

Operational Agility In India'S Evolving Venture Capital Landscape

Parimala R¹, Radha Thangarajan², Dr. Santosh M Sunkapur³, Akhilesh Gowda Y N⁴

¹Assistant Professor, Department of BBA and B.Com, Dayananda Sagar college of Arts Science and Commerce, Bengaluru ORCID: 0009-0001-7806-2282

²Assistant Professor, Department of Commerce, St. Claret College, Autonomous, Bengaluru. ORCID: 0000-0002-5719-3830

³Associate Professor, B S Channabasappa First Grade College, Davanagere, Karnataka

⁴Assistant Professor, Department of Commerce, St. Claret College, Autonomous, Bengaluru

Abstract

Capital is a fundamental necessity for initiating a firm, irrespective of its nature, scale, or sector. Each association necessitates funds for two purposes: establishing the organization and conducting its daily operations. Risk financing in the form of equity or quasi-equity is referred to as venture capital. Funding is provided based on the investor's evaluation of a company's potential and interest. Securing capital for acquisitions, expansions, or development may be essential. Venture capital has been entrenched in industrialized nations and is gaining popularity in developing countries due to its impact on fostering entrepreneurial endeavors inside a nation. Venture capital firms employ a professional methodology when investing in enterprises, concentrating on the principal market segment that differs by specialization, including e-commerce, oil and gas, healthcare, manufacturing, health/life sciences, and other sectors. Currently, there are three distinct forms of venture capital in India.

Keywords: Operational Agility, India, Venture Capital Landscape

Introduction

Capital is an essential requirement for beginning a business regardless of its temperament, size, and area. Every one of the associations requires capital for two purposes viz., for the foundation of the association and to do its everyday tasks. Risk finance as equity or quasi-equity is known as venture capital. Depending on the investor's assessment of a company's potential and interest, funding is given. It may be important to obtain money for acquisitions, expansions, or development. Venture capital has established itself in industrialized nations and is becoming more well-liked in underdeveloped ones due to its influence on promoting entrepreneurial activities inside a nation. A professional approach is used by venture capital firms when investing in businesses, with a focus on the primary market segment that varies by specialization (such as e-commerce, oil and gas, healthcare, manufacturing, health/life sciences, and other industries). In India now a days, there are three different categories of venture capital.

The following could serve as a summary: Involvement in management, long-term investment, and equity participation. The evolving SMEs and other innovative enterprises, not the conglomerates, are driving economic development today. The current expansion of the global economy is being driven by small and medium-sized businesses.

Venture capital investments are divided into five stages which are widely used by the organization to invest. The seed stage is the initial stage of financial support for innovative

companies for product introduction and initial marketing constitutes. The eligible companies may be in the process of being set up or may take the business for a short time or may not have sold their product commercially. In this stage, financing is provided to the companies when the initial stage of business is being shaped. In the Start-up stage investment is done in new companies with creative goods that are still in the initial phases of growth. Finance and development may be protracted after the early phases of growth to create new infrastructure and fulfill the working capital margin. Early-stage funding, on the other hand, is offered to enterprises that have completed commercial-scale implementation and may require added funds to satisfy initial cash and working capital requirements. It's the point at which a company's capital has grown to the point where it needs more money but hasn't yet earned a profit. Earlier, venture capital funds are used to invest in seed and start-up stages and rarely in turnaround stages. But as and when the trend is changing, the venture capitalist's funds are taken out through buyouts by investors who are willing to do investments for the sake of earning higher returns. The return on investments is reliant on the growth rate of companies. Therefore, it all depends on choosing the right type of venture by investors for earning the expected returns.

In India, there are already more than 400 venture capital firms in operation. From USD 0.5 billion (56 deals) in 2003 to USD 14 billion (439 deals) in 2007, venture capital investments rose dramatically. In 2008, there was a decline to approximately USD 11 billion (382 deals).

