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ZERODHA IN 2023: A PIONEER BATTLES CHALLENGERS IN THE POST-PANDEMIC ERA[1]

Since its entry in 2010, Zerodha, the India-based discount brokerage firm, had revolutionized the Indian stock trading ecosystem.[2] It had gained an excellent start by combining its low, flat commissions with other distinctive policies, such as a user-friendly interface and customer focus that did not encourage customers to trade more. Over the years, it also sustained its initial impetus by introducing several refinements to its strategy (see Exhibit 1 for the growth in the number of customers, revenues, and profit after tax over time).[3] Zerodha's growth was also remarkable because it had been achieved without raising venture capital, taking on debt, or sacrificing profitability.[4] But, in June 2023, Zerodha faced challenges on several fronts. Many well-funded competitors were aggressively pursuing market share and talent, and a few rivals, such as Groww and Upstox, had gained significant market share (see Exhibit 2 for market shares of the top 10 brokerage firms).[5] A couple of rivals sported valuations that exceeded Zerodha's.[6] The end of the pandemic and the global economic uncertainty were inducing concerns about the continued growth of the sector.[7] Though Zerodha had shown continuity in its strategies over the past 12 years, going forward, it needed to achieve a balance between the continuation of its past strategies and introducing new strategies if it was to maintain (or even improve) its share of the industry pie.

THE INDIAN BROKERAGE INDUSTRY

Stock brokerage services in India had been around for over a century, with the first informal stock exchange starting in the 1850s. The earliest stockbrokers traded under a banyan tree opposite the town hall of Bombay, now Mumbai. The establishment of the Bombay Stock Exchange (BSE) in 1875 marked an important milestone in the history of Indian brokerage services.[8] The BSE was Asia's first stock exchange and had come a long way since its inception. With over 5,000 companies listed, it grew to become a world leader in the number of listings.[9] It provided a comprehensive market for trading in equities of listed companies, debt instruments, derivatives, mutual funds, and services such as stock lending and borrowing.[10]

Establishment of another stock exchange—the National Stock Exchange (NSE)—in 1992 was a game-changer for the Indian brokerage industry. The NSE replaced the traditional open outcry system with electronic trading systems, making trading faster, more efficient, and less prone to errors.[11] Investors could also buy and sell shares from anywhere in the country (rather than just Mumbai), improving accessibility, especially for retail investors.[12] The NSE also introduced the concept of dematerialization of shares, replacing physical share certificates with electronic records, further making it easier for investors to hold and transfer shares, eliminating the need for physical delivery and reducing the risk of fraud.[13]

The Indian government made the economy more open in 1991, leading to higher business formation, foreign investment, and consequently, higher income levels for its citizens.[14] The Indian equity market's subsequent growth due to these rising income levels was astounding. In the six years between financial year (FY) 1994 and the start of the 21st century, the equity market grew from INR 3.681 trillion to INR 9.218 trillion.[15] In 2021, the market's size had crossed the INR 200 trillion mark (approximately USD 2.5–3.0 trillion), earning the Indian equity market a top-five rank globally.[16]

Brokerage firms provided trading platforms and thus acted as middlemen between buyers and sellers. They earned revenues by charging a commission on both buy and sell transactions and for other services such as research or margin financing.[17] The Indian brokerage industry experienced a significant boost after the eruption of the COVID-19 pandemic when many people started trading because they had more time available while working from home.[18] The daily trading volume more than doubled from September 2019 to September 2020.[19] Between March 2020 and December 2021, the number of trading accounts doubled from 40.8 million to 80.6 million.[20] By FY 2023, the brokerage industry was generating revenue of INR 382 billion and had achieved a compound annual growth rate of 13.73 per cent since 2019.[21]

The industry included two types of players—full-service brokers and discount brokers. Full-service brokers charged fees as a percentage of the trade value and had historically dominated the sector.[22] Many full-service brokers had networks of branch offices and offered a wide range of services, including research, advisory, portfolio management, and wealth management services. They also provided personalized services to their clients, which made them popular among high-net-worth individuals (HNIs) and institutional investors.[23] However, the high costs associated with traditional full-service brokers made it difficult for small retail investors to participate in the stock market. This created a gap in the market, which was filled by discount brokers such as Zerodha.[24]

