

BVG India: Technology or Labour? A Strategic Dilemma.

Dr. Nitin C Mali^{1*}, Mrs. Swapna Abhijit Udgaonkar², Mr. Amol Shashikant Ganpate³, Mrs. Vilobha K. Rukade⁴, Dr. Arpita Amod Bidnurkar⁵, Dr. Vaishali Rajendra Patil⁶

¹Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur

²Research Scholar, Shivaji University, Kolhapur; Assistant Professor, Chintamanrao College of Commerce, Sangli

³Research Scholar, Shivaji University, Kolhapur; Assistant Professor and TPO MBA, DKTE's Textile & Engineering Institute, Ichalkaranji

⁴Assistant Professor, Annasaheb Dange College of Engineering and Technology, Sangli

⁵Assistant Professor, Department of Management Studies, Walchand College of Engineering, Sangli, Maharashtra, India

⁶Assistant Professor, Sadhu Vaswani Institute of Management Studies for Girls, Pune.

Corresponding Author

Dr. Nitin C Mali

Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur

Cite this paper as: Dr. Nitin C Mali, Mrs. Swapna Abhijit Udgaonkar, Mr. Amol Shashikant Ganpate, Mrs. Vilobha K. Rukade, Dr. Arpita Amod Bidnurkar, Dr. Vaishali Rajendra Patil (2026) BVG India: Technology or Labour? A Strategic Dilemma..... Journal of International Marketing and Marketing Research, 4(3) 130-139

ABSTRACT

This case examines Bharat Vikas Group (BVG India)'s strategic decisions in the highly competitive service facility management business. Over the years, BVG has witnessed exponential growth from a labour-intensive market adopting the latest technology in the service facility management business

The Asia-Pacific region accounted for approximately 40% of the global facility management market, which was valued at US\$1.3 trillion in 2024 and is projected to reach US\$2.3 trillion by 2032 at a CAGR of 8.2% (Fortune Business Insights, 2025). Growth in the sector is being driven by increasing digitalization of business operations, the adoption of smart facility technologies, the expansion of green buildings, considering the growing need for businesses to adhere to environmental regulations, and rising demand for outsourced facility management services (International Facility Management Association [IFMA], 2024; Fortune Business Insights, 2025).

In the Indian facility management sector, the market size is estimated at USD 159.61 billion in 2025 and is expected to reach USD 227.75 billion by 2030, registering a CAGR of 7.37% during the forecast period 2025–2030 (Mordor Intelligence, 2025). The main growth driver being rapid urbanization. Many factors have contributed to the demand for facility management services in this market, including an emphasis on green buildings and smart infrastructure and rising cost pressures that lead companies to focus on core business activities while outsourcing non-core services. The business faces key trends in the technology space including the adoption of IoT and AI, sophisticated robotic cleaning, rising demand for smart buildings, and sustainability integration. The sector also faces many challenges. Clients expect ISO grade service at informal sector prices, but tenders are floated to choose the cheapest vendor, not the best vendor. Another challenge consists of rising manpower and training costs because clients expect skilled work from unskilled labourers.

BVG was founded with a socially conscious purpose to provide opportunities a large workforce of unskilled labourers in India, but the prevailing trends and client demands create tension in this purpose as the company seeks to grow. This case study explores BVG's management's decision whether to continue providing labour-intensive mass services that promote job creation and broader market coverage, or to invest extensively in cutting-edge technology and concentrate on premium clientele.

Keywords: Service facility management, labour-intensive, technology adoption, training cost, rising cost of technology.

INTRODUCTION

An incident occurred when Mr. Hanmantrao Gaikwad was in the ninth grade. Swami Vivekananda, a renowned Indian philosopher known for promoting selfless service, character building, and social upliftment, became his idol. Mr. Gaikwad was inspired by Vivekananda's teachings, particularly the emphasis on service to humanity. While pursuing his engineering degree at Vishwakarma Institute of Technology (VIT), Pune, Mr. Hanmantrao Gaikwad founded and registered Bharat Vikas Pratishtan, a social service organization, in 1991:

during his second year of study. After completing his engineering degree, he joined Telco (now Tata Motors), a Tata Group company. During his tenure at Telco, the company faced a challenge when demand for the Tata Estate car declined, leaving it with excess raw material inventory. The management decided to dispose of the surplus material as scrap, creating an opportunity that would later influence Mr. Gaikwad's entrepreneurial journey.

