Relationships between Intellectual Capital and Enterprise Performance: Evidence from the Manufacturing Industry

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Abstract

Intellectual capital has become an important issue in the knowledge economy. This paper investigates the relationship between intellectual capital (IC) and corporate financial performance in Chinese manufacturing industries. Using the value-added intellectual coefficient (VAIC™) approach, this paper assesses the intellectual capital efficiency of Chinese listed manufacturing firms using a three-year data set and conducts an in-depth analysis based on two separate aspects of human capital efficiency (HCE) and structural capital efficiency (SCE) decomposed by VAIC™. The empirical results show that the intellectual capital performance of Chinese manufacturing industries is significantly and positively related to the financial indicators of manufacturing firms, but the relationship between these components and the financial indicators of enterprises changes after decomposing VAIC™ into its components. Meanwhile, the contribution of intellectual capital to firm performance differs in labor-intensive and knowledge-intensive manufacturing industries.

Keywords-*VAIC™; Intellectual capital; Enterprise performance; Manufacturing industry*

1. Introduction

1.1. Research Background and Motivation

In 1997, an American researcher named Steward characterized intellectual capital as the total of all the things that each person in a corporate understands that provides the company a competitive advantage [1]. Pulic Ante proposed in 2000 that intellectual capital consists of company employees, the organization where company employees work, and the added value created by employees [2]. That is to say, intellectual capital is an organizational intangible asset made up of knowledge and proprietary technology, and such intangible assets give the organization a competitive advantage. And according to Pulic, human capital and structural capital combine to form intellectual capital. Between them, human capital (HC) refers to existing professional knowledge and skills of individual employees, or the experience and capacity gained through further training and practice. And Structural capital (SC) means the structure and processes of the company, knowledge management, enterprise culture, and organizational learning capacity, which is an organizational ability of the enterprise after employees leaving the enterprise. In order to evaluate the effectiveness of intellectual resources in organizations, he proposed the VAIC™ (value added intellectual coefficient) and measured the value creation efficiency in companies by using accounting based figures [3].

Manufacturing is the pillar industry of a country's national economy, a significant expression of a country's creativity, competitiveness, and total national power, and also the driving force of economic growth and development. It plays a pivotal role in the industrial economy. In order to save labor costs and land costs, many leading science and technology companies in developed countries have established a large number of OEM factories in China, moving the low-tech production links here. China, while mining a large amount of resources and already causing serious environmental pollution, has only earned low processing fees, which is the disadvantage of the huge gap in technology. Today, China’s economy is shifting from rapid development to high-quality development, and Chinese manufacturing enterprises also want to change from factory enterprises to intelligent enterprises. This process requires the support of intellectual capital. Therefore, this paper used

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VAIC™ method to research the influence of intellectual capital on manufacturing enterprises' financial performance.

1.2. Literature Review

According to the majority of past research, intellectual capital has a considerable beneficial influence on a company's financial performance. Anifowose M (2010) believed that in the modern life of the knowledge economy, the value of the companies came more from the intangible assets of the enterprise. He found that both human and innovation capital had a significant beneficial impact on the company's book value [4]. Dimitropoulos and Koumanakos (2015) selected a sample of nine countries in Europe over the years 2005–2010, finding evidence of a link between intellectual capital and profitability [5]. Meles A (2016), Gaetano (2014), Amitava Mondal S K (2012), and Abdulsalam F(2011) were all scholars studying the internal relationship between intellectual capital and profitability in the financial industry. Their findings were broadly consistent: IC had a considerable favorable influence on financial companies' profitability [6-9].