ZERODHA'S JOURNEY

Born in 1979 to a music teacher mother and a bank manager father, Nithin Kamath grew up in a neighborhood where many people traded stocks actively.[25] Though he pursued an engineering degree in Bangalore, he was influenced by many active traders among his neighbors and hence became excited about stock trading from an early age.[26] He became a sub-broker of Reliance Money, a comprehensive financial services provider affiliated with Reliance, one of India's largest business groups.[27] His younger brother, Nikhil, a high-school dropout, also became a sub-broker of Way2Wealth, an investment consultancy firm and brokerage.[28] The brothers started Kamath Associates, a partnership for managing money entrusted to them by others including some HNIs. In the process, the brothers acquired a deep understanding of some of the weaknesses of the full-service broker model.[29]

In 2008, the Kamath brothers became members of the NSE, which opened up the possibility to develop their software based on the NSE Now platform, thus saving them significant software development costs. On August 15, 2010, with support from Venu Madhav (Zerodha's chief operating officer) and Hanan Delvi (the chief of client relations for Zerodha), the Kamath brothers started Zerodha (see Exhibit 3 for profiles of Zerodha's top management team).[30] The company's name, Zerodha, implied zero barriers—it is a combination of the words *zero* and *rodha*, the latter being a Sanskrit word signifying barriers.[31] Its customers could simply download the software and trade directly on the NSE, and the latter took care of the information technology infrastructure and the back end. The objective behind starting Zerodha, Nithin subsequently explained, was to simplify the trading process. The flat fees of Rs 20 per trade (approximately US $0.42 at the prevailing exchange rate) charged by Zerodha were a big attraction for retail investors as well as frequent traders. For the latter group, even if they got a discount on the brokerage from the full-service brokers, the total trading costs could be substantial.[32] Recalling the reasons behind choosing the value proposition, Nithin said: "When we started Zerodha, I kind of knew that one of the reasons why financial services firms are opaque in the way they work is because they have different deals for different customers . . . .The problem with a model like that is you are forcing yourself to be opaque . . . .So, the disruptive thing we did when we started Zerodha was that every single customer gets the same deal."[33]

But Zerodha lacked the reputation of its bigger rivals such as ICICI Securities and HDFC Securities who were registered depository participants. Unsurprisingly, some clients were concerned about the "safety" of holdings, especially when they intended to hold their shares for a length of time. Over time, these concerns became less salient. Word of mouth from active traders helped Zerodha grow and alleviate customers' concerns about the safety of their long-term holdings.[34]

Zerodha also made several enhancements to its service offerings over the next few years. In July 2015, for customers interested in advanced trading, Zerodha made available a desktop software called Pi, which had features such as charting and algorithms.[35] In late 2015, Zerodha also eliminated the commission of Rs 20 per trade on all delivery trades—essentially shares that were not traded intraday—which led to stupendous growth in the number of accounts as well as the number of trades.[36] It also introduced Kite as a web and mobile interface for beginners or users who preferred a simple-to-use interface in November 2015.[37] Zerodha ventured into mutual fund investments in 2017 by offering the platform Coin, which allowed users to buy mutual funds directly from asset management companies, eliminating middlemen.[38] Sticking to its flat-fee model, Zerodha charged users INR 50 per month regardless of the purchase value, in contrast to the percentage-based variable fee per transaction charged by other players (see Exhibit 4 for Zerodha's ecosystem).

Zerodha's core purpose was "breaking all barriers that traders and investors face in India in terms of cost, support, and technology." To this end, in 2015, it launched Varsity, an investor education product. Varsity had 14 simple-to-understand modules, which anyone could access free of cost to understand the process of financial investing.[39] Realizing the lack of financial education for children in their school curriculum, a set of five books catering exclusively to children, known as *Rupee Tales*, were created to raise awareness of financial concepts.[40]

STRATEGY

Zerodha's strategy was based on the simultaneous pursuit of low costs and differentiation. From its inception, it never chased growth at high cost, and this fundamental principle gave it high profitability (see Exhibits 5 and 6 for some key ratios for Zerodha versus other brokers) and lent clarity and consistency to its strategies over time.[41]

