



---

**INVENTURUS KNOWLEDGE  
SOLUTIONS LIMITED**

---

**IPO NOTE**

*December 2024*

## ISSUE HIGHLIGHTS

- Inventurus Knowledge Solutions (“IKS”) was incorporated on September 5, 2006. IKS is a technology-enabled healthcare solutions provider and offer a care enablement platform assisting physician enterprises in the US, Canada and Australia, with a focus on the US markets. They are a leading partner for outpatient and inpatient care organizations, enabling healthcare organizations deliver superior clinical care, improve population health outcomes, and transition to the “fee for value” model while optimizing their revenue and reducing operating costs. The company provides solutions that address these increasing tasks, or 'chores', and enable healthcare delivery enterprises to focus on their core focus of healthcare, by taking over chores that are necessary to manage their business. They offer a **comprehensive platform** that enables healthcare enterprises across outpatient and inpatient care.
- **As of September 30, 2024, IKS has over 778 healthcare organizations as their clients**, including health systems, academic medical centres, multi-specialty medical groups, single-specialty medical groups, ancillary healthcare organizations and other outpatient and inpatient healthcare delivery organizations.
- Some of the key clients include **Mass General Brigham Inc., Texas Health Care PLLC, and The GI Alliance Management**.
- As of September 30, 2024, they serve their clients through their consolidated globalized workforce of over 13,528 employees, including 2,612 clinically trained employees and a consultative sales force with presence in key geographies in the US, Canada and Australia.
- Company’s services enable healthcare organizations to deliver superior clinical care, improve population health outcomes, and transition to the “**Fee for Value**” model while optimizing their revenue and reducing operating costs.
- IKS offers digital health platform that help their clients build, enhance, maintain, support, and manage their technology systems better. In addition, company’s Unifying Data Platform (“**UDP**”) allows clients to aggregate data from multiple billing systems, electronic health records (“**EHR**”), and clearing houses to obtain a single informational database for effective decision-making.
- IKS acquired **Aquity Holdings, a company engaged in technology-enabled clinical documentation, medical coding and revenue integrity solutions for healthcare**. Through the acquisition of Aquity Holdings with effect from October 27, 2023, they are able to cross-sell to Aquity's existing base of over 804 customers, as of March 31, 2024, and offer existing solutions to this customer base, thereby increasing their market opportunity.

## BRIEF FINANCIAL DETAILS\*

(₹ IN Cr)

	As at Sep'30,		As at Mar' 31,		
	2024(06)	2023(06)	2024(12)	2023(12)	2022(12)
Equity Share Capital	16.94	16.86	16.92	16.84	16.81
Reserves	1,360.17	865.04	1,140.94	811.80	630.26
Net Worth	1,377.11	881.90	1,157.86	828.64	647.07
Borrowings	828.63	-	1,193.42	-	-
Revenue from Operations	1,282.88	630.87	1,817.93	1,031.30	763.63
Revenue Margin (%)	103.35%	-	76.28%	35.05%	-
Adj. EBITDA	359.09	232.22	559.57	391.31	297.18
Adj. EBITDA Margin (%)	27.99%	36.81%	30.78%	37.94%	38.92%
Net Profit for the period	208.58	205.38	370.49	305.23	232.97
Net Profit Margin (%)	16.26%	32.55%	20.38%	29.60%	30.51%
EPS – Basic (₹)	12.50 <sup>^</sup>	12.42 <sup>^</sup>	22.37	18.37	14.26
EPS – Diluted (₹)	12.35 <sup>^</sup>	12.22 <sup>^</sup>	22.15	18.13	14.04
NAV (₹)	82.83	53.28	69.70	50.14	39.22
RONW (%)	15.15% <sup>^</sup>	23.29% <sup>^</sup>	32.00%	36.83%	36.00%

Source: RHP, \*Restated Consolidated <sup>^</sup> not annualized

## Issue Details

**Offer for Sale of upto 18,795,510 Equity Shares**

**Issue size:** ₹ 2,378 Cr - 2,498 Cr

**Face value:** ₹ 1/-

**Employee Reservation:** Upto 65,000 Shares

**Price band:** ₹ 1,265 – 1,329

**Bid Lot:** 11 Shares and in multiple thereof

**Post Issue Implied Market Cap =**

₹ 21,704 – 22,802 Cr

**BRLMs:** ICICI Securities, Jefferies India, JM Financial, J.P.Morgan India, Nomura Financial

**Registrar:** Link Intime India Pvt Ltd.

**Issue opens on:** Thursday, 12<sup>th</sup> Dec'2024

**Issue closes on:** Monday, 16<sup>th</sup> Dec' 2024

## Indicative Timetable

Activity	On or about
Finalisation of Basis of Allotment	17-12-2024
Refunds/Unblocking ASBA Fund	18-12-2024
Credit of equity shares to DP A/c	18-12-2024
Trading commences	19-12-2024

## Issue Break-up

	No. of Shares	₹ In Cr		% of Issue
		@Lower	@upper	
QIB	14,047,882	1,777.06	1,866.96	75%
NIB	2,809,577	355.41	373.39	15%
-NIB2	1,873,051	236.94	248.93	-
-NIB1	936,526	118.47	124.46	-
RET	1,873,051	236.94	248.93	10%
Emp	65,000	8.22	8.64	
<b>Total</b>	<b>18,795,510</b>	<b>2,377.63</b>	<b>2,497.92</b>	<b>100%</b>

NIB-1= Bid between ₹ 2-10 Lakhs NIB-2 = Bid Abv ₹ 10 Lakhs

Category	Retail Category	NII-Bid between ₹ 2 - 10 Lakhs	NII - Bid Above ₹ 10 Lakhs
Minimum Bid Lot (Shares)	11 Shares	154 Shares	759 Shares
Minimum Bid Lot Amount (₹)	₹ 14,619 <sup>^</sup>	₹ 2,04,666 <sup>^</sup>	₹ 10,08,711 <sup>^</sup>
Appl for 1x	1,70,277 Applications	6,081 Applications	12,163 Applications

## Listing: BSE & NSE

## Shareholding (No. of Shares)

	Pre-Offer and Post-Offer Equity Shares
<b>No of shares</b>	171,573,159

## Shareholding (%)

	Pre-Issue	Post-Issue
Promoter & Promoters Gr	62.57%	60.61%
Public - Investor Selling S/h	7.16%	5.18%
Public - Others	27.53%	31.47%
Employee Trust	2.74%	2.74%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

## BACKGROUND

### Company and Directors

The Company was incorporated as “Inventurus Knowledge Solutions Private Limited” on September 5, 2006. Sachin Gupta, Rekha Jhunjunwala, Aryaman Jhunjunwala Discretionary Trust, Aryavir Jhunjunwala Discretionary Trust, Nishtha Jhunjunwala Discretionary Trust are the promoters of the company. Currently, promoters hold 107,352,790 Equity Shares of face value of ₹ 1 each in aggregate, representing 62.57% of the issued, subscribed and paid-up Equity Share capital of the company.

### Brief Biographies of Directors

**Berjis Minoo Desai** is the Chairman and Non-Executive Director of the company. He has over 14 years of experience in mergers and acquisitions, derivatives, corporate and financial laws and international commercial arbitration and was previously associated with J. Sagar Associates as a senior partner.

**Sachin Gupta** is one of the Promoter and Whole-time Director on the Board of the company and chief executive officer of IKS Inc. He has over 16 years of experience in business management. In the past, he has been associated with Seletica Configurators India Pvt Ltd, Majoris Systems Pvt Ltd and Lionbridge Technologies, Inc. and has prior experience in software and business development.

**Joseph Benardello** is the Non-Executive Director on the Board of the company. He has over 14 years of experience in executive leadership, strategy, sales leadership, mergers and acquisitions, healthcare, IT and technology development and implementation, consulting, revenue cycle management, business process outsourcing and contract negotiation and was previously associated with Ziff Davis Publishing Inc. and Lionbridge Technologies, Inc.