Initiative In India

In India, venture funding for the sector has a rich history that goes back more than 150 years. Several Managing Agency Houses also served as venture capitalists, lending riskier businesses their financial and management know-how. With the help of early venture capital, businesses could obtain enormous quantities of money while keeping organizational control. Public sector term lending institutions managed a portion of the venture capital needs after the management agency structure was abolished by giving seed money and risk capital to high-tech companies that were struggling to satisfy promoter contributions.

Before to 1996: The Formative Years

- Banks saw venture capital funding similarly to how they viewed project finance financing; there were little funds available for venture investment; and most venture capitalists at the time came from the banking industry.
- The emphasis was on building assets. Also, company development and innovation weren't given enough attention.
- The significance of value creation was still not completely appreciated, and discussions about exit strategies were primarily focused on the fund's long-term health.
- The property had a moderate worth.
- Venture capitalist involvement in entrepreneurial operations like financial structuring and business planning was minimal to nonexistent. development of a business through networks.

The Rock 'N' Roll years: 1997 to 2000

- Institutional MNC venture capital firms were strongly encouraged by the SEBI recommendations of 1996 to concentrate their operations in India.
- Incubators, innovators, traditional venture capitalists, and even private equity firms were suddenly considered venture capitalists. And the lines separating them were

becoming less apparent.

Creativity was crucial; with the aid of venture capitalists, idea flows were matching doer flows at an unprecedentedly frenetic rate.

After 2001: The reality years

- Together with the already established players, a number of fresh finance and non-finance experts as well as individuals with little to no prior experience running businesses entered the market.
- The venture capital industry is starting to understand that both business and evolution are continual processes. This portends a slower, steadier pace of venture activity, along with the return of the five to seven year business maturation cycle.

Factors that contributed to this predicament

License Raj and the IPO Boom:

Only commodity-centric firms persisted in a deficit position until the early 1990s, when the license raj system ended. Venture capital is not required to fund a cement factory. What was required was the ability to obtain a license and then secure funding from banks and DFIs for the project. Almost always, the promoters were reputable industrial firms without a clear financial necessity. The bulk of these businesses were successful in obtaining funding from conventional sources including institutional term loans and equity markets.

Scalability:

Despite the fact that the Indian software sector has grown rapidly in recent years and generates significant revenue from exports, our share of the world market is less than 1%. The software industry's value chain extends from body shops at the bottom to strategic consulting at the top. There is more value addition, profitability, and market presence at the higher end of the value chain. The industry will only be able to thrive and adapt to change through innovation.

Returns, Taxes and Regulations:

There are numerous regulators, including SEBI and the RBI. Under the Indian Trusts Act of 1882, domestic venture funds are constituted in compliance with SEBI criteria, whereas offshore funds that are routed through Mauritius adhere to RBI regulations. According to the Limited Partnership Act, which offers tax advantages, these funds are established outside of the United States. The government must permit pension funds and insurance companies to invest in venture capital, just like in the United States, where corporate donations to venture funds are significant.

Exit:

The only exit option open to venture capitalists was an initial public offering (IPO). The CCI restrictions controlled the pricing before it was deregulated. The issues were all generally out of date. Even currently, SEBI regulations make it difficult to quickly resolve pricing issues. Small businesses might have little chance of getting listed on the stock exchanges given the demise of the OTCEI and the modified standards. The strategic sale was also unavailable due to the sluggish mergers and acquisitions market.

Valuation:

Valuation mismatches are a recent occurrence. Most promoters have sky-high valuation expectations as a result of the software boom. Because promoters do not agree on a valuation, it is difficult for acquisitions to attain financial completion. This, combined with the bourse's fondness for software equities, means that most companies are planning their initial public offerings. As a result, the volume and quality of deals available to venture capitalists decreases.