Technology strategy

Zerodha used its early start—Dr. Kailash Nadh, the chief technology officer (CTO), and Nithin met in 2012—to develop and scale its technology.[42] According to Nithin, Zerodha had used "tech to optimize and improve every single process," eliminating the need to hire more people even when there was a surge in the number of customers. The technology was also well-documented to reduce dependence on a specific person. While the company prided itself on the stability of its tech team, it was also confident that any new person joining the team could come up to speed quickly.[43]

As the CTO, Dr. Nadh realized early on that there was little differentiation among most trading apps in terms of their look and feel; the key differentiating factor was the platform's ability to handle larger volumes when growth occurred. Dr. Nadh also strongly believed in using free and open-source software (FOSS), which helped keep costs low and scaling. Key building blocks of Zerodha's IT systems such as help desk tickets, sales customer relationship management, human resources (HR) management systems, and even the email utility were all designed on the FOSS platform, thus saving substantial sums of money.[44] Zerodha's tech team was extremely lean—the entire technology development was done internally by the 30-person team using FOSS. Only 4 of the 30-person team operated the entire trading platform, handling over 10–15 million daily orders.[45]

Zerodha promoted an innovative culture in its ecosystem through its investments. Developers could freely build securities-related application programming interfaces (APIs) that could be integrated into the company's IT system. "Launching a securities-related app can be tedious as it involves a lot of legal hassles given the tight regulatory framework. At Zerodha, we do the dirty work of dealing with the paperwork and legalese, while the developer can focus on building the application," said Nithin.[46]

Nithin had great confidence in Zerodha's technology. In an interview in 2019, he noted that technology was a key attraction for customer preference for its platform.[47] An analyst at HDFC Securities, a full-service brokerage, agreed that Zerodha had a superior platform and praised the platform for being very fast and agile.[48] Many users also found Zerodha's platform to be friendly and easy to use. In another interview (in 2020), Nithin stressed: "Today, the product is a differentiator. As long as we can keep the product ahead of the competition, we maintain the lead. The day we don't, we lose. We are no longer a brokerage business; we are a tech business who is doing brokerage."

Marketing and customer acquisition

Despite being a start-up that built its customer base from zero, Zerodha did not spend on marketing or advertising. Instead, it relied on word of mouth for customer acquisition.[49] Its online business model also allowed Zerodha to have fewer branches, an essential feature of the full-service brokers' operating model, mainly for customer support, thus reducing the expenditure associated with maintaining a large number of branches.[50] Since it did not raise external funding, Zerodha was not under any pressure to aggressively court new customers.[51]

Zerodha aimed to attract three distinct types of customers: frequent traders for whom the commissions charged by full-service brokers amounted to a substantial amount, small retail traders who were attracted by Zerodha's easy interface as well as its low commissions, and customers who had never considered trading because of barriers such as financial illiteracy, lack of user-friendly processes, and risk-aversion.[52] Zerodha generated its revenues from three primary sources—account opening/maintenance charges, brokerage and trading fees, and interest earned from fixed-income securities.[53] Since buying and holding equities for more than a day was free of cost for a user (since 2015), Zerodha relied on intraday trading (buying and selling equities on the same given day) as well as futures and options (F&Os). Charges on these revenue-generating activities were the lower of 0.03 per cent of the executed order amount or INR 20.[54] As per one estimate, only 10–20 per cent of the traders generated 85 per cent of Zerodha's trading revenue (see Exhibit 7 for a comparison of charges for the three discount brokers: Zerodha, Upstox, and Groww).[55]

As a financial services provider, Zerodha maintained adequate staff who answered incoming calls from customers. Consistent with its broad strategy about avoiding unnecessary user engagement, Zerodha did not make outgoing calls other than the rare cases of providing essential account-related updates or when a user specifically requested a callback.[56]

Lean HR strategy

Zerodha also avoided the other cash drains that had bogged down many of India's tech start-ups—aggressive hiring and the consequent high HR cost. It eliminated roles such as relationship managers as well as advisory personnel and consequently reduced its HR cost.[57] It also avoided over-hiring, another problem that had plagued the operations of many other high-profile start-ups in India. Elaborating on Zerodha's hiring policy, Nithin remarked: "One can stop marketing costs at any time but not your human cost. One cannot just be hiring and firing. So, we have been very conscious of that aspect." In 2022, Zerodha's HR cost was significantly lower than the top five full-service brokers that had been operating before Zerodha's entry. Nithin said: "When we were at 1 million customers, we were 1,100 people on the team. We are now at 11 million customers, and we're still at 1,100 team members." As a consequence, Zerodha had been profitable throughout its existence (see Exhibit 8 for Zerodha's financial results).