Mr. Gaikwad suggested reusing the surplus raw material for other vehicle models. He subsequently led a project that minimized waste and saved the company approximately ₹2 crore (approximately USD 0.64 million at the prevailing exchange rate at the time).

Impressed by his work, the Vice President of the Tata group offered him a promotion and an increment. Mr. Gaikwad refused the promotion, as a result, received a salary increment and instead requested that, if he allowed the company to employ some of his poor friends from his home village of Rahamatpur, his native place, who lacked skills. Thus, the company accepted them as they needed eight people for in housekeeping and security. This event in 1997 became the starting point for what would become an enterprise dedicated to providing these services. Within two years, he left his job at Tata and started a full-time venture, Bharat Vikas Group (BVG).

Another idol of Mr. Gaikwad's was King Chhatrapati Shivaji Maharaj (Shivaji I), a 17th-century nation builder who employed people across different castes and religions and expanded his kingdom southward through conquest. Mr. Gaikwad, along with one of his friends, decided to venture beyond his home base of Pune and start operations in Bangalore, Chennai, and Hyderabad. Gaining new business required persistence, with clients making him sit outside their office for hours. He realized that to grow his business, he needed to recruit prestigious organizations as clients, since this would create awareness and openness to the BVG company brand, allowing them to be recognized as a serious contender in the service facility management industry. Executing this strategy, on 1st March 2003, BVG received the service facility management contract for the Parliament of India. From there onwards, BVG no longer faced headwinds in signing up new clients. Within six months, they received the contract for the Honorable Prime Minister's residence, the Indian President's house, and Supreme Court of India, along with corporate clients like Volkswagen, Fiat, Hindustan Unilever, and so forth. Part of the success in the managed services industry is sector specialization. BVG eventually won the contract for twenty airports in the country, prominent ones including Mumbai, Pune, Chennai, and Hyderabad. BVG also obtained contracts with many Hindu temples in the country, such as Shirdi Saibaba, Somnath, Dwarka, Ayodhya, Siddhivinayak Mumbai, and Vaishnodevi. Another growth strategy was service line diversification. BVG added Medical emergency services to the service facility management portfolio, thus providing coverage of potentially life-saving services for more than 60 million people. More recently, BVG's operations have reached a global scale, now serving in countries like the USA, Saudi Arabia, and Israel. BVG partnered with Toyota to meet manpower needs in Japan.

Today, BVG employs over 98,000 employees globally, but by 2030 plans to employ one million employees (INR 10 lakh) and cover 100 countries across the globe."

Nature of the problem

A unique challenge facility management services face in in developing economies like India is competitive dominance from the unorganised sector, which consists of small businesses, self-employed individuals, and casual laborers operating outside of government regulation. Unorganised sector service facility management companies operate with much low of Human Resource Policies and compliance is a requirement, thus allowing to employ labour below minimum wages. These unregulated entities can charge minimal fees from clients, making them more attractive to cost-sensitive clients. Clients' expectations for service quality may be high, but the economic advantages of low-cost vendors often dominate decision-making for service facility management contracts. Entry barriers for unorganised players are low, as they can start with a few workers and can offer minimal services. Most demand for facility management services in India is from small and medium-sized enterprises who prefer local, flexible, lower-cost players with unskilled labour, while tolerating inconsistent and sub-standard quality. In contrast to the lower cost providers, BVG has faced upward cost pressures in recent years due technology adoption requirements, government compliance, corporate Environmental Social Governance (ESG) mandates, and mandatory Goods and Services Tax.

A key reason buyers demand lower costs for facility management services is that they are seen as a non-core activity and treated as a support function. Senior leadership, focusing on the core business activity, is prone to more readily cut the budgets of non-core activities. Another issue is that the procurement professionals often these decisions for facility management services. This leads to a value perception gap since cost saving is the purchasing professional's KPI, not service quality. Due to these cost pressures, unorganised players dominate the market, posing operational challenges for larger firms like BVG. It becomes difficult to retain a trained and motivated workforce for a longer period due to financial uncertainty.