Participants in the Venture Fund:

- All India Financial Institutions and International Institutional Investors are contributors to the Venture Fund.
- Agency for Multilateral Development
- Different Banks
- Additional Public
- The private sphere
- Government
- Nationalized Banking
- Institutions of State Finance
- Insurance providers

Literature Review

Richardson (2003) analyzed that the features of private equity for the firm are cash flow, return, and risk and showed that it takes a long period of time for investment and years for money to be repaid in order to generate expected returns. The study identifies a number of determinants of these timetables, such as available investment opportunities and competition among private equity funds. Nair (2005) Given the new venture capital model begun during and now used by practically all economies around the world, there was a fall in VC activities after 2000. People may be reluctant to invest in start-ups and fledgling firms for a variety of reasons. Just approximately 5% of worldwide venture capital funding goes to early-stage businesses. Over the years, people all over the world have recognised the potential of venture capital (VC) to support diverse economies by raising people's standards of life through increased business operations, employment growth, and increased tax revenue for the government. Dalvi (2017) reports, Indian manufacturers frequently provide temporary tax exemptions to a specific industry when they need to promote that industry. This is definitely a good thing for that sector of the economy. Yet, a deep comprehension of the industry's requirements and the implementation of an aggregative growth strategy are required. Now, the venture capital sector is getting ready for a promising future. Tax reductions are essential for the growth of venture capital firms, but they are only one component of the equation. Other factors include easier procedures, more accountability, and the capacity to operate legally. Andrew Winton (2008) analyzed the concept between bank financing and venture capital financing, he said venture capitalists have better experience and knowledge to support and encourage organizations' activities but they also have an expectation of higher return to be gained. Venture capital financing is optimal only if the firms have higher risk and positive returns with a low possibility of success. Chemmanur (2011) explained the benefits of and usage of venture funds and total factor productivity growth. They discovered that enterprises backed by venture capital had higher TFP growth in the years preceding their acquisition of venture capital. Sorenson (2011) used panel data, to explore the relationship between venture capital financing and the quantity of startups, employment, and income. The findings showed that higher levels of venture capital investment were related with more market entry,

particularly in companies that invested more in research and development, and that this association increased new business formation.

Research Design

The study analyses the accessibility of VC firms for new ventures seeking funding, this is the point where the entrepreneur loses their chance because they don't know how to approach a potential venture capitalist (VC) for investment.

Scope Of the Study

This study takes 10 years of data starting for 2011 to 2021. To examine the operational effectiveness of particular Indian venture capital institutions. So, the research specifically tries to understand the scope for venture capital in the Indian market and the pace at which it is contributing to Indian business growth.

Objectives of the Study

- To understand venture capital as a useful funding source.
- To assess the operational efficiency of selected venture capital institutions in India.

Research Design and Methodology

This is an empirical study, financial data of selected five venture capital institutes have been taken from the financial reports for the ten years from 2011-2021, which are the oldest and leading financial institutes in India, existing and providing financial services from the past 40 years. Secondary sources included annual reports, financial records, books, and financial reports of selected Venture Capital Institutions. ANOVA and regression statistical tools have been utilized to analyse the data that have been gathered.

Testing of Hypothesis

Depending on their capacity to keep the proper balance between current assets and current liabilities, debtors to current assets, and cash flow from activities, several venture capital institutions in India are being looked into for the effectiveness of their working capital management.

Null Hypothesis (H0): The operational effectiveness of a few venture capital institutions in India is not significantly different.

Alternative Hypothesis (H1): The operational effectiveness of a few venture capital institutions in India varies significantly.

Limitations

- Only 10 years of financial data have been considered for the study.
- Only selected Venture capital institutions are considered for the study.