**Dr. Mary Earley Klotman** is the Non-Executive Director on the Board of the company. She has over 42 years of professional medical experience and has been associated with the Duke University in various capacities, including as a professor of medicine and member of its medical staff.

**Utpal Hemendra Sheth** is the Non-Executive Nominee Director on the Board of the company. He has been associated with the company since 2014. He has been working with Rare Enterprises, a proprietary asset management firm, for the past 19 years and currently serves as its chief executive officer responsible for investment management, risk management and institutionalization.

**Amit Goela** is the Non-Executive Nominee Director on the Board of the company. He has been associated with the company since 2021. He has been a part of the management team of Rare Enterprises for the past 15 years where he leads a team of research analysts, managing investment in equity markets and assist in secondary market investments.

**Clarence Carleton King II** is an Independent Director on the Board of the company. He is currently the chief executive officer of Shoal Creek Advisors, LLC. Further, he, on behalf of Shoal Creek Advisors, LLC, advises and contributes towards the long-term strategic business plan of IKS Group.

**Dr. Keith Anthony Jones** is an Independent Director on the Board of the company. He has over 36 years of professional medical experience and was previously associated with Mayo Clinic as its professor of anesthesiology and as the chief physician executive, professor and chairman of the UAB Heersink School of Medicine Department of Anesthesiology and Perioperative Medicine.

**Theresa Stone** is an Independent Director on the Board of the company. She has over 26 years in management and is currently associated with Oliver Wyman as its managing partner.

**Nithya Balasubramanian** is the Chief Financial Officer of the company. She has over 16 years of experience in the field of marketing. She has previously worked with McKinsey & Company, Inc., Cipla Limited and Alliance Bernstein Business Services Pvt Ltd. She is responsible for the global financial operations, administration and facilities, ERP, investor relations, and the overall business strategy of the Company. She was appointed as the Chief Financial Officer on May 15, 2024.

**Sameer Chavan** is the Company Secretary and Compliance Officer of the company. He has 16 years of experience in secretarial compliance. He has previously worked with Poonawala Fincorp Ltd, IndoStar Capital Finance Ltd, UFO Moviez India Ltd, PAE Ltd and Shreyas Relay Systems Ltd. He joined the company on September 29, 2023.

## OFFER DETAILS

Offer For Sale: (18,795,510 Equity Shares)	No. of Shares	Average cost of Acquisition per Equity Share (₹)
<b>By Promoters Selling Shareholders:</b>		
Aryaman Jhunjunwala Discretionary Trust	1,119,300	Nil
Aryavir Jhunjunwala Discretionary Trust	1,119,300	Nil
Nishtha Jhunjunwala Discretionary Trust	1,119,300	Nil
<b>By Promoter Group Selling Shareholders:</b>		
Ashra Family Trust	3,376,311	Nil
Rajeshkumar Radheshyam Jhunjunwala	26,513	2.24
<b>By Investor Selling Shareholders:</b>		
Joseph Benardello	3,041,812	37.60
Gautam Char	1,251,378	3.82
Parminder Bolina	1,251,378	3.83
Jeffrey Philip Freimark	1,141,001	5.37
Shane Hsuing Peng	994,233	67.95
Berjis Minoo Desai	676,549	Nil
Scott D Hayworth	652,008	18.35
Anurag Shiamsunderlal Sharma	323,572	4.00
Katherine Nicole Davis	266,781	3.73
Patrick Burton Cline	257,873	0.49
Other Investor Selling Shareholders	2,178,201	-

## SHAREHOLDING PATTERN

Shareholders	Pre-offer		Offer for Sale Shares	Post-offer	
	Number of Equity Shares	% of Total Equity Share Capital		Number of Equity Shares	% of Total Equity Share Capital
Promoter	107,352,790	62.57%	3,357,900	103,994,890	60.61%
Promoters Group	12,289,962	7.16%	3,402,824	8,887,138	5.18%
<b>Total for Promoter</b>	<b>119,642,752</b>	<b>69.73%</b>	<b>6,760,724</b>	<b>112,882,028</b>	<b>65.79%</b>
Public - Investors Selling Shareholders	35,444,719	20.66%	12,034,786	23,409,933	13.64%
Public – Others	11,792,579	6.87%		30,588,089	17.83%
<b>Total for Public Shareholders</b>	<b>47,237,298</b>	<b>27.53%</b>		<b>53,998,022</b>	<b>31.47%</b>
Shares held by Employee Trust	4,693,109	2.74%		4,693,109	2.74%
<b>Total Equity Share Capital</b>	<b>171,573,159</b>	<b>100.00%</b>		<b>171,573,159</b>	<b>100.00%</b>

Source: RHP

## BUSINESS OVERVIEW

Inventurus Knowledge Solutions Ltd (“IKS”) is a technology-enabled healthcare solutions provider and offer a care enablement platform assisting physician enterprises in the US, Canada and Australia, with a focus on the US markets. They are a leading partner for outpatient and inpatient care organizations, enabling healthcare organizations deliver superior clinical care, improve population health outcomes, and transition to the “fee for value” model while optimizing their revenue and reducing operating costs.

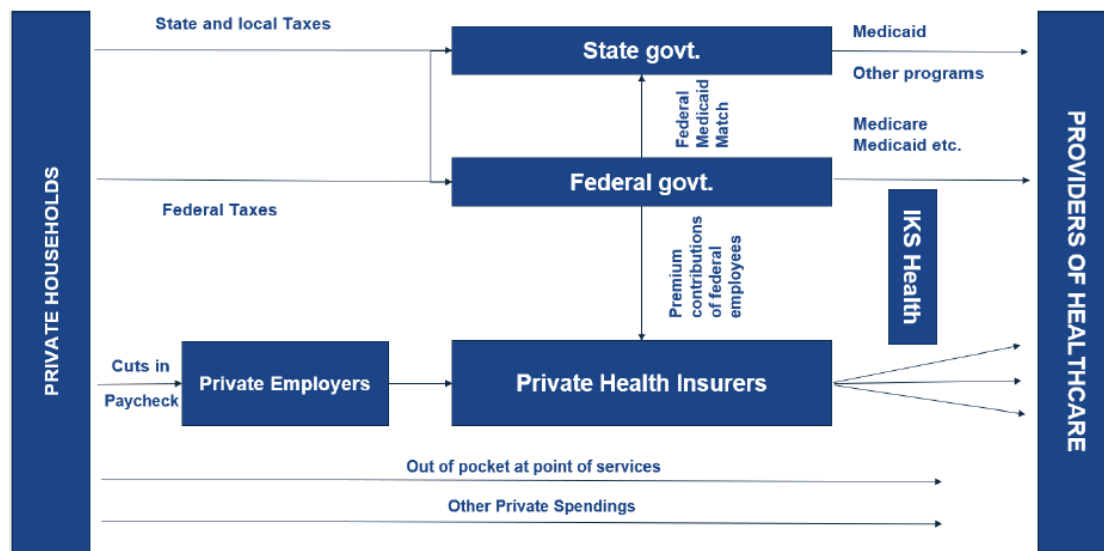
With the evolution and consolidation of the healthcare industry, they provide solutions that address these increasing tasks, or 'chores', and enable healthcare delivery enterprises to focus on their core focus of healthcare, by taking over chores that are necessary to manage their business. They do this through a blend of pragmatic technology and global human capital, with the aim of enabling healthcare delivery enterprises deliver better, safer and cost-effective care. They offer a comprehensive platform that enables healthcare enterprises across outpatient and inpatient care.

Outpatient service facilities, also known as ambulatory care, provide medical care without requiring admission to a hospital or other facility, and include observation, consultation, diagnosis, rehabilitation, intervention, and treatment services. Inpatient

care, refers to the provision of medical treatment for patients who have been admitted to a hospital or medical facility, requiring an overnight stay or an extended duration.

As of September 30, 2024, IKS has over 778 healthcare organizations as their clients, including health systems, academic medical centres, multi-specialty medical groups, single-specialty medical groups, ancillary healthcare organizations and other outpatient and inpatient healthcare delivery organizations. Some of the key clients include **Mass General Brigham Inc., Texas Health Care PLLC, and The GI Alliance Management**. They serve their clients through their consolidated globalized workforce of over 13,528 employees, including 2,612 clinically trained employees and a consultative sales force with presence in key geographies in the US, Canada and Australia, as of September 30, 2024.

