

Revenue Diversification and Growth Dynamics: A Comparative Study of Selected IT Companies in India

Ajay Prakash

Assistant Professor, Department of Applied Economics, Faculty of Commerce, Shri Jai Narain P.G. College, (KKC), Lucknow,

Email ID: rblaajai@gmail.com

Prof (Dr.) Ajay Shukla

Principal, Shri Gandhi Mahavidyalaya, Sidhauli, Sitapur

Email ID: ajayshukla1219@gmail.com

Abstract

This study examines the relationship between sectoral revenue diversification and growth performance of Tata Consultancy Services and Infosys during the period 2021–2025. Using secondary data from annual reports, diversification is measured through the Herfindahl–Hirschman Index (HHI), while growth is assessed using year-on-year revenue growth and compound annual growth rate (CAGR). The study further employs correlation and regression analysis to evaluate the impact of diversification on growth. The findings reveal that TCS follows a relatively concentrated revenue structure, whereas Infosys maintains a more diversified portfolio. Despite these differences, both firms exhibit similar growth trends over the study period. The empirical results indicate a negligible relationship between diversification and growth, as evidenced by a low correlation coefficient and statistically insignificant regression results. The study concludes that sectoral diversification does not significantly influence growth performance in the Indian IT sector. Instead, growth appears to be driven by firm-specific strategies and market dynamics. The findings contribute to the understanding of diversification–performance linkage in service-oriented industries.

Keywords: Sectoral Diversification, Revenue Growth, Herfindahl–Hirschman Index (HHI), Indian IT Sector, Comparative Analysis, Regression Analysis

1. Introduction

The rapid expansion of the global Information Technology (IT) industry has intensified the need for firms to adopt strategic approaches that ensure sustained growth and resilience. In the Indian context, leading IT service providers such as Tata Consultancy Services and Infosys generate revenues from a diverse set of client industries, including banking and financial services, retail, healthcare, manufacturing, and communication.

This sectoral diversification plays a critical role in shaping firm performance, particularly in an environment characterized by demand volatility and rapid technological change.

Revenue diversification is often viewed as a mechanism for risk mitigation and growth enhancement. By distributing revenue streams across multiple sectors, firms can reduce dependence on any single industry and improve their ability to withstand sector-specific downturns. However, the relationship between diversification and firm performance is theoretically ambiguous. While diversification may enhance growth by enabling firms to exploit new opportunities, excessive diversification can lead to inefficiencies, increased coordination costs, and dilution of core competencies. Consequently, the impact of diversification on growth remains an empirical question.

Existing literature provides mixed evidence on the diversification–performance relationship. Some studies suggest that diversified firms achieve superior performance due to risk spreading and market expansion, while others argue that focused firms perform better due to specialization and operational efficiency. Moreover, most empirical studies have concentrated on manufacturing firms or developed economies, with limited attention to service-based industries such as the IT sector, particularly in emerging markets like India.

In this context, the present study examines the relationship between sectoral revenue diversification and growth performance in the Indian IT sector. Unlike prior studies that rely on aggregate or product-level diversification, this study focuses on sectoral revenue distribution, which is highly relevant for IT service firms. Diversification is measured using the Herfindahl–Hirschman Index (HHI), a widely accepted measure of concentration, while growth performance is captured through revenue growth indicators.

The study adopts a comparative approach by analysing two leading Indian IT firms, Tata Consultancy Services and Infosys, over the period 2021–2025. By integrating diversification measures with growth analysis and employing correlation and regression techniques, the study aims to provide empirical evidence on whether diversification influences firm growth.

The contribution of this study is threefold. First, it extends the diversification literature by focusing on sectoral revenue diversification in a service-oriented industry. Second, it applies the HHI framework at the firm level to capture diversification patterns in the IT sector. Third, it empirically investigates the diversification–growth relationship in the Indian context, where such evidence remains limited.

The findings of this study are expected to provide insights for corporate managers in designing optimal diversification strategies and for researchers seeking to understand the dynamics of growth in service-based industries.

2. Literature Review

The relationship between diversification and firm performance has been a central theme in strategic management and financial research. Early theoretical contributions emphasize diversification as a growth strategy that enables firms to expand into new markets and reduce risk exposure (Ansoff, 1957; Rumelt, 1974). Subsequent empirical studies, however, reveal that the diversification–performance relationship is neither linear nor universally positive.