Analysis and Interpretations

Venture Capital Investment Trend in Different sectors

Table No: 1 VC investment trend from 2011-to 2020

Years	Information Technology	Telecommunication	Service sector	Industrial products
--------------	-------------------------------	--------------------------	-----------------------	----------------------------

	(In Crores)	(In Crores)	(In Crores)	(In Crores)
Mar-2011	4000	8313	3071	2049
Mar-2012	4460	7969	4346	2322
Mar-2013	4653	6517	4524	2723
Mar-2014	5503	8325	5066	2592
Mar-2015	6300	7755	5697	2585
Mar-2016	7102	6860	6091	2670
Mar-2017	7200	7920	6410	2694
Mar-2018	7860	7600	5200	2850
Mar-2019	8097	8100	4120	2038
Mar-2020	7340	8430	3980	2005
	X1 = 62515/10	X2 = 77789/10	X3 = 48505/10	X4 = 24528/10
M	X1 = 6251.5	X2 = 7778.9	X3 = 4850.5	X4 = 2452.8

$$\text{Grand Mean (X)} = 6251.5 + 7778.9 + 4850.5 + 2452.8 = 21333.7$$

$$21333.7 / 4 = 5333.4$$

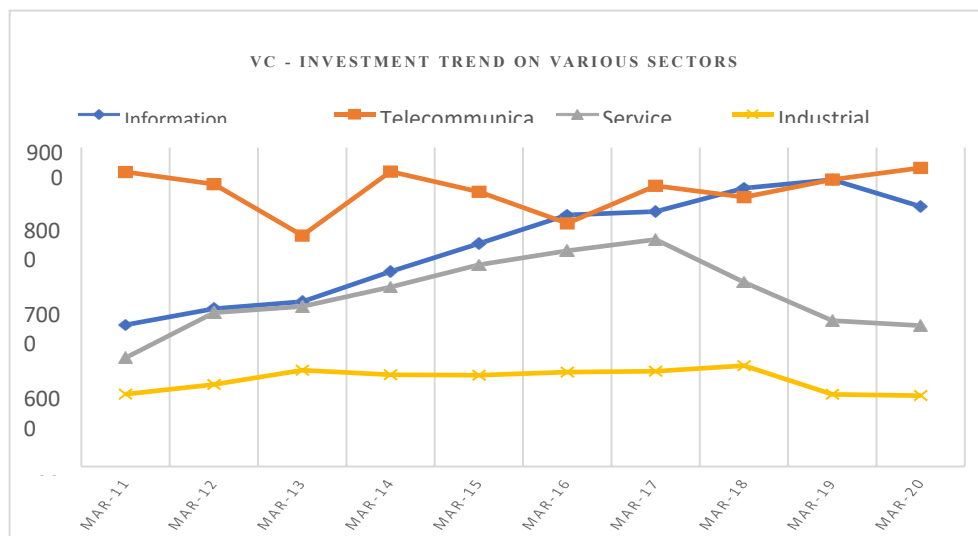
Table No: 2 ANOVA Table

Variation Sources	Sum of squares	Degree of freedom	Mean Square
Between Groups	153544266.3	3	51181422.09
Within Groups	34434331.5	36	956509.2083
Total	187978597.8	39	

$$\text{Test Statistic: } F = 51181422.09 / 956509.2083 = 53.50$$

For $v_1 = 3$ and $v_2 = 36$, the tabled value of $F_{0.05}$ (5% level of significance) is 2.8662. Since the calculated value of F is greater than the tabled value, the null hypothesis is rejected. Thus, there is a significant difference in the volume of investments by Venture Capital Funds and Foreign Venture Capital Investors

Graph No: 1 the Venture capital investment trend in different sectors.



This graph is representing the investments made from the venture capital institutes in different sectors from 2011 – 2020.

Analysis of Operational Efficiency of selected Venture Capital Institutions Current Ratio

The ratio of current assets to current liabilities of a firm measures its short-term solvency i.e., its ability to meet short-term obligations. As a measure of short-term/current financial liquidity, it indicates the rupees of current assets available for each rupee of current liability, the more is the firm's ability to meet current obligations, the greater is the safety to creditors. The liquidity ratio can be calculated using the formula below. The ratio of Current Assets to Current Liabilities = Current Assets/Current Liabilities

Table No.3 Current Assets to Current Liabilities Ratio of Selected India's Venture Capital Institutions over a Ten-Year Period from 2011–12 to 2020–21