Customer-centricity

Zerodha recognized that trading securities represented an important transaction and financial commitment for many of its customers, and hence did not provide any discounts or freebies to encourage its users to sign up. It operated on the premise that in a customer's financial journey, the important, long-term decision was about selecting a financial services company to handle one's affairs. Users who registered on Zerodha should have chosen Zerodha to partner with on this journey because they intended to use its products and services for a long time. Hence there was no point in persuading a user to sign up by offering freebies.[58] After a customer registered, though a higher number of transactions would lead to greater revenues for Zerodha, the company did not push its users toward making more trades. For several years, Zerodha did not offer margin financing, believing it to be lucrative for Zerodha but bad for customers' financial health. Recently, the company started offering margin financing to stem customer defections, however.[59]

Meaningful disengagement, the opposite of proactive engagement, was another key aspect of Zerodha's customer-centricity. Dr. Nadh also argued on the futility of the "user engagement" concept in his blog. He said: "The idea of user 'engagement' on its own may not be inherently unethical, but it often tends to seep into this realm, where software is specifically designed to regularly, forcibly, and artificially attract user attention for increasing 'engagement,' even when the said software's utility is completely out of the user's mind space. This is common in the form of 'gamification,' shallow feature releases aimed at creating illusions of improvement, a deluge of promotional and product update notifications and e-mails, manufactured red-dot cues on the UI that feign urgency, 'exciting offers' that are 'personalized.'"[60]

Zerodha's customer-centricity was reflected in several policies:

- Registration fee: Every Zerodha user had to pay a sum of INR 200 to register on Zerodha, thus dissuading the nonserious users who did not intend to use the service beyond registration.[61]
- The nudge system: Zerodha's alert system, which was integrated into all investment applications, actively discouraged (and occasionally prohibited) users from making transactions that were tempting but potentially hazardous to their financial health.[62] From Zerodha's perspective, a user who suffered a loss on a risky investment would not stick around for very long, and any attempt to push/nudge customers into carrying out transactions they had not intended, while generating revenue in the short run, would drive away customers in the long run.[63]
- Kill switch feature (introduced in 2022): To manage their financial risk, customers could instantaneously lock themselves out of the ability to conduct transactions for a specified amount of time using the kill switch feature. As it turned out, many customers found this feature to be helpful.[64]

- Quick account closure (introduced in 2022): Users could instantly close their account and stop using the services, including ending all necessary legal procedures, rather than a drawn-out process that usually accompanied subscriptions.[65]

Zerodha had also been successful in keeping fraudsters at bay. In August 2022, Nithin noted that there were only 100 fraud complaints among its 6.5 million customers, and even those cases could be attributed to customers sharing their credentials or their emails getting hacked. According to Nithin, the proportion of complaints (fraudulent or otherwise) to users for Zerodha was among the lowest in the broking industry.[66]

Organizational culture

Lack of pressure (e.g., on the tech team to add new features) and noninterference in how another department carried out its operations were key hallmarks of the organizational culture at Zerodha. Even the chief executive officer did not interfere in key managers' decisions about how to run their departments. Most employees also held stock options. Both these factors helped reduce staff turnover. However, in Nithin's words, Zerodha's employees' stickiness was less because of stock options and more because it was like a social club of people who liked to hang out together.[67] The Kamath brothers, who held 85 per cent of the company's stock, had signed up for the Young India Philanthropic Pledge, which included Indians under 45 years of age who had pledged to donate 25 per cent of their wealth, showing that they cared.[68]

Alliances

When it was deemed appropriate, Zerodha used alliances to further its strategy.

- Zerodha set up the Rainmatter Foundation in 2020 with a commitment of INR 7.5 billion.[69] By 2022, it had invested as much INR 2.5 billion in many fintech start-ups and was ready to escalate its commitment of resources to this agenda.[70] One example was Smallcase, a start-up founded by three Indian Institute of Technology Kharagpur graduates to introduce people to systematic investment planning in a customized basket of equities. In 2023, Smallcase offered over 250 different "smallcases" to users, with Zerodha being one of the first backers of this innovative start-up.[71]
- In 2022, Zerodha partnered with Ditto to offer insurance products to its customers. The move aimed to address the gap in the insurance industry—mis-selling of insurance.[72]

CHALLENGES AHEAD

By June 2023, Zerodha's initial advantages of an easy-to-use software interface and lower commissions had been imitated and many discount brokers were cheaper in overall prices than Zerodha.[73] Supported by venture capitalists, some of the challengers were also spending lavishly on marketing, such as Upstox, a sponsor for the popular Indian Premier League cricket competition (see Exhibits 5 and 6 for key ratios of some of the top brokerage firms).[74] In May 2022, Upstox claimed it had doubled its user base in six months to surpass the 10 million user milestone versus Zerodha's 9 million.[75] While Zerodha had been able to increase its number of users during the pandemic, the growth achieved by its rivals—including both start-up discount brokers and traditional discount brokers, had been stronger.[76]

There was another trend that could become a cause for concern. As per the data for 2023 from smartphone platforms (Google Play Store and the App Store), Groww's and Upstox's applications were rated more favorably compared to Zerodha's (see Exhibit 9). If the younger demographic used mobile apps (rather than laptops) to a greater extent than users in the past, there was a possibility that Zerodha would lose out to other apps.[77]

Zerodha also faced a critical challenge in terms of talent attraction because a few rivals such as Groww seemed to enjoy better recognition on professional networks. LinkedIn's "Top 25 Start-ups List" of Indian firms, based on indicators such as talent pull and retention, had listed Groww at third place.[78] But, this came at a steep cost—Groww's employee benefits soared more than six times from FY 2021 to FY 2022, touching INR 668 million.[79] Though Zerodha had not chosen to spend large resources on talent acquisition in the past, Zerodha's debt-free balance sheet and profitability gave it the ability to go toe to toe with its rivals, if it deemed higher spending on attracting talent to be critical.[80]

The top management at Zerodha thus faced several critical decisions. In 2022, Nithin had said: "As Zerodha, we have no plans to get into any business that is capital intensive. As long as we can remain profitable and capital isn't required to grow like in the past, we will continue to allocate the majority of our profits to invest in the future."[81] It was time to revisit specific aspects of the general principle articulated by Nithin. Were substantially higher investments in marketing, technology, or attracting and retaining talent within the realms of the guiding principle articulated by Nithin, especially if they reduced profitability in the short term? Did Zerodha need to change its strategy fundamentally? What could the next innovation be to keep its market position secure and momentum strong?

EXHIBIT 1: CUSTOMERS ACROSS EACH FINANCIAL YEAR (FY 2011–FY 2023)

Financial Year	Customers	Revenues (INR millions)	Profit after Tax (INR millions)
2011	1,500	10	0
2012	7,000	90	20
2013	17,000	160	40
2014	30,000	280	70
2015	55,000	470	130
2016	110,000	1,090	380
2017	280,000	2,070	780
2018	824,000	5,080	2,030
2019	1,41,0000	9,430	3,250
2020	2,375,000	10,940	3,770
2021	5,270,000	26,560	11,300
2022	9,250,000	49,640	20,940
2023	10,220,000*	NA	NA

Source: V. Keshavdev, "How Zerodha Went from Zero to Hero," Fortune India, February 16, 2023, https://www.fortuneindia.com/long-reads/how-zerodha-went-from-zero-tohero/111627. * *Until Sep 2022*

EXHIBIT 2: MARKET SHARE IN FY 2021 AND FY 2022 (BY % ACTIVE NSE CLIENTS)

Broker	FY 2021	FY 2022
Zerodha	19.06	17.42
Upstox	11.33	14.47
Groww	4.13	10.68
Angel One	8.28	10.15
ICICI Securities	8.36	8.41
5Paisa Capital	4.61	4.87
Kotak Securities	3.93	3.49
HDFC Securities	0.96	5.07
IIFL Securities	0.29	1.54
Motilal Oswal	0.56	2.99
Sharekhan	0.68	3.60
SBICAP Securities	0.33	1.74
Axis Securities	0.45	2.41

Source: Narayanan V, "Full-service Brokers Up the Ante to Garner Market Share," The Hindu BusinessLine, May 05, 2022, https://www.thehindubusinessline.com/data-stories/data-focus/full-service-brokers-up-the-ante-to-garner-market-share/article65384250.ece.

EXHIBIT 3: TOP MANAGEMENT TEAM AT ZERODHA AND THEIR BACKGROUNDS

Name	Designation	Description
Nithin Kamath	Founder and CEO	Cofounder of Zerodha. Also, a member of the Secondary Market Advisory Committee and the Market Data Advisory Committee of the securities and exchange board of India (SEBI).[82] The Kamath brothers were ranked #58 in India's richest ranking in 2022, with an estimated net worth of US $3.45 billion.[83]
Nikhil Kamath	Cofounder and chief financial officer (CFO)	Cofounded Zerodha with his brother Nithin. He was also the cofounder and chief investment officer (CIO) of True Beacon, an asset management company.[84]
Dr. Kailash Nadh	CTO	Led the technology team at Zerodha and was responsible for building and scaling the platforms and products. Had a PhD in artificial intelligence.[85] With a passion for open-source software, he set up FOSS Foundation which supports FOSS projects in India.[86]
Venu Madhav	Chief operations officer (COO)	One of the early employees/ founding members of Zerodha. A veteran in the broking industry, he oversaw the operations and compliance of the firm. Had multiple certifications in financial markets and technical analysis.[87]
Hanan Delvi	Chief, Client relations	Like Madhav, was a member since the beginning at Zerodha and was responsible for client support. Had been instrumental in Zerodha's successful interfacing with customers.[88]
Seema Patil	Chief quality officer (CQO)	A former telesales executive who joined Zerodha as one of its first employees. She became in charge of ensuring quality across all aspects of the business, and was also the wife of Nithin Kamath.[89]
Karthik Rangappa	Chief of education	A marathon runner with a keen interest in how financial markets function, he led the education initiatives at Zerodha. Had a background in equity research and was the brain behind coming up with Varsity, Zerodha's online learning platform for traders and investors, that generated major buzz for the firm.[90]
Austin Prakesh	Director, Strategy	A Singapore citizen, he joined Zerodha in 2012. He was responsible for the growth strategy of the company. Also, a fitness enthusiast with a keen interest in boxing.[91]

Source: Company files.

EXHIBIT 4: ZERODHA'S ECOSYSTEM

Vertical	Description
The Kite App	An easy-to-use app that was offered to traders and investors. Allowed users to buy or sell stocks, derivatives, or commodities. Allowed creating multiple watch lists and alerts. Charged a flat fee for F&Os and intraday trades, regardless of the size of the order.
Coin App	Allowed buying and selling of mutual funds directly from asset management companies. Launched in April 2017, it acquired 100,000 customers in the first 16 months. Completely free since August 2018. More than 2,000 mutual funds were listed. Same credentials as the Kite App could be used for logging in.
Varsity	Free and open online learning platform. Offered a complete package of information for investing.
Rainmatter	Start-up incubator that was started in 2015. Had funded some high-profile start-ups.
True Beacon	Asset management initiative launched in September 2019 for high-net-worth and ultra-high-net-worth individuals. Delivered excellent results for clients in the first two years of operations. Application for an asset management company approved by the regulator in September 2021.
Kite Connect API	Part of the Rainmatter Start-up Incubator initiative, it was a platform offered to retail investors, developers, and start-ups. Charged a standard fee of Rs 2,000 per month (more for optional add-ons) to retail users for implementing algo strategies. Free for developers or start-ups who are creating projects for the public.

Source: Kunal Mishra, "Zerodha Business Model and How It Makes Money," Promote Digitally, July 29, 2022, https://promotedigitally.com/zerodha-business-model/.