### The infographic of IKS's role in the US healthcare value chain:



IKS Health has strategically directed its focus on enhancing its technology-enabled offerings for healthcare providers by concentrating on five distinct areas - *Revenue Cycle Management, Clinical Services, Value Based Care, Scribe and Medical Transcription Solutions* and *Coding*. Each of these areas is designed to address specific aspects of healthcare delivery enabling it to deliver tailored solutions that enhance efficiency, improve patient outcomes, and streamline administrative processes within the healthcare system.

## VALUE PROPOSITION

Company's healthcare provider enablement platform helps healthcare providers focus more singularly on their core role of patient care, while empowering healthcare organizations to thrive. They take on the chores of healthcare, spanning administrative, clinical, and operational services through their proprietary technology platforms, so that physicians can focus on their core purpose of delivering care to patients. Combining technology, dedicated resources and clinically trained employees, their solutions enable stronger and financially sustainable healthcare enterprises.

The following contributes to the value proposition:

- **Enabling physicians to deliver better, safer and more affordable clinical outcomes**

Clinicians often operate in a highly challenging and stressful environment; they must adapt to and comply with complex and changing regulatory requirements, administrative obligations of insurance companies, rapidly evolving technology systems, increasing patient needs and demands, and follow the policies of the healthcare organizations they work for. These can result in doctor burnout and increasing difficulty in hiring, retaining, motivating, and engaging talent.

Company's objective is to help their clients focus on their "core" operations while they handle their "chores" or administrative tasks. Their platform enables the clients to reduce the burden on their physicians, improve productivity and efficiency of their clinical operations, and improve physician wellness, by providing digital support for more rules-driven and structured administrative aspects of their clients' clinical operations. The physician-oriented platform includes clinical documentation solutions, patient scheduling assistance, automated prescription re-fill solution, clinical document management and data abstraction solutions, clinical data migration solution, pre-visit summary which gives the client's physician an overview of the patient's medical condition and discharge summary where they create a structured summary of the patient's condition during their hospital stay. Their platform is designed to enable physicians and nurses to focus on more complex patient-facing clinical tasks.

- **Obtain accurate and timely payments for clinical care provided**

Company's solutions focus on optimising revenue and reducing costs associated with the revenue cycle, by maximising collectible payments, reducing accounts receivables, reducing bad debt write-off, reducing underpayments from insurance companies, and ensuring accurate and timely insurance pay-outs. Improved clinical documentation results in improved revenue cycle performance through reduced denial rates for medical necessity and coding, which reduces bad debt write-offs and reduces account receivable days. By leveraging technology, IKS is able to autonomously complete patient financial clearance, improve clean claim submission to prevent denials, automate payment posting and reconciliation, and reduce inefficiencies in accounts receivables follow-up. Accordingly, they are able to reduce payment collection costs, grow revenues, and improve profitability for their clients, which in turn allows their clients to offer more affordable clinical care, and dedicate their capital to investments with greater impact on the quality of clinical care.

- **Help risk-bearing healthcare organizations deliver greater value to patients**

Company's services enable healthcare organizations to deliver superior clinical care, improve population health outcomes, and transition to the "Fee for Value" model while optimizing their revenue and reducing operating costs. Their value-based care solutions help these 'risk-bearing healthcare organisations':

- To monitor the health of their patients and identify care gaps, if any (through the IKS Stacks solution);
- Proactively identify potential medical conditions and provide preventive care before those conditions become critical (through their clinical chart reviews);
- Accurately identify the patient's disease conditions so that suitable critical protocols can be deployed (through their HCC coding solution);
- Help their clients execute the right clinical interventions for those patients (through their Care Management and Utilisation Management solutions);
- Take away the more routine administrative aspects of the work from their clients' nurses and medical assistants so they can focus on patient-facing functions (through their AssuRx and Stacks solutions), among other functions.

- **Enabling healthcare organizations to leverage the full potential of digital health platform**

The US healthcare market has a complex set of industry participants (viz healthcare providers, insurance companies, clearing houses, health technology firms, private equity firms, among others), and is highly regulated because it impacts patient safety and confidentiality. As a result, the industry lags in technology modernization. US healthcare organizations struggle with disparate computer systems which restricts their ability to measure, evaluate, and manage their overall operations, and centralize and standardize their operations to implement the "best practices" that achieve improved efficiency. To address this, IKS offers digital health platform that help their clients build, enhance, maintain, support, and manage their technology systems better. In addition, company's Unifying Data Platform ("UDP") allows clients to aggregate data from multiple billing systems, electronic health records ("EHR"), and clearing houses to obtain a single informational database for effective decision-making. This also avoids the need to migrate EHRs and billing systems or incur additional capital expenditure.

## ACQUISITION OF AQUIITY HOLDINGS

The company and Material Subsidiary, IKS Inc, have historically focussed on enabling healthcare enterprises in outpatient care, and many such enterprises were health systems. These health systems have a presence in the inpatient care market and they are well-positioned to assist them with inpatient care as well, as they have with outpatient care. The company acquired **Aquity Holdings, a company engaged in technology-enabled clinical documentation, medical coding and revenue integrity solutions for healthcare**. Through the acquisition of Aquity Holdings with effect from October 27, 2023, they are able to cross-sell to Aquity's existing base of over 804 customers, as of March 31, 2024, and offer existing solutions to this customer base, thereby increasing their market opportunity.