However, when IC was broken down into human capital (HC) and structural capital (SC), the links between these components and financial performance differed. Mohammed and Irbo (2018) collected data from annual reports published on the websites of nine private commercial banks in Ethiopia over the period 2011-2015, and found that components of VAIC™ had the more positive significant relationship with ROA than VAIC™ alone [10]. For the period 2007-2011, Nawaz and Haniffa (2017) investigated the relationship between intellectual capital (IC) and profitability of 64 Islamic financial institutions (IFIs) operating in eighteen different countries, finding a significant positive relationship between VAIC™ and profitability based on return on assets (ROA). The findings also revealed a strong beneficial association between profitability and human capital efficiency (HCE), but no such relationship for structural capital efficiency [11]. Similarly, over the period 2008-2013, Ahmads (2016) researched the relationship between intellectual capital (IC) and the financial performance of 78 publicly traded financial businesses in Pakistan. The research data revealed that IC was a critical factor of Pakistani financial organizations' financial performance, but when IC was split into sections, only the performance of human capital was significant [12]. For manufacturing industry, Liu Fei (2019) selected the annual report data of the parent company of listed Shanghai and Shenzhen manufacturing companies in 2013-2017 as the research object, and found that the intellectual capital of chemical raw materials and chemical products manufacturing industry and special equipment manufacturing industry had a significant impact on the company's financial performance [13]. Zhang Ping and Yu Jing (2015) selected samples from high-tech and traditional manufacturing listed companies for comparative analysis, and the research results showed that structural capital and human capital had a positive impact on enterprise performance, but not significant [14]. Sun Lixin's (2015) research showed that intellectual capital played a large driving role in the profitability of manufacturing companies, with human capital and relationship capital playing a beneficial effect, and structural capital having an insignificant beneficial effect [15].

In conclusion, previous studies held the same view on the significant positive impact of intellectual capital on enterprise profitability, but the effect of human capital (HC) and structural capital (SC) on enterprise profitability had different conclusions in different studies. In addition, most of the research subjects were in the financial industry, and the number of research results for manufacturing enterprises was small and the research conclusions were immature. The reason for the large difference in research results may be the wide range of manufacturing industries, and the difference of labor-intensive manufacturing and knowledge-intensive manufacturing industries in intellectual capital stock. Subdivision of manufacturing industry, such as pharmaceutical manufacturing industry is knowledge-intensive manufacturing industry, the conclusion may be that intellectual capital has a essential impact on the companies' financial performance, while agricultural and sideline food processing industry is labor-intensive manufacturing industry, and the conclusion may be that the effect of intellectual capital on the companies' profitability is not significant. As a result, in addition to analyzing the role of intellectual capital in the total manufacturing industry, this paper separated the manufacturing industry into labor-intensive and knowledge-intensive sectors to see if the influences of intellectual capital were different.

1.3. Research Organization

Based on the foregoing, this research used the annual report data of Shanghai and Shenzhen listed companies in 2018-2020 to explore the effect degree of the intellectual capital of manufacturing enterprises on their financial performance. In addition, the paper divided the manufacturing industry into two categories to study the influence of intellectual capital on these two sub-fields of the manufacturing industry. Finally, this paper combined with the research conclusion and the current state of China's development, put forward suggestions for enterprise operation. The following is the structure of this paper: the first section is an introduction, the second section is methodology, the third section is results and discussion based on theoretical and empirical analysis, and the fourth section is the conclusion.

2. METHODOLOGY

2.1. Research Questions and Hypothesis

In the structure of intellectual capital, this paper supported the view of binary theory which was proposed by Pulic: intellectual capital is organically composed of human capital and structural capital. Human capital consists of human knowledge, skills, innovation ability and so on, and its ownership belongs to human. Structural capital is composed of corporate culture, management system, organizational structure and brand image, which is accumulated in the process of enterprise development.

The goal of this research was to examine the performance of intellectual capital in the Chinese manufacturing industry and how it correlated with financial indicators of publicly traded manufacturing companies. The purpose of this was: Is there a link between the two parts of intellectual capital and financial indicators in manufacturing enterprises? And does intellectual capital has the same influence for profitability in labor-intensive and knowledge-intensive manufacturing industry? For these purposes, this paper extracted the following proposed hypothesis.

H1a: VAIC™ and financial indicators for manufacturing enterprises have a positive association.

H1b: Components of VAIC™ (HCE and SCE) and financial indicators for manufacturing enterprises have a positive association.

H2a: VAIC™ and financial indicators for labor-intensive manufacturing enterprises have a positive association.

H2b: Components of VAIC™ (HCE and SCE) and financial indicators for labor-intensive manufacturing enterprises have a positive association.

H3a: VAIC™ and financial indicators for knowledge-intensive manufacturing enterprises have a positive association.

H3b: Components of VAIC™ (HCE and SCE) and financial indicators for knowledge-intensive manufacturing enterprises have a positive association.