YEARS	IFCI	APIDC	CANBANK	IL&FS	J B C I
2011 - 12	1.53	2.92	2.45	0.73	3.55
2012 - 13	2.56	1.9	2.41	0.77	11.8
2013 - 14	1.54	2.24	0.96	0.82	9.93
2014 - 15	3.22	4.37	1.02	0.61	4.96
2015 - 16	2.57	4.66	0.48	0.85	19.11
2016 - 17	13.42	5.73	0.62	0.86	6.68
2017 - 18	37.51	0.58	3.78	2.78	3.82
2018 - 19	68.54	1.74	3.79	3.55	1.15
2019 - 20	4.13	2.02	3.61	3.71	1.2
2020 - 21	825.91	2.53	26.06	0.56	2.18
Mean	96.09	2.86	4.51	1.52	6.43
SD	257.36	1.57	7.68	1.28	5.7
CV	267.82	54.9	170.02	84.18	88.54
LGR	-19.08	16.19	-18.76	-20.22	18.99
CGR	-24.4	20.35	24.77	-15.8	25.55
r-value	-0.21	0.89	-0.33	-0.72	0.64

Source: Annual Reports of Indian venture capital institutions

Table 3.2.1 presents a sample of Indian venture capital companies' liquidity ratio for the ten-year period between 2011–12 and 2020–21. It is quantified that the increase in the current ratio of venture capital institutions has changed over time. According to this, current assets may not have been at their best for IFCI Venture, JCBI, or Canbank Venture, but they may have been at their best for APIDC Venture Capital, IL&FS, and Canbank. NOVA was performed on time series data for the present ratio of select venture capital institutions in India for the ten-year period between 2011–12 and 2020–21.

Table No. 4

Variation sources	Sum of Square	Degree of freedom	Mean of Square	F-ratio	Value of P
Time Periods	133.85944	9	14.87327111	0.843580158	0.583805989
VC Institutes	156.4371	3	52.1457	2.957592684	0.050142187
Error	476.0405	27	17.63112963		
Total	766.33704	39			

The analysis states the supplied value of 'P' (0.583805) is not significant at a 0.05 percent significance level, table 3.2.2 makes it very evident that there is no appreciable distinction between the time periods. At a 0.05 percent significance level, the variance among the VC institutions is similarly not significant. The null hypothesis (Ho) is accepted at a significance level of 0.05 since the calculated value of F (2.957592) is lower than the table value of F - ratio (3.33).

Debtors to Current Assets Ratio

The amount of borrowers in current assets is shown by the debtors to current assets ratio. Debtors are anticipated to be converted into cash quickly. So, a company's ability to meet its short-term obligations depends on the caliber of the trade debtors it has. The ratio of debtors to current assets can be calculated using the formula below:

$$\text{Ratio of Debtors to Current Assets} = (\text{Debtors} / \text{Current Assets}) \times 100$$

Table 3.3.1 displays the increasing trend in the debtors-to-current-assets ratio for a sample of Indian venture capital institutions throughout the ten-year period between 2011–12 and 2020–21. Over the whole ten-year study period, from 2011–12 to 2020–21, the growth in the ratio of debtors to current assets of a small sample of venture capital organizations in India was not constant but changed sometimes.

Table No. 5 Ratio of debt to current assets of Indian venture capital institutions

YEARS	IFCI	APIDC	CANBANK	IL&FS	J B C I
2011 - 12	0.06	71.21	-	0.1	23
2012 - 13	0.23	69.69	-	0.48	22.81
2013 - 14	0.03	39.82	-	3.72	24.4
2014 - 15	0.35	54.51	-	0.48	18.94
2015 - 16	0.09	13.84	-	0.25	20.98
2016 - 17	0.11	31.52	-	0.37	30.49
2017 - 18	0.06	26	-	0.29	28.85
2018 - 19	0.44	4.3	-	0.1	69.54
2019 - 20	0.04	65.18	-	0.48	65.8
2020 - 21	3.9	4.76	-	0.91	76.6
Mean	0.53	38.08	-	0.67	40.14
SD	1.19	26.1	-	1.09	22.8
CV	224.49	68.54	-	161.54	56.8
LGR	-39.04	5.23NS	-	7.16NS	-14.9
CGR	-16.59	15.51	-	7.17NS	-13.37
r-value	-0.52	0.23NS	-	0.13NS	-0.79

Source: Annual Reports of Indian venture capital institutions.

