European Economic Letters
ISSN 2323-5233
Vol 15, Issue 1 (2025)
http://eelet.org.uk

Exploring the Nexus Between Human Capital and Corporate Growth: The Indian Case

Dr. Rajkumar S,
Senior Assistant Professor,
Xavier Institute of Management and Entrepreneurship, Bangalore.

Mr. Nandha Kumar S,
Jr Assistant Professor, Xavier Institute of Management and Entrepreneurship,
Bangalore. Email id: nandhakumar@xime.org

ABSTRACT:
This research aims to comprehensively investigate the influence of human capital efficacy on corporate growth within the context of non-financial companies listed on the NSE. The study spans a six-year period from 2017-18 to 2022-23, analyzing data from the top five companies on the basis of market capitalization. Employing a robust multiple regression technique, our findings unequivocally establish a significant and positive correlation between human capital efficacy and corporate growth, as measured by sales expansion. Notably, our results withstand rigorous scrutiny through a battery of alternative specification tests, affirming the reliability and validity of the observed association. The outcomes align with existing research, reinforcing the critical role of human capital in driving corporate growth. Beyond statistical significance, the study provides theoretical insights and practical implications, contributing to the ongoing discourse on the strategic management of human capital and its impact on organizational success. This abstract encapsulates the essence of our research, emphasizing the relevance and contributions of our findings to both academia and business practice

Keywords*: Human Capital Efficacy, Corporate Growth, Multiple Regression Technique, Sales*

Expansion, Strategic Management of Human Capital.

1. INTRODUCTION

1.1 Background of the study

The concept of 'Human capital' gained prominence with the emergence of the intellectual capital idea and can be traced back to Adam Smith in the 18th century. Economist Theodore Schultz (1960) further developed the theory, popularizing the term among financial scholars and economists worldwide. Human capital refers to the economic value of a worker's skills and experience, encompassing assets such as education, training, intelligence, skills, health, and intangibles like loyalty and punctuality **(Nerdrum, 2001).**

Human capital, an intangible asset not reflected on a company's balance sheet, is believed to enhance productivity and profitability. The more a company invests in its employees, the higher the likelihood of increased productivity and success. As the role of individuals in economic processes becomes central, the demand for high-quality human capital rises **(Oleh Kuzmin, 2020).**

Recognizing that not all work is equal, employers can enhance the value of their investments by focusing on employee training, knowledge, and skills, with significant economic implications **(Mahmood Ahmad, 2022**). These investments in people, quantifiable through the return on investment (ROI) in human capital, contribute to improved profitability and performance.

In recent decades, the importance of human capital has surged, being considered a critical factor in a company's success. Today, talent is less dependent on employers, while employers increasingly rely on talent. Human capital, comprising educational attainment, experience, and work practices, profoundly influences business performance **(Unger, 2011).** Owner and employee human capital have varying effects, with owner human capital associated with new product creation and employee human capital correlating with upgrading existing products or production procedures **(Long T. Q., 2020).**

Success hinges on the quality of people, especially in intellectual human capital, which can generate substantial income and profits. Individuals with strong educational backgrounds are capable of efficiently performing high-value tasks, integrating innovations into their work, and boosting productivity. In a knowledge-driven economy, prioritizing human capital provides a competitive advantage, fostering innovation, adaptability, and long-term success.

Business expansion is essential for long-term survival, requiring adaptability and seizing opportunities. Growth enhances credibility, supply chain, stability, and profitability. Strategic growth, linked to human capital, is crucial for sustainability and effectiveness.

Empirical investigations show a strong association between human capital efficiency and organizational performance. Firer and Williams found a limited and ambiguous association between intellectual capital efficiency and corporate success **(Firer, 2003)**. Tseng and Goo revealed a positive link between intellectual capital and market value in Taiwanese businesses **(Tseng, 2005).** Ghosh and Mondal discovered a considerable positive link between intellectual capital and profitability in Indian pharmaceutical and software firms **(Ghosh, 2009),** emphasizing the importance of human capital in organizational success.

1.1.1 Concept of Human Capital

Human Capital is now widely regarded as a critical aspect in improving a company's performance. Because of the evolution of the economy, today's organizational activities have altered dramatically on the global market **(Jurczak, 2008)**. Human capital, according to (**Edvinsson**, **1997**), refers to employees' knowledge, competence, new ideas, and ability to solve problems in the workplace and contribute to the attainment ofcorporate goals.