2.2. Data Source

The data presented in this paper were derived from the annual financial statements of 207 Shanghai A-share and Shenzhen A-share listed companies in China from 2018 to 2020, with a total of 603 samples, which were collected in the CSMAR database. This paper selected agricultural and sideline food processing industry as the representative of labor-intensive manufacturing industry, and pharmaceutical manufacturing industry as the representative of knowledge-intensive manufacturing industry, whose industrial code (class B) is C13 and C27. For research needs, the samples of listed companies that were warned or given special warnings were excluded.

2.3. Define and Measure of Variables

VAIC™ presents a measurement that is simple to calculate, standardized, and consistent. The independent variables included HCE, SCE, and ICE. Traditional accounting indicators of Return on Assets was used to assess financial performance. TABLE 1 presents their mathematical formulae.

TABLE 1. SYMBOLS AND DESCRIPTIONS OF VARIABLES

Variables	Name	Code of Variables	Define
Independent Variables	Human Capital Efficiency	HCE	VA/HC
	Structural Capital Efficiency	SCE	SC/VA
	Intellectual Capital Efficiency	ICE	HCE + SCE
Dependent Variables	Return on Assets	ROA	Net income/Total assets
Control Variables	Capital Employed Efficiency	CEE	VA/Shareholder's equity
	Firm Size	SIZE	LN (Total assets)
	Firm Leverage	LEVEL	Total debt/Total assets
Other Variables	Value-added	VA	Net income+Income tax+Financing costs+Cash paid to and for employees
	Human Capital	HC	Cash paid to and for employees
	Structural Capital	SC	VA - HC

2.4. Construction of Models

In order to explore the role of IC level on the companies' financial performance, this study based on the assumptions H1a, H2a, H2b and selected the intellectual capital efficiency (ICE) as the independent variable, the material capital employed efficiency (CEE), fire size (SIZE) and firm leverage (LEVEL) as control variables, proposed model 1.

$$ROA_{it}=\alpha_1+\alpha_2 ICE_{it}+\alpha_3 CEE_{it}+\alpha_4 SIZE_{it}+\alpha_5 LEVEL_{it}+\varepsilon_i \quad (1)$$

In order to explore the role of HC level and SC level on the company's financial performance, this study based on the assumptions H1b, H3a, H3b and selected the human capital efficiency efficiency (HCE) and structural efficiency as independent variables, the material capital efficiency efficiency (CEE), firm size (SIZE) and firm

leverage (LEVEL) as control variables, proposed model 2.

$$ROA_{it}=\beta_1+\beta_2 HCE_{it}+\beta_3 SCE_{it}+\beta_4 CEE_{it}+\beta_5 SIZE_{it}+\beta_6 LEVEL_{it}+\varepsilon_{it.} \quad (2)$$

α_1 and β_1 were constant terms, $\alpha_2,\alpha_3,\alpha_4,\alpha_5,\beta_2,\beta_3,\beta_4,\beta_5$ and β_6 were parameters to be estimated, and ε_{it} was random term.

2.5. Descriptive Statistics

As shown in Table 2, the maximum and minimum gap of return on assets of agricultural and sideline food processing industry was small, as was the standard deviation, indicating that the profitability of agricultural and sideline food processing industry enterprises was relatively consistent. The standard deviation of intellectual capital efficiency, human capital efficiency and structural capital efficiency of pharmaceutical manufacturing industry were larger than those of agricultural and sideline food processing industry, which showed that the value added rates obtained by different pharmaceutical manufacturing enterprises through investing intelligence were very different. This may be because different enterprises have different business directions or because they are in different stages of growth. The standard deviations of the control variables of agricultural and sideline food processing enterprises were larger than that of pharmaceutical manufacturing enterprises, which meant that the returns on investment of shareholders of agricultural and sideline food processing enterprises were very different, and the total assets and debt ratio of these enterprises were also very different.

