

Impact Factor: **3.1**

5-Year Impact Factor:

Contents

## Abstract

Globally, disruptions driven by digital technologies, automation, and declining lifespan of the index components have led to a shift in the investment landscape for consumer goods and a re-evaluation of the financial strength of the incumbent firms. We construct a fundamental strength index (FSI) using 11 financial performance measures covering 7 key attributes, namely profitability, efficiency, solvency, liquidity, net investments, pursuance of innovation and entry barriers, over the 5-year period 2014–2019. FSI helps in categorizing stocks of National Stock Exchange (NSE) 200 universe as 'A' being the fundamentally strongest and 'C' being the weakest. Potential crossovers can take place between 'C' category stock in Nifty 50 (Next 50) and 'A' category stock belonging to the Next 50 (Nifty Midcap 100). The results show that the disruptor's portfolio (Next 50 stocks) outperforms the incumbent's portfolio (Nifty 50 constituents) with a return of 1.61 per cent vs 0.47 per cent. A similar observation holds true for the Next 50 and Nifty Midcap 100, with the disruptor's portfolio surpassing the incumbent's portfolio (return of 2.59% vs 0.44%). The study has significant implications for the policymakers, investors, companies and academicians.



## Get full access to this article

View all access and purchase options for this article.

Get Access 

## References

Abarbanell J. S., & Bushee B. J. (1997). Fundamental analysis, future earnings, and stock prices. *Journal of Accounting Research*, 35(1), 1–24. <https://doi.org/10.2307/2491464>

[Web of Science](#)

[Google Scholar](#)

Afego P. N. (2017). Effects of changes in stock index compositions: A literature survey. *International Review of Financial Analysis*, 52, 228–239. <https://doi.org/10.1016/j.irfa.2017.06.004>

[Web of Science](#)

[Google Scholar](#)

Aggarwal N., & Gupta M. (2009). Do high book-to-market stocks offer returns to fundamental analysis in India? *Decision (0304–0941)*, 36(2).

[Google Scholar](#)

Aggarwal N., & Gupta M. (2016). Returns from financial statement analysis among low book-to-market stocks: Evidence from India. *IUP Journal of Applied Finance*, 22(2), 47.

[Google Scholar](#)

Alberg J., & Lipton Z. C. (2017). Improving factor-based quantitative investing by forecasting company fundamentals. *arXiv preprint arXiv:1711.04837*.

[Google Scholar](#)

Anthony S. D., Viguerie S. P., Schwartz E. I., & Landeghem J. V. (2017). 2018 Corporate longevity forecast: Creative destruction is accelerating. *Innosight*. <https://www.innosight.com/wp-content/uploads/2017/11/Innosight-Corporate-Longevity-2018.pdf>

[Google Scholar](#)

Arora D., Rathinam F. X., & Khan M. S. (2010). India's experience during current global crisis: A capital account perspective. *Public Policy Review*, 6(5), 807–836.

[Google Scholar](#)

Baran L., & King D. T. H. (2012). Cost of equity and S&P 500 index revisions. *Financial Management*, 41(2), 457–481. <https://doi.org/10.1111/j.1755-053X.2012.01186.x>

[Web of Science](#)

[Google Scholar](#)

Becker-Blease J. R., & Paul D. L. (2006). Stock liquidity and investment opportunities: Evidence from index additions. *Financial Management*, 35(3), 35–51. <https://doi.org/10.1111/j.1755-053X.2006.tb00146.x>

[Web of Science](#)

[Google Scholar](#)

Becker-Blease J. R., & Paul D. L. (2010). Does inclusion in a smaller S&P index create value? *Financial Review*, 45(2), 307–330. <https://doi.org/10.1111/j.1540-6288.2010.00249.x>

[Web of Science](#)

[Google Scholar](#)

Beneish M. D., Lee C. M., & Tarpley R. L. (2001). Contextual fundamental analysis through the prediction of extreme returns. *Review of Accounting Studies*, 6(2-3), 165-189. <https://doi.org/10.1023/A:1011654624255>

[Google Scholar](#)

Biktimirov E. N., & Li B. (2014). Asymmetric stock price and liquidity responses to changes in the FTSE SmallCap index. *Review of Quantitative Finance and Accounting*, 42(1), 95-122. <https://doi.org/10.1007/s11156-012-0335-7>

[Web of Science](#)

[Google Scholar](#)

Buckley P. J., Munjal S., Enderwick P., & Forsans N. (2016). Do foreign resources assist or impede internationalization? Evidence from internationalization of Indian multinational enterprises. *International Business Review*, 25(1), 130-140. <https://doi.org/10.1016/j.ibusrev.2015.04.004>

[Web of Science](#)

[Google Scholar](#)

CB Insights (2019). *What is a unicorn startup?* <https://www.cbinsights.com/research-unicorn-companies>

[Google Scholar](#)

Chan K., Kot H. W., & Tang G. Y. (2013). A comprehensive long-term analysis of S&P 500 index additions and deletions. *Journal of Banking & Finance*, 37(12), 4920-4930. <https://doi.org/10.1016/j.jbankfin.2013.08.027>

[Web of Science](#)

[Google Scholar](#)

Chanchaichujit J., Tan A., Meng F., & Eaimkhong S. (2019) *Innovative Health Technologies and Start-Ups Process in Healthcare Industry*. Singapore: Healthcare 4.0. Palgrave Pivot. [https://doi.org/10.1007/978-981-13-8114-0\\_6](https://doi.org/10.1007/978-981-13-8114-0_6)

[Google Scholar](#)

Chen H., Noronha G., & Singal V. (2004). The price response to S&P 500 index additions and deletions: Evidence of asymmetry and a new explanation. *The Journal of Finance*, 59(4), 1901-1930. <https://doi.org/10.1111/j.1540-6261.2004.00683.x>

[Web of Science](#)

[Google Scholar](#)

Chittoor R., Aulakh P. S., & Ray S. (2015). What drives overseas acquisitions by Indian firms? A behavioral risk-taking perspective. *Management International Review*, 55(2), 255-275. <https://doi.org/10.1007/s11575-015-0238-7>

[Web of Science](#)

[Google Scholar](#)

Choudhury P., & Khanna T. (2014). Toward resource independence - Why state-owned entities become multinationals: An empirical study of India's public R&D laboratories. *Journal of International Business Studies*, 45(8), 943-960. <https://doi.org/10.1057/jibs.2014.20>

[Web of Science](#)

[Google Scholar](#)

Christensen C. M., Raynor M. E., & McDonald R. (2015). What is disruptive innovation. *Harvard Business Review*, 93(12), 44–53.

[Web of Science](#)

[Google Scholar](#)

Dhamija A., Sharma R., & Dhamija D. (2020). Emergence of EdTech products in South Asia: A comparative analysis. *Handbook of Research on Software for Gifted and Talented School Activities in K-12 Classrooms* (pp. 303–327). IGI Global. <https://doi.org/10.4018/978-1-7998-1400-9.ch014>

[Google Scholar](#)

Dhar S., & Bose I. (2016). Smarter banking: Blockchain technology in the Indian banking system. *Asian Management Insights*, 3(2), 46–53.

[Google Scholar](#)

Dhillon U., & Johnson H. (1991). Changes in the standard and poor's 500 list. *Journal of Business*, 75–85. <http://doi.org/10.1086/296526>

[Web of Science](#)

[Google Scholar](#)

Edmister R. O., Graham A. S., & Pirie W. L. (1996). Trading cost expectations: Evidence from S&P 500 index replacement stock announcements. *Journal of Economics and Finance*, 20(2), 75–85. <https://doi.org/10.1007/BF02920893>

[Google Scholar](#)

EY (2019). *Global FinTech adoption index 2019*. <https://fintechauscensus.ey.com/2019/Documents/ey-global-fintech-adoption-index-2019.pdf>

[Google Scholar](#)

Gopikumar V., Nair S., Sreevathsava S., & Sreedharan V, R. (2019). Financial strength information and institutional investor demand: Evidence from India. *Cogent Economics & Finance* Forthcoming, 1623751. <http://doi.org/10.1080/23322039.2019.1623751>

[Web of Science](#)

[Google Scholar](#)

Harvey C. R. (1995). Predictable risk and returns in emerging markets. *The Review of Financial Studies*, 8(3), 773–816. <https://doi.org/10.1093/rfs/8.3.773>

[Web of Science](#)

[Google Scholar](#)

Hatzius J., Hooper P., Mishkin F. S., Schoenholtz K. L., & Watson M. W. (2010). *Financial conditions indexes: A fresh look after the financial crisis* (No. w16150). National Bureau of Economic Research. <https://doi.org/10.338>

[6/w16150](#)

[Google Scholar](#)