Human capital, according to **(R Fincham, 2003),** is an intangible asset that adds value to a company when individuals apply their skills and abilities to their work. Human capital, according to (**Chen, 2004)**, is the cornerstone of intellectual capital, and without it, no amount of value can be generated. According to **(P Stiles, 2003)**, there is a growing body of evidence demonstrating a link between human capital development and excellent organizational performance. Knowledge personnel, equipment, energy, and material are among the organizational assets invested in the process.

Human capital is defined by **(Kamal, 2012**) as an employee's ability to create both tangible and intangible assets through contributing to the continual development of information and ideas. Human capital is described by **(LC Micah, 2012)** as "people's capacity, skills, and knowledge, or potential use in the creation of goods or the provision of useful services." Employee talents and knowledge are valued more than firm assets, according to **(Muhammad, 2009)** This is because as an employee, our skills, knowledge, skills, and intellect will influence how the company's assets will be employed to fulfil the organization's goals. Personnel information is a primary source of value creation, according to (**Pulic A., 2000)**, hence employee costs should be viewed as an investment rather than an expense.

Human money can bring a lot of variety and inclusion to a company. Organizations with a high level of diversity and inclusion will be able to differentiate themselves from their competition. This will also enable the organization to create and maintain global universal access. Diversity also aids in the recruitment of thinkers from various backgrounds. When these minds come together as part of an organization, they can make a huge difference for the consumer. Nike Inc., for example, has always prioritized diversity. They formed the US Leadership Team's Steering Committee to keep track of their efforts in fostering and supporting diversity. In order to maintain their competitiveness in a very flexible and uncertain business climate, most current firms do not overlook the value of people as a driver. In dealing with a range of plausible causes, these firms have tragically failed to make talent management a strategic priority. These businesses are unaware of the extent to which talent management is viewed as an asset rather than a strategic asset.

1.1.2 Theoretical underpinning

Examining key concepts in human capital, such as Human Capital Theory (HCT) and Resource Dependence Theory, reveals their significant impact on finance and economics. The relatively recent development of Human Capital Theory posits that companies are motivated to acquire productive human capital and enhance the skills of their existing workforce. Pioneered by economists Gary Becker and Theodore Schultz in the 1960s, the theory suggests that education and training are investments that can elevate productivity.As the world accumulates more physical capital, the opportunity cost of education diminishes. Consequently, education becomes a crucial aspect of the workforce, and the term "human capital" permeates corporate finance, contributing to the broader concept of intellectual capital. Human and intellectual capital are viewed as renewable sources of productivity, with organizations actively fostering these resources in the pursuit of innovation and creativity.However, there are challenges associated with relying heavily on human capital. Unlike structural capital equipment, human capital is mobile, and employees, as owners of their human capital, can leave a company. To retain valuable personnel, organizations often implement measures to support and incentivize their workforce.Contrary to the belief that human capital immediately boosts productivity, economists like Richard Freeman argue that it primarily serves as a signal of potential and ability. True output, according to Freeman, emerges later through training, motivation, and capital equipment. Marxist economists Samuel Bowels and Herbert Gintis oppose the human capital theory, contending that treating

people as capital undermines class struggle and worker empowerment.The 1980s and 1990s saw additional critiques emerging with the rise of behavioral economics, challenging the assumption in Human Capital Theory that humans are rational actors. Critics argue that the theory's foundational assumptions about human motives, goals, and actions lack a solid basis, leading to limitations in explaining facts.

Resource Dependency Theory examines the influence of service acquisition on organizational behavior. This theory posits that organizations, like corporations, must engage in exchanges with other actors and entities in their environment to access resources. While such interactions can be beneficial, they also contribute to the development of a specific climate. The organization may face challenges such as scarce resources, their non-immediate availability, or control by external entities. Inequality arises, leading to disparities in power, authority, and resource access through these exchanges.To mitigate dependency, organizations employ various techniques and internal frameworks to enhance their communication skills in resource-related tasks. These initiatives aim to reduce reliance on external sources. Examples include taking political action, improving production processes, adopting a fragmented approach, and establishing linkages with other organizations. For instance, separating product lines can diminish a company's dependence on external entities, simultaneously enhancing efficiency and effectiveness.

