



A STUDY ON ROLE OF INTELLECTUAL CAPITAL IN SUSTAINING COMPETITIVE ADVANTAGE

Nagesh N* **Dr. Jalaja KR**** **Deeksha S*****

**Research Scholar, Department of Commerce, Bengaluru City University, Bengaluru .*

***Associate Professor, Department of Commerce, Bengaluru City University, Bengaluru .*

****Research Scholar, Department of Commerce, Bengaluru City University, Bengaluru .*

Abstract

In today's knowledge-driven economy, organizations seek to establish and maintain competitive advantage to grow in dynamic markets. This study investigates the pivotal role of intellectual capital in sustaining competitive advantage. By examining the components of intellectual capital – human capital, structural capital, and relational capital and their impact on organizational performance, innovation, and adaptability, this research aims to provide insights into the strategies organizations can employ to leverage their intellectual assets for long-term success.

Keywords: *Intellectual Capital, Human Capital, Structural Capital, Relational Capital and Competitive advantage.*

Introduction

In today's rapidly evolving business landscape, organizations are continually seeking ways to gain a sustainable competitive advantage. As the global economy becomes increasingly interconnected and information-driven, traditional sources of competitive strength such as physical assets and labour force are no longer sufficient to secure long-term success. Instead, companies are turning their attention to a different form of capital that holds the potential to shape the future of competitiveness - Intellectual Capital. This study delves into the key role that Intellectual Capital plays in sustaining a competitive advantage within organizations. Intellectual Capital encompasses the collective knowledge, skills, expertise, and intangible assets that individuals and groups bring to an organization. It represents the reservoir of intellectual resources that can be harnessed to drive innovation, improve operational efficiency, and adapt to ever-changing market dynamics. In a world where knowledge is becoming the primary currency of success, understanding how Intellectual Capital influences an organization's competitive position is important. This research aims to explore the intricate relationships between Intellectual Capital and competitive advantage by examining its various dimension, including human capital, structural capital, and relational capital. Through an in-depth analysis of real-world case studies, empirical evidence, and strategic insights, this study seeks to shed light on the strategies and practices that enable organizations to leverage their Intellectual Capital for sustained competitiveness.

Components of Intellectual Capital

1. **Human Capital:** The skills, knowledge, experience and expertise of employees within an organization. Example: Apple Inc. excels in attracting top talent, enabling it to innovate and create iconic products like the iPhone and MacBook, driving its competitive advantage.
2. **Structural Capital:** The systems, processes, patents, and brand assets contributing to an organization's knowledge base. Example: Coca-Cola's secret formula and branding assets are integral to its competitive advantage, safeguarded for over a century.
3. **Relation Capital:** The external relationships, partnerships, and networks an organization builds. Example: Amazon's extensive network of third-party sellers and customers creates a network effect that solidifies its competitive edge.