In comparison to IL&FS Ltd., APIDC Venture Capital Ltd, and JCBI had an average debtor-to-current-assets ratio that was much greater. Canbank Venture Capital Limited's balance sheet shows no debt over the ten-year research period from 2011–12 to 2020–21. Canbank Venture Capital Ltd made no attempt to engage debtors. JCBI's ratio of debtors to current assets increased over time in a manner that was consistent with increases in the ratios of debtors to current assets at IFCI, APIDC, and IL&FS Limited.

IFCI Venture and JCBI's ratio of debtors to current assets, was a bad correlation between the years and the time series data, however. JCBI and APIDC Venture Capital Limited had a significantly higher ratio of debtors to current assets than IFCI Venture and IL&FS Ltd. For all of the sample venture capital firms, the ratio of debtors to current assets did not steadily rise over time. With the exception of Canbank Venture, all of the sample venture capital organisations' statistics about the ratio of debtors to current assets increased improperly.

Cash Flow from Operations Ratio

By comparing real cash flows from operations (rather than current and projected cash flows like inventories and debtors) with current liability, the ratio of cash flow from operations gauges the liquidity of a company. Since it is a cash measure, the ratio avoids issues with the actual convertibility of current assets like debtors and inventory as well as the requirement to maintain minimum levels of these assets. Generally speaking, the firm's liquidity position is better the greater the ratio. To calculate the cash flow from operations ratio, apply the formula below.

Cash Flow from Operations Ratio = Cash Flow from Operations/Current Liabilities

Table No. 6 Selected Indian Venture Capital Institutions' Cash Flow from Operations Ratio for a Ten-Year Period

YEARS	IFCI	APIDC	CANBANK	IL&FS	J B C I
2011 - 12	-0.03	0.02	9.09	0.04	0.01
2012 - 13	0.65	0.01	1.53	0.03	0.02
2013 - 14	0.27	0.04	22.41	1.79	0.89
2014 - 15	0.11	0.07	1.75	4.22	0.58
2015 - 16	0.19	-0.26	1.44	0.76	3.97
2016 - 17	0.06	-3.89	0.35	3.87	1.53
2017 - 18	7.56	0.06	0.37	0.05	2.67
2018 - 19	1.36	0.05	0.73	0.02	1.68
2019 - 20	92.4	0.03	0.09	9.2	0.52
2020 - 21	0.08	0.02	12.26	5.68	0.02
Mean	10.26	-0.38	5	2.56	1.18
SD	9.15	0.39	7.40	3.12	1.3
CV	282.03	-320.83	147.99	121.6	109.71
LGR	-19.12	58.57	4.22	-13.27	5.43NS
CGR	-	-	11.36	9.73	9.22NS
r-value	-0.20NS	-0.55	0.08NS	-0.33NS	0.15

Source: Financial Reports of Venture Capital Institutions in India

Table 3.4.1 depicts the growth in the data relating to cash flow from operations of selected venture capital institutions was unsteadily fluctuating from time to time. The average of cash flow from operations of IFCI Venture Capital Funds Limited was more than the mean ratio of Canbank, IL&FS Limited, JCBI, and APIDC Venture Capital Limited. The computed LGR for the data relating to the ratio of cash flow from operations of IFCI and IL&FS Limited was negative but significant at a 1 percent significance level.

Table No. 7: ANOVA computed the Ratio of Cash Flow from Operations of Selected VC Institutions in India

Variation sources	Sum of Square	Degree of freedom	Mean of Square	F-ratio	Value of P
Time Periods	133.8594	9	14.87327	0.84358	0.583806
VC Institutions	156.4371	3	52.1457	2.957593	0.050142
Error	476.0405	27	17.63113		
Total	766.337	39			

Note: NS – Not Significant at 0.05 Level, * Significant at 0.05 Level.