In addition, every client expects the latest technology to be adopted by the managed service provider's company, but the pricing contract structure and competition make the financial investment in technology risky. Winning contracts while delivering on promises to clients' demands, carefully planned logistics and scaling that in the process of coordination across people, systems, and the supply chain.

THE BACKGROUND

Founded in 1997 by Mr. Hanmantrao Gaikwad, Bharat Vikas Group (BVG) is India's largest integrated facility management and professional services company. BVG specializes in non-core but mission-critical services such as cleaning, maintenance, waste management, security, and emergency response in sectors such as government, healthcare, education, aviation and banking. BVG has a presence in almost 29 states across 183 cities in India, delivering to 2,200+ sites and serving 1,200+ prestigious clients with a team of more than 85,000 employees.

INDUSTRY OVERVIEW:

The Indian service facility management sector is a highly fragmented and largely unorganized industry. Besides BVG, the sector includes major brands such as Sodexo, ISS, G4S and Tenon FM. The market is driven by cost-focus rather than service capability. Yet, many clients, specifically from health care, aviation, and public services, expect high compliance and quality levels. Competitors face pressure from low margins, delayed payments, rising manpower costs, higher technology costs, and price competition from the unorganized competitors. In sum, the major players are challenged to provide high levels of compliance, quality and technology in the face of price competition from the smaller unorganized entities.

BVG'S STRATEGIC POSITION AND CORE INNOVATION

BVG's strategy is to provide an end-to-end integrated services model, leverage strong government & PPP partnerships, maintain a global presence across multiple regions. Clients can rely on a single-vendor, multi-service delivery approach. BVG delivers a wide variety of services, as described below.

Product diversification: A significant step in this direction was BVG's entry into emergency response services through the operation of the 108 Emergency Ambulance Service, a toll-free helpline that provides rapid medical assistance and emergency transportation. In addition, BVG offers veterinary ambulance services to support animal healthcare and emergency needs.

Sustainability initiatives: BVG has undertaken several environmental sustainability initiatives, including the operation of 700 MW of solar power projects, the development and maintenance of plantations comprising more than 600,000 trees, and the management and processing of over 3,000 metric tonnes (MT) of waste through its waste management operations.

Technology integration: BVG has adopted IoT and smart building technology and provides CRM systems and predictive analytics services.

Social commitment: BVG emphasizes employment opportunities and skill development for workers in rural areas. Its business is aligned with ESG and SDG goals.

Operational excellence: competition in the facilities management industry has compelled BVG to enhance service quality, efficiency, and turnaround time.

Today, high-end customers, including multinational firms, smart city initiatives, airports, and cutting-edge hospitals, started requesting technology-driven services such as automation, AI-based monitoring, mechanized cleaning systems, and contemporary equipment. BVG noticed that competitors with more sophisticated technology were attracting high-value customers and generating higher profit margins. As a result, the company prioritized technology adoption as a tool to increase margins and break free from low margin price competition. From its inception, BVG had a strong social commitment to creating jobs for thousands of rural and unskilled people. Adoption of advanced technology may increase productivity and lessen reliance on physical labor, but it may also restrict job prospects for low-skilled workers. Economical, labor-intensive services were still preferred by many low-paying mass-service customers over pricey technology-based solutions.

Main issue:

By hiring thousands of semi-skilled and unskilled laborers, BVG India Limited established itself as one of the top facilities management and manpower service companies in India. Its business strategy was centered on providing labor-intensive services to government agencies, hospitals, businesses, and industries at competitive rates, including housekeeping,