Hegde S. P., & McDermott J. B. (2003). The liquidity effects of revisions to the S&P 500 index: An empirical analysis. *Journal of Financial Markets*, 6(3), 413–459. [https://doi.org/10.1016/S1386-4181\(02\)00046-0](https://doi.org/10.1016/S1386-4181(02)00046-0)

[Web of Science](#)

[Google Scholar](#)

Herrmann M., Boehme P., Mondritzki T., Ehlers J. P., Kavadias S., & Truebel H. (2018). Digital transformation and disruption of the health care sector: internet-based observational study. *Journal of Medical Internet Research*, 20(3), e104. <https://doi.org/10.2196/jmir.9498>

[Web of Science](#)

[Google Scholar](#)

Hrazdil K. (2009). The effect of demand on stock prices: New evidence from S&P 500 weight adjustments. *Managerial Finance*, 35(9), 732–753. <https://doi.org/10.1108/03074350910973676>

[Web of Science](#)

[Google Scholar](#)

IBEF (2020). <https://www.ibef.org/industry/education-sector-india.aspx>

[Google Scholar](#)

Inc42 (2018). *Indian Tech Startup funding report, 2018*. [https://pages.inc42.com/wp-content/uploads/woocommmerce\\_uploads/2018/01/Inc42-Annual-Funding-Report-2018.pdf](https://pages.inc42.com/wp-content/uploads/woocommmerce_uploads/2018/01/Inc42-Annual-Funding-Report-2018.pdf)

[Google Scholar](#)

Joshi M., & Janakiraman S. (2015). Price and volume effects associated with scheduled changes in constituents of index: Study of NIFTY index in India. *Afro-Asian Journal of Finance and Accounting*, 5(1), 21–36. <https://doi.org/10.1504/AAJFA.2015.067824>

[Google Scholar](#)

Kamal R. (2014). New evidence from S&P 500 index deletions. *The International Journal of Business and Finance Research*, 8(2), 1–10.

[Google Scholar](#)

Kot H. W., Leung H. K., & Tang G. Y. (2015). The long-term performance of index additions and deletions: Evidence from the Hang Seng Index. *International Review of Financial Analysis*, 42, 407–420. <https://doi.org/10.1016/j.irfa.2015.09.006>

[Web of Science](#)

[Google Scholar](#)

Krishnan R., & Kozhikode R. K. (2015). Status and corporate illegality: Illegal loan recovery practices of commercial banks in India. *Academy of Management Journal*, 58(5), 1287–1312. <https://doi.org/10.5465/amj.2012.0508>

[Web of Science](#)

[Google Scholar](#)

Kumar S. S. S. (2007). Price and volume effects of S&P CNX nifty index reorganizations. *Metamorphosis – A Journal of Management Research*, 6(1), 9–32. <https://doi.org/10.1177/0972622520070103>

[Google Scholar](#)

Lev B., & Thiagarajan S. R. (1993). Fundamental information analysis. *Journal of Accounting Research*, 31(2), 190–215. <https://doi.org/10.2307/2491270>

[Web of Science](#)

[Google Scholar](#)

Lopes A. B., & Galdi F. C. (2008). *Financial statement analysis also separate winners from losers in Brazil* (Working paper). University of Sao Paulo.

[Google Scholar](#)

Mazouz K., Daya W., & Yin S. (2014). Index revisions, systematic liquidity risk and the cost of equity capital. *Journal of International Financial Markets, Institutions and Money*, 33, 283–298. <https://doi.org/10.1016/j.intfin.2014.07.009>

[Web of Science](#)

[Google Scholar](#)

Miller C., & Ward M., 2015. The market impact on shares entering or leaving JSE indices. *Investment Analysts Journal*, 44(1), 84–101.

[Crossref](#)

[Web of Science](#)

[Google Scholar](#)

Mohanram P. S. (2005). Separating winners from losers among lowbook-to-market stocks using financial statement analysis. *Review of Accounting Studies*, 10(2–3), 133–170. <https://doi.org/10.1007/s11142-005-1526-4>

[Web of Science](#)

[Google Scholar](#)

Mohanram P., Saiy S., & Vyas D. (2018). Fundamental analysis of banks: The use of financial statement information to screen winners from losers. *Review of Accounting Studies*, 23(1), 200–233. <https://doi.org/10.1007/s11142-017-9430-2>

[Web of Science](#)

[Google Scholar](#)

Mohr J. H. M. (2012). *Utility of Piotroski F-score for predicting growth-stock returns*. (MFIE Capital Working Paper).

[Google Scholar](#)

Nandy S., & Chattopadhyay A. K. (2019). Indian stock market volatility: A study of inter-linkages and spillover effects. *Journal of Emerging Market Finance*, 18(2\_suppl), S183–S212.

[Crossref](#)

[Web of Science](#)

[Google Scholar](#)

Ou J. A., & Penman S. H. (1989). Financial statement analysis and the prediction of stock returns. *Journal of Accounting and Economics*, 11(4), 295–329. [https://doi.org/10.1016/0165-4101\(89\)90017-7](https://doi.org/10.1016/0165-4101(89)90017-7)

[Web of Science](#)

[Google Scholar](#)

Parthasarathy S. (2010). Price and volume effects associated with index additions: Evidence from the Indian Stock Market. *Asian Journal of Finance & Accounting*, 2(2), 55–80. <https://doi.org/10.5296/ajfa.v2i2.469>

[Google Scholar](#)

Piotroski J. D. (2000). Value investing: The use of historical financial statement information to separate winners from losers. *Journal of Accounting Research*, 38, 1–52. <https://doi.org/10.2307/2672906>

[Web of Science](#)

[Google Scholar](#)

PwC-ASSOCHAM (2019). *Emerging technologies disrupting the financial sector*. <https://www.pwc.in/assets/pdfs/consulting/financial-services/fintech/publications/emerging-technologies-disrupting-the-financial-sector.pdf>

[Google Scholar](#)

Rahman A., & Rajib P. (2014). Associated effects of index composition changes: An evidence from the S&P CNX Nifty 50 index. *Managerial Finance*, 40(4), 376–394. <https://doi.org/10.1108/MF-01-2013-0010>

[Web of Science](#)

[Google Scholar](#)

Ren21 (2019). *Renewables 2019 Global status report*. [https://www.ren21.net/wp-content/uploads/2019/05/gsr\\_2019\\_full\\_report\\_en.pdf](https://www.ren21.net/wp-content/uploads/2019/05/gsr_2019_full_report_en.pdf)

[Google Scholar](#)

Reuters (2019). Fintech companies raised a record \$39.6 billion in 2018: Research. <https://www.reuters.com/article/us-fintech-funding/fintech-companies-raised-a-record-39-6-billion-in-2018-research-idUSKCN1PN0EL>

[Google Scholar](#)

Richardson S., Tuna I., & Wysocki P. (2010). Accounting anomalies and fundamental analysis: A review of recent research advances. *Journal of Accounting and Economics*, 50(2–3), 410–454.

[Crossref](#)

[Web of Science](#)

[Google Scholar](#)

Sadeghi M. (2011). Investment opportunities and stock liquidity: Evidence from DJIM index additions in the Persian Gulf states. *Investment, Management and Financial Innovations*, 8(1), 53–62.

[Google Scholar](#)

Selvam M., Indhumathi G., & Lydia J. (2012). Impact on stock price by the inclusion to and exclusion from CNX nifty index. *Global Business Review*, 13(1), 39–50. <https://doi.org/10.1177/097215091101300103>

[Web of Science](#)

[Google Scholar](#)

Sharpe W. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *Journal of Finance*, 19(3), 425–441.

[Web of Science](#)

[Google Scholar](#)

Sharma M., & Sharma P. (2009). Prediction of stock returns for growth firms-A fundamental analysis. *Vision*, 13(3), 31–40. <https://doi.org/10.1177/097226290901300303>

[Google Scholar](#)

Shen K. Y., & Tzeng G. H. (2015). Combined soft computing model for value stock selection based on fundamental analysis. *Applied Soft Computing*, 37, 142–155. <https://doi.org/10.1016/j.asoc.2015.07.030>

[Google Scholar](#)

Singh J., & Kaur K. (2015). Adding value to value stocks in Indian stock market: An empirical analysis. *International Journal of Law and Management*, 57(6), 621–636. <https://doi.org/10.1108/IJLMA-09-2014-0055>

[Web of Science](#)

[Google Scholar](#)

Statista (n.d.). *Number of internet users in India from 2015 to 2023 (in millions)*. <https://www.statista.com/statistics/255146/number-of-internet-users-in-india/>

[Google Scholar](#)

