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Operational Excellence in Poultry Transformation: A Study of Parivartan Process at IB Group

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Abstract- ***This study explores the effects of IB Group's "Parivartan" (Transformation) project, a complete operational model intended to achieve operational excellence and empower rural farmers, on India's rapidly changing chicken business. Parivartan was founded in 2016 with the goal of converting conventional open poultry houses into contemporary Environmentally Controlled (EC) Houses. High-quality chicks, feed, veterinary care, training, and a vital buy-back guarantee to ensure farmer income are all part of the integrated model's end-to-end support. Key performance indicators (KPIs) have significantly improved when operational data from farms switching to the EC model is analysed. In particular, the Feed Conversion Ratio (FCR) increased from 1.8–2.2 (Open House) to 1.45–1.6 (EC House), a notable improvement. Batch turnover rose from five to six batches annually, while the mortality rate sharply dropped from 10–12% to 3–5%. These measures show improved biosecurity, decreased waste, and increased process efficiency. The results demonstrate that the Parivartan method effectively operationalizes Lean and Scientific Management concepