, and early warning of potential risks. In scientific and technological activities, the role of social capital is also crucial (Heffernan, M., 2015).

According to Thomas Malone, social capital is essential because it reflects interdependence, connectivity in networks, and building trust among people. In the workplace, social connections play a vital role in enhancing individual and group performance. High levels of social capital create trust in the network, making conflict resolution easier. The key point of this research is the importance of social connections (Thomas W. Malone and Michael S. Bernstein, 2015).

Uri Alon argues that social capital is a crucial factor in shaping the feasibility of breakthroughs in science. Without high social capital, research teams may lack lively debates and discussions to tackle difficult problems. In organizations with high levels of social capital, conflict, debate, and discussion are means to refine ideas (Uri Alon, 2010).

Based on a review of research studies, the author proposes the following specific research model:

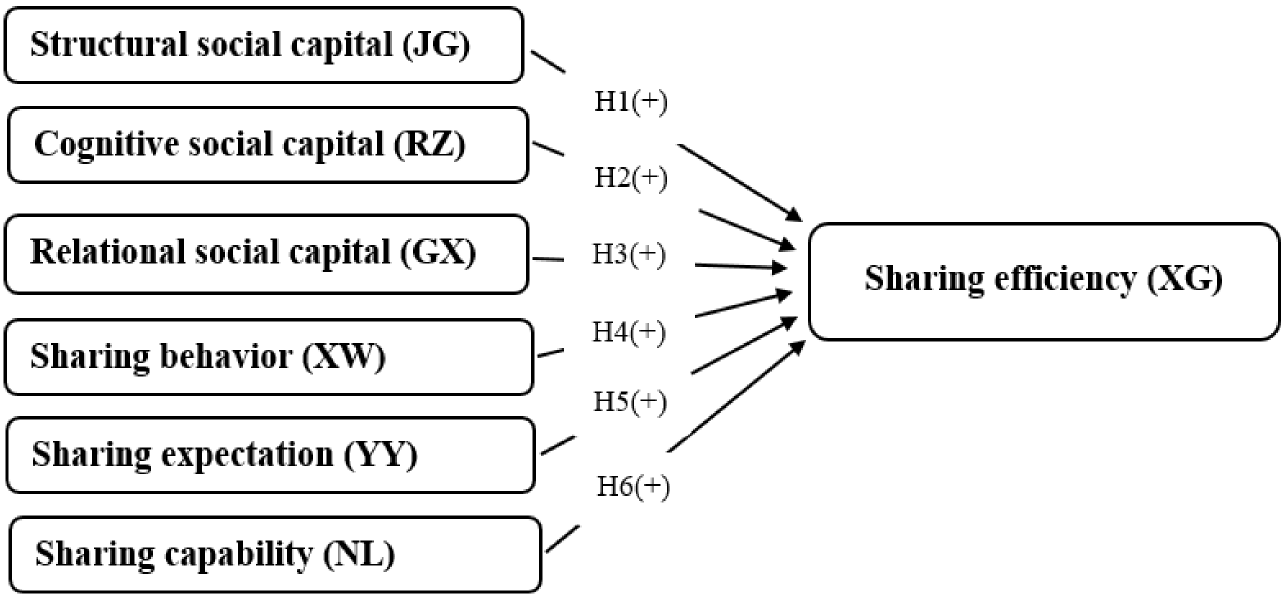

Figure 1. The proposed conceptual framework

3. RESEARCH METHODOLOGY

3.1. Scale development

In research, the Likert 5-point scale is commonly used to measure observed variables, with "1" indicating "strongly disagree" and "5" indicating "strongly agree". These scales are often adapted from previous studies in the same field, as shown in Table 1 below.

Table 1
Scale of research concepts

Encode	Clusters	Number of items (observed variables)	Reference sources
JG	Structural social capital	6	Nahapiet, J and Ghoshal, S., 1998 Heffernan, M., 2015
RZ	Cognitive social capital	6	Nahapiet, J and Ghoshal, S., 1998 Thomas W. Malone and Michael S. Bernstein, 2015
GX	Relational social capital	6	Nahapiet, J and Ghoshal, S., 1998 Thomas W. Malone and Michael S. Bernstein, 2015
XW	Sharing behavior	3	Uri Alon, 2010
YY	Sharing expectation	3	Uri Alon, 2010
NL	Sharing capacity	4	Uri Alon, 2010
XG	Sharing efficiency	13	Uri Alon, 2010 Heffernan, M., 2015 Thomas W. Malone and Michael S. Bernstein, 2015

(Source: Author's research results)

3.2. RESEARCH DATA

In this study, a cross-sectional descriptive method was employed through a random survey of 478 lecturers and researchers from various universities, research centers, and institutes in Vietnam. Participants were involved in the survey process and provided comprehensive responses to survey questions through self-completed forms.

The measurement scales regarding the impact of social capital on the efficiency of scientific and technological human resource sharing in Vietnam were designed using a 5-point Likert scale, ranging from 1 to 5. Values ranged from 1 representing "Completely Disagree" to

5 representing "Strongly Agree." Specifically, the social capital scale structure comprised 6 variables, social capital recognition comprised 6 variables, social capital relationships comprised 6 variables, sharing behavior comprised 3 variables, sharing desires comprised 3 variables, sharing capabilities comprised 4 variables, and the sharing efficiency scale comprised 13 variables.

3.3. DATA ANALYSIS

After data collection, the data will be entered and processed using the statistical software SPSS version 25.

The Cronbach's Alpha reliability coefficient will be used to examine the correlation and relationships between variables. Following the Cronbach's Alpha rule, internal consistency with $\alpha > 0.9$ indicates very good, $0.8 < \alpha < 0.9$ indicates good, $0.7 < \alpha < 0.8$ indicates acceptable, $0.6 < \alpha < 0.7$ indicates poor, and $\alpha < 0.6$ indicates unacceptable. After testing the reliability of the measurement scales, exploratory factor analysis (EFA) and multiple linear regression analysis will be conducted to explore which scales are suitable for the structure of the issue at hand. In EFA, variables with factor loadings above 0.5 will be retained (Hair et al., 2006), and the total variance extracted must exceed 50% (Gerbing, D. W. and Anderson, J. C., 1988). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) should meet the conditions of $0.5 \leq KMO \leq 1$, and the Bartlett test should have a significance level of <0.05 (Hoang Trong and Chu Nguyen Mong Ngoc, 2008).

4. RESEARCH RESULTS AND DICUSSIONS

4.1. Cronbach Alpha Reliability Test

Testing the independent variables

Table 2

Results of Cronbach Alpha reliability testing for the independent variables

	Corrected Item - Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Strength of relationship
JG1	.447	.954	.954	Very strong
JG2	.498	.953		
JG3	.562	.953		
JG4	.569	.953		
JG5	.566	.953		
JG6	.504	.953		
RZ1	.624	.952	.965	Very strong
RZ2	.543	.953		
RZ3	.440	.954		
RZ4	.733	.951		
RZ5	.644	.952		
RZ6	.731	.951		
GX1	.682	.952	.981	Very strong
GX2	.747	.951		
GX3	.692	.951		
GX4	.615	.952		
GX5	.657	.952		
GX6	.707	.951		
XW1	.759	.951	.974	Very strong
XW2	.734	.951		
XW3	.759	.951		
YY1	.635	.952	.924	Very strong
XW2	.717	.951		
XW3	.730	.951		
NL1	.676	.952	.914	Very strong
NL2	.501	.953		
NL3	.753	.951		
NL4	.640	.952		

Research data

When analyzing the reliability of Cronbach's Alpha data, the scales of the independent variables all show Cronbach's Alpha >0.6 and a total variable correlation coefficient >0.3, indicating that the scales of the independent variables meet the requirements.

Dependent variable test

Table 3

Results of Cronbach Alpha reliability testing for the dependent variable

	Corrected Item - Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	Strength of relationship
XG1	.646	.924	.928	Very strong
XG2	.626	.925		
XG3	.593	.926		
XG4	.581	.926		
XG5	.790	.919		
XG6	.719	.921		
XG7	.695	.922		
XG8	.721	.921		
XG9	.712	.922		
XG10	.651	.924		
XG11	.678	.923		
XG12	.703	.922		
XG13	.696	.922		

Research data

During the analysis of the data, the Cronbach's Alpha reliability test for the scales of the dependent variables indicates that all dependent variables have Cronbach's Alpha > 0.6 and the total variable correlation coefficient > 0.3. Therefore, the scales of the dependent variables meet the requirements.

4.2. Exploratory factor analysis (EFA)

Exploratory factor analysis for independent variables

Table 4.
KMO and Bartlett's Test

Kaiser-Meyer-Olkin coefficient (Measurement of sample completeness)		.896
Bartlett's Test of Sphericity	Approx. Chi-Square	16072.418
	df	406
	Sig.	.000

Research data

The analysis results show that KMO = 0.896 > 0.5, sig Bartlett's Test = 0.000 < 0.05, so EFA exploratory factor analysis is appropriate.

Table 5
Result of Factor Rotation Matrix

	Component					
	1	2	3	4	5	6
JG1	.908					
JG2	.898					
JG3	.894					
JG4	.720					
JG5	.617					
JG6	.551					
RZ1		.812				
RZ2		.796				
RZ3		.786				
RZ4		.634				
RZ5		.579				
RZ6		.576				
GX1			.857			
GX2			.856			
GX3			.784			
GX4			.593			
GX5			.531			

GX6			.523			
XW1				.663		
XW2				.651		
XW3				819		
YY1					.831	
YY2					.829	
YY3					.799	
NL1						.794
NL2						.789
NL3						.577
NL4						.502

Research data

The results of the rotation matrix show that 28 observed variables are divided into 6 factors, all observed variables have factor loadings greater than 0.5, and no variables are excluded. Therefore, the observed variables are further analyzed in the regression analysis step.

Factor analysis explores dependent variables.

Table 6
KMO and Bartlett's Test

Kaiser-Meyer-Olkin coefficient (Measurement of sample completeness)		.770
Bartlett's Test of Sphericity	Approx. Chi-Square	8021.033
	df	78
	Sig.	.000

Research data

The analysis results show KMO = 0.770 > 0.5, Bartlett’s Test sig = 0.000 < 0.05, indicating that the exploratory factor analysis (EFA) is appropriate.

Table 7
Result of Factor Rotation Matrix

	Component

XG5	.835
XG8	.778
XG6	.776
XG9	.767
XG12	.758
XG7	.754
XG13	.750
XG11	.734
XG10	.706
XG1	.694
XG2	.681
XG3	.643
XG4	.633

Research data

The results of the rotation matrix show that all observed variables have factor loadings greater than 0.5 and no variables are excluded. Therefore, the observed variables are analyzed in the regression analysis step.

4.3. Linear correlation test

Before conducting multiple linear regression analysis, the linear correlation between variables needs to be considered. Examine the correlation between independent and dependent variables through correlation coefficients.

Table 8

Correlation Matrix

		JG	RZ	GX	XW	YY	NL	XG
JG	Pearson Correlation	1	.000	.000	.000	.000	.000	**.236****
	Sig. (2-tailed)		1.000	1.000	1.000	1.000	1.000	.001
	N	200	200	200	200	200	200	200
RZ	Pearson Correlation	.000	1	.000	.000	.000	.000	**.047**
	Sig. (2-tailed)	1.000		1.000	1.000	1.000	1.000	.511
	N	200	200	200	200	200	200	200

		JG	RZ	GX	XW	YY	NL	XG
GX	Pearson Correlation	.000	.000	1	.000	.000	.000	**.388****
	Sig. (2-tailed)	1.000	1.000		1.000	1.000	1.000	.000
	N	200	200	200	200	200	200	200
XW	Pearson Correlation	.000	.000	.000	1	.000	.000	**.504****
	Sig. (2-tailed)	1.000	1.000	1.000		1.000	1.000	.000
	N	200	200	200	200	200	200	200
YY	Pearson Correlation	.000	.000	.000	.000	1	.000	**.049**
	Sig. (2-tailed)	1.000	1.000	1.000	1.000		1.000	.494
	N	200	200	200	200	200	200	200
NL	Pearson Correlation	.000	.000	.000	.000	.000	1	**.413****
	Sig. (2-tailed)	1.000	1.000	1.000	1.000	1.000		.000
	N	200	200	200	200	200	200	200
XG	Pearson Correlation	.236**	.047	.388**	.504**	.049	.413**	**1**
	Sig. (2-tailed)	.001	.511	.000	.000	.494	.000	
	N	200	200	200	200	200	200	200

In Table 8, the results of correlation analysis indicate that all independent variables (JG, GX, XW, NL) are significantly correlated with the dependent variable (XG) at a 5% level of significance. This is a prerequisite for conducting regression analysis. The dependent variable "Sharing efficiency" shows the strongest correlation with the independent variable "Sharing behavior" with a Pearson coefficient of 0.504, followed by "Sharing capability" with a coefficient of 0.413, "Relational social capital" with a Pearson coefficient of 0.388, and "Structural social capital" with a coefficient of 0.236.

Such correlations are highly anticipated in research, as the close, linear relationships between variables can explain the influence of factors in the research model. Therefore, all these independent variables can be included in the regression analysis. Additionally, there are significant correlations among the independent variables at a 5% level of significance. Hence, caution should be exercised in regression analysis to address potential multicollinearity issues that could reduce the accuracy of the research results. The results from the data table show that two observed variables, Cognitive social capital (RZ) and (Sharing expectation) YY, have Sig coefficients of 0.511 and 0.494, respectively, indicating no correlation with the dependent variable (XG). Therefore, the author has decided to exclude these two observed variables from the regression model. The results of the regression analysis will be presented in the next step.

4.4. Linear regression analysis

Assessment of the model's suitability

Table 9

Model Summary[b]

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.794[a]	.631	.624	.61358574	1.930
a. Preditors: (Constant), NL, JG, GX, XW.					
b. Dependent Variable: XG.					

Research data

The data in Table 9 shows that the adjusted R^2 value is 0.624, indicating that the linear regression model built is suitable for the dataset at 62.4%. This means that the independent variables in this model can explain 62.4% of the variation in the dependent variable, with the remaining explained by other factors not mentioned in the model. The Durbin-Watson test yielded a coefficient of 1.930 (close to 2), allowing the conclusion that the independent variables are not correlated with each other.

The XG dependent variable test in the analysis of variance table is used to test the hypothesis of the adequacy of the linear regression model. This test examines the linear relationship between the dependent variable and the independent variables with the null hypothesis H0 being $\beta 1 = \beta 2 = \beta 3 = \beta 4 = 0$. The specific results of this test are shown in Table 10.

Table 10

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	125.585	4	31.396	83.393	.000[b]
	ResiKNCSal	73.415	195	.376		
	Total	199.000	199			
a. Dependent Variable: XG.						
b. Preditors: (Constant), NL, JG, GX, XW.						

When evaluating the overall suitability of a multiple regression model, it is essential to consider the F-value from the analysis of variance (ANOVA) table at Table 10 (F-value = 83.393 with a significance value much less than 0.05). The ANOVA result indicates a significance level of 1% (sig = 0.000), demonstrating that the multiple linear regression model is well-suited to the dataset, and the independent variables exhibit a linear relationship with the dependent variable, making the model usable. On the other hand, the adjusted R^2 coefficient is a measure of the model's suitability, as it is not dependent on the number of variables included in the research model (Hoang Trong and Chu Nguyen Mong Ngoc, 2008). In this model, the adjusted R^2 coefficient is 0.642, indicating that 64.2% of the variation in the effectiveness of knowledge sharing in science and technology in Vietnam (XG) is explained by four factors: Institutional capital; Sharing behavior; Sharing capability; Structural capital.

Regression Coefficient Testing

The results of the regression analysis in this study indicate that all four independent variables applied have statistically significant levels at 1% (Sig ≤ 0.01), including: Social capital relationship (GX); Sharing behavior (XW); Sharing capacity (NL); Structural social capital (JG). Therefore, these variables have a positive impact on the efficiency of sharing human resources in science and technology with a confidence level of 99%.

Based on this, we have the regression equation as follows:

XG = 0.236*JG + 0.388*GX + 0.413*NL + 0.504*XW

From the regression equation, it is evident that:

When holding other independent variables constant, increasing the confidence level of the independent variable Structural social capital (JG) by 1 point will lead to an increase of 0.236 points in the efficiency of sharing human resources in science and technology with a confidence level of 99%.

When holding other independent variables constant, increasing the confidence level of the independent variable Social capital relationship (GX) by 1 point will lead to an increase of 0.388 points in the efficiency of sharing human resources in science and technology with a confidence level of 99%.

When holding other independent variables constant, increasing the confidence level of the independent variable Sharing capacity (XW) by 1 point will lead to an increase of 0.504 points in the efficiency of sharing human resources in science and technology with a confidence level of 99%.

When holding other independent variables constant, increasing the confidence level of the independent variable Sharing behavior (XW) by 1 point will lead to an increase of 0.504 points in the efficiency of sharing human resources in science and technology with a confidence level of 99%.

5. CONCLUSION AND RECOMMENDATIONS

This research demonstrates that all four dimensions of social capital - structural social capital, relational social capital, sharing behavior, and sharing capability - have a positive impact on the effectiveness of sharing scientific and technological human resources in Vietnam. Among these dimensions, the strongest impact on sharing effectiveness is sharing behavior, followed by sharing capability, relational social capital, and finally structural social capital. Based on the research findings, the author proposes several policies to foster and encourage the sharing of scientific and technological human resources in Vietnam by promoting the following influencing dimensions:

Firstly, solutions for sharing behavior

Creating opportunities for interaction and collaboration among groups, organizations, and individuals operating in the field of science and technology to encourage the sharing of information, experiences, and knowledge. Facilitating cooperation and exchange between scientists, research groups, and businesses by establishing mechanisms to promote the sharing of information, data, and resources.

Enhancing the quality of education and training, fostering an integrated learning environment between schools, research institutions, and businesses to encourage the sharing of knowledge and skills. Implementing policies and reward mechanisms for sharing information, research achievements, and technology to incentivize contributions and creativity in scientific and technological activities. Building an open community where individuals can freely share ideas, information, and experiences, creating a friendly environment that encourages sharing.

Developing and utilizing information technology to create platforms and systems that facilitate easy sharing of information, data, and resources among individuals, organizations, and businesses. Establishing and implementing public policies to promote the sharing of knowledge, scientific information, and technology within the scientific and technological community in Vietnam.

Secondly, solutions for sharing capacity

It is essential to strengthen training programs on effective communication skills, including presenting ideas, listening, and constructive feedback. Creating online platforms or databases to share information, data, and research results can facilitate easy access and sharing among participants.

Fostering a friendly work environment that encourages idea and information sharing among members within an organization or research group is vital. Developing training courses on teamwork, collaboration, and sharing in scientific and technological environments can also enhance knowledge exchange.

Thirdly, solutions for relational social capital

In order to promote networking, collaboration, and knowledge sharing among experts, researchers, and organizations in the field of science and technology, creating networks, groups, or forums is essential.

Providing conducive conditions for employees, researchers, and experts in the industry to communicate, collaborate, and share information is crucial. Organizing events, seminars, or exchange forums to encourage meetings, connections, and idea exchanges among experts, researchers, and research groups is also beneficial. Encouraging knowledge sharing through the publication and dissemination of scientific papers, research, and technology information is important.

Fourthly, solutions for structural social capital

In our research, finding solutions for structural social capital is crucial for promoting information sharing and developing scientific and technological resources. It is not just about organizing information efficiently but also about building an environment conducive for easy access, sharing, and collaboration.

One effective method is to build common databases and information platforms. This may include developing online databases to store, manage, and share knowledge, research information, and scientific results. Additionally, enhancing training and education systems also plays a significant role in improving structural capital. Investing in improving the quality of training and education with programs that meet the industry's needs can better prepare individuals participating in the field of science and technology.

Another important aspect is building the structure of systems and relationship networks among agencies, organizations, and individuals in the industry. By establishing a connected environment for networking, exchange, and information sharing, participants can leverage resources effectively. Creating opportunities to promote collaboration and information sharing through activities, events, and seminars also helps stimulate relationships in the field of science and technology.

These actions can help create a solid foundation for sharing human resources in the field of science and technology in Vietnam, thereby improving efficiency and fostering progress in research and technology development activities.

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