sanitation, maintenance support, and facility operations. The business climate in the facility management sector started to shift quickly over time. Customers began to demand more rapid, technologically advanced, highly effective, and standardized services. In order to guarantee high-quality output with little human error, premium clients like multinational corporations, airports, metro projects, smart city initiatives, and cutting-edge healthcare institutions require automated cleaning systems, digital monitoring systems, and sophisticated equipment. BVG needs to make significant investments in cutting-edge technology, contemporary equipment, personnel training, and process automation in order to be competitive in this shifting market. A change like this might boost profitability, lower long-term expenses, promote operational efficiency, and draw in premium customers prepared to pay higher service fees. But the organization also became quite concerned about this change. BVG has consistently presented itself as both a commercial corporation and a socially conscious organization that creates numerous job opportunities for rural, economically disadvantaged, and less educated workers. Increased usage of advanced technology may lessen reliance on physical labor and have an impact on the employment prospects of thousands of firm employees. However, maintaining labor-intensive operations would support the preservation of jobs and allow the business to cater to low-income mass-market customers. However, there were hazards associated with this strategy. By implementing cutting-edge technology, rivals were able to obtain high-value contracts and provide services more effectively. BVG was concerned about over-reliance on tradition. Its competitiveness, profitability, and long-term market position may be progressively diminished by manpower-based activities. As a result, the company encountered a crucial moral, strategic, and ethical dilemma: Whether to continue prioritizing employment-oriented, labor-intensive services for mass-market clients or to modernize rapidly through advanced technology and concentrate on premium market segments. This tension between modern technology and employment-focused. The case's main concern turned out to be service delivery. When determining the organization's future course, the management had to carefully weigh profitability, operational effectiveness, social responsibility, job creation, consumer expectations, and long-term sustainability.

Situation

As a result, BVG was at a critical juncture in its organizational decision-making process. Investing in cutting-edge technology could, on the one hand, help the business increase productivity, lessen operational constraints, draw in high-end clients, and solidify its place in the market. By adopting advanced security measures like biometrics, facial recognition, access control systems, and AI-powered real-time video analytics. Data-driven decisions in maintenance, prediction, and prevention of equipment failures in facility management to empower and streamline operations. Use of robotics and mechanized cleaning systems. Going beyond the traditional broom and making use of autonomous floor cleaning robots.

On the other hand, thousands of rural and unskilled workers who relied on labor-intensive services for their living were directly impacted by the company's current business model. The management was under pressure to determine the company's future course while striking a balance between client expectations, commercial expansion, profitability, technological advancement, and social responsibility. Both options presented potential and hazards to the organization's long-term viability and social commitment, making the situation more difficult.

Relevant data for the case was collected from organizational records, employee interviews, customer feedback, financial reports, market studies, technology suppliers, and industry analysis. Data regarding operational efficiency, employment generation, client expectations, technology investment, competitor practices, and profitability were considered to understand the strategic dilemma faced by BVG India Limited.

Table-1-Revenue Growth Rate

Sr.No	Particulars	FY 2024	FY 2025	Growth potential
1	Total Revenue	₹2,839.53 crore	₹3,302.72 crore	Strong overall growth
2	Revenue Growth Rate	Around 22.6% YoY (FY24 over FY23)	Around 16.3% YoY	Consistent expansion
3	Labour-Intensive Services Revenue (Facility Services Revenue): Housekeeping, Manpower supply, Gardening,	₹2,669.01 crore	₹3,123.95 crore	This contributes almost 94–95% of total revenue, showing that BVG is still primarily dependent on

	Waste management, Facility maintenance, Security support			labor-intensive operations
4	Premium / Technology-Based Services Revenue (Facility Projects + Specialized Tech Services): Mechanized housekeeping, Solar EPC projects, Smart facility management, Emergency medical systems, Specialized engineering projects, Automation-enabled operations, Turnkey projects	₹170.37 crore	₹177.84 crore	This segment is comparatively smaller but strategically important because it represents BVG's movement toward sophisticated and premium services