The resource dependence hypothesis is used in research to examine organizational trends and dependencies. Aligning internal organizational traits with environmental influences is another adaptation. Organizations also practice it by attempting to relocate. Those strategies go counterto the traditional understanding of organizations, which treats businesses as closed programmes. Closed programme frameworks assert that an organization's performance is determined by its logical use of resources, human motivation, and individual strengths, and that other community players are constrained. Open programme frameworks, on the other hand, place a premium on environmental effect and involve other organizations, institutions, professions, and government entities. An organization will not be productive from the standpoint of open systems until it recognizes changes in its environment and prepares for emergencies.

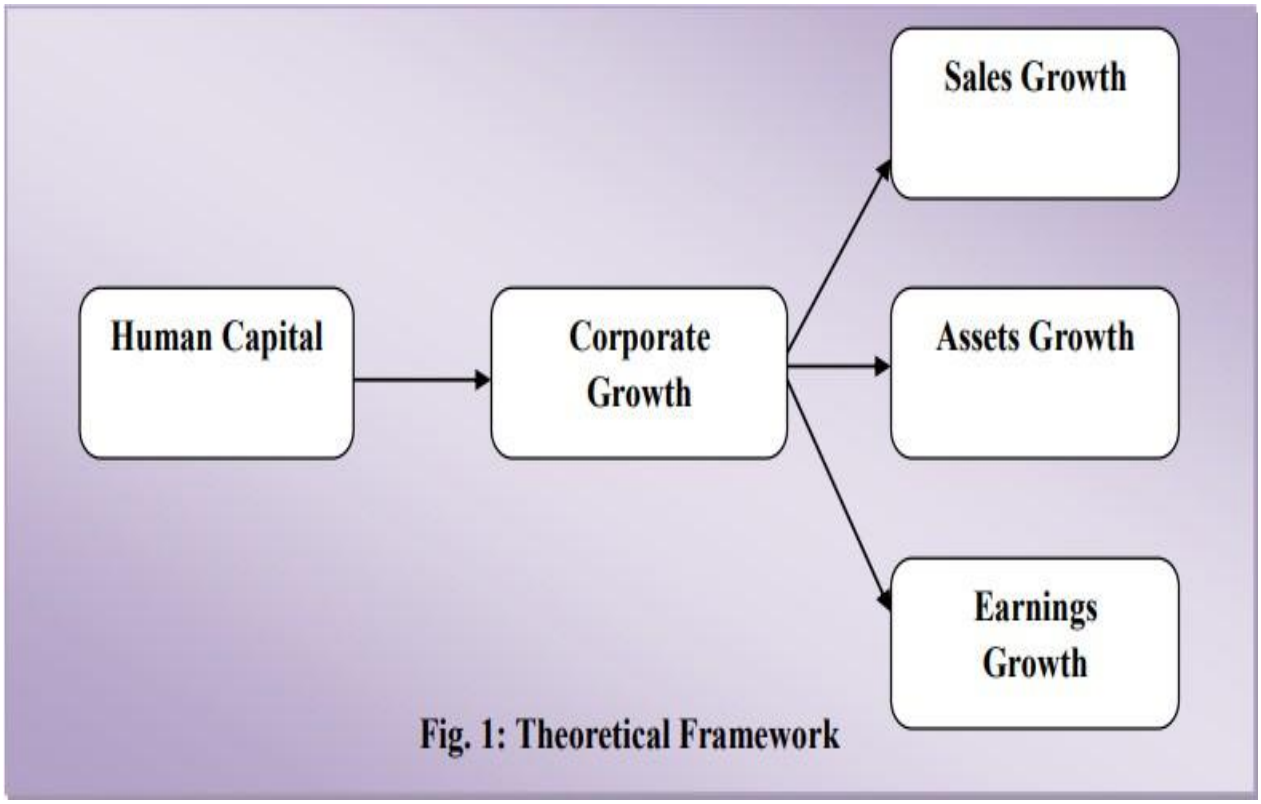

Fig. 1: Theoretical Framework

LITERATURE REVIEW

Previous research has shown that there is an important relationship between employee efficiency and organizational performance **(Firer, 2003); (Tseng, 2005); (Barathi Kamath, 2007); (Wei Kiong Ting, 2009); (Ghosh, 2009), (Muhammad, 2009); (Maaloul, 2010); (D Plink, 2010); (Iranmahd, 2014); ((Parham & Heling, 2015)**

(Firer, 2003) explored the correlation between the efficiency of value added and corporate performance, revealing that the relationship between intellectual capital efficiency and corporate performance is limited and mixed.