Table 3.4.2 shows an examination of the variation in the ratio of operating cash flow of a few venture capital organizations in India over a ten-year period from 2011–12 to 2020–21.

It is tacit from table 3.4.2 that there was no significant difference between the time periods, and the given P-value (0.5838) was not significant at a 0.05 percent significance level. Hence the null hypothesis (Ho) is accepted at a 0.05 percent significance level.

Conclusion And Suggestions

From the analysis, it can be inferred that the current assets ratio is highest in IFCI Venture Capital. Canbank Venture Capital, APIDC Venture Capital and the current assets of IL&FS Limited were moderate. For entrepreneurs looking to seek capital for their start-up businesses, finding early-stage investors like angel and VC investors can be challenging. Once you do, raising money from them can be much more challenging. Yet, venture capitalists (VCs) and angel investors are taking a big risk. The sales of new businesses are typically low to nonexistent, the founders may lack managerial experience, and the company plan may be based only on an idea or a crude prototype. There are numerous valid explanations for venture capitalists' frugal spending habits. Despite the enormous risks, VCs still invest millions in fledgling companies in the hopes that they would become the next big thing. Analyzing the worth of existing businesses and their suitability as investments is a straightforward process. Sales, profits, and cash flow generated by established enterprises can be used to assess value quite precisely. On the other hand, early-stage businesses demand a lot more work from venture capitalists in terms of penetrating the company and correctly comprehending the possibilities for the business's future growth.

References

1. Bhavesh P Chandamiya and Mital R Menapara, "Working Capital Management – Indicators of short-term financial health", Indian Journal of Research, Vol. No. 1, Issue No. 3, March 2012, pp 113-115.
2. Richard Kofi Akoto, Dadson Awunyo Vitor and Peter Lawer Angmor, "Working Capital Management and Profitability: Evidence from Ghanaian listed Manufacturing Firms", Journal of Economics and International Finance, Vol. No.05, Issue No. 09, Dec2013.
3. Mejo Varghese, Dr. R.Thiru Murugan, Radha Thangarajan. (2025). Consumer perception and purchase behavior towards eyewear products through online shopping channels in Pathanamthitta district Kerala. *European Economic Letters (EEL)*, 15(3), 663–670. <https://doi.org/10.52783/eel.v15i3.3458>
4. Mejo Varghese, Dr. R.Thiru Murugan, Radha Thangarajan. (2025). Consumer Behaviour Towards Branded Sunglasses Amongst The Students Of Kottayam City. *Journal of Informatics Education and Research (JIER)*, 5(2), 6260-6267. <https://doi.org/10.52783/jier.v5i2.3168>
5. Mahajan, A. C. (2015, December). VC investment in India grew by whopping 261%