Source: BVG financial report 2024-2025

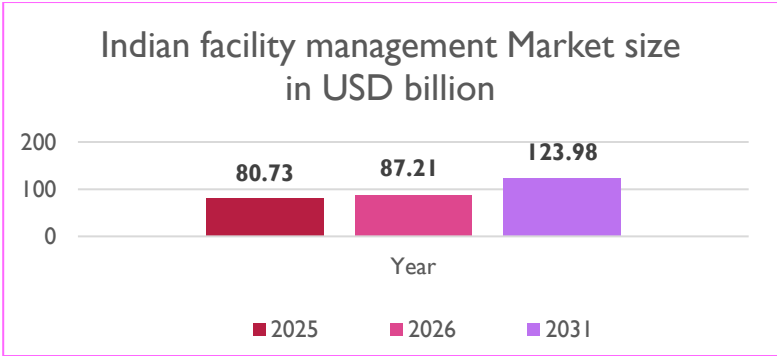
This indicates: Rapid business expansion, increasing contracts across sectors, a strong market position in integrated facility management, and expansion into premium and technology-enabled services. Although BVG's core strength lies in labor-intensive services generating employment on a massive scale, the company is increasingly investing in mechanization, automation, emergency systems, and technology-driven premium services to improve profitability, operational efficiency, and competitive positioning. This becomes the central strategic dilemma: Continue employment-oriented labor-intensive growth OR Shift toward technology-based premium business models.

Table 2-Customer-Related Data

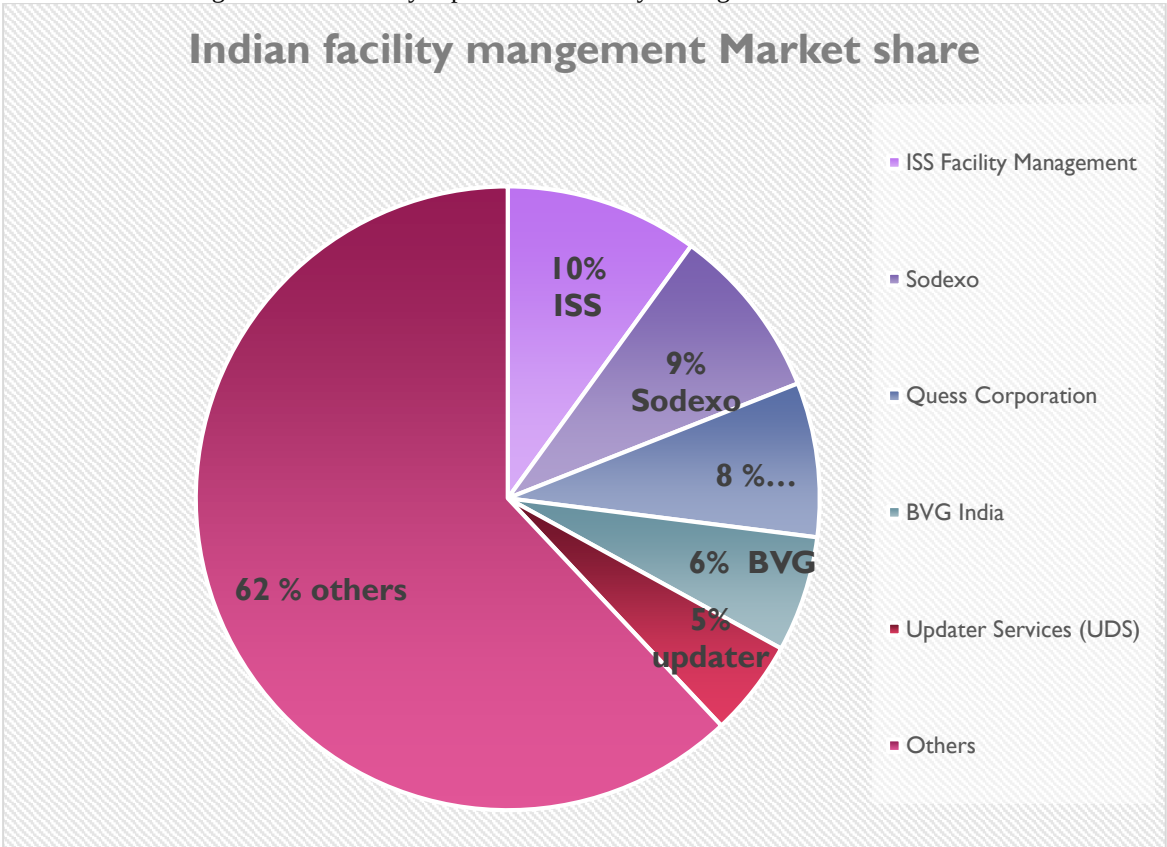
Sr.No	Premium Customers	Mass/Low-Paying Customers
1	Airports	Municipal bodies
2	Parliament	Small hospitals
3	Metro systems	Local government offices
4	Corporate industries	Public sanitation contracts
5	Smart city projects	Routine housekeeping clients
6	High-end hospitals	Labour outsourcing clients