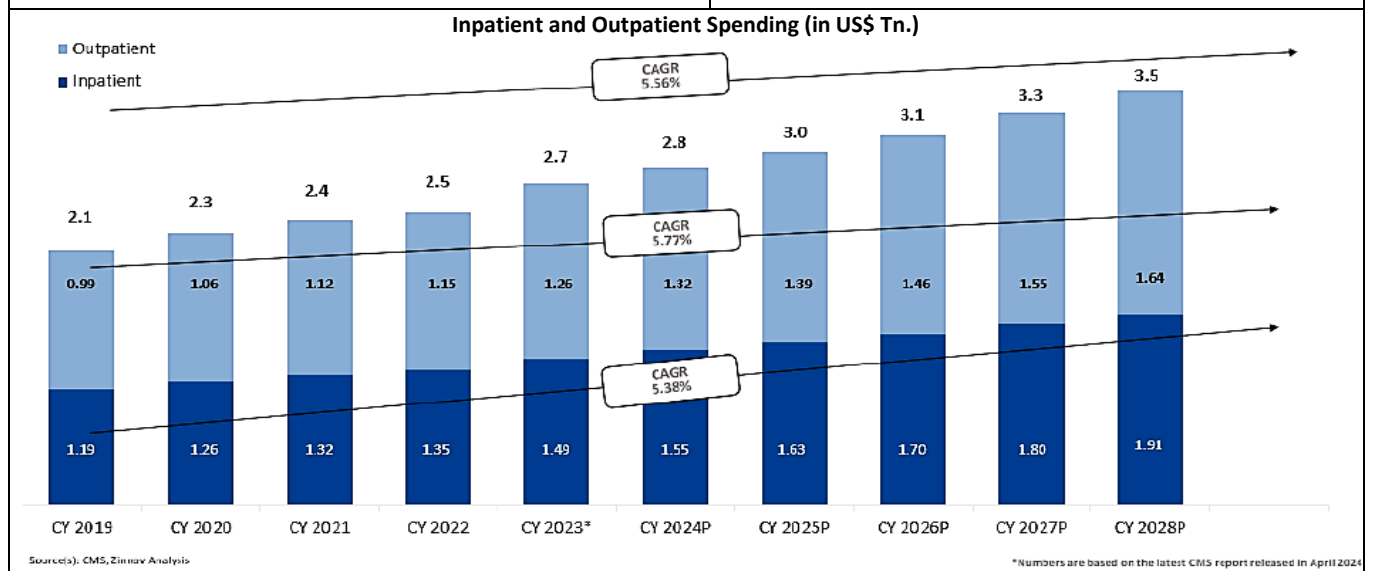
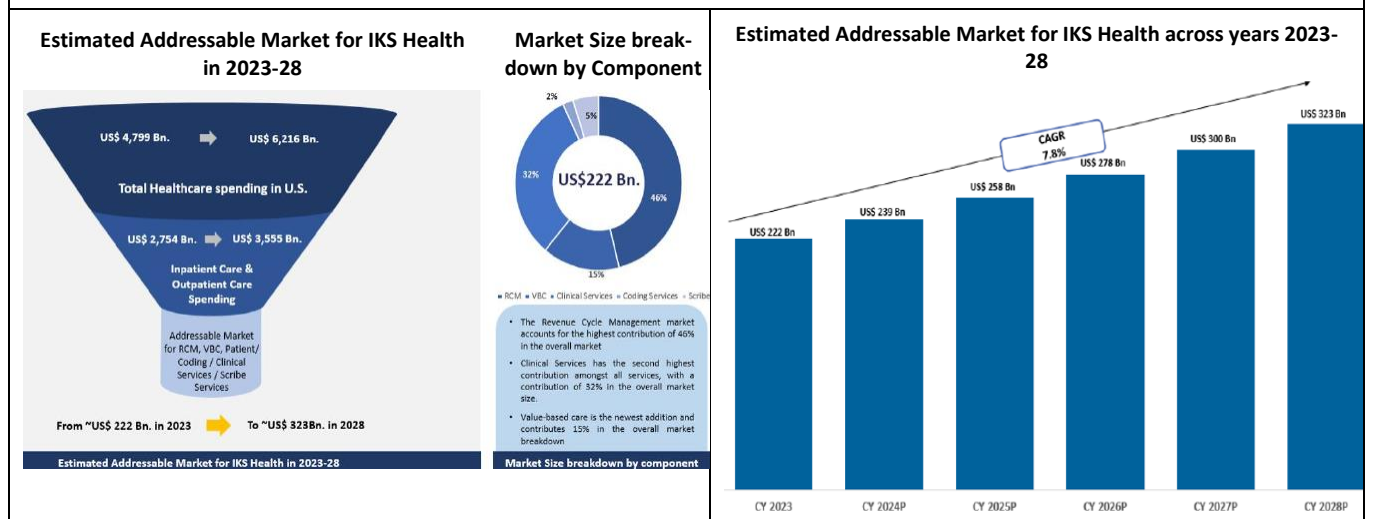
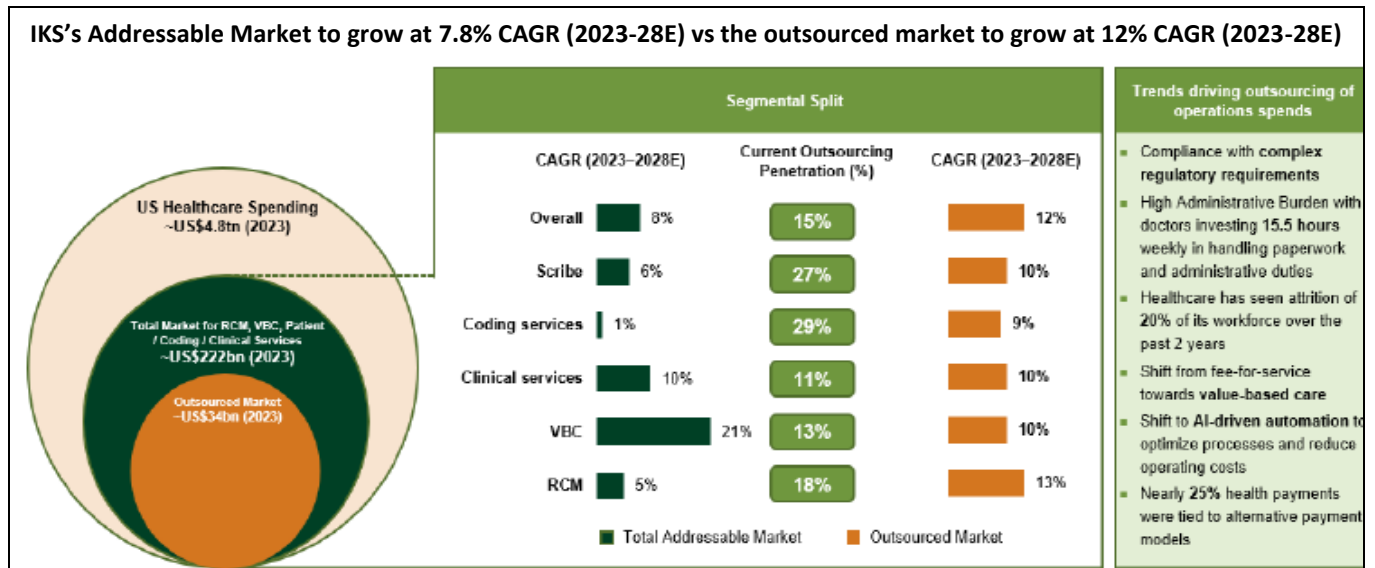
Additionally, IKS is poised to leverage Aquity's presence and expertise to expand their existing capabilities to inpatient care, including revenue cycle management for inpatient care, building a clinical staffing expansion solution and developing strategic solutions to enable effective patient intake and discharge support, including managing effective transitions of care. This ability to expand their offerings to inpatient care will enable them to offer more holistic and comprehensive solutions across the spectrum of care. This will also help drive a more compelling value proposition to health systems in particular, since improved access in outpatient care leads to significant downstream revenues for inpatient care facilities and helps unlock the value of an employed physician medical group for health systems.

With their technology capabilities, IKS intend to transition Aquity's delivery platform towards being a technology led and human-enabled one, in order to enhance efficiencies of cost. Similarly, they intend to create a more strategic mix of personnel based in the US and in India, to align more closely with their delivery model.

## MARKET OPPORTUNITY

Health expenditure in the US is projected to grow from U.S.\$4,799 billion in 2023 to U.S.\$6,216 billion by 2028, reflecting a CAGR of 5.3%. This growth will be driven by an ageing population and a rise in chronic diseases.

The total addressable market for provider enablement technology solutions in the US is expected to reach U.S.\$323 billion by 2028, as indicated below:



This growth potential is driven by the following factors:

- **Widening supply-demand gap of healthcare professionals.** The World Health Organization predicts a global shortage of 12.9 million healthcare professionals by 2035. The Association of American Medical Colleges predicts a physician shortage of 23,000.
- **Shrinking margins.** Widespread labour shortages and ongoing supply chain challenges continued to drive up year-over-year adjusted expenses, and health systems are looking to bridge the gap through technological changes.
- **Increase in health care consumerism.** Healthcare providers and organizations are rethinking their business models and making extensive changes across consumer touch points. This comes with the promise of easy online scheduling, digital doctor-patient communication tools, and secure online access to medical records and bill-pay capabilities. Staffing includes skilled specialists, and promotion includes brand-positive messaging dedicated to enhancing the consumer experience.
- **Adoption of value-based care.** Under value-based care, healthcare providers, including hospitals and physicians, are paid based on capitation and patient health outcomes. In a survey conducted by HCP-LAN in 2023, nearly 25% payments came from alternative payment models. The value-based care model is projected to constitute 50% of Medicaid contracts by 2025, marking a shift from the traditional fee-for-service model, where patients paid for individual services. There has already been widespread acceptance of this model, which improves the quality of life and corrects misaligned incentives, reducing health care costs by making care more accessible to all.

These factors will continue to generate greater demand for enablement platforms and offerings such as those in their platform, to assist healthcare organizations adapt to these emerging challenges and priorities. Company's current market penetration remains limited compared to the projected total addressable market in 2027, indicating a significant untapped market opportunity for providers of healthcare provider enablement solutions like themselves to ride this wave of growth. With the scalable platform and layered infrastructure that captures several pain points of healthcare providers, they are well-positioned to capitalise on this growing market opportunity and address the increasing demand for a healthcare provider-enablement platform.