- to\$3.86 Bnin 2014
6. Zaidi, L. (2013). Problems Affecting the Growth of Small and Medium Enterprises in India: Co-integration Analysis. International Conference on Technology and Business Management. Retrieved July 2016
 7. M Haritha, Mr. Ravi V, and Mr. Maruthi Reddy (2012), "Role of Venture Capital in Indian Economy", IOSR Journal of Business and Management, ISSN Number – 2278-487X.
 8. Bhavesh P Chandamiya and Mital R Menapara, "Working Capital Management – Indicators of short term financial health", Indian Journal of Research, Vol. No. 1, IssueNo. 3, March 2012, pp 113-115.
 9. Richard Kofi Akoto, Dadson Awunyo Vitor and Peter Lawer Angmor, "Working Capital Management and Profitability: Evidence from Ghanaian listed Manufacturing Firms", Journal of Economics and International Finance, Vol. No.05, Issue No. 09, Dec2013.
 10. Thangarajan R, Ahamed S B I, M Sunkapur S, Kumar S H, K M R, B B. Influence of Digital Marketing in Shaping Consumer Purchase Behaviour. J Neonatal Surg [Internet]. 2025Mar.28 [cited 2025Apr.16];14(5):620-9. Available from: <https://jneonatalsurg.com/index.php/jns/article/view/2728>
 11. Radha Thangarajan, Prabhakaran J, Nagarajeswari M, Josephin Rebecca M, Samisha B ,Vinay M (2025) "Sustainable Business Growth- Perception and Perseverance of Women Entrepreneurs" Journal of Information Systems Engineering and Management, Vol. 10 No. 11s (2025), 289-305. DOI: <https://doi.org/10.52783/jisem.v10i11s.1589>
 12. Thangarajan R, Kumar S, N. R. Investigating The Factors Behind Women Entrepreneurs' Unsustainable Progress in Health Care Sector. J Neonatal Surg [Internet]. 2025Feb.14 [cited 2025Feb.15];14(2):99-105. Available from: <https://www.jneonatalsurg.com/index.php/jns/article/view/1740>
 13. Radha,T. & Viji, R. (2021) "SHG- A dynamic tool for socio-economic up gradation of semi-urban women" International Journal of Research in Commerce, IT and Management, Vol.11, Issue.2, pp.1-5. Retrieved from https://ijrcm.org.in/article_info.php?article_id=9541
 14. Radha T. (2024). Volatility in Sustainable Financial Growth through Predictive Analytics for Women Entrepreneurs in Tamilnadu. International Journal of Intelligent Systems and Applications in Engineering, 12(21s), 3774 –. Retrieved from <https://www.ijisae.org/index.php/IJISAE/article/view/6127>
 15. Radha T. (2024). Evaluating Institutional Support for Financing Women Entrepreneurs in Tamilnadu and Karnataka using Predictive Analytics. *International Journal of Intelligent Systems and Applications in Engineering*, 12(4), 3461 –. Retrieved from <https://ijisae.org/index.php/IJISAE/article/view/6862>
 16. Thangarajan, R., Jaganathan, P., Thirumoorthy, K., Kesavan, H., & Pradeep, P. (2024). An empirical study on financial performance of micro finance Institutions. *Multidisciplinary Science Journal*, 6, 2024ss0428. <https://doi.org/10.31893/multiscience.2024ss0428>
 17. Radha T. (2024). Volatility in Sustainable Financial Growth through Predictive Analytics for Women Entrepreneurs in Tamilnadu. *International Journal of Intelligent Systems and Applications in Engineering*, 12(21s), 3774 –. Retrieved from <https://www.ijisae.org/index.php/IJISAE/article/view/6127>
 18. Radha Thangarajan, Dr. P. Samantha, Dr. S. Chandra, Pavithra, Dr. Santosh M Sunkapur, Raji N (2024)Financial Freedom, Self-Determination and Social Change of Small-Scale Women Entrepreneurs Through Microcredit. Library Progress International, 44(5), 26-34.

- <https://bpasjournals.com/library-science/index.php/journal/article/view/3915/3633>
19. Radha Thangarajan, J. Merlin Sheela Magdaline, Sreelakshmi AR, Lalitha, Binila B Chandran, “Microcredit and Women’s Entrepreneurship: As a Pathway to Financial Freedom and Social Change”, *EEL*, vol. 14, no. 4, pp. 1831–1838, Dec. 2024.
 20. Thangarajan, R., Jaganathan, P., Thirumoorthy, K., Kesavan, H., & Pradeep, P. (2024). An empirical study on financial performance of micro finance Institutions. *Multidisciplinary Science Journal*, 6, 2024ss0428. <https://doi.org/10.31893/multiscience.2024ss0428>
 21. Annual Reports of IFCI Venture Capital Funds Limited from 2011-12 to 2020
 22. Annual Reports of APIDC Venture Capital Limited from 2011-12 to 2020-22
 23. Annual Reports of Canbank Venture Capital Limited from 2011-12 to 2020-21.