3. Competitor Data

Sr.No	Competitor	Technology strength
1	ISS Facility Management	IOT monitoring, smart FM
2	Sodexo	Integrated workplace solutions
3	Quess corp	Digital workforce solutions
4	Updater Services	Smart cleaning and automation
5	SIS Group	Integrated security + FM technology
6	CBRE	AI-enabled facility analytics
	JLL	Smart building management systems



India facility management market
Source:www.mordorintelligence.com/industry-reports/india-facility-management-market



Source: Mordor Intelligence

Table-3-Market overview

Sr.No	Particulars	Relevant data
1	Study period	2020- 2031
2	Forecast data period	2026-2031
3	Base year Market size(2025)	USD 80.75 billion
4	Market size (2026)	USD 87.21 billion
5	Market size (2031)	USD 123.98 billion
6	Growth rate (2026-2031)	7.29 % CAGR (compounded annual growth rate
7	Market concentration	Medium

Source: Mordor Intelligence

Table-4-Technology-Related Data

Sr.No	Particulars	Labour-intensive model	Mechanized model
1	Manpower Requirement	35–45 workers	10–15 operators
2	Productivity & Cleaning Time	Low productivity; 8–10 hrs cleaning	3–5× higher productivity; 3–5 hrs. cleaning
3	Monthly Operating Cost	₹6–8 lakh	₹4–5 lakh (after recovery of investment)
4	Initial Investment	Very low	₹25–80 lakh machinery investment
5	Profit Margin Potential	Lower	Higher
6	Service Quality Consistency	Medium / variable	High / standardized
7	Best Suitable Clients	Government & public contracts	Airports, hospitals, metros, premium corporates
8	Strategic Advantage	Higher employment generation	Higher efficiency & premium positioning
9	Major Operational Risk	Labour shortages	Technology & maintenance dependency
10	Major Machinery Cost Range	Not applicable	Scrubber machines: ₹3–25 lakh • Robotic cleaners: ₹15–40 lakh • Road sweepers: ₹20 lakh–₹1 crore

Source: <https://www.kaercher.com/in/professional.html>

HUMAN RESOURCE PERSPECTIVE:

Labor-intensive operations promote social responsibility and job creation. Whereas Productivity, service quality, and assured best-in-class customer service are all enhanced by mechanization. However, the main HR difficulty is striking a balance between the effectiveness

Of operations and the welfare of employees. Investment in reskilling Sustainability throughout time. Thousands of people work in cleaning and sanitation for major facility management companies like BVG India Ltd. Technology and mechanization in waste management and cleaning typically reduce the need for manual labor by 20–40%. Low-skilled employment is necessary for labor-intensive activities. Whereas Automation and mechanics require highly qualified workers. Compared to skilled jobs, employer turnover is higher in low-skilled jobs.

Table-5-Financial Data

Aspect	Labour-Intensive Model	Technology/Automation Model	Likely Result
Initial Investment	Low	Very high	Automation requires major capital expenditure
Operating Cost	High recurring labour cost	Lower recurring labour cost after setup	Automation reduces long-term costs

Profit Margins	Moderate	Higher in premium contracts	The technology model may improve margins
Productivity	Lower	Higher	Faster service delivery through machines
ROI	Slow and steady	High after payback period	Automation is profitable in long run
Scalability	Limited by workforce availability	Easier scaling with technology	Tech model supports expansion
Maintenance Cost	Low	Moderate to high	Machine maintenance becomes a continuous expense

Source: Kromann et al. (2020), Smunt & Meredith (2000), Small & Yasin (1997), and Mazumder & Pugachev (2025)