TABLE 2. DESCRIPTIVE STATISTICS OF VARIABLES

	Industrial classification	Min	Max	Mean	Standard deviation
ROA	C13	-.24	.35	.0579	.06575
	C27	-.85	.37	.0508	.09501
ICE	C13	-2.25	12.89	2.9123	1.99414
	C27	-129.08	29.85	2.4351	6.47704
HCE	C13	-1.63	11.98	2.4463	1.77031
	C27	-17.36	9.51	2.1212	2.02161
SCE	C13	-2.53	1.68	.4661	.47454
	C27	-129.09	29.88	.3139	6.07886
CEE	C13	-18.27	3.67	.1553	1.76226
	C27	-2.80	.86	.2029	.21953
SIZE	C13	20.34	25.42	22.4041	1.07678
	C27	19.66	25.15	22.1869	1.03126
LEVEL	C13	.08	.99	.4244	.17950
	C27	.01	1.65	.3240	.17174

3. RESULT AND DISCUSSION

3.1. Correlation Analysis

This paper did correlation analyses between variables. Table 3-4 shows the Pearson correlation coefficients for manufacturing industry, agricultural and sideline food processing industry and pharmaceutical manufacturing industry, respectively.

3.1.1. Manufacturing Industry Correlation Analysis

Table 3 presents the Pearson correlation coefficients between the variables in the manufacturing industry. Significant linear positive relationships occurred between the dependent variable ROA and independent variables ICE and HCE at the level of 0.01. The correlation coefficient of ROA and HCE was 0.791, which was a strong positive correlation, meaning that human capital had a strong effect in promoting the profitability of enterprises. The correlation coefficient between ROA and ICE was 0.299, which was weak. ROA and SCE were positively correlated, but not significant. All of the control variables were significantly correlated with the ROA at the level of 0.01.

TABLE 3. MANUFACTURING INDUSTRY CORRELATION ANALYSIS

	HCE	SCE	ICE	CEE	SIZE	LEVEL	ROA
HCE	1						
SCE	.040	1					
ICE	.374**	.942**	1				
CEE	.215**	-.003	.069	1			
SIZE	.184**	-.010	.053	.037	1		
LEVEL	-.260**	.018	-.071	-.087*	.250**	1	
ROA	.791**	.035	.299**	.306**	.127**	-.414**	1

3.1.2. Agricultural and Sideline Food Processing Industry Correlation Analysis

As shown in Table 4, all the independent variables were significantly and positively correlated with the dependent variables, indicating that higher intellectual capital, human capital and structural capital would bring more profits in the agricultural and sideline food processing industry. All of the control variables were

significantly correlated with the ROA at the level of 0.01.

TABLE 4. AGRICULTURAL AND SIDELINE FOOD PROCESSING INDUSTRY CORRELATION ANALYSIS

	HCE	SCE	ICE	CEE	SIZE	LEVEL	ROA
HCE	1						
SCE	.367**	1					
ICE	.975**	.564**	1				
CEE	.210*	-.221*	.133	1			
SIZE	.268**	.272**	.302**	.014	1		
LEVEL	-.066	.096	-.035	-.193*	.340**	1	
ROA	.592**	.275**	.591**	.439**	.206*	-.388**	1

3.1.3. Pharmaceutical Manufacturing Industry Correlation Analysis

Table 5 presents the Pearson correlation coefficients between the variables in the pharmaceutical manufacturing industry. The ICE and HCE were significantly and positively correlated with the ROA, indicating that higher intellectual capital and human capital would bring more profits in the pharmaceutical manufacturing industry. All of the control variables were significantly correlated with the ROA at the level of 0.01.

TABLE 5. PHARMACEUTICAL MANUFACTURING INDUSTRY CORRELATION ANALYSIS

	HCE	SCE	ICE	CEE	SIZE	LEVEL	ROA
HCE	1						
SCE	.037	1					
ICE	.347**	.950**	1				
CEE	.604**	.021	.208**	1			
SIZE	.161**	-.017	.034	.147**	1		
LEVEL	-.330**	.016	-.088	.006	.212**	1	
ROA	.823**	.033	.288**	.728**	.113*	-.445**	1

3.2. Empirical Results Analysis

To see whether the independent variables have an impact on the financial performance, this paper used Stata to perform the multiple linear regression analysis. First, a regression analysis of intellectual capital and manufacturing enterprise financial indicators was carried out. Then, this paper split the intellectual capital into human and structural capital and did a multiple regression analysis with the financial indicators of the manufacturing enterprises. Finally, this paper separated the manufacturing industry into two categories: labor-intensive manufacturing and knowledge-intensive manufacturing, and did regression analysis on each separately. Since the data had heteroskedasticity and failed the robustness test, this paper used robust linear regression to adjust the standard error.

3.2.1. Test H1a

To check up H1a "VAIC™ and financial indicators for manufacturing enterprises have a positive association", this paper used Formula (1) to do the multiple linear regression. The regression analysis results are as showed in Table 6.