**Company's Comprehensive one-stop platform with diversified offerings:**

Stakeholders	Patients	Physicians	Nurses	Healthcare Organisations
Requirements →	<ul style="list-style-type: none"> <li>• Proper and accurate diagnosis</li> <li>• Seek better experiences during the clinic visit</li> <li>• Transparency and information on their medical conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce time spent on routine administrative tasks such as: <ul style="list-style-type: none"> <li>• Clinical documentation</li> <li>• Billing and Payment</li> <li>• Managing relations with insurance companies</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Seek to focus on face-to-face patient care instead of routine tasks such as: <ul style="list-style-type: none"> <li>• Entering and validating medical information</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Hire and retain physicians and nurses</li> <li>• Acquire and integrate other medical groups</li> <li>• Invest in technology</li> <li>• Achieve significant cost reductions and improve profitability</li> </ul>
Solutions ↓				
<b>Scribble:</b> asynchronous and synchronous virtual scribe service for Physicians	✓	✓	-	-
<b>Clinical Chart Review:</b> Provides "pre-visit preparation" information to Physicians	✓	✓	-	-
<b>AssuRx:</b> Centralised and standardised process for prescription refills	✓	✓	✓	-
<b>Discharge Summary:</b> creation of patient's medical history	✓	✓	-	-
<b>Stacks:</b> Document management and clinical data abstraction service	-	✓	✓	✓
<b>HCC*:</b> implementing coding methods to accurately	-	✓	-	✓



Stakeholders	Patients	Physicians	Nurses	Healthcare Organisations
document risk adjusted codes				
<b>Migrate:</b> Validate and migrate data quickly from old EHR	-	-	✓	✓
<b>Revenue Optimization Solutions:</b> Efficient billing, collection, posting and follow-up on claims	-	-	-	✓
<b>Digital Health Solutions:</b> Services to help build, enhance, maintain, support and manage technology assets	-	-	-	✓
<b>Value Based Care Solutions</b>	✓	-	-	✓
<b>Transcription:</b> Virtual transcribing services for Physicians	✓	✓	-	-

\* De Novo Coding and Hierarchical Condition Codes

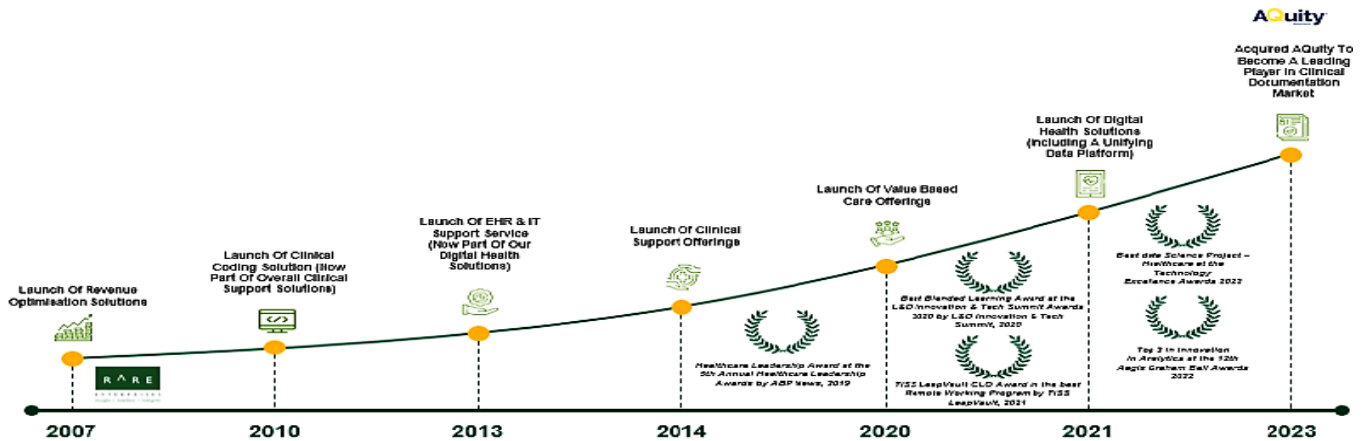
### The key financial and operational information of the company:

(₹ Cr except percentages)

	As at and for 3 months ended June 30,		CAGR between FY2022 and 2024 (%)	As of/For the year ended March 31,		
	2024	2023		2024	2023	2022
Revenue from Operations	1,282.88	630.87	54.29%	1,817.93	1,031.30	763.63
Year-on-year growth of revenue from operations (%)	103.35%	33.56%	-	76.28%	35.05%	38.20%
EBITDA	359.09	232.22	36.94%	520.30	360.39	277.45
EBITDA Margin (%)	27.99%	36.81%	-	28.62%	34.95%	36.33%
Adjusted EBITDA (₹)	359.09	232.22	37.22%	559.57	391.31	297.18
Adjusted EBITDA Margin (%)	27.99%	36.81%	-	30.78%	37.94%	38.92%
Restated profit before exceptional items and tax (₹)	266.04	237.12	23.78%	441.67	390.26	288.26
Restated profit before exceptional items and tax margin (%)	20.74%	37.59%	-	24.30%	37.84%	37.75%
Restated profit for the year	208.58	205.38	26.11%	370.49	305.23	232.97
Restated profit for the year margin (%)	16.26%	32.55%	-	20.38%	29.60%	30.51%
Adjusted profit for the year (₹)	240.24	205.69	31.07%	435.42	336.59	253.44
Adjusted profit for the year margin (%)	18.73%	32.60%	-	23.95%	32.64%	33.19%
Total Equity	1,377.11	881.90	33.77%	1,157.86	828.64	647.07
Return on Equity (%)	15.15%	23.29%	-	32.00%	36.83%	36.00%
Cash generated from Operations	285.62	249.12	4.54%	303.01	363.03	277.25
Free cash flow	208.56	192.62	-	117.06	279.43	222.15
Free cash flow yield (FCF yield to PAT)	99.99%	93.79%	-	47.79%	91.55%	95.36%
Number of employees as at 31st March	13528	6741	-	13,241	9,802	5,413
Adjusted EBITDA per employee	0.27	0.34	-	0.06	0.06	0.06
Ageing of top 10 clients	4.92	5.56	-	6.04	5.63	4.68
Ageing of top 5 clients	4.91	6.38	-	8.00	6.52	6.30
Revenue from clients >\$1mn	37	23	-	40	26	19
Revenue from top 5 customers	276.74	272.63	-	501.56	452.24	345.20
Revenue from top 10 customers	441.20	412.19	-	793.65	691.87	520.50
<b>Operational</b>						
Client	778	42	335.38%	853	49	45
Employees	13,528	6,741	56.40%	13,241	6,802	5,413

## BUSINESS OPERATIONS

IKS was founded in 2006 with the goal of addressing the financial, clinical, and operational needs of US healthcare organizations, primarily hospital-owned medical groups, independent medical groups, and other outpatient groups. Their platform is aimed at helping US healthcare organisations operate more effectively and efficiently, deliver superior clinical care, improve population health outcomes, and transition to the “Fee for Value” model, while optimising their revenue and reducing their operating costs.



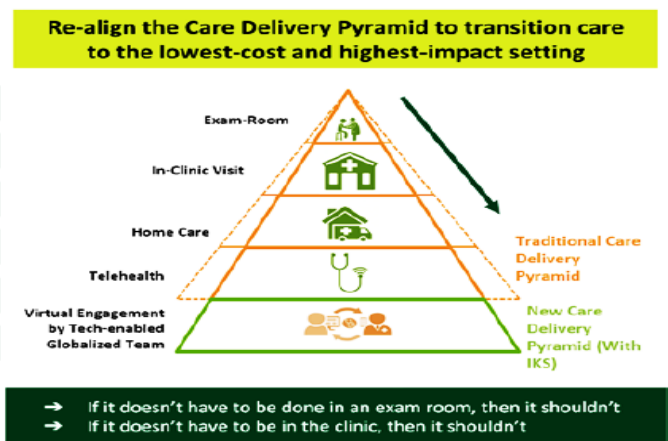
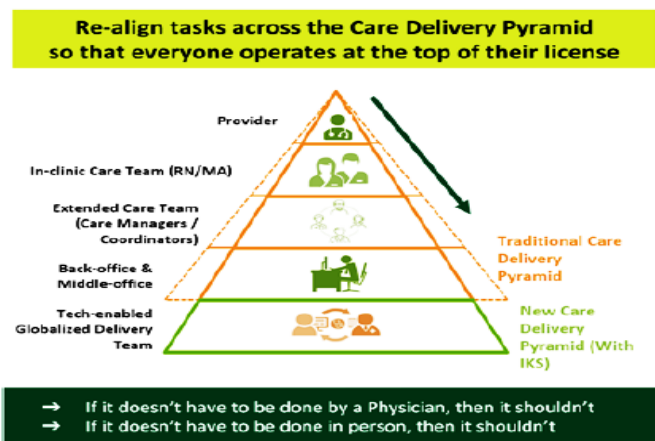
## Solutions and Offerings

US healthcare organizations typically have a ‘Care Delivery Pyramid’ that consists of physicians at the top, followed by mid-level providers such as nurse practitioners and physician assistants, followed by nurses, medical assistants and front-office and back-office administrative staff.

The traditional ‘Care Delivery Pyramid’ in US healthcare has these levels, as shown in the brown dotted lines in the left triangle below:

- Physician and surgeons at the top, who are responsible for clinical diagnosis, procedures and decision making, have the highest level of training, and have a legal obligation to provide the best care for the patient,
- Registered nurses, medical assistants, and other clinical staff such as physician assistants and nurse practitioners who execute care plans are at the second level,
- Extended care team at the third level, consisting of other clinical and non-clinical staff who support and enable the delivery of patient care, including care coordinators, care managers, health coaches, dieticians, nutritionists, mental health professionals, and social workers,
- Back-office staff who perform functions such as billing, coding, payment collections follow up, denial management, middle-office staff who primarily perform coding and health information management, and front-office staff who are responsible for patient scheduling, insurance eligibility and benefits verification, prior authorization, and patient financial counselling.

Helping healthcare organisations transform their Care Delivery Models to address industry challenges



For regulatory, administrative, and technological reasons, each level in the pyramid is currently required to perform several low-skilled less-complex activities that are administrative in nature, or “below their licence”. The company provides an additional technology-enabled globalised delivery layer to the ‘Care Delivery Pyramid’, which takes over these administrative tasks, allowing physicians, nurses, and other medical staff to focus on the more-complex high-skilled parts of their work, i.e., operate at “the top of their licence”.

Company’s clients are able to focus on their “core” work of patient care and physician enablement, while their platform handles their “chore” tasks. By introducing this extra layer in the client’s ‘Care Delivery Pyramid’, they are able to value-add to help their clients achieve increased revenues and reduced expenses. They aspire to and will focus their efforts to allow their clients to utilise their nurses, medical assistants, front-office staff, and back-office staff for more complex patient-facing functions while they handle all other tasks that do not need to be performed inside the clinic or the hospital.

The company intends to continue to leverage their platform to help clients dedicate their key medical personnel to more complex patient-facing functions as they provide remote support for other tasks that need not be performed inside the clinic or hospital. Company’s platform enables healthcare organizations to transform their care services while continuously addressing challenges faced in the industry.

Company’s comprehensive provider enablement platform enables healthcare organizations to deliver better, safer and more efficient care through a strategic blend of expertise and technology. Their cloud-based, (United States) Health Insurance Portability and Accountability Act of 1996 compliant, EHR-agnostic integrated platform delivers data driven insights and support across the healthcare value chain continuum for healthcare organizations at differing scales. Their solutions centralize, optimize and automate key mission-critical chores that are essential for patient management, which enables these healthcare organizations to focus on their core tasks of medical care delivery.

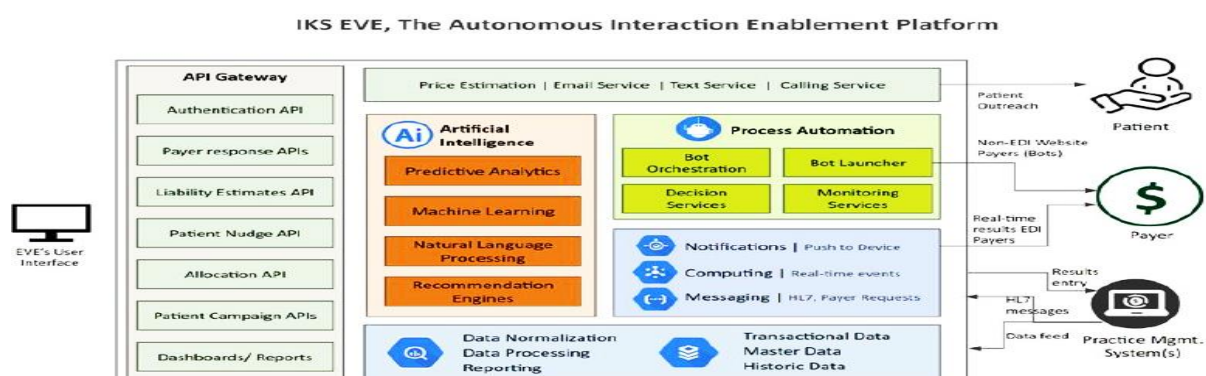
## Revenue Optimization

Company’s revenue optimization solutions enable healthcare organizations to generate, capture and optimize their revenue, improve operational efficiencies, and increase enterprise value through a cost-optimized, globalized, technology-enabled offering with on-demand scalability. Their autonomous patient journey management and revenue cycle optimization solutions contribute to enhancing the patient experience and revenue claim outcomes. Components of the revenue optimization solution are spread across various stages of the patient’s journey, as shown below:

- **Pre-Visit Stage:** At this stage, IKS facilitate patient scheduling, eligibility verification, insurance verification, prior authorization, and patient financial liability assessment.
- **Peri-Visit Stage:** At this stage, IKS assists with coding and referral order management.
- **Post-Visit Stage:** At this stage, IKS solution facilitates billing, payment posting, insurance denial management, and account receivables follow-up.
- **In-Acute Settings stage:** All of these offerings are also relevant when the patient is admitted to a hospital, long-term inpatient care facility, or skilled nursing facility.

## IKS EVE

IKS EVE is the multi-channel patient access and engagement solution, which streamlines and automates the various “front end” activities in the patient life cycle, such as patient financial clearance multi-channel autonomous patient interactions. While automation may traditionally be deployed for back-end office revenue cycle functions which are often done manually, which may be inefficient, more expensive, and worsen financial outcomes. *IKS EVE* strives to support the clients in improving the efficiency of their front-office revenue cycle functions, so they can increase revenues (by minimising write-offs and other revenue leakages) and reduce costs. The exhibit below shows the key components of the *IKS EVE* multi-channel patient access and patient engagement solution.



## IKS Optimix

*IKS Optimix* is the proprietary workflow management and decision-support platform for revenue optimization, which helps clients maximize payments received from insurance companies and patients, while minimizing the payment collection costs. It allows the company and their clients to allocate inventory using intelligent rules-based algorithms, monitor the status of tasks in real-time, assess each employee's productivity and quality, in order to minimize the cost of billing, collecting, posting, appealing, and reporting those claims.

The key features of *IKS Optimix* include:

- Claims lifecycle analysis and tracker to manage pending claims,
- Provide proactive alerts to avoid cash leakage on healthcare claims,
- Management information system reporting.

## Dashboard

Dashboard is company's proprietary cloud-based performance tracking, decision-assist, analytics and business intelligence platform. It serves as a consolidated source of information and actionable intelligence on practice, performance and operations to assist stakeholders in the healthcare organizations in making well-informed decisions, improve operational efficiency and drive financial outcomes. They have also developed an automated production tracker for managing revenue cycle workflows, which captures KPI metrics such as accounts receivable days or days sales outstanding, cash-to-net revenue ratio, revenue per visit, and claims denials rate.

## IKS Scribble

The company leverages a combination of automation, artificial intelligence, and human intervention to facilitate the creation of medical notes for the physicians of their clients. Scribble is the synchronous and asynchronous virtual scribe solution that uses a combination of trained physician expertise and technology to deliver detailed, accurate, comprehensive, and clinically relevant documentation for their clients. This proprietary technology platform has several components: Scribble Tablet, Cloud-based Workflow Tool and Intelligent Note Creation

Some of the AI/ML techniques that IKS rely on for their Scribble solution includes Word prediction / auto-text completion, Capturing Physician preferences, AI-led quality scanner engine and AI-led training, Auto allocation through smart inventory, Transcription and Medico-legal and QDocprep document management platforms.

## IKS Stacks

IKS has developed a proprietary document management and clinical data abstraction tool uses OCR technology and AI/ML to help their team:

- Classify scanned documents into different types of medical records,
- Discard junk mail and other non-clinically relevant documents,
- Extract the patient's name, address, and other information from the scanned document,
- Match these details with the right medical record in the EHR system,
- Extract impressions, findings, and other relevant information from the scanned document,
- Copy-paste or type that information into the relevant discrete sections within the EHR system.

## IKS AssuRx

Company's proprietary *AssuRx* software platform is used by their team of trained physicians and pharmacists to deliver a centralized, standardized and expedited process for prescription refills. *AssuRx* enables each refill to be digitally and automatically set up and validated in accordance with the clinical protocols defined for specific drug categories, which reduces medication prescription errors, minimizes duplicate refills, reduces rework for nurses and physicians, and increases the efficiency for medical prescription and collections.

## IKS Migrate – Clinical Data Migration

The company deploy their *IKS Migrate* solution to assist their clients with migrating from one EHR to another. Their clinical data migration solution relieves the administrative burden on nurses, physicians, and pharmacists who would have otherwise been required to manually enter and validate these data sets in the new EHR by dedicating extra hours either outside of patient visiting hours, or during a patient visit. Their solution is designed to ensure that data migration is complete prior to the patient

visit; and reduce the burden on nurses, physicians, and pharmacists, while ensuring that data accuracy, safety, and regulatory compliance are maintained.

## KEY CLIENTELE

As of September 30, 2024, IKS serves 778 healthcare organizations, including health systems, academic medical centres, multi-specialty medical groups, single-specialty medical groups, ancillary healthcare organizations and other outpatient healthcare delivery organizations. Some of the key clients include Atlanta Women's Health Group, P.C., Boston Children's Health Physicians, L.L.P, Hanger, Inc., GI MSO Inc. (US Digestive Health), Lehigh Valley Health Network, Inc., Lightbeam Health Solutions, Inc., Mass General Brigham Inc., MRPG, Professional Occupational and Physical Therapy, PLLC, Sema4, Inc., Spear Physical Therapy, Texas Health Care PLLC and The GI Alliance Management, LLC.

## REVENUE FROM OPERATIONS

(₹ in crore)

Particulars	As at /for the 6 months ended Sep 30		As at / For the Fiscal		
	2024	2023	2024	2023	2022
Sale of products	1.56	-	1.30	-	-
Service income	1,257.89	629.31	1,797.96	1,018.12	756.21
Software licence fee	23.42	1.56	17.65	13.18	7.43
Other Operating Revenue	-	-	1.02	-	-
<b>Total</b>	<b>1,282.88</b>	<b>630.87</b>	<b>1,817.93</b>	<b>1,031.30</b>	<b>763.63</b>

### Financial and Operational details of the Company and our Material Subsidiary, IKS Inc.,

Particulars	As of/For the 6 months ended Sep 30		As of /For the year ended March 31,		
	2024	2023	2024	2023	2022
Clients	52	42	49	49	45
Average Revenue per Client					
- Top 10 clients (₹ Cr)	38.17	41.22	78.01	69.19	52.05
Average vintage of clients					
- Top 10 clients (years)	4.92	5.56	6.04	5.63	4.68
- Top 5 clients (years)	4.91	6.38	8.00	6.52	6.30
Employees	7,823	6,741	6,892	6,802	5,413

## COMPETITIVE STRENGTHS

- ***Comprehensive one-stop platform with diversified offerings across the outpatient and inpatient care value chain serving key stakeholders such as patients, physicians, nurses and healthcare organizations***

IKS consider their ability to offer a comprehensive one-stop platform offering an integrated solution instead of multiple point solutions, a key strength of their business, which allows their clients to avoid having to contact and manage several vendors servicing segregated and disparate aspects of the organization. Their provider enablement platform strives to address the financial, clinical, technological, and operational needs of US, Canada and Australia healthcare organizations. Their platform provides offerings ranging from revenue optimization to clinical support solutions, to digital health solutions and helping assimilate or migrate EHR systems. Their solutions are customised for each client, with a dedicated team leveraging the institutional knowledge of the client's business and dedicated managers responsible for delivering results acting as liaisons between the client and company's operations.

- ***Leveraging digital evolution, transformation and automation technologies to create sustained value based on outcomes delivered***

Company's platform-based technology solutions integrate with their clients' practices and EHR systems to help reduce administrative and clinical burden, offer actionable insights, deliver process excellence, and enhance project team communications. They offer their clients added capabilities and flexibility through their Unifying Data Platform, which ingests data from separate data sources, aggregates, cleans and normalizes it and then connects to various business applications and data visualization layers. They consolidate data from disparate systems using standardised data nomenclature and governance

measures to build a “data lake” that yields improved data quality and integrity, and their IKS dashboard generates insights customised for each organisation / user, with extensive reporting capabilities.

- ***Strong brand driven by clinical thought leadership through IKS Advisory Board, a healthcare industry leadership forum, and partnerships with industry players and evident through multiple awards and recognitions***

IKS has built a strong brand amongst healthcare organizations and physicians through the following:

- Selective and targeted marketing efforts, including positive word-of-mouth referrals and testimonials from satisfied clients,
- Their IKS Advisory Board, a healthcare industry leadership forum set up by the company,
- A consultative sales force with presence in key geographies in the US, Canada and Australia,
- Clinical thought leadership and association with well-known healthcare industry organizations, such as the American Medical Group Association,
- Positive word-of-mouth referrals and testimonials they receive from satisfied clients.
- ***Marquee large enterprise clientele that include academic medical centres and healthcare systems, multispecialty and single-specialty medical groups, ancillary healthcare organizations, value enablers, and other outpatient healthcare delivery organizations and client stickiness reflected in revenues from repeat clients of over 90% in the last 3 Fiscals***

IKS has maintained long-standing relationships with their clients, which include academic medical centres and healthcare systems, multi-specialty and single-specialty medical groups, ancillary healthcare organizations, value enablers, and other outpatient healthcare delivery organizations. Their client base has grown from 45 clients, as of March 31, 2022 to 49 clients as of March 31, 2023. Pursuant to their acquisition of Aquity Holdings, as of September 30, 2024, they had 778 clients.

- ***Sustainable and scalable business model offering clients flexibility and cost-savings and high-touch***

The company has adopted a sustainable and scalable engagement model which allows greater flexibility and cost-savings in the implementation and integration of their solutions across various organisational sizes and scale. They have over 15 years of experience in partnering with healthcare organizations to provide robust delivery infrastructure for their rapid growth. The model enables clients to hire new physicians, open new clinics, or acquire new medical groups, with the assurance that they have the capabilities to support their expansion needs in a seamless plug-and-play manner, allowing them to focus on growing their business, rather than investing capital or deploying management bandwidth to meet their internal administrative, clinical, technological needs.

- ***Healthy financial performance with growth and improving margins***

The company enjoy stable cash flows as the majority of their payment arrangements are annuity, allowing for greater predictability in their financial performance and revenue generation. The annuity nature of their revenue generation provides greater stability to their profitability and financial performance.