Environmental footprint, sustainable green practices, and CSR:

At BVG, sustainability is the priority that can be reflected through the usage of energy-saving technologies, water conservation measures, waste reduction and recycling programs, renewable energy sources, and sustainable procurement. Use of certified sustainable materials like low-VOC paints and adhesives. BVG has planted and maintained 4, 20,000 trees to date, covering 996,665 square meters of garden. Avoids harmful chemicals use which causes health issues, and adopts green cleaning practices. BVG also promotes sustainable transportation by encouraging its clients to use bicycles and walking. The prestigious CHAB Talab (lake) rejuvenation project undertaken by BVG under the Dahod smart city development initiative is a remarkable step in sustainability.

Different sides of the story:

Different stakeholders had differing opinions about the BVG India Limited case. In addition to being an economic decision, the issue also had to do with long-term sustainability, consumer satisfaction, employment creation, and social responsibility. The BVG India Limited case illustrated a complicated struggle between social responsibility and technological progress, with various stakeholders having differing opinions. In order to increase productivity, stay competitive, improve service quality, and win premium contracts from global corporations, airports, hospitals, and smart infrastructure projects, the management felt that implementing cutting-edge technology was crucial. Because they anticipated uniform, hygienic, quick, and technologically advanced services, premium clients also backed modernization. In a similar vein, proponents of technology claimed that workers could be retrained for new roles and that automation and innovation were essential for long-term viability. However, the concerns of workers, society, and mass-service customers differed. While others welcomed the prospect of safer working conditions and skill development, many unskilled and semi-skilled workers feared job losses and unstable livelihoods as a result of automation. Affordable labor-based services were preferred by smaller clients over costly technological solutions. Government organizations and society appreciated BVG's role in creating jobs, particularly for rural and economically disadvantaged groups, and were worried that over-mechanization may limit employment prospects. The case therefore, brought to light the difficulty of striking a balance between social responsibility, technological innovation, customer expectations, profitability, and job creation.

CONCLUSION:

The growth story of BVG is currently at a critical juncture. What started off as an effort to provide jobs for untrained rural kids has grown into one of India's top Integrated Facility Management (IFM) companies, providing professional, disciplined, and socially conscious services to huge institutions. But the organization now faces a strategic conundrum due to the evolving IFM market, which is characterized by automation, AI-enabled systems, robotics, and premium corporate demands. On the one hand, BVG's operational efficiency, profitability, worldwide competitiveness, and investor confidence might all be improved by using advanced technology and concentrating on premium clients, particularly in light of a possible IPO. Technology-driven services could establish BVG as a future-ready business that can grow globally and compete with IFM behemoths. However, there are worries that this change would dilute BVG's initial social goal. The extremely unskilled rural workforce that was the cornerstone of the company's profitability and identity may have less opportunities as a result of increased automation and upscale service models. Therefore, maintaining the essence of a company founded on inclusive growth, rural empowerment, and worker dignity is more important than just growing the firm. The case raises a more general issue that is pertinent to India's developing socio-commercial businesses: Can businesses that strive for premium market positioning and technical innovation stay firmly anchored in their original social mission? The response could have an impact on BVG's IPO journey as well as the future of Bharat Vikas Group. A crucial question is still unresolved as Mr. Hanmantrao

Gaikwad gets ready to guide BVG into its next stage of expansion: Will BVG prioritize its original goal of providing livelihoods for impoverished and unskilled rural youth, even if it means sacrificing faster technological transformation and higher margins, or will it embrace high-end technology and premium clientele to become a globally competitive IFM powerhouse? The ability of BVG to strike a balance between expansion and its grassroots identity, as well as innovation and inclusivity, may ultimately determine its future.

Charts:(Conceptual for publication): Revenue CAGR (FY21–FY25) ~18%; EBITDA margin trajectory 12–13%; Segment contribution – Facility Services ~70%, Emergency Response ~15%, Waste & Others ~15%.

Product / Price Details: IFM contracts are usually priced using a man-month + material + technology fee model; the average contract duration is three to five years; the premium pricing is supported by single-window accountability and ESG compliance.