TABLE 6. RESULTS OF THE MANUFACTURING COMPANIES REGRESSION ANALYSIS FOR FORMULA (1)

Variables	Coef.	Robust Std.Err.	t	P>|t|
ICE	.004	.002	1.49	.000***
CEE	.028	.018	1.50	.000***
SIZE	.018	.004	4.49	.000***
LEVEL	-.217	.041	-5.36	.000***
Constant	-.296	.078	-3.75	.000***
R-squared	.3507			
F-Statistics	8.72			
Prob > F	.000***			

According to Table 6, the R-squared was 0.3507, which meant that the independent variables had a 35.07% explanatory power for the dependent variable. The significance of the F test was 0.000. The model as a whole passed the F test, and the error probability of the model was less than one in a thousand.

The t test was performed on the four variables, and it was found that the P values of the independent variable ICE, the control variable CEE, SIZE and LEVEL were 0.000, which passed the t test at a significance level of 1%.

3.2.2. Test H1b

According to Table 7, the R-squared was 0.6927, which meant that the independent variables had a 69.27% explanatory power for the dependent variable. The significance of the F test was 0.000. The model as a whole passed the F test, and the error probability of the model was less than one in a thousand.

The significance test results in Table 7 showed that: the P values of the HCE and LEVEL t test were 0.000, which passed the t test at a significance level of 1%, and the SCE, CEE and SIZE failed the model t test.

TABLE 7. RESULTS OF THE MANUFACTURING COMPANIES REGRESSION ANALYSIS FOR FORMULA (2)

Variables	Coef.	Robust Std.Err.	t	P>|t|
HCE	.031	.003	12.02	.000***
SCE	.000	.000	1.53	.126
CEE	.015	.009	1.64	.101
SIZE	.005	.003	1.54	.125
LEVEL	-.120	.029	-4.07	.000***
Constant	-.082	.060	-1.36	.176
R-squared	.6927			
F-Statistics	43.71			
Prob > F	.000***			

3.2.3. Test H2a and H2b

According to Table 8, the R-squared of agricultural and sideline food processing industry was 0.6002, which meant that the independent variables had a 60.02% explanatory power for the dependent variable. And the R-squared of pharmaceutical manufacturing industry was 0.7509, which meant that the independent variables had a 75.09% explanatory power for the dependent variable. The significance of the F test was 0.000. Indicating that both of the models passed the F test, and the error probability of the models was less than one in a thousand.

The significance test results in Table 8 showed that: the P values of the ICE, CEE and LEVEL t test were 0.000, which passed the t test at a significance level of 1%, and the SIZE failed the model t test. What's more, the ICE coefficient of pharmaceutical manufacturing industry was bigger than that of agricultural and sideline food processing industry.

TABLE 8. RESULTS OF THE MANUFACTURING COMPANIES OF DIFFERENT INDUSTRIAL CLASSIFICATION REGRESSION ANALYSIS FOR FORMULA (1)

Variables	Industrial classification	Coef.	Robust Std.Err.	t	P>|t|
ICE	C13	.015	.001	1.49	.000***
	C27	.016	.004	4.42	.000***
CEE	C13	.011	.002	6.60	.000***
	C27	.300	.033	9.09	.000***
SIZE	C13	.011	.004	2.53	.013
	C27	.001	.006	1.65	.099
LEVEL	C13	-.138	.021	-6.71	.000***
	C27	-.256	.063	-4.09	.000***
Constant	C13	-.182	.097	-1.88	.039
	C27	-.146	.109	-1.34	.180
R-squared	C13	.6002			
	C27	.7509			
F-Statistics	C13	36.93			
	C27	56.52			
Prob > F	C13	.000***			
	C27	.000***			

3.2.4. Test H3a and H3b

According to Table 9, the R-squared of agricultural and sideline food processing industry was 0.6054, which meant that the independent variables had a 60.54% explanatory power for the dependent variable. And the R-squared of pharmaceutical manufacturing industry was 0.8370, which meant that the independent variables had a 75.09% explanatory power for the dependent variable. The significance of the F test was 0.000. Indicating that both of the models passed the F test, and the error probability of the models was less than one in a thousand.