Their profitability is driven by the asset-light and scalable model with cost-efficient strategies that include:

- Cross selling additional offerings to increase the wallet share from existing clients,
- Utilising the proprietary technology tools to reduce delivery costs,
- Introducing e-learning modules and the training team to enhance employee productivity,
- Leveraging the US-based domain experts to collaborate with their clients to identify and implement process improvement opportunities that increase their revenue and reduce their delivery costs,
- Using Optimix and other proprietary workflow tools internally to evaluate operational volumes, productivity, accuracy levels, and turn-around times for each employee, team, and location.
- ***Experienced and entrepreneurial driven leadership team***

The company has an experienced senior management team that leverages expertise across diverse industries, including healthcare, IT, business development, executive management and finance, which positions them well to capitalise on future growth opportunities and pioneer new ideas and concepts. Members of the board of directors and key management team have extensive knowledge of healthcare operations, corporate finance, business strategy, facility expansion, and high-growth, client-focused operations and are committed to implementing high standards of corporate governance with a focus on the investors’ best interests and the maximisation of shareholder value.

## KEY BUSINESS STRATEGIES

- ***Maximise revenue from existing clients through a “land and expand” approach***

The company has witnessed success in increasing revenues from existing clients, by cross-selling additional offerings to those clients and expanding their revenue generated from each offering from that client such as by delivering the offering to more

medical groups, locations, or sister entities within that client's organization. In Fiscals 2022, 2023 and 2024 and in the 6 months ended September 30, 2023 and 2024, ₹ 752.75 crore, ₹ 1016.65 crore, ₹ 1,253.66 crore, ₹ 630.87 crore and ₹ 612.33 crore was generated from repeat clients which contributed 98.57%, 98.58%, 99.13%, 100.00% and 93.99% of their revenue from operations, respectively.

- ***Focus on large healthcare organizations***

The company will aim to target a number of enterprise clients, typically large healthcare organizations with a substantial pool of employed physicians and other physicians. The opportunity for revenue growth from large clients is higher, which may increase their demand for their solutions. Such clients may possess greater capital allowances for their platform, as well as a higher willingness and ability to purchase their value-added solutions.

The acquisition of Aquity enables them to expand their offerings to the inpatient care business of Integrated Delivery Networks and large health systems, thereby increasing the level of stickiness within their existing client base.

- ***Move from a "human-led tech-enabled" model to a "tech-led human-enabled" model***

Company's solutions for clients often move from a "human-led tech-enabled" model at the start of their engagement, which relies on manual work and limited use of technology, to a "tech-led human-enabled" model, which relies more on automation and has limited manual work required. Their employees' roles also evolve from a 'worker' role to an 'audit' role reviewing the work performed by the automated system and primarily involved in managing exceptions and complex cases.

Some of the notable developments in their product roadmap include **IKS Claim, Daily Huddle Summary, Pre-emptive Order Entry, Medication Reconciliation, Medication Adherence Solutions, Utilization Management Solutions, Care Coordination, Transition of Care Management and Chronic Care Management Solutions, and Autonomous Coding.**

- ***Bundling solutions for greater value-add***

The company has made deliberate and conscientious attempts to bundle several features on their platform with the objective of delivering greater value to their client enterprises while simultaneously increasing the wallet share and raising the barriers to entry for competitors that may be more focused on singular features. They intend to adopt a gradual approach to this strategy as the purchasing and adoption decisions for these client organizations involve a multitude of factors and accompanying complexities. They intend to manifest the strategy of bundling their solutions in tandem with their "*land and expand*" approach by starting with a smaller set of features, accruing client satisfaction and loyalty before growing their pie.

- ***Leverage automation and Generative Artificial Intelligence (AI) to aid the operations***

Incorporating generative AI into their care enablement platform enables them to accelerate the enhancement of clinical, operational, and financial outcomes. By harnessing the power of generative AI, they will be able to optimize and streamline processes, thereby reducing operating costs. Generative AI's ability to generate content from vast datasets accelerates cost-effective and efficient healthcare delivery for improved overall performance. They are also in various stages of evaluation and development of use-cases for generative AI across their care enablement platform.

- ***Partner with innovative clients for product development and innovation***

IKS has collaborated with and intend to continue working with dynamic and forward-thinking healthcare organizations to develop innovative solutions that address the real-life challenges of healthcare organizations. They have entered into a collaboration agreement with a medical group affiliated with a Boston-based affiliate of **Mass General Brigham Inc.**, to develop innovative clinical solutions to improve clinical safety and patient care and reduce the administrative burden on physicians. Similarly, they have partnered with the largest orthotics and prosthetics company in the US to develop innovative administrative, financial, and technology solutions.

- ***Develop solutions to address the needs of entities moving to "Value-Based Care"***

IKS has developed "*Value-Based Care*" solutions that address the needs of large healthcare organizations, particularly in the US, that are increasingly transitioning from the traditional "*Fee For Service*" arrangements to the newer "*Fee for Value*" arrangements. They will continue to shape, develop and market their platform to assist US healthcare organizations in the transition to "*Fee for Value*" more effectively and efficiently, and improve population health outcomes, while creating solutions that reduce the administrative burden of physicians and organizational operating costs.

### ***Restated Statement of Cash Flows***

	For 6 months period ended Sep'30,		For the year ended March 31,		
	2024	2023	2024	2023	2022
<b>Profit before tax</b>	<b>266.04</b>	<b>237.12</b>	<b>441.67</b>	<b>359.34</b>	<b>268.52</b>
Adjustments Related to Non-Cash & Non-Operating Items	104.55	(1.48)	87.26	36.81	28.35
<b>Operating Profits before Working Capital Changes</b>	<b>370.59</b>	<b>235.64</b>	<b>528.93</b>	<b>396.15</b>	<b>296.87</b>
Adjustments for Changes in Working Capital	(84.97)	13.48	(225.92)	(33.12)	(19.62)
<b>Net cash generated from operations before tax</b>	<b>285.62</b>	<b>249.12</b>	<b>303.01</b>	<b>363.03</b>	<b>277.25</b>
Income tax paid (net)	(48.26)	(51.27)	(93.24)	(75.05)	(44.20)
<b>Net cash generated from operating activities (a)</b>	<b>237.36</b>	<b>197.85</b>	<b>209.77</b>	<b>287.98</b>	<b>233.05</b>
Net cash used in investing activities (b)	283.69	24.38	(1141.27)	(155.96)	(82.45)
Net cash used in financing activities (c)	(273.81)	(173.89)	780.37	(152.19)	(58.51)
Net (decrease) / increase in cash and cash equivalents during the period	247.24	48.34	(151.13)	(20.17)	92.09
Add: Cash and cash equivalents as at the beginning of the period	(23.48)	123.62	123.62	145.68	53.38
Effect of exchange differences on balances with banks in foreign currency	2.19	0.84	4.03	(1.89)	0.21
<b>Cash and cash equivalents as at the end of the period</b>	<b>225.95</b>	<b>172.80</b>	<b>(23.48)</b>	<b>123.62</b>	<b>145.68</b>

**AXIS CAPITAL LIMITED**

Axis House, 1<sup>st</sup> Floor, P.B.Marg, Worli, Mumbai 400 025.  
Tel: +91 22 4325 2525; Fax: +91 22 4325 3000

[www.axiscapital.co.in](http://www.axiscapital.co.in)

This document has been prepared by Axis Capital Limited. Affiliates of Axis Capital Limited may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report. The views and opinions expressed in this document may or may not match or may be contrary with the views, estimates, rating and target price of the Affiliates research report.

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent.

This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient.

Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options and other derivatives as well as non-investment grade securities - involve substantial risk and are not suitable for all investors.

Axis Capital Limited has not independently verified all the information given in this document. Accordingly, no representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document.

The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval.

Axis Capital Limited, its affiliates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document.

This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of Axis Capital Limited. The views expressed are those of the analyst and the Company may or may not subscribe to all the views expressed therein.

This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. Neither this document nor any copy of it may be taken or transmitted into the United State (to U.S. Persons), Canada, or Japan or distributed, directly or indirectly, in the United States or Canada or distributed or redistributed in Japan or to any resident thereof.

This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject Axis Capital Limited to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction.

Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information.

**Copyright in this document vests exclusively with Axis Capital Limited**