In Taiwan, **(Tseng, 2005)** investigated the connection between intellectual capital and firm market value, studying 500 Taiwanese firms. The research demonstrated a significant positive relationship between intellectual capital and the firm's market value.

Adapting the model for measuring the value-based performance of the Indian banking sector, **(Barathi Kamath, 2007)** confirmed substantial performance differences between foreign and domestic banks.

Examining the performance of Malaysian financial institutions, **(Wei Kiong Ting, 2009)** found a favorable association between the performance of intellectual capital and Return on Assets from 1997 to 2007.

(Ghosh, 2009) delved into the link between intellectual capital and the success of Indian pharmaceutical and software firms, discovering a considerable positive relationship with profitability, while no evidence of a link with productivity was observed. **(Muhammad, 2009)** investigated human capital efficiency and its impact on the performance of Malaysian financial sector companies in 2007. The findings indicated a significant and positive relationship between human capital and company performance measured by profitability and Return on Assets.

(Maaloul, 2010) studied intellectual capital in relation to the financial performance and market value of commercial and industrial firms in the United Kingdom from 2006 to 2008, revealing a positive link between intellectual capital and the financial and economic performance of these businesses.

(D Plink, 2010) asserted that human capital positively influences organizational performance by generating significant value for companies, providing them with a sustainable competitive advantage.

(Iranmahd, 2014) investigated the effect of Intellectual Capital on the Cost of Finance and Firm Value, concluding that intellectual capital had no effect on Firm Value.

(Asikhia Olalekan, 2013) reported on the relationship between Human Capital Efficiency and Financial Performance of Quoted Nigerian Banks in 2013, finding no significant relationship between HCE and return on equity, though it had a modest impact on earnings per share.

(Parham & Heling, 2015) focused on the effectiveness of human capital and its impact on the financial performance of Dutch production enterprises. Their research revealed a favorable association between human capital efficiency and all three company performance indicators, including return on assets, return on equity, and employee productivity.

(Chemmanur, 2019) emphasized the essential role of top management quality in corporate innovation, highlighting the hiring of more and higher quality inventors as a crucial channel for firms with higher management quality to achieve greater innovation output.

(Long T. Q., 2020) discovered distinct roles of firm owner and employees in innovation activities, noting different impacts of management human capital and employee human capital on innovation persistence without providing an explanation for these differences.

OBJECTIVES OF THE STUDY

3.1 Objectives

The primary objective of this study is to explore the linkage/association between human capital efficiency and corporate growth in the context of Indian market. More distinctively, the study has the following objectives:

1) To assess and analyze the efficiency of human capital of the selected Indian companies.
2) To assess and analyze the growth prospects of the selected Indian companies.
3) To explore the association between human capital efficiency and corporate growth.

3.2 Hypothesis Development

With the objectives settled, the present study aims to validate the following alternative hypotheses:
1: There is a significant impact of HCE on corporate growth.

Table 1

Hypotheses at a glance

Sl. No.	Hypothesis	Expected Sign
1:	There is a significant impact of HCE on corporate growth.	+

Source: Author's own tabulation

2. RESEARCH METHODOLOGY

The research methodology is followed in a proper order to reach the objective of the study andfind the desired results.

4.1 Nature of Study

The present study is descriptive as well as empirical in nature.

4.2 Sample

Drawing on purposive sampling, a sample of top 5 non-financial companies listed in National Stock Exchange has been drawn of the target population. Following earlier studies, banks and financial companies have been excluded from our sample due to their unusual financial characteristics and mode of operation

4.3 Period of Study

The time frame of the current study spans six years, encompassing the period from 2017-18 to 2022-23

4.4 Data Collection

All the required financial data have been gathered and compiled from companies annual reports retrieved from www.moneycontrol.com, a secondary source. Moreover, other relevant facts and figures as needed to develop the conceptual framework of this study were gathered from different articles, books and magazines.

