

Role of Infrastructure Investment Trusts (INVITS) in India's Infrastructure Development

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ABSTRACT:

Infrastructure Investment Trusts (InvITs) are new financial instruments in India, created to meet ever increasing demand of funding for infrastructure development, which is crucial for economic development of any country, especially a developing country like India. InvITs are created to provide varied sources for its funding and mobilizing private capital to support infrastructure development. This paper provides insight on InvITs' structure, regulation, and operations throughout time. Further, the study compares the cost of funds for InvITs with other infrastructure instruments in debt market and analyzes returns on investments in various public listed InvITs. The study is based on secondary data and results suggests that InvITs has brought new investment to India's infrastructure industry and provide additional opportunities to mobilize private investments in infrastructure and raise funds at lower costs than traditional sources of funds. Investors benefit from generating regular cash dividends, a steady return by investing in InvITs and it also provides the opportunity for the sponsor(s) to expand the size of their asset portfolio.

Keywords: *Infrastructure Development, Infrastructure Investment Trust (InvIT), Securities and Exchange Board of India (SEBI), Development Economy, Special purpose Vehicle (SPV), financial instruments.*

1. INTRODUCTION:

India, with its rapidly growing population and increasing urbanization, need strong infrastructure to support its economic development (Pradhan et. al., 2021). The infrastructure sector plays a pivotal role in propelling the Indian economy (Unnikrishnan & Kattookaran, 2020). The sector is responsible for promoting India's overall development (Aswal, 2020) and gets substantial government focus to enforce laws that ensure the timely construction of high-quality infrastructure in the country. The infrastructure sector includes several domains such as transportation, energy and electricity, municipal solid waste management, water and wastewater management, social infrastructure, and information and communication technology (ICT) development. The past years' engagement in infrastructure has yielded valuable perspectives on prioritizing poverty reduction, growth and improvement in the business sector, guaranteeing environmental and social sustainability, tackling corruption, project design and assessment and improving stakeholder communication (Bhattacharya & Jeong, 2018).

According to Mckinsey Global Institute's 2016 research report, infrastructure expenditures typically provide 20% socio-economic returns. To explain this, it is assume that one rupee of infrastructure investment may boost GDP upto 20 paisa (20%) over time (Bhattacharya & Jeong, 2018). Availability of quality and quantitative infrastructure helps in increasing productivity via measures like reduced commuting time and costs, reliable electricity, and internet access to the global digital economy has the biggest economic effects (Sarangi & Pradhan, 2020). When chosen and executed correctly, infrastructure upgrades may have 20:1 benefit-cost ratios (Jones et al, 2014). Infrastructure construction not only boosts productivity and it also creates employment (Barbosa et al, 2017). The one percentage point increase in infrastructure investment as a percentage of GDP may create around 3.4 million direct and indirect jobs. (Moszoro, 2021).

India nearly spends INR 57,000 billion on infrastructure between 2013 and 2017, which, at the current pricing level, equates to 5.8% of its GDP (NIP, 2019). India around needs to spend \$4.5 trillion in infrastructure by 2030 to reach its \$5 trillion economic objective, since this sector multiplies the GDP. To achieve this, Infrastructure expansion should be prioritized for 7–8% growth (George, 2023).

Private sector investment in infrastructure started to decrease towards the conclusion of the 12th five-year plan of India bowing to problems associated with acquiring property, delays caused by permissions, difficulties in relocating utilities, absence of a dispute resolution procedure, and intense competition from the private sector (Nagaraj, 2020). Due to financial constraints, the government was unable to provide the necessary funds to finance infrastructure, leading to delays in the completion of these projects (Durdyev & Hosseini, 2020). The government has projected to spend INR 111,000 billion on infrastructure between fiscal year 2020 to 2025 under the National Infrastructure Pipeline (NIP) program (Dar, Rehman, & Wani, 2023). Approximately 70% of the authorized funding is projected to be donated by the central and state governments, while the other 30% will come from the private sector (Shah, M., & Bhagwat, K. (2022).

In 2014, SEBI approved the implementation of Infrastructure Investment Trust (InvIT) Regulations in India to address the necessity for extra capital in funding Infrastructure projects. InvITs as a conceptual, came in existence with vision that it will play a vital role in fostering infrastructure development in India by offering a creative financial mechanism to address financing shortfalls and promote the expansion of various industries. This study examines the diverse and complex function of InvITs in funding and facilitating the growth of infrastructure projects around the nation.

In this study, the research has studied the evolution and structure of Infrastructure Investment Trust (InvITs) in India. The study also analyze the feature and advantages by which InvITs improve the funding environment and attract long-term investments by providing a platform for investors to access infrastructure assets that provide steady cash flows. This helps to reduce the risks associated with project financing. The consistent and reliable profits created by the infrastructure assets in the InvIT portfolio make them a very appealing investment choice for a wide range of investors, therefore contributing to the expansion of the infrastructure sector.