A significant body of literature suggests that moderate diversification enhances firm performance by balancing risk and return. For instance, Palich et al. (2000) demonstrate a curvilinear relationship, indicating that firms benefit from diversification up to an optimal level, beyond which performance declines. Similarly, Chakrabarti et al. (2007) find that diversification can positively influence firm performance in emerging markets, particularly when supported by strong managerial capabilities. These findings align with the argument that diversification allows firms to exploit new growth opportunities while mitigating sector-specific risks.

Conversely, several studies highlight the potential drawbacks of diversification. Lee et al. (2012) and Wang et al. (2013) argue that excessive diversification may lead to inefficiencies, increased coordination costs, and a loss of strategic focus. In such cases, firms may experience reduced profitability and slower growth. Le (2019) further notes that firms often improve performance by shifting from diversified to more focused strategies, emphasizing the importance of core competencies. These contrasting findings suggest that the impact of diversification is context-dependent and influenced by firm-specific and industry-specific factors.

The measurement of diversification has also evolved over time, with the Herfindahl–Hirschman Index (HHI) emerging as a widely used quantitative tool. HHI captures the degree of concentration in a firm's revenue distribution, providing a reliable measure of diversification at the firm level. Studies such as Hoberg and Phillips (2010) and Qu et al. (2022) utilize HHI to analyse market structure and firm behaviour, demonstrating its applicability in empirical research. Despite certain limitations, including its inability to capture inter-segment linkages, HHI remains a robust and widely accepted measure of diversification.

In recent years, the focus has shifted towards understanding the relationship between diversification and growth dynamics. Campi et al. (2018) highlight that diversification in products and markets can enhance growth, particularly in export-oriented industries. However, the growth benefits of diversification are not guaranteed, as excessive diversification may lead to resource misallocation and reduced efficiency. This dual effect reinforces the notion that the diversification–growth relationship is complex and potentially non-linear.

Despite extensive research, there is limited empirical evidence on diversification in service-oriented industries, particularly the Information Technology (IT) sector. Unlike manufacturing firms, IT companies derive revenue

from multiple client industries, making sectoral revenue diversification a critical determinant of performance. Existing studies have largely overlooked this dimension, especially in the context of emerging economies such as India.

Accordingly, this study addresses an important gap by examining the relationship between sectoral revenue diversification and growth performance in the Indian IT sector. By applying the Herfindahl–Hirschman Index (HHI) to firm-level sectoral revenue data and linking it with growth indicators, the study provides a focused empirical analysis that contributes to both diversification and IT sector literature.

3. Research Methodology

This study adopts an empirical and comparative approach to examine the relationship between sectoral revenue diversification and growth performance in the Indian IT sector. The analysis is based on secondary data collected from the annual reports of Tata Consultancy Services and Infosys for the period 2021–2025.

Sector-wise revenue data is compiled across six major industry segments, namely (Banking, Financial Services and Insurance) BFSI, Communication and Media, Retail and Consumer Business, Life Sciences and Healthcare, Manufacturing, and Others. These segments represent the primary sources of revenue for IT service firms and provide a basis for measuring diversification.

Revenue diversification is quantified using the Herfindahl–Hirschman Index (HHI), calculated as the sum of the squared proportion of revenue contributed by each sector. A higher HHI value indicates greater concentration, while a lower value reflects a more diversified revenue structure. Growth performance is measured using year-on-year (YoY) revenue growth rates and Compound Annual Growth Rate (CAGR), capturing both short-term and long-term growth dynamics.

To examine the relationship between diversification and growth, the study employs correlation and regression analysis. The regression model is specified as:

$$Growth_{it} = \beta_0 + \beta_1(HHI_{it}) + \epsilon_{it}$$

where $Growth_{it}$ represents the revenue growth of firm i in year t , and HHI_{it} denotes the diversification index. The coefficient β_1 captures the impact of diversification on growth performance.

The study tests the null hypothesis that there is no significant relationship between diversification and growth. A statistically significant coefficient indicates that diversification plays a role in influencing firm growth.

All computations, including sectoral shares, HHI values, and growth rates, are carried out using Microsoft Excel. Given the limited sample size, the results are interpreted with caution and are considered indicative rather than conclusive.