4.5 Research Method

In this study, suitable fundamental accounting and statistical tools have been employed in appropriate places. More specifically, to analyze the human capital efficacy of the selected companies, the present study relies upon trend analysis and various descriptive statistics, viz., mean and standard deviation. Next, we examine the multi-collinearity using Pearson's correlationanalysis. Lastly, a multiple regression analysis including robustness tests have been carried out toobserve the impact of HCE on corporate growth.

To be more specific, three regression models have been employed as a whole in the present study:
Model (1) examines the impact of HCE on corporate growth measured by growth in sales.

$= {}_1 + {}_2 \quad {}_1 + {}_3 \quad {}_2 + {}_4 \quad {}_3 + {}_5 \quad {}_4 +$ ..... Model (1)

Model (2) examines the impact of HCE on corporate growth, as measured by growth in assets.

$= {}_1 + {}_2 \quad {}_1 + {}_3 \quad {}_2 + {}_4 \quad {}_3 + {}_5 \quad {}_4 +$ ..... Model (2)

Model (3) examines the impact of HCE on corporate growth, as measured by growth in earnings.

$= {}_1 + {}_2 \quad {}_1 + {}_3 \quad {}_2 + {}_4 \quad {}_3 + {}_5 \quad {}_4 +$ ..... Model (3)

4.6 Research Variables

4.6.1 Dependent Variable

In this study, corporate growth serves as the dependent variable. Consistent with prior research, three distinct metrics have been utilized as proxies for corporate growth, namely Growth in Sales, Growth in Assets, and the Price-Earnings ratio.

4.6.2 Independent Variable

In this study, the independent variable is human capital. Drawing inspiration from Pulic's (2000) research, human capital is quantified using the metric of Human Capital Efficiency.

4.6.3 Control Variables

In alignment with earlier research, the current study includes controls for the influences of leverage, firm size, and firm age. The definition and measurement details of these variables are outlined in Table 2.

Table 2

Research Variables

Sl. No.	Variables of interest	Coding	Measurement
1.	**Dependent Variable:** **a.** *Corporate Growth*	CSGW CAGW CEGW	Sales Growth = $\frac{\text{CY Sales} - \text{PY Sales}}{\text{PYSales}}$ Assets Growth = $\frac{\text{CY Assets} - \text{PY Assets}}{\text{PYAssets}}$ Earnings Growth = $\frac{\text{CY ER.} - \text{PY ER.}}{\text{PYER.}}$
2.	**IndependentVariable**: **a.** *Human Capital*	HCE	= where **HCE** is Efficiency of Human Capital in CreatingValue **C** represents Employee Benefit Expenses, and **VA** represents Value Added
3.	**Control Variables:** ***a.*** *Firm Size* ***b.*** *Firm Age* ***c.*** *Leverage*	FS FAGE LEV	**FS =** Natural Logarithm of Firm's Total Asset **FAGE =** Number of years from the day of thecertification of incorporation. **LEV=**

Source: Author's own tabulation

DATA ANALYSIS AND FINDINGS

5.1 HCE Analysis

Table 3 shows the Human Capital Efficiency of the selected five companies for 6 years. In case of Reliance industries, we can find a very volatile change in HCE with a mean of 8.66, which is the highest among the selected companies. TCS experiences a downfall in the HCE during the 6 years of our study with an exception in 2021-22 when the HCE increased by 0.01. Infosys too experiences a similar trend as we can see from Table 3 with a mean of 1.56, which is the lowest among the selected companies. Hindustan Unilever has shown a significant increment in Human Capital Efficiency over the years with a mean of 5.38 and maximum HCE of 6.59 in the year 2022-23. Bharti Airtel has a volatile change in the HCE with a mean of 5.20 although HCE of Bharti Airtel in 2022-23 is found to be negative. It is clear from the table that all the selected companies has added value through HCE with Reliance Industries adding the highest value.