Review of Literature

- **Luminita Maria Gogan, Alin Artene, Ioana Sarca & Anca Draghici in their paper titled “The Impact of Intellectual Capital on Organizational Performance” 2015** Analysed the relationships between the intellectual capital and the performance of water distribution companies in the south-west region of Romania; and Tested the correlations between variable components of intellectual capital and organizational performance. It showed how strong the link is between variables and also identified those variables with the strongest connection, as well as establishes the weakest correlations.
- **Bontis, (2003) in their “A study on the relationship between intellectual capital and organizational performance”.** In their study, Bontis entrenched that a common connection does exist amidst the factors of intellectual capital and the capital has a certain friendship accompanying trade performance.
- **Swart, (2006)** did an assessment on intellectual capital and established that intangible property are essential in the establishment of a gamesmanship and further accepted that intellectual capital can help in resolving the challenges that face companies in the vigorous economy.
- **Ayman Raheem Abdulaai, (2018) in their paper “The Impact of Intellectual Capital on Business Organization”** it is clear that intellectual capital specifies huge profit to a business arranging. Intellectual capital articles in the way that the indefinite assets guarantee that produce, plans, and ideas are not copied in the market that offers an institution accompanying a better back-and-forth competition. For the intellectual capital items expected acknowledged in the monetary charges, they must be capable of being traced and measurable. Intellectual capital parts specific as attendants’ abilities and abilities cannot be recognized in the fiscal declarations because it’s not likely to measure them. The research shows that intellectual capital more donates to change.
- **Mahoney & Kor (2015),** in their paper claim that businesses increasingly understand how intellectual capital is important in creating economic value and power and also states that profitable institutions of contemporary are those that recognize that intellectual capital plays an main act in designing profit in addition to leverage.
- **Shahid Amin and Shoaib Aslam (2017), in their study on “Intellectual Capital, Innovation and Firm Performance of Pharmaceuticals: A Study of the London Stock Exchange”** explore the practical fundamental links with intellectual capital (IC), change and firm’s fiscal depiction, furthermore, the impact of IC and change on firm’s economic efficiency has again been calculated. Value added intellectual coefficient model (VAIC) has abided used for the calculation of IC. Innovation is calculated through test (R&D), brand development and produce in passage, when in fact, economic performance is calculated through usual economic measures in the way that return on assets (ROA), return on equity (ROE), earnings per share (EPS), property change ratio (ATO) and display-to-book percentage (MB).

Research Design

1. Research Gap

After studying National and international reviews relating to Intellectual capital and competitive advantage the researcher is able to identify two important gaps:

- Is there any specific number of positive outcomes of intellectual capital helps in sustaining competitive advantage?



- What is the order of positive outcomes of intellectual capital that helps in sustaining competitive advantage?

2. Objectives of the Study

- To identify the positive outcomes of Intellectual capital towards sustaining competitive advantage in IT Sector.
- To study the order of significance of different positive outcomes of intellectual capital on sustaining competitive advantage.

Methodology:

- **Data Collection:** This study is based on both primary data and secondary data. Primary data collected through structure questionnaire and Secondary data obtained from Books, Journals, Research papers and websites.
- **Sample Size:** Responses were collected from employees and executives who are working in IT Companies. The sample size for this study is 125. These samples are collected by adopting Convenience sampling technique used.
- **Statistical tool for Analysis:** the researcher used Henry Garret's Ranking technique for analysis purpose.
- **Limitation of the Study:** This study limited to 125 respondents who are working in IT Companies in Bengaluru City.

Analysis and Interpretation

The demographic details of respondents in Table:1 shows 72% of the respondents were male and 28% of the respondents are female. When come to qualification of the respondents 50.4% were graduates, 32% are Post Graduates and reaming 17.6 % selected others option. 5.6% were fall under the category of < 25 age, 33.6% fall under 25 to 35 category, 24% are 35 to 45 years and remaining 36.8% are > 45 years of age category. 17.6% were having <5 years of experience, 51.2% have 5 to 10 years and 31.2% have > 10 years of experience.

Table:1 Demographic details of Respondents

Demographic variable	Category	Numbers	Percentage
<i>Gender</i>	Male	90	72 %
	Female	35	28 %
<i>Qualification</i>	Degree	63	50.4 %
	Post Graduate	40	32 %
	Others	22	17.6%
<i>Age</i>	<25	7	5.6%
	25 to 35	42	33.6%
	35 to 45	30	24%
	>45	46	36.8%
<i>Experience</i>	<5 Years	22	17.6%
	5 to 10 Years	64	51.2%
	>10 Years	39	31.2%



Table 2: Shows the different positive outcomes of intellectual capital on sustaining competitive advantage are identified as:

Factors identified	Factor code
Intellectual capital encompasses the knowledge, expertise and creativity of employees helps in develop new products	F1
Intellectual capital involves in capturing, organizing and disseminating knowledge throughout the organization which contributes in on-going innovation and adaptability.	F2
Intellectual capital influences an organizations ability to make informed and effective decisions that leads to better strategic choices.	F3
Intellectual capital extends to a company’s brand and reputation lead to customer preference and long term loyalty.	F4
Intellectual capital helps in intellectual property protection.	F5
Intellectual capital establishes valuable partnerships and alliances which provide access to new markets, technology and resources.	F6
Intellectual capital contributes in employee development and retention.	F7
Intellectual capital enables organizations to adapt to changing market conditions and customer preferences.	F8
Intellectual capital enhances the company’s reputation and customer trust by demonstrating ethical behaviour and corporate social responsibility.	F9

Table 3: Shows the distribution of data collected from 125 IT Employees by adopting Henry Garret’s Ranking Technique:

After examining the components of Intellectual capital i.e. Human Capital, Structural Capital and Relational Capital we have identified 9 positive outcomes. We asked the respondents to rank each factor based on its influence on sustaining competitive advantage between 1 to 9. Where rank 1 is considered as highest and Rank 9 is considered as lowest.

Factors	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9
F1	8	2	32	8	20	30	6	2	17
F2	12	18	9	37	18	2	9	12	8
F3	46	5	8	26	7	25	5	0	3
F4	1	2	30	15	9	5	12	50	1
F5	17	5	1	6	40	6	22	12	16
F6	29	7	14	12	2	4	50	3	4
F7	4	8	12	5	15	43	7	16	15
F8	5	36	15	6	7	3	6	4	43
F9	3	42	4	10	7	7	8	26	18



Table: 4 – Shows Percentage Positions Calculations and Garret’s Value:

Percentage position = $100(R_{ij}-0.5)/N$

$R_{ij} = 1^{st}, 2^{nd}, 3^{rd}, 4^{th}, 5^{th}, 6^{th}, 7^{th}, 8^{th}, 9^{th}$.

$N = \text{Total ranks} = 9$

Rank	Calculation	Percentage Position	Garret Value
1	$100(1-0.5)/9$	5.51	81
2	$100(2-0.5)/9$	16.66	69
3	$100(3-0.5)/9$	27.62	62
4	$100(4-0.5)/9$	38	56
5	$100(5-0.5)/9$	50	50
6	$100(6-0.5)/9$	61.14	44
7	$100(7-0.5)/9$	7.22	38
8	$100(8-0.5)/9$	83.33	31
9	$100(9-0.5)/9$	94.44	19

Table 5: Calculation of Garret value and Ranking:

Factors	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	Rank 8	Rank 9
F1	8*81 648	2*69 138	32*62 1984	8*56 448	20*50 1000	30*44 1320	6*38 228	2*31 62	17*19 323
F2	12*81 972	18*69 1242	9*62 558	37*56 2072	18*50 900	2*44 88	9*38 342	12*31 372	8*19 152
F3	46*81 3726	5*69 345	8*62 496	26*56 1456	7*50 350	25*44 1100	5*38 190	0*31 0	3*19 57
F4	1*81 81	2*69 138	30*62 1860	15*56 240	9*50 450	5*44 220	12*38 456	50*31 1550	1*19 19
F5	17*81 1377	5*69 345	1*62 62	6*56 336	40*50 2000	6*44 264	22*38 836	12*31 372	16*19 304
F6	29*81 2349	7*69 483	14*62 868	12*56 672	2*50 100	4*44 176	50*38 1900	3*31 93	4*19 76
F7	4*81 324	8*69 552	12*62 744	5*56 280	15*50 750	43*44 1892	7*38 266	16*31 496	15*19 285
F8	5*81 405	36*69 3456	15*62 930	6*56 336	7*50 350	3*44 132	6*38 228	4*31 124	43*19 817
F9	3*81 243	42*69 2898	4*62 248	10*56 560	7*50 350	7*44 308	8*38 304	26*31 806	18*19 342

Table 6: Calculation of Average Garret scores and Henry Garrets Ran allocation for factors:

Factors	Total Garret Score	Average Garret score	Ranks
F1	6148	49.18 %	5
F2	6698	53.59 %	4
F3	7720	61.76 %	1
F4	5014	40.11 %	9
F5	5896	47.17 %	7



F6	6717	53.73 %	3
F7	5589	44.71 %	8
F8	6778	54.22 %	2
F9	6059	48.47 %	6

Table 7: Shows the factors and respective ranks against them, the identified 9 factors are ranked as per opinions of employees working in IT Companies with the help of Henry Garret Ranking Technique.