The significance test results in Table 9 showed that: the P values of the HCE, CEE and LEVEL t test were 0.000, which passed the t test at a significance level of 1%. The P value of pharmaceutical manufacturing industry's SCE was 0.001, passed the t-test at a significance level of 10%. The P value of agricultural and sideline food processing industry's SCE was 0.049, which failed the model t test. And the SIZE failed the model t test, too. What's more, the HCE coefficient of pharmaceutical manufacturing industry was bigger than that of agricultural and sideline food processing industry.

TABLE 9. RESULTS OF THE MANUFACTURING COMPANIES OF DIFFERENT INDUSTRIAL CLASSIFICATION REGRESSION ANALYSIS FOR FORMULA (2)

Variables	Industrial classification	Coef.	Robust Std.Err.	t	P>|t|
HCE	C13	.014	.006	2.55	.000***
	C27	.020	.003	6.52	.000***
SCE	C13	.027	.014	1.99	.049
	C27	.000	.000	3.50	.001**
CEE	C13	.012	.002	5.25	.000***
	C27	.199	.399	4.99	.000***
SIZE	C13	.011	.004	2.41	.018

	C27	.004	.004	.90	.371
LEVEL	C13	-.139	.020	-7.04	.000***
	C27	-.173	.042	-4.09	.000***
Constant	C13	-.171	.097	-1.76	.081
	C27	-.061	.082	-.75	.453
R-squared	C13	.6054			
	C27	.8370			
F-Statistics	C13	34.07			
	C27	100.32			
Prob > F	C13	.000***			
	C27	.000***			

The empirical analysis results showed that in manufacturing enterprises, human capital was very significantly and positively correlated with enterprise profitability, which illustrated the central role of human capital in value creation. It also showed that employees are the most precious wealth of an enterprise, a source of value generation, and an element of the most value generation potential. In addition, the positive effect of structural capital on both labor-intensive manufacturing industry and the whole manufacturing industry was insignificant, which was consistent with the research results of Sun Lixin [15].

3.3. Discussion

The intellectual capital efficiency (ICE) of manufacturing companies had a significant influence on their profitability. The human capital efficiency (HCE) had a significant influence on the companies' profitability, too. The structural capital efficiency (SCE) was positively correlated with the companies' financial performance, but it had no significant effect. The effect of financial performance from large to small: HCE> SCE. H1a held, and H1b partly held. The intellectual capital efficiency (ICE) had a significant influence on the financial performance of agricultural and sideline food processing companies. The human capital efficiency (HCE) had a significant influence on the companies' financial performance, too. The structural capital efficiency (SCE) was positively correlated with the companies' financial performance, but it had no significant effect. The effect of financial performance from large to small: HCE> SCE. H2a held, and H3a partly held. The intellectual capital efficiency (ICE) had a significant influence on the financial performance of pharmaceutical manufacturing companies. The human capital efficiency (HCE) had a significant effect on the companies' financial performance. Both the human capital efficiency (HCE) and the structural capital efficiency (HCE) had significant effects on the companies' financial performance. The effect of financial performance from large to small: HCE> SCE. H2b and H3b held. The positive promotion effects of intellectual capital and human capital on the profitability of pharmaceutical manufacturing companies were greater than those on the profitability of agricultural and sideline food processing companies.

4. CONCLUSION

This paper used the VAIC™ approach to research the influence of intellectual capital and its elements on the financial performance of manufacturing enterprises. After three regression analyses, this paper concluded: Intellectual capital has a significantly positive influence on the profitability of manufacturing enterprises, and between the components of intellectual capital, human capital is more essential than structural capital. The intellectual capital and human capital of pharmaceutical manufacturing companies can more positively promote the company's financial performance than those of agricultural and sideline food processing companies. According to the characteristics of the two industries, the research conclusion of this paper is consistent with the current situation of them. In today's world, intellectual capital is essential to the success of companies. Intellectual capital has a critical role in the profitability of enterprises in the age of knowledge-based economy. The research in this paper shows that both in knowledge-intensive and labor-intensive manufacturing enterprises, improving the level of intellectual capital is significantly helpful in improving the companies' financial performance. Therefore, companies should try their best to provide a good environment and platform for human capital to play a role and create value, and create a long-term mechanism to stimulate human capital in terms of economic benefits, so as to provide a solid guarantee for companies to create greater value and sustainable development.

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