The Global Economy (2018). *Listed companies: Country rankings* [https://www.theglobaleconomy.com/rankings/Listed\\_companies/](https://www.theglobaleconomy.com/rankings/Listed_companies/)

[Google Scholar](#)

The Insurance Regulatory and Development Authority of India (IRDAI) (2019). *Annual report 2017–18*. [https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral\\_NoYearList.aspx?DF=&AR&mid=11.1](https://www.irdai.gov.in/ADMINCMS/cms/frmGeneral_NoYearList.aspx?DF=&AR&mid=11.1)

[Google Scholar](#)

The World Bank (2018). *GDP growth (annual %)*. <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN>

[Google Scholar](#)

The World Bank (2019). *Market capitalization of listed domestic companies (% of GDP)*. <https://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS?locations=IN>

[Google Scholar](#)

Vijaya B.M., Vedpuriswar (2003). The dynamics around sensex reconstitutions. *ICFAI Journal of Applied Finance*, 9(4), 5–13.

[Google Scholar](#)

World Economic Forum (2019). *Future of consumption in fast-growth consumer markets: India*. [http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Consumption\\_Fast-Growth\\_Consumers\\_markets\\_India\\_report\\_2019.pdf](http://www3.weforum.org/docs/WEF_Future_of_Consumption_Fast-Growth_Consumers_markets_India_report_2019.pdf)

[Google Scholar](#)

## Biographies

**Tarunika Jain Agrawal** ([tarunika.jain@gmail.com](mailto:tarunika.jain@gmail.com)) is a Ph.D. from University of Delhi and works as an Assistant Professor in the Sri Aurobindo College, University of Delhi. She has a teaching and research experience of more than six years. She has previously worked with HSBC as an equity research analyst. She has worked on several research projects.

**Sanjay Sehgal** ([sanjayfin15@gmail.com](mailto:sanjayfin15@gmail.com)) is currently a Professor of Finance in the Department of Financial Studies, University of Delhi, India. He is the Head, Department of Financial Studies, University of Delhi. He did his doctorate from Delhi School of Economics, University of Delhi and post doctorate from Department of Finance, London School of Economics, UK. He has a teaching experience of about 26 years in the field of investment management, financial derivatives, corporate finance and financial econometrics. Prof Sehgal has authored one research book, completed five major research projects, published more than 135 research papers in international and national refereed journals and also written several newspaper articles. He has held several important positions with government and private institutions and is on the editorial board of leading management journals. Prof Sehgal was conferred with Commonwealth Fellowship award in 2001, Indo French Social Sciences award in 2007 and SRCC illustrious alumni award in 2008.

**Rahul Agrawal** ([rahulagrawal.mfc@gmail.com](mailto:rahulagrawal.mfc@gmail.com)) is currently serving as Deputy General Manager, IFCI Ltd (a Government of India Undertaking). He has over ten years of experience in the areas of Project Finance, Credit Risk Management, Economic Planning and Treasury Operations. He is currently pursuing Doctorate in Finance from the Department of Financial Studies, University of Delhi. He is a Masters in Economics and Masters in Finance & Control. His areas of interest in research include global macroeconomics, financial markets, interlinkages in world economies, etc.

---

### Similar articles:



Restricted access

[FII Inflows into Indian IPOs and its Impact on the Indian Stock Market](#)

Show Details



Restricted access

[Return and Volatility Spillovers Among the Thematic Indices in India](#)

Show Details ▾



Restricted access

[Momentum Effect in Indian Stock Market: A Sectoral Study](#)

Show Details ▾

[View More](#)

Sage recommends:

**SAGE Knowledge**

Case

[Investment Strategy Using Size Effect: A Case Study for India](#)

Show Details ▾

**SAGE Knowledge**

Book chapter

[Welcome to the Jungle: The Real World of Investment Business](#)

Show Details ▾

**SAGE Knowledge**

Case

[Selecting Mutual Funds for Retirement Accounts \(A\)](#)

Show Details ▾

[View More](#)

You currently have no access to this content. Visit the [access options](#) page to authenticate.

[View full text](#) | [Download PDF](#)

## Also from Sage

### CQ Library

---

Elevating debate

### Sage Data

---

Uncovering insight

### Sage Business Cases

---

Shaping futures

### Sage Campus

---

Unleashing potential

### Sage Knowledge

---

Multimedia learning resources

### Sage Research Methods

---

Supercharging research

### Sage Video

---

Streaming knowledge

### Technology from Sage

---

Library digital services