SI No	Factors	Rank
1	Intellectual capital encompasses the knowledge, expertise and creativity of employees helps in develop new products	5
2	Intellectual capital involves in capturing, organizing and disseminating knowledge throughout the organization which contributes in on-going innovation and adaptability.	4
3	Intellectual capital influences an organizations ability to make informed and effective decisions that leads to better strategic choices.	1
4	Intellectual capital extends to a company’s brand and reputation lead to customer preference and long term loyalty.	9
5	Intellectual capital helps in intellectual property protection.	7
6	Intellectual capital establishes valuable partnerships and alliances which provide access to new markets, technology and resources.	3
7	Intellectual capital contributes in employee development and retention.	8
8	Intellectual capital enables organizations to adapt to changing market conditions and customer preferences.	2
9	Intellectual capital enhances the company’s reputation and customer trust by demonstrating ethical behaviour and corporate social responsibility.	6

Conclusion

Based on the study conducted by collecting the data from IT Employees working in Bengaluru city and by using Henry Garrets Ranking method it is identified thatthe most significant positive outcome of intellectual capital towards sustaining competitive advantage is it influences an organizations ability to make informed and effective decisions that leads to better strategic choices (Factor 3- Ranked 1st) and the least factor is Intellectual capital extends to a company’s brand and reputation lead to customer preference and long term loyalty (Factor 4- Ranked 9th). This study helps the IT Companies to know positive outcomes of intellectual capital where they can adopt strategies to improve their performance and to have the competitive advantage compare to their competitors in market.



References

1. Andreeva, T., & Kianto, A., (2012). Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance. *Journal of Knowledge Management*, 16, 4, 617-636.
2. Dr. Ikhlas Altarawneh., (2017). Effect of Intellectual Capital on Competitive Advantage in the Jordanian Pharmaceutical Companies. *European Journal of Business and Management* Vol. 9, No. 5, 2017.
3. Chi, T., Kilduff, P., & Gargeya, V., (2009). Alignment between business environment characteristics, competitive priorities, supply chain structures, and firm business performance. *International Journal of Productivity and Performance Management*, 58, 7, 645-669.
4. Ulya Obeidata, Bader Obeidata, b, Ala' aldin Alrowwad, Muhammad Alshuridehd *, Ra'ed Masa'dehe and Mohammad Abuhashesh., (2020). The effect of intellectual capital on competitive advantage: The mediating role of innovation .DOI:10.5267/ j.msl.2020.11.006,346097009.
5. Aldaas, A., Mohammad, S., & Abuhashesh, M. (2019). Successful implementation of corporate governance mechanisms in banks. *Journal of Social Sciences (COES&RJ-JSS)*, 8(4), 692-710.
6. Al Suwaidi, F., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). The impact of innovation management in SMEs performance: A systematic review. In *International Conference on Advanced Intelligent Systems and Informatics* (pp.720-730). Springer, Cham.
7. Tamara Radjenovic., (2017). Intellectual Capital as the Source of Competitive Advantage: The Resource-Based View. DOI: 10.22190/FUEO1702127R 14(2):127-137, 319315014.
8. Choong, K.K. (2008). Intellectual Capital: Definitions, Categorization and Reporting Models. *Journal of Intellectual Capital*, 9(4), 609-638. DOI:10.1108/14691930810913186.
9. Leonard-Barton, D. (1992). Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. *Strategic Management Journal*, 13(S1), 111- 125. DOI:10.1002/smj.4250131009.