The study progresses into 6 sections, the 2nd section presents review of literature focused finance and needs of new financial instruments to induce more private capital in growth of infrastructure in India. Objective of the is mention in the section 3, wherein first objective is to study the evolution and structure of InvITs. Second and third is find out if InvITs as a financial instruments is beneficial for investors as well as issuers. Section 4th section provide research methodology used for the study which is descriptive in nature for objectives 2 and 3. Section 5 presents data analysis and its Interpretation. Section 6, concluded the outcome of the papers. Further section 7 and 8 provided suggestion and limitations respectively.

2. LITERATURE REVIEW:

The development of an infrastructure megaproject is a complex undertaking that requires the use of several financial mechanisms, careful analysis of numerous economic and social factors, and the participation of a varied group of stakeholders with sometimes conflicting interests (Pitsis et al 2018). Contemporary policymakers recognize that the choice of a financing model has a dual impact: it determines the future costs of financing and the societal commitments, as well as influencing the eventual success of projects (Gatti,2023). The selection of financial instruments for extensive infrastructure projects also yields significant broader economic ramifications and unanticipated consequences, such as the imposition of borrowing constraints, downgrades in credit ratings, deficiencies in infrastructure, and potentially even repercussions on economic growth. (Carbonaro et al, 2018).

The main sources of infrastructure finance are governments and public agencies, multilateral institutions, bank loans, and domestic and international capital markets (Anguelov, 2021).. In recent years, the first two, which are the more conventional pillars of finance, have lowered the amount of cash available to devote to infrastructure expenditures, while they remain major participants (Ray& Bisbey, 2020).

Although most of the infrastructure investment in India was financed by the state in the past, the government only showed significant interest in infrastructure towards the end of the previous century. Significant resource allocation occurred, either from budgetary sources or via concessional finance. These initiatives were terminated because of financial limitations and the firm conviction that providing subsidized money for project loans should cease. (Patel & Bhattacharya, 2010).

The infrastructure landscape in India has seen a substantial transformation throughout the years. The infrastructure sector, which was formerly owned, managed, and operated by the government, has seen a growing involvement of private entities under the public-private partnership (PPP) model (Kumar et.al. 2022).

Private involvement in infrastructure projects in India involves granting the private sector the authority to construct, manage, maintain, and transfer infrastructure projects. In addition to private capital inflows for physical investment requirements, money is also directed towards infrastructure projects in India via portfolio investors. These investors engage in structured financial transactions based on the cash flow generated by existing infrastructure projects. The portfolio inflows consist of investments made by local and foreign fund houses, pension funds, insurance companies, and other entities. These entities engage in the anticipation of receiving returns via long-term, predictable cash flow generated by their assets. These portfolio inflows and investment offers are relatively new but have been successful in attracting significant resources. (Baci et. al. 2022).

Infrastructure Investment Trusts (InvITs) were formed with the main objective of creating an alternate channel for financing infrastructure projects. The funding of the nation's overall infrastructure has mostly depended on banks and government spending, resulting in imbalances between assets and liabilities and hindering the advancement of new infrastructure projects. InvITs has the capacity to have a substantial influence on the infrastructure sector in India, hence acting as a catalyst for transformation in this field. Infrastructure Investment Trusts (InvITs) have the potential to completely transform the way infrastructure is financed in India. Given the ongoing advancements in infrastructure financing, it is important to analyze InvITs as a feasible investment choice that might promote and expedite the expansion of infrastructure in India. Infrastructure Investment Trusts (InvITs) provide a mutually advantageous situation for investors, developers, and India as a whole. These financial instruments provide investors with a dependable and long-lasting investment opportunity, while also allowing developers to decrease their debt load and access funds for further growth. Furthermore, InvITs play a significant role in promoting India's development by drawing supplementary investments towards infrastructure projects that are still in process and have not yet been finished.

3. OBJECTIVES:

1. To study the structure and evolution of Infrastructure investment trusts (InvITs) in India.
2. To compare the return on investment made in InvIT vis-vis risk free assets and Nifty.
3. To study and compare the benefits for the sponsor of the InvITs with the traditional infrastructure SPV for raising the Debt.

4. RESEARCH METHODOLOGY:

The methodology that have adopted in this papers is descriptive research for 2nd and 3rd objective. The secondary data is collected for objective 2 from various sources viz. NSE, Reuters, individual InvITs website, SEBI, FBIL etc and used for the calculation of total returns, average annual return and Beta and further compare for three public listed InvITs, 2 private listed InvITs, 10yr Indian Government securities, Two benchmark indices of National Stock Exchange (NSE) i.e. NIFTY50 & NIFTY INFRA for the period of 2018 to 2023. For 3rd objective, cost of debt raising debt by the infrastructure companies/SPV is compared with the InvITs in debt market for last one year.

5. DATA ANALYSIS AND INTERPRETATION:

5.1 Structure and Evolution of Infrastructure Investment Trusts (InvITs) in India

5.1.1 About InvIT

InvITs are trusts that manage infrastructure assets, such as operating roads and transmission lines, that provide stable cash flow and have long concession terms (Mallick, 2021). InvITs undergo registration and subsequent listing on the stock market to offer their units to investors, including pension funds, sovereign wealth funds, and insurance companies (SEBI). A significant portion of these people are investors with a long-term perspective who expect returns that correspond to the cash flow produced by the underlying asset.

5.1.2 Types of InvIT

There are three sorts of InvIT based on perspective of source of fund as tabulated below:

Table 1: Type of InvITs

Publicly Offered InvIT	Privately placed listed InvIT	Privately placed unlisted InvIT
Initial units are offer through public issuance. Their units are available to the public (min 20 investors), with a minimum investment of (INR 10,000-15000) and trading lot of 1 unit. The Net distribution of cash flow (90%) is at least once every six months. Mandatory listed is also required on stock exchange.	Issuance is done through private placement and their units are available only to Institutional investors (min 5, max 1000 investors) with a minimum investment of (INR. 1 crore/ INR. 25 crore) and a trading lot of (INR. 1 crore/INR. 2 crore). The Net distribution of cash flow (90%) is at least once every year. Mandatory listed is also required on stock exchange.	Their units are available only to Institutional investors (min 5, max 20 investors) with the required investment of at least (INR. 1 crore). The Net distribution of cashflow (90%) is at least once every year. Listing is not permitted.

Source: SEBI/CARE/CRISIL reports

*effective from January 01, 2023, unlisted InvITs are no longer permitted.

**As on date there were 23 registered InvITs in India.

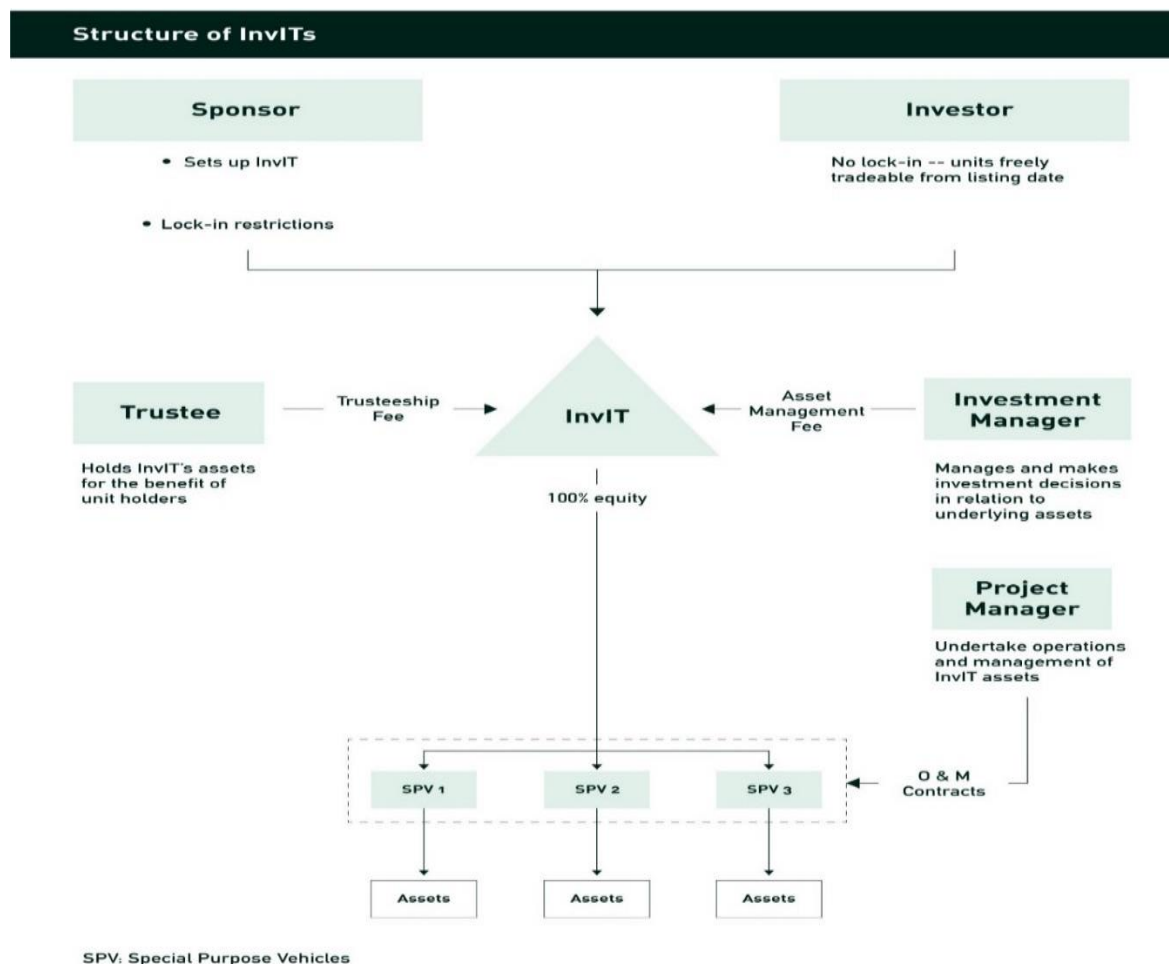
5.1.3 Evolution and Timeline of InvIT in India

Table 2: Timelines of evolution of InvITs in India.

Year	Event
2008	Concept Planned to Introduce by SEBI
2013	SEBI introduced draft regulations on InvITs
2014	SEBI issued final InvIT regulations
2015	Special tax regime for InvITs introduced: -Exemption to sponsor on transfer of shares in lieu of units of InvITs. -Pass-through status to certain streams of income of InvITs.
2016	-SEBI issued guidelines for public issue of InvITs. -Exemption from dividend distribution tax was introduced in the distribution chain -Two levels SPVs were allowed. -Sponsor holding minimum requirement reduced to 5% from 25% on post- issue basis
2017	-Banks, insurance companies and mutual funds allowed to invest in business trusts/InvITs -Allowed to issue debt securities in market. -Allotment and trading lot size reduced. -First public InvITs launched- IRB InvIT.
2018	-SEBI issued guidelines for issue of debt securities for InvIT and for preferential issue of InvIT units. -Withdrawal of exemption of capital gains tax on sale of listed units of InvITs -First private launched- IndInfravit
2019	-Borrowing limits increased for listed InvIT from 49% to 70% of the value of InvIT assets subject to certain conditions. - Introduction of a new regulatory framework for privately placed unlisted InvITs

Source: SEBI, EY report (2022) and Shah, & Bhagwat (2022).

5.1.4 Structure of InvIT



5.1.5 InvIT Players in India

1. Public Listed InvIT (NSE/BSE platform):

2.

Table 3: Public Listed InvITs in India

S.No	Name	Sponsor	Asset Type	Unitholders' capital (Rs. Bn)	Enterprise Value (Rs. Bn)
1	IRB InvITs Fund	IRB	Road & Expressway	78.36	162
2	India Grid Trust	KKR	Power	59	82.44
3	Power Grid InvIT	Power Grid	Power Transmission	91	86

Source: SEBI/NSE/BSE/InvIT website

3. Private Listed InvIT (NSE/BSE platform):

Table 4: Private Listed InvITs

S.No	Name	Sponsor	Asset Type/Sector	Unitholders' capital (Rs. Bn)	Enterprise Value (Rs. Bn)
1	Anzen India Energy Yield Plus Trust	Sekura Energy Pvt Ltd	Power Transmission	15.8	22.8

2	Cube Highways Trust	Cube Highways	Road & Expressway	129	244
3	Data Infrastructure Trust	Brookfield	Telecom infrastructure	252	418
4	Digital Fibre Infrastructure Trust	Reliance Industrial Investments and Holdings Limited (“RIIHL”)	Telecom infrastructure	1470	1758
5	Highways Infrastructure Trust	Galaxy Investments II Pte. Ltd. (KKR)	Road & Expressway	75	100
6	India Infrastructure Trust	Brook-field	Gas pipeline	66	70
7	Indian Highway Concessions Trust	Maple highway pte ltd	Road & Expressway	35	100
8	Indinfravit Trust	L&T IDPL	Road & Expressway	104	362
9	Intelligent Supply Chain Infrastructure Trust	Reliance retail ventures limited	Logistics & warehousing infrastructure	30	54
10	IRB Infrastructure Trust	IRB & GIC	Road & Expressway	102	287
11	National Highways Infra Trust	NHAI	Road & Expressway	73	112
12	Oriental Infratrust	Oriental group	Road & Expressway	59	136
13	Shrem Invit	Shrem Group	Road & Expressway	58	117
14	Sustainable Energy Infra Trust	Mahindra & Ontario pension Fund	renewable energy	32	71

Source: SEBI/NSE/BSE/InvITs website

InvITs have emerged as innovative financial instruments designed to mobilize capital for infrastructure projects, addressing the perennial issue of funding gaps in this sector.

4. Details of InvITs registered with SEBI but not listed yet.

Table 5: Registered by not listed InvITs

S.No	Name	Key Investors/Sponsor	Assest Type/Sector
1	Athaang Infrastructure Trust	National Investment & Infrastructure Fund (NIIF)	Road & Expressway
2	Bharat Highways InvIT	GR Infra	Road & Expressway
3	NDR InvIT Trust	Ndr warehousing private limited	Logistics & warehousing infrastructure
4	Nxt-Infra Trust	Actis	Road & Expressway
5	Roadstar Infra Investment Trust	ongoing	Road & Expressway
6	SchoolHouse InvIT	Precise credit solutions 3 srl	education infrastructure

Source: SEBI

5.1.6 Fund raising InvITs in India

The funds raise by the InvITs in India has increase over the years. Funds raised through public issue, private placement, preferential issue, institutional placement, rights issue by InvITs in India for last 5 years is detailed below.

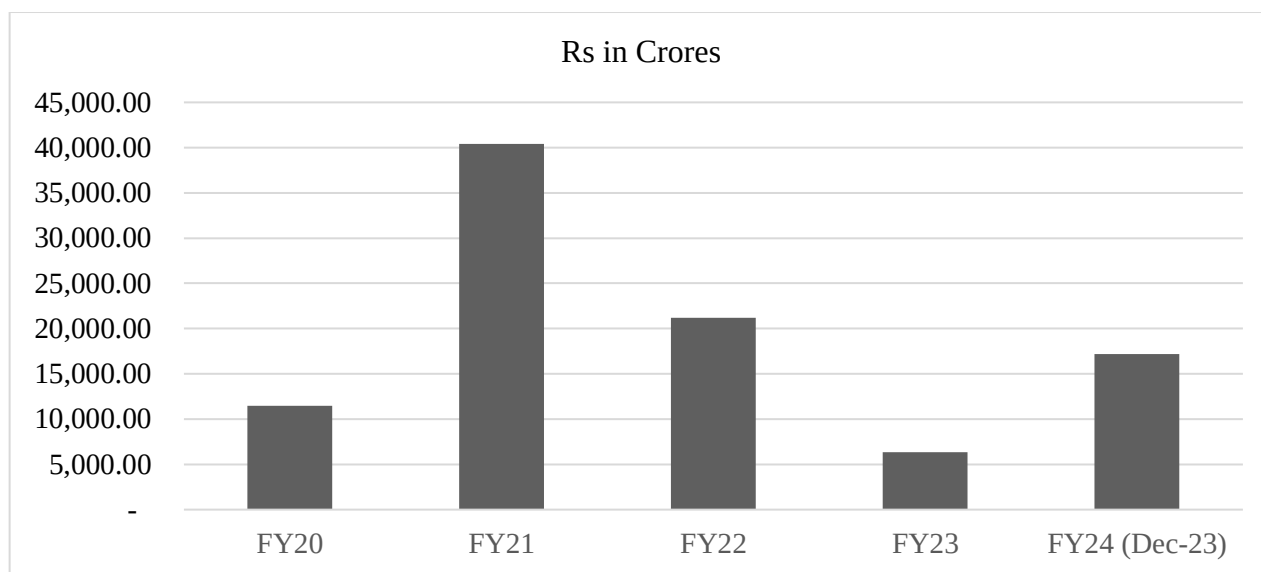


Figure 1: funds in the form of Equity/non debt type instruments by InvITs (Source : SEBI)

Above tables depicts the evident from the recent debut of Infrastructure Investment Trust (InvIT) issues and their impressive ability to mobilize funds

5.1.7 Role of Key stakeholders

Unitholder/ Investor: The unitholder actively engages in the subscription of InvIT units. The Infrastructure Investment Trust (InvIT) allocates a certain sum of money towards acquiring income-generating infrastructure assets. The InvIT receives income in the form of interest, dividends, and debt repayment from the generating assets (Sinha, (2017). This income is then distributed to the unitholders. The overall returns for the unitholders are also influenced by changes in the market price of the units, which are in turn affected by trends in interest rates and the appreciation of the infrastructure assets held by InvIT (Tirumala & Tiwari, 2023).

The sponsor assumes the responsibility of transferring the initial portfolio of assets to the Infrastructure Investment Trust (InvIT) and oversees the formation transactions required to establish the InvIT. It is a requirement for the sponsor(s) to collectively hold a minimum of 15% of the units issued by the InvIT for a duration of at least 3 years from the date of issuance (Dhyana, 2022).

A trustee is an individual or entity responsible for the appointment and supervision of the Investment Manager and Project Manager. This trustee is duly registered with the Securities and Exchange Board of India (SEBI) as a debenture trustee.

The role of the Project Manager includes the oversight and administration of the project assets maintained by InvIT.

The Investment Manager (IM) has the responsibility of overseeing the daily operations and activities of the InvIT.

5.1.8 Investment by InvITs

The Investment Trust is to allocate a minimum of 80% of its value to infrastructure projects that have been finished and are producing income, while allocating less than 10% to projects that are still under development. InvIT units that allocate over 10% of their funds to under-construction projects are held privately, since this provides them with more investment flexibility. The privately placed Infrastructure Investment Trust (InvIT) aims to attract institutional investors and business entities (SEBI).

InvITs have the option to make investments either directly or via a Special Purpose Vehicle (SPV), which may include a holding company. Investment trusts maintain a majority ownership and financial stake of at least 50% in special purpose vehicles (SPVs). SPV's are limited in their ability to engage in any activities beyond those that are directly related to the underlying projects.

An Infrastructure Investment Trust (InvIT) is prohibited from making investments in other InvITs in order to prevent crossholdings (Shah & Bhagwat2022).

InvITs are a suitable vehicle for directly owning infrastructure projects in India. Nevertheless, it is obligatory to invest in the PPP Project via a Hold Co/SPV. Investments made in a Holding Company are subject to the following conditions: (a) The minimum investment in SPVs by InvITs shall be at least 26%. (b) It is important that other partners or shareholders do not restrict the adherence of an InvIT, Hold Co/ SPV to the rules governing InvITs. SEBI mandates the listing of newly issued InvIT units within a period of three years from the registration date in order to provide liquidity for investors. Failure to comply with this requirement leads to the cancellation of its SEBI registration.

5.1.9 Cash-Flow in InvIT

Cash produced by the InvIT-held projects is upstreamed through three streams into the InvIT viz. Dividends, interest and repayment of loans advanced to the projects by the Trust (Jaishankar, Tripathi & Sharma2022).

1. Dividends: Dividend income distributed by the Trust is excluded from tax when received in the hands of all unit holders (dividends are paid from the profit made by the InvIT; with increase in profit the proportion of dividend distribution rises thus giving unit holders the add-tax advantage)
2. Interest: Interest income is taxable as regular income for unit holders, as if the interest has been directly received by them.

5.1.10 Distribution Policy in InvITs

In accordance with the applicable provisions of the 2013 Companies Act and the Limited Liability Partnership Act of 2008, over 90% of the total cash flow received by the Special Purpose Vehicle (SPV) is distributed to the investment trust that holds shares in the SPV. Additionally, no less than 90% of the cash generated by the investment trust is distributed to the unit holders who have been allocated units. It is mandatory to formally announce and provide distributions and publicly listed Infrastructure Investment Trusts (InvITs) every six months. When an investment trust or special purpose vehicle (SPV) sells assets, the resulting funds may be reinvested into another property or infrastructure asset, without the expectation of distributing the revenues from the sale. Nevertheless, in the absence of any reinvestment, a minimum of 90% of the revenues generated from sales would be allocated to the unit holders.

5.1.11 Tax Structure

Dividend Distribution Tax (DDT) does not apply to distributions paid by Special Purpose Vehicles (SPVs) to Infrastructure Investment Trusts (InvIT). However, to be eligible for this exemption, the Infrastructure Investment Trust (InvIT) must own the whole share capital of the Special Purpose Vehicle (SPV), except for the amount that is required to be held by other individuals or entities (Singh & Ahmad 2022). The SPV is not obliged to deduct any tax at source on the interest paid to the Trust for loans and advances, since it is not subject to taxation. The capital gains obtained by the Sponsor from exchanging its shares in SPV for units of InvIT will be deferred and subject to taxation only upon the sale of the units. Regarding revenue distributed by InvIT, which encompasses Interest, Dividends, and Capital Gains, only the interest portion of the income received by the trust's unit holders will be subject to taxation, while the rest will be exempt.

Unit holders will be required to pay a security transaction tax on the capital gains on the sale of listed InvIT units, like the tax imposed on listed equity shares. STCG would incur a tax rate of 15%, whilst LTCG would be free from taxation. When units are sold outside of an exchange, Long-Term Capital Gains (LTCG) and Short-Term Capital Gains (STCG) are imposed at the rates that are relevant. Maturing revenue and profits from the sale of InvIT units will be liable to Minimum Alternate Tax (MAT). Non-resident/offshore investors are subject to a 5% tax rate. Any applicable benefits may be used under the Double Tax Avoidance Agreement (DTAA). Units held for more than 36 months are eligible for tax exemption

on long-term capital gains (LTCG), but units held for less than 36 months are subject to a 15% tax on short-term capital gains (STCG).

5.1.12 Leverage restriction

InvIT, Hold Co and SPV(s) aggregate net consolidated borrowing and deferred payments are limited to 70% of total value of assets managed by the InvIT. For consolidated borrowings and deferred payments of greater than 25% of value of InvIT's assets following provisions are made:

- a. Minimum prescribed Credit-rating
- b. Acceptance from unit holders (in which the number of votes casted in favor should be greater than those casted against)
- c. If the following parameters are breached due to price movement in the underlying assets/ securities, a six-month adjustment period is allowed.

5.1.13 Raising Funds

InvITs can generate funds by means of a public offering or a private placement. Every InvIT is required to have its units listed on a well-recognized stock market. The assets of InvIT should possess a minimum valuation of INR 500 crore, while the first offer size should be no less than INR 250 crore. To participate, each investor must spend at least INR 10 lakh (INR 1 crore for private placement) and there must be a minimum of 20 investors (5 for private placement), with each investor owning no more than 25% of the units. Through the automated process, those who are not residents, such as overseas portfolio investors, can make investments in InvITs. If an Infrastructure Investment Trust (InvIT) does not make a satisfactory offer for its units, either via a public offering or a private placement, within three years of being registered by the Securities and Exchange Board of India (SEBI), it would lose its registration certificate and be unable to function as an InvIT.

5.1.14 Investments Restrictions

An Infrastructure Investment Trust (InvIT) can make direct investments or invest via Special Purpose Vehicles (SPVs) in infrastructure projects. Special purpose entities (SPVs) are required for infrastructure investment in PPP projects. Under the InvIT Act, investors are allowed to allocate funds to both completed and income-generating enterprises, as well as those that are still in the process of being built. Publicly listed Infrastructure Investment Trusts (InvITs) must allocate a minimum of 80% of their assets to infrastructure projects that are already finished and producing income. It is important to note that this requirement does not apply to privately placed InvITs. They have the authorization to allocate a maximum of 10% of their total assets towards investments in projects that are currently under development. An Infrastructure Investment Trust (InvIT) is required to use the private placement method if it intends to invest an amount exceeding 10% of its capital. An Infrastructure Investment Trust (InvIT) is prohibited from investing in units of other InvITs.

5.1.15 Asset Valuation

It is necessary to conduct a comprehensive assessment of all assets, including a thorough study of all infrastructure projects, at least once a year (or every six months for public InvITs). Furthermore, before the InvIT, it is necessary to do a valuation before issuing any extra units, except for Bonus units. For every transaction related to the buying or selling of an InvIT asset, it is necessary to have a thorough valuation conducted by an independent valuer for each specific project. The transaction amount is limited to 110 percent for acquisitions and 90 percent for sales, based on the assessed value.

5.2 Return on Investment on different asset classes

The sample data (last 5 years) used for this study consists of annualized returns of risk free asset viz Government securities (10 year bonds), Nifty Fifty (Equity Index), Nifty Infra Index (Infra Indes), three public listed InvITs and two private listed InvITs. The return included the price change in the equity/bond/InvITs and total dividend received/paid by them.

The major return from the investment in the InvITs for investors is dividend distribution income as the regulations of SEBI, net distributable cash flows (NDCF) shall be 90% of income.

The returns was calculated using the following equation:

$$R_i = [(P_{i1} - P_{i0}) + D_{i1}] / P_{i0}$$

Where

R_i = yearly returns for Investment Trust, i

P_{i1} = Stock or Fund Closing Value

P_{i0} = Stock or Fund Beginning Value

D_{i1} = Dividend Received or Paid at the end of the Period for Investment Trust, i

The result of returns and beta (volatility relative to its market benchmark (nifty 50).) was compare similar instruments as tabulated below:

Table 6: Returns on different financial instruments

Particulars	G sec (10 yrs)	Nifty 50 Index	Nifty Infra Index	IRB InvIT	India Grid InvIT	Power Grid InvIT	Shreem InvIT	India infra InvIT
Total Return (in absolute terms)	45.03%	86.5%	56.1%	40.8%	116.0%	38.9%	19.4%	12.5%
Annualized Return (Average)	6.84%	11.73%	8.25%	6.22%	14.69%	21.63%	14.37%	5.04%
Beta Vs Nifty 50 Index	0.001	1.00	0.03	0.04	0.04	-0.01	0.03	0.04

Authors Compilation, data: (BSE/NSE/BSE/Reuters/InvITs websites)

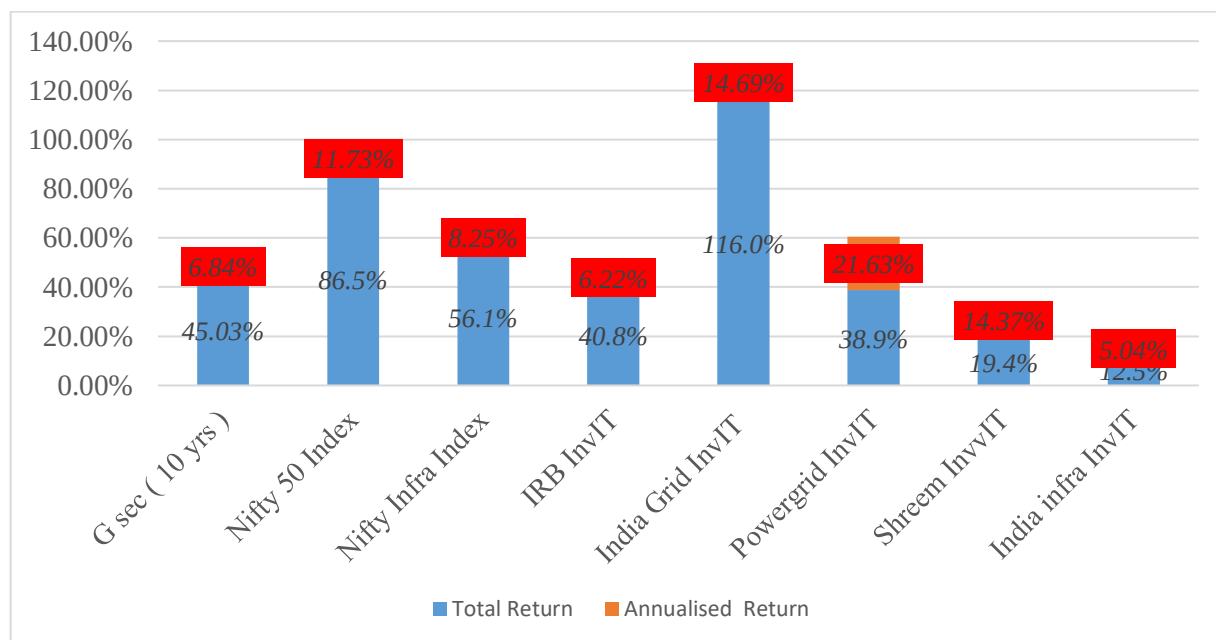


Figure- 2: Returns on different financial instruments (Source: Authors Calculation, data: NSE/BSE/Reuters)

The result of the above table and figure shows that the annualized return of two index i.e. Nifty 50 is 11.73%p.a. & Nifty Infra is 8.25%p.a. and G-sec is only 6.84%p.a. However, the returns for the public listed InvITs are 6.22%p.a., 14.69%p.a. & 21.63%p.a. respectively. Further the return of private listed InvITs are 14.37%p.a. and 5.04%p.a. respectively.

Thus the return of two of the public InvITs and one private InvIT is better than the Index or G-sec.

5.3 Debenture/Debt issuances by Infrastructure SPVs and InvITs issued in FY 2023-24 in the market (till Sept-23).

Details of the recent debt issuance in the market in the form of debentures by Special purpose Vehicle (SPV) i.e. Infrastructure company and the InvITs which having SPV's as their assets.

Table 7: Debt issuance by Infrastructure companies

ISIN No.	Type of assets	Issue Size (in Cr)	Issue Date	Tenor (in year)	Coupon Rate
INE0KIN08028	BOT- Toll	541.7	May-23	36	15.00%
INE00NT07027	BOT -HAM	22.0	May-23	12	13.00%
INE00NS07011	BOT -HAM	200.0	Jun-23	12	13.00%
INE00NS07029	BOT -HAM	786.0	Jun-23	12	13.00%
INE03ST07020	BOT- Toll	833.7	Aug-23	16	8.20%
INE03ST08010	BOT- Toll	160.0	Aug-23	16	8.20%
INE07KR07014	BOT - HAM	200.0	Aug-23	17	12.00%
INE548I08059	BOT- Toll	62.1	Aug-23	30	14.00%
INE0KIN08036	BOT- Toll	271.7	Sep-23	36	15.00%

(Source: ICRA Report/NSE/BSE/Reuters)

Table 8: Debt issuance by InvITs

InvITs	Type of assets	Issue Size (in Cr)	Issue Date	Tenor (in year)	Coupon Rate
Indinfravit Trust	BOT- Toll/BOT- Annuity	1375.0	Jun-23	17	7.85%
Cube Highways Trust	BOT- Toll/BOT- Annuity	1030.0	Jun-23	18	7.49%
Highways Infrastructure Trust	BOT- Toll/BOT- Annuity	500.0	Sep-23	3	7.80%

(Source: ICRA Report/NSE/BSE/Reuters)

As per the data as shown in above tables, it is depicted that cost of borrowing for the InvITs is much lower than the SPVs. This is evident from the recent debut of Infrastructure Investment Trust (InvIT) issues and their impressive ability to mobilize funds.

InvITs have emerged as innovative financial instruments designed to mobilize capital for infrastructure projects, addressing the perennial issue of funding gaps in this sector.

6. CONCLUSION:

The success of InvITs in India may be ascribed to many causes. To begin with, InvITs provide a novel opportunity for infrastructure developers to get financing for their projects. This has effectively mitigated the financial shortfall in the infrastructure industry in India. Additionally, InvITs provide investors the chance to invest in infrastructure assets and generate consistent income. This has facilitated the attraction of a new cohort of investors to the infrastructure sector in India. Furthermore, InvITs provide a tax-efficient framework for infrastructure developers to capitalize on their assets. This has facilitated the realization of the value of infrastructure assets in India. Furthermore, InvITs provide a medium for infrastructure assets to be expertly supervised, resulting in improved operational effectiveness and increased profits for investors. InvITs are subject to regulation by SEBI, ensuring that investors have access to a transparent and well-regulated investment platform. The proliferation of InvITs in India is evident from the multitude of InvITs that have been introduced in the country since the inception of the first InvIT in 2017. The success of InvITs in India is seen in their performance and

the ability to raise cash at a reasonable cost. Investment Trusts (InvITs) provide advantages to both investors and developers.

InvITs provide several benefits from an investor's standpoint. InvITs provide investors the chance to invest in infrastructure assets and get consistent income. Additionally, InvITs provide a varied collection of infrastructure assets, which may effectively reduce hazards. Additionally, InvITs provide a tax-efficient framework for investors to generate profits on their investments. Furthermore, InvITs are subject to regulation by SEBI, ensuring that investors have access to a transparent and well-regulated investment platform. InvITs provide a platform for the professional management of infrastructure assets, resulting in improved operational efficiency and increased returns for investors.

From a developer standpoint, InvITs provide several benefits. Firstly, InvITs provide a tax-efficient mechanism that enables the conversion of assets that are still under development or generating income into liquid assets. Furthermore, InvITs provide a cost-effective means of obtaining equity finance, which may be used to replace expensive loans associated with ongoing projects. This allows for further borrowing from banks at favorable interest rates. Furthermore, the varied portfolio of an InvIT might lead to a reduced borrowing cost at the InvIT level in comparison to the project level. This may lead to higher equity returns for both developers and investors in the long run. Furthermore, InvIT finance has the potential to release the current cash of developers, enabling them to allocate it towards further ventures.

The success of InvITs in India may be primarily ascribed to the unique regulatory environment established by SEBI, the tax-efficient structure of InvITs, and the proficient management of infrastructure assets facilitated by InvITs.

7. SUGGESTIONS:

The introduction of InvIT is seen as an ambitious endeavor with optimistic expectations that may significantly contribute to fulfilling India's critical infrastructure needs, through an innovative investment vehicle, that are not only mobilizing substantial funds but also introducing effectiveness, clarity, and steadiness into the country's infrastructure sector, laying the foundation for long-term sustainable progress and advancement. Government may also raise funds by monetize its existing assets through InvITs and play a market role for provide safe and better return for the investors and also to raise debt at a lower rate.

8. LIMITATION:

The present research is limited to the comparison between few asset classes and not taking the all universe. The comparison is not made between the all different InvITs listed in India (public and private). Further research may also be done to compare the return of the public listed and private listed InvITs. Further the study has not included with respect to the return on investment of InvITs is also having advantage/disadvantage over the inflation.

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