Policies: The "Humanity Ahead" HR strategy places a strong emphasis on equal opportunity, skill certification, and zero tolerance for underage labor; the Sustainability strategy aims to achieve net-zero operations by 2035.

Business Landscape: SIS, Sodexo India, ISS India, and Qness Corp. are among the leading organized companies in this fiercely competitive yet consolidating market. BVG distinguishes itself by rural employment scale, religious site competence, and government pedigree.

Timeline: 1997: Founded with 8 employees.

2003–2006: partnered with the Indian government to cater to marquee institutions

2010s: Diversification into EMS and waste management.

2021: inaugurated the BVG Nuclear

2024: Record revenue ₹28,382 Mn.

2025: Saudi JV, NSDC SPV, EMS bid, DRHP filing (Oct).

2026: IPO execution phase.

Pictures :(Archival references: Founder portrait, Chab Talab rejuvenation project, employee skilling workshops, tree-plantation drives. (Visuals available in BVG sustainability reports.)

Competitor Profile: BVG leads in public-sector depth and ESG measures, while SMS Integrated Facility Services, CLR Facility Services, Kaptson, and SIS Limited are primarily urban-focused and have lower employment intensity in rural areas.

REFERENCES

1. Rondeau, E. P., Brown, R. K., & Lapidis, P. D. (2012). Facility management (2nd ed.). John Wiley & Sons.
2. Barrett, P., & Baldry, D. (2009). Facilities management: Towards best practice (2nd ed.). Wiley-Blackwell.
3. Ikediashi, D. I., Ogunlana, S. O., Boateng, P., & Okwuashi, O. (2012). Analysis of risks associated with facilities management outsourcing: A multivariate approach. *Journal of Facilities Management*, 10(4), 301–316. <https://doi.org/10.1108/14725961211265756>
4. Sharma, V. (2016). A study on evolution and growth of facility management services in India. Zenodo. <https://doi.org/10.5281/zenodo.55624> (ResearchGate)
5. Nota, G., Peluso, D., & Toro Lazo, A. (2021). The contribution of Industry 4.0 technologies to facility management. *Journal of Facility Management*. <https://doi.org/10.1177/18479790211024131> (Sage Journals)
6. Redlein, A., & Grasl, L. (2019). Facility services: Impact of new technologies. *Journal for Facility Management*, 17, 46–60. <https://doi.org/10.34749/jfm.2019.2980> (journal.ifm.tuwien.ac.at)
7. Lok, K. L., So, A., Opoku, A., & Chen, C. (2022). A sustainable artificial intelligence facilities management outsourcing relationships system: Case studies. *Frontiers in Psychology*, 13, 920625. <https://doi.org/10.3389/fpsyg.2022.920625> (Frontiers)
8. Fortune Business Insights. (2025). Facility management market size, share & industry analysis, 2025–2032.
9. Fortune Business Insights. Retrieved from <https://www.fortunebusinessinsights.com>
10. Mordor Intelligence. (2025). India Facility Management Market – Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025–2030). Mordor Intelligence.
11. BVG India directors' report (2025)
12. BVG Quarterly Newsletter E 1 2024

13. BVG white paper
14. BVG industry insight: <https://bvgindia.com/industry-insights/>
15. BVG Blogs: <https://bvgindia.com/robots-on-the-rise-automations-revolution-in-facility-management/>
16. BVG humanity ahead BVG INDIA LTD A BHARAT VIK <https://bvgindia.com/wp-content/uploads/2025/07/Annual-Report-FY25.pdf>
17. BVG India LTD strong revenue growth <https://unlistedzone.com/bvg-india-limited-fy24-business-analysis>
18. BVG India Limited Share Price & IPO Insights: A Detailed Investor Guide, December 6, 2025
19. <https://www.bvggroup.biz/about-us>
20. <https://bvgindia.com/investor-relations/report-and-publications/annual-reports/annual-return/>
21. BVG India corporate brochure
22. Demand for mechanized services, BVG facility management services page, mechanized housekeeping, robotics, automated cleaning systems https://bvgindia.com/services/integrated-facility-management-services/?utm_source=chatgpt.com
23. <https://www.ilo.org>.