EXHIBIT 5: EARNINGS BEFORE INTEREST, TAX, DEPRECIATION, AND AMORTIZATION (EBITDA) MARGIN OF TOP STOCK BROKING FIRMS IN INDIA

Company Name	03-31-2020	03-31-2021	03-31-2022
Zerodha Broking	56%	54%	57%
RKSV Securities India (Upstox)	10%	-12%	N/A
Nextbillion Technology (Groww)	-964%	28%	24%
Angel One	62%	68%	67%
ICICI Securities	60%	69%	71%
5Paisa Capital	12%	30%	22%
Kotak Securities	63%	70%	70%
HDFC Securities	67%	74%	77%
IIFL Securities	57%	60%	60%
Motilal Oswal Financial Services	69%	75%	71%
Sharekhan	46%	67%	62%
SBI Capital Markets	71%	74%	74%
Axis Securities	31%	61%	60%

Source: "Annual Financial statements: PBDITA," CMIE Prowess, Accessed May 17, 2023.

EXHIBIT 6: RETURN ON CAPITAL EMPLOYED (ROCE) OF TOP STOCK BROKING FIRMS IN INDIA

Company Name	03-31-2020	03-31-2021	03-31-2022
Zerodha Broking	87.31	101.18	77.28
RKSV Securities India (Upstox)	-31.68	-44.12	N/A
Nextbillion Technology (Groww)	-144.23	1.95	1.75
Angel One	6.86	18.21	23.91
ICICI Securities	24.16	25.71	17.49
5Paisa Capital	-3.16	4.55	2.81
Kotak Securities	9.53	11.06	10.65
HDFC Securities	24.01	25.20	19.81
IIFL Securities	14.44	19.64	25.14
Motilal Oswal Financial Services	4.85	15.54	12.22
Sharekhan	3.42	21.78	10.12
SBI Capital Markets	8.68	10.39	11.72
Axis Securities	16.33	26.16	17.44

Source: "Annual Financial Statements: Return on Capital Employed," CMIE Prowess, Accessed May 17, 2023.

EXHIBIT 7: PRICING STRUCTURE FOR THREE TOP ONLINE BROKERAGES

	Account opening[92]	Maintenance /year[93]	Equity delivery[94]	Equity intraday/F&O[95]
Zerodha	200	300	0	Lower of 0.03%/20 INR
Groww	0	0	Lower of 0.05%/20 INR	Lower of 0.05%/20 INR
Upstox	0	150	Lower of 2.5%/20 INR	Lower of 0.05%/20 INR

Source: "Groww vs Zerodha vs Upstox," Finology, accessed May 15, 2023, https://select.finology.in.

EXHIBIT 8: INCOME STATEMENT OF ZERODHA BROKING LTD. (IN INR MILLIONS)

Particulars	03-31-2020	03-31-2021	03-31-2022
Income from continued operations	10,941	27,296	49,641
Power, fuel, and water charges	7	4	4
Employee benefits expenses	1,550	3,164	4,591
Indirect taxes	3		
Rent and lease rent	22	16	8
Repairs and maintenance	3		
Outsourced professional jobs	662	1,701	3,034
Nonexecutive directors' fees and commission		0	1
Selling and distribution expenses		10	11
Travel expenses	10	20	36
Communications expenses	3		
Printing and stationery expenses	6	4	4
Miscellaneous expenditure	2,603	7,509	13,751
Financial services expenses	258	8	8
Depreciation/amortisation	55	167	176
Operating Profit	**5,761**	**14,694**	**28,017**

Source: "Financial Statements: Income and Expenditure Summary (Annual Report)," CMIE Prowess, Accessed May 17, 2023.

EXHIBIT 9: MOBILE APPLICATION DOWNLOADS AND USER RATINGS FOR THE TOP THREE BROKERAGE FIRMS

Google Play Store

	Downloads	No. of reviews	Average score
Kite by Zerodha	10 million+	314,134	4.2
Coin by Zerodha	1 million+	24,552	4.1
Groww	10 million+	887,330	4.4
Upstox	5 million+	195,613	4.4

App Store

	Downloads	No. of reviews	Average score
Kite by Zerodha	NA	607	3.5
Coin by Zerodha	NA	318	3.1
Groww	NA	24,100	4.3
Upstox	NA	4,300	4.4

Source: Compiled by case authors from Google Store and the App Store as of May 11, 2023.

ENDNOTES

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