4. Data Analysis and Interpretation

4.1 Sectoral Diversification Analysis

Table 1: Sectoral Share of Revenue & HHI (2021–2025)

Year	Company	BFSI	Communication & Media	Retail & Consumer Business	Life Sciences & Healthcare	Manufacturing	Other	Total	HHI
2021	TCS	0.40	0.16	0.16	0.10	0.10	0.08	1.00	0.238
2022		0.39	0.16	0.16	0.10	0.10	0.09	1.00	0.229
2023		0.39	0.17	0.17	0.11	0.10	0.07	1.00	0.234
2024		0.38	0.16	0.16	0.11	0.10	0.09	1.00	0.225
2025		0.38	0.18	0.16	0.10	0.10	0.09	1.00	0.226
2021	Infosys	0.32	0.13	0.15	0.07	0.22	0.12	1.00	0.209
2022		0.32	0.12	0.15	0.07	0.23	0.11	1.00	0.209
2023		0.30	0.12	0.14	0.07	0.26	0.11	1.00	0.207
2024		0.27	0.12	0.15	0.07	0.28	0.11	1.00	0.204
2025		0.28	0.12	0.14	0.07	0.29	0.11	1.00	0.209

Figure 1: Trend of HHI (2021–2025)

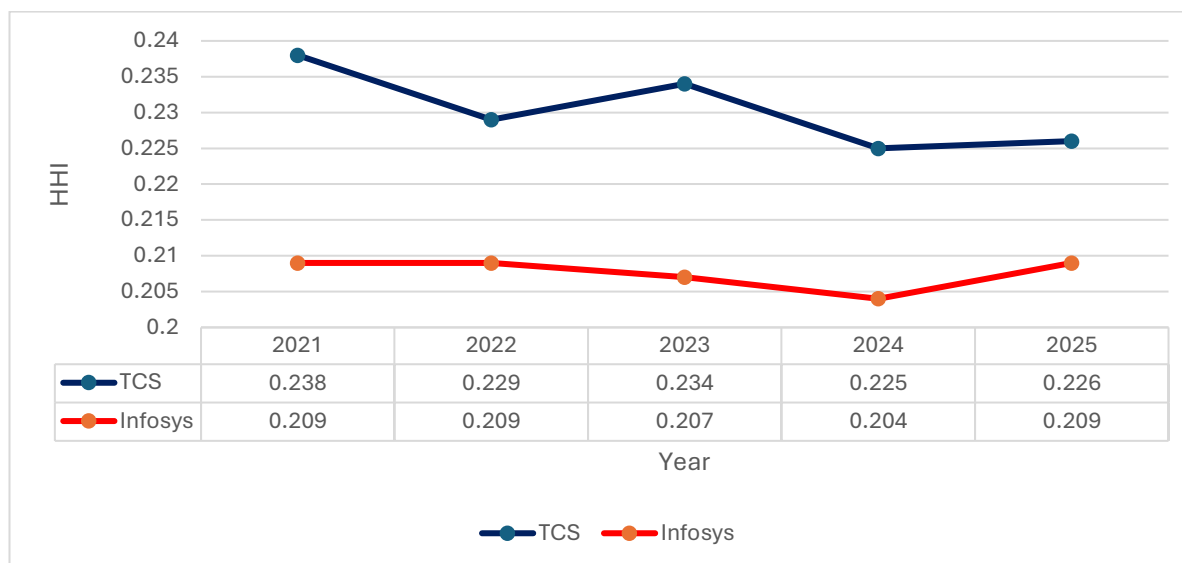
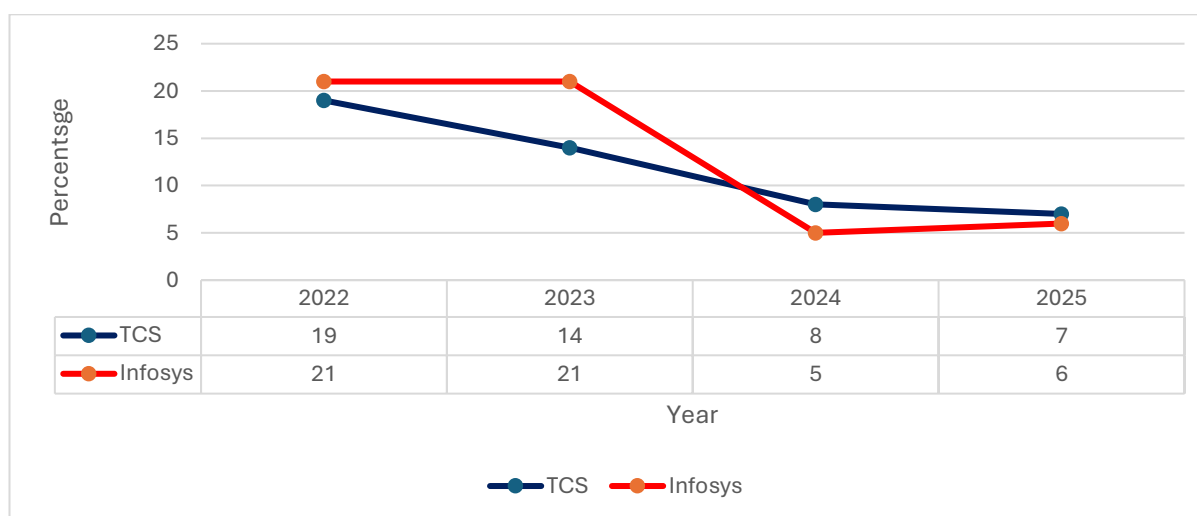


Table 1 and Figure 1 present the sectoral distribution of revenue and the Herfindahl–Hirschman Index (HHI) for Tata Consultancy Services and Infosys. TCS consistently records higher HHI values, indicating a relatively concentrated revenue structure, primarily driven by the BFSI segment. In contrast, Infosys exhibits lower HHI values, reflecting a more diversified sectoral composition, supported by increasing contribution from Manufacturing.

The HHI trend for both firms remains relatively stable over time, suggesting the absence of major structural shifts in diversification strategy. Overall, TCS follows a concentration-oriented approach, whereas Infosys maintains a comparatively diversified revenue model.

4.2 Growth Performance Analysis

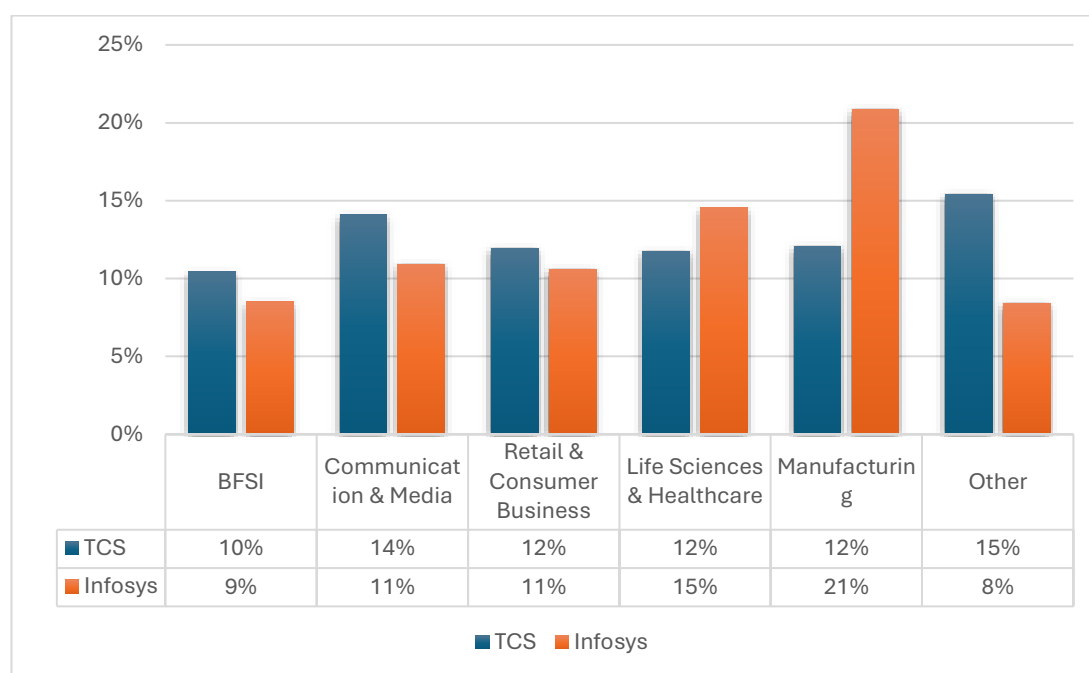
Figure 2: Year-on-Year Revenue Growth (2022–2025)



The year-on-year growth trends indicate that both Tata Consultancy Services and Infosys experience a declining growth trajectory over the study period. TCS demonstrates a relatively stable and gradual decline, whereas Infosys shows higher initial growth followed by sharper fluctuations, particularly a significant decline in 2024 and mild recovery thereafter.

These patterns suggest that although Infosys initially outperforms TCS, the growth rates of both firms converge in later years, indicating no sustained growth advantage.

Figure 3: Sectoral CAGR Comparison (2021–2025)



The sectoral CAGR comparison reveals contrasting growth strategies between the firms. TCS exhibits uniform growth across sectors, indicating a balanced and stable expansion approach. In contrast, Infosys demonstrates sector-specific growth variation, with significantly higher growth in Manufacturing and Life Sciences.

This indicates that TCS prioritizes consistency, while Infosys adopts a targeted growth strategy, focusing on high-performing sectors.

4.3 Correlation Analysis

Table 2: Correlation Matrix

Variables	HHI	Revenue Growth
HHI	1.00	0.02
Revenue Growth	0.02	1.00

The correlation results show a coefficient of **0.02** between HHI and revenue growth, indicating a **negligible relationship**. This suggests that changes in sectoral diversification do not have any meaningful linear association with growth performance.

4.4 Regression Analysis

Table 3: Regression Results (Dependent Variable: Revenue Growth)

Variable	Coefficient	t-Statistic	p-value
Intercept	0.105	0.201	0.847
HHI	0.096	0.040	0.969

(5% significance level)

Model Summary: $R^2 = 0.0003$ | Adjusted $R^2 = -0.166$ | F-statistic = 0.0016 | p-value (F) = 0.969 | Observations = 8

The regression analysis examines the impact of diversification (HHI) on revenue growth. The coefficient of HHI is statistically insignificant, indicating that diversification does not have a meaningful effect on growth. The extremely low R^2 value further confirms that the model has negligible explanatory power.

The overall model is statistically insignificant, leading to the conclusion that sectoral diversification does not significantly influence growth performance in the selected firms. Therefore, the null hypothesis is accepted.

5. Findings and Conclusion

The empirical analysis examines whether sectoral revenue diversification, measured using the Herfindahl–Hirschman Index (HHI), influences growth performance for Tata Consultancy Services and Infosys over the period 2021–2025.

The results reveal clear differences in diversification structures. TCS exhibits relatively higher HHI values (0.225–0.238), indicating a more concentrated revenue profile, whereas Infosys maintains lower HHI levels (0.204–0.209), reflecting a more diversified sectoral distribution. Despite these structural differences, both firms display comparable growth trajectories, with strong growth in the initial years followed by moderation in later periods.

The statistical analysis provides no evidence of a meaningful relationship between diversification and growth. The correlation coefficient ($r = 0.02$) indicates an almost negligible association between HHI and revenue

growth. This finding is reinforced by regression results, where the coefficient of HHI is statistically insignificant ($p = 0.969$) and the model explains virtually none of the variation in growth ($R^2 \approx 0.0003$). Accordingly, the null hypothesis of no relationship between diversification and growth cannot be rejected.

These findings suggest that sectoral revenue diversification does not serve as a primary driver of growth in the Indian IT sector. Instead, growth performance appears to be influenced by firm-specific and market-driven factors such as demand conditions, technological capabilities, and client acquisition strategies. The evidence also indicates a trade-off between stability and flexibility: a relatively concentrated structure, as observed in TCS, is associated with stable growth, while a more diversified structure, as in Infosys, corresponds with greater variability but not necessarily superior performance.

From a managerial perspective, the results imply that diversification should be approached as a risk management strategy rather than a growth-maximizing tool. Firms should focus on strategic allocation of resources toward high-demand sectors while maintaining operational efficiency and core competencies.

However, the findings should be interpreted with caution due to the limited sample size and short time horizon. Future research may extend this analysis by incorporating a larger set of firms, longer time periods, and additional performance variables to better capture the diversification–performance dynamics.

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