Table 3

HCE of the Selected Companies

Sl. No.	Companies	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Mean
1	RIL	9.07	8.02	7.65	9.35	9.32	8.58	8.66
2	TCS	1.73	1.61	1.59	1.54	1.55	1.53	1.59
3	Infosys	1.61	1.59	1.58	1.57	1.51	1.49	1.56
4	HUL	4.85	4.81	4.96	5.21	5.89	6.59	5.38
5	Bharti Airtel	7.26	6.95	7.15	6.93	6.07	-3.15	5.20
	Mean	4.90	4.60	4.59	4.92	4.87	3.00	

Source: Author's own tabulation

5.2 Growth Analysis

Table 4 shows the growth analysis of the selected five companies for a span of 6 years. The result shows that during the initial year, i.e., 2017-18, growth of RIL, TCS, Infosys, HUL and Bharti Airtel is 0.128, 0.107, 0.113, 0.047 and 0.016, respectively. The results offer evidence thatover the period of study, Reliance's growth is better as compared to the other selected firms. It's worth noting that though Reliance's growth i.e. in 2018-19 curtail down a bit as compared to the other years yet it evolved as one of the consistent performer. Both TCS and Infosys have shown considerable growth during the 6 years of our study while Bharti Airtel is found to be the mostinconsistent performer.

Table 4

Growth analysis of the selected companies

Sl. No.	Companies	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1	RIL	0.13	-0.26	0.19	0.24	0.42	0.05
2	TCS	0.11	0.15	0.09	0.04	0.19	0.07
3	Infosys	0.11	0.17	0.10	0.03	0.17	0.10
4	HUL	0.05	0.01	0.03	0.07	0.11	0.01
5	Bharti Airtel	-0.02	0.01	-0.01	-0.12	-0.03	0.08

Source: Author's own tabulation

5.3 Summary Statistics

Table 5 shows summary statistics of the data set. The total number of firm-year observations is 30. The mean HCE is 4.46 (standard deviation = 3.23) with the minimum value of -3.15 and maximum of 9.35. This indicates on an average, value added by human capital over the time period is 4.46 times. CSGW ranges from -0.26 to 0.42 with a mean value of 0.08. Considering control variables, the mean LEV is 0.47 with a min. value of 0.16 and max. of 0.74.

On the other hand, Firm size ranges from 9.57 to 13.98 with a mean of 11.70. Whereas in terms of firm age, the mean Firm Age is 47.50 (standard deviation = 21.05) with the minimum value of 20 and maximum of 87.

Table 5

Summary Statistics

Variables	No. of Obs.	Mean	Std. Dev.	Min.	Max.
HCE	30	4.46	3.23	-3.15	9.35
CSGW	30	0.08	0.12	-0.26	0.42
LEV	30	0.47	0.21	0.16	0.74
FS	30	11.70	1.30	9.57	13.98
FAGE	30	47.50	21.05	20	87

Source: Author's own tabulation using STATA Ver. 13.0 Software
Notes: The definition and measurement of the variables are provided in Table 2.

5.4 Correlation Analysis

Table 6 presents Pearson's correlation analysis. The results show that there is a significant and positive linkage between HCE, CSGW, and FAGE. On the other hand, there is insignificant associations between HCE, LEV, and FS. The result also shows significant and positive linkages between CSGW, FS, and FAGE, while there is an insignificant linkage between CSGW and LEV. The results show that there is a positive linkage between LEV and FS, whereas an insignificant association between LEV and FAGE can be noticed. Firm size has no significant linkage with firm age.

Table 6 indicates that the correlation coefficient between each pair of predictors is below 0.80, as referenced in Gujarati (1995). This suggests that there is no evidence of multicollinearity in our dataset.

Table 6

Correlation Matrix

	HCE	CSGW	LEV	FS	FAGE
HCE	1				
CSGW	0.08*	1			
LEV	0.67	-0.28	1		
FS	0.37	0.13**	0.23*	1	
FAGE	0.09**	0.08*	0.05	-0.69	1

Source: Author's own tabulation using STATA Ver. 13.0 Software

Note: * & ** indicates significant at the 1% level and 5% level, respectively. The definition andmeasurement of the variables are provided in Table 2.

5.5 Impact of Human Capital on Corporate Growth

In Table 7, the outcomes of the multiple regression analysis showcase the influence of Human Capital Efficiency (HCE) on corporate growth. The model's F-statistic stands at 11.31, demonstrating statistical significance at the 1% level and affirming the model's strong fit with the dataset. The R-square value is 0.52, signifying that 52% of the variance in the dependent variable—corporate growth—is accounted for by the independent variable, HCE, along with control variables such as firm size, firm age, and leverage, considered collectively. Notably, the findings reveal a significant and positive association between HCE and corporate growth. This implies that heightened human capital efficiency corresponds to increased corporate growth, and conversely, lower efficiency is associated with reduced growth.The logical reasoning behind this phenomenon is that the firms having the higher human

capital efficiency is likely to have more productivity, which in turn improve the corporate financial performance and thus attain a satisfactory rate of growth. In terms of control variables, LEV maintains an insignificant relationship with corporate growth. On the other hand, FS and FAGE hold significant and positive associations with corporate growth.

Table 7

Multiple Regression Analysis Estimates: Model (1)

Variables	**Coef.**	**Std. Err.**	**t**	**P>|t|**
HCE	2.09	0.79	3.33	0.00*
LEV	-0.16	0.06	0.59	0.61
FS	0.15	0.05	2.39	0.04**
FAGE	0.09	0.01	2.20	0.05**
No. of Obs.	30			
F-statistics	11.31*			
R^2	0.52			

Source: Author's own tabulation using STATA Ver. 13.0 Software

Notes: * & ** indicates significant at the 1% level and 5% level, respectively. The definition andmeasurement of the variables are provided in Table 2.

5.6 Robustness Check using Alternative Proxy

Table 8 presents the robustness check results using alternative proxy of the dependent variable. To be more specific, two alternative proxies, namely asset growth and earnings growth were used to measure the dependent variable, corporate growth. The results of the robustness check are almost similar to the results we obtained in our baseline model with a slight change in their magnitudes. While taking asset growth as our alternative proxy, the f stat of the model is 14.31 and it is significant at 1% level. The result obtained shows that HCE is significantly and positively associated with corporate growth. Similar results with a minimal change in the magnitude are obtained while taking the second alternative proxy which is earnings growth. Hence, our results are robust.

Table 8

Multiple Regression Analysis Estimates: Model (2) and Model (3)

Variables	**Model (2): Assets Growth**			**Model (3): Earnings Growth**		
	Coef.	Std. Err.	t	Coef.	Std. Err.	t
HCE	2.32*	0.34	3.09	2.11**	0.57	2.31
LEV	-0.19	0.11	-0.56	-0.09	0.23	-0.16
FS	0.23*	0.09	2.18	0.11*	0.09	2.39
FAGE	0.14*	0.00	2.12	0.07**	0.02	0.20
No. of Obs.	30			30		
F-statistics	14.31*			11.23*		
R^2	0.56			0.49		

Source: Author's own tabulation using STATA Ver. 13.0 Software

Notes: * & ** indicates significant at the 1% level and 5% level, respectively. The definition andmeasurement of the variables are provided in Table 2.

6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This research aimed to evaluate the efficiency of human capital, measure the growth prospects, and investigate the correlation between human capital efficiency and corporate growth among selected Indian companies. The study focused on a sample comprising the top 5 non-financial companies listed on the National Stock Exchange, excluding banks and financial institutions due to their distinctive financial characteristics and operational modes. The research spans six years, covering the period from 2017-18 to 2022-23. To test the hypotheses, three regression models were employed, supplemented by various statistical and accounting tools and techniques where applicable. Corporate growth serves as the dependent variable, while human capital functions as the independent variable in this investigation..

The findings indicate the effectiveness of Human Capital in all the chosen companies, with Reliance Industries contributing the highest value and TCS the lowest. Our study demonstrates that these companie9ls derived added value through Human Capital Efficiency (HCE). Regarding the assessment of corporate growth among the selected companies, substantial growth was observed across the board, except for Bharti Airtel, which emerged as the most inconsistent performer.

Utilizing multiple regression techniques, our results underscore a significant and positive correlation between Human Capital Efficiency and corporate growth. The data suggests that an increase in Human Capital Efficiency (HCE) leads to a corresponding boost in corporate growth. This relationship stems from the notion that highly skilled and efficient workforces can not only optimize resources to achieve organizational objectives but also leverage their intellectual and operational expertise to enhance overall efficiency in firms. Therefore, recognizing human capital as a valuable investment in today's knowledge-based economy and acknowledging the crucial need to measure and manage its efficiency and cost have become imperative.

7. LIMITATIONS OF THE STUDY

The following are the limitations of the present study:

- The study finds its base from secondary sources. Hence, it has the inherent limitations of the secondary data.
- The results are not concrete, rather it is subjective in the sense that it can vary from country to countryand from industry to industry.
- Data is selected over a period of6 years starting from 2017-18 to 2022-23. However , if the time span is increased, the results could differ.
- To make the calculations less cumbersome, convenient sampling has been followed. However, if the sample size is changed, results might get distorted.
- The calculations are based on simple research techniques of research methodology. The analysis was carried out by employing fundamental statistical tools and techniques.

REFERENCES

- **Asikhia Olalekan, S. A. (2013). American International Journal of Contemporary Research. *CAPITAL ADEQUACY AND BANKS' PROFITABILITY: AN EMPIRICAL EVIDENCE FROM NIGERIA*, 87-93.**
- Barathi Kamath, G. (2007). The intellectual capital performance of the Indian banking sector. *Journal of Intellectual Capital*, 96-123.
- Chemmanur, T. J. (2019). Top management human capital, inventor mobility, and corporate innovation. *Journal of Financial and Quantitative Analysis*, 2383–2422.
- Chen, J. Z. (2004). Measuring intellectual capital: a new model and empirical study. *Journal of Intellectual Capital*, 195-212.
- D Plink, T. B. (2010). The ROI of HR strategy is measured after all-practical tools to measure the output of HR. *The CRF Institute*.
- Edvinsson, L. a. (1997). Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Roots. *HarperCollins Publishers*.
- Firer, S. a. (2003). "Intellectual capital and traditional measures of corporate performance". *Journal of Intellectual Capital,*, 348-360.
- Ghosh, S. a. (2009). "Indian software and pharmaceutical sector IC and financial performance". *Journal of Intellectual Capital*, 369-88.
- Iranmahd, M. S. (2014). The Effect of Intellectual Capital on Cost of Finance and Firm Value. *International Journal*

of Academic Research in Accounting, Finance and Management Sciences, 1-8.

- Jurczak, J. (2008). Intellectual Capital Measurement Methods. *Economics and organization of enterprise*, 37-45.
- Kamal, M. M. (2012). Intellectual Capital and Firm Performance of Commercial Banks in Malaysia. *Asian Economic and Financial Review*, 577-590.
- LC Micah, C. O. (2012). Firms Financial Performance and Human Resource Accounting Disclosure in Nigeria . *International Journal of Business and Management*, 67-75.
- Long, T. Q. (2020). Is innovation activity persistent among small firms in developing countries? Evidence from Vietnam. *Journal of the Asia Pacific Economy*.
- Long, T. Q. (2020). Is innovation activity persistent among small firms in developing countries?Evidence From Vietnam. *Journal of the Asia Pacific Economy*, 1-18.
- Maaloul, Z. a. (2010). Analysing value added as an indicator of intellectual capital and its consequences on company performance. *Journal of Intellectual Capital*, 39-60.
- Mahmood Ahmad, Z. A. (2022). Financial development and environmental degradation: Do human capital and institutional quality make a difference? *Gondwana Research*, 299-310.
- Muhammad, N. M. (2009). Intellectual Capital Efficiency and Firm's Performance:Study on Malaysian Financial Sectors. *International Journal of Economics and Finance* , 206-212.
- Nerdrum, L. &. (2001). Intellectual capital: A human capital perspective. *Journal of Intellectual Capital*, 127-135.
- Oleh Kuzmin, M. B. (2020). Innovative development of human capital in the conditions of globalization . *E3S Web of Conferences*.
- P Stiles, S. K. (2003). Human capital and performance:.
- Parham, S., & Heling, G. W. (2015). The Relationship between Human Capital Efficiency and Financial Performance of Dutch Production Companies. *Research Journal of Finance and Accounting*, 188-201.
- Pulic A. (2000). VAIC – an accounting tool for IC management. *International Journal of Technology Management*, 702-714.
- R Fincham, R. R. (2003). Intellectual capital accounting as management fashion: a review and critique . *European accounting review*, 781-795.
- Tseng, C. a. (2005). "Intellectual capital and corporate value in an emerging economy:empirical study of Taiwanese manufacturers". *R&D Management*, 187-201.
- Unger, J. M. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of business venturing*, 341-358.
- Wei Kiong Ting, I. a. (2009). Intellectual capital performance of financial institutions in Malaysia. *Journal of Intellectual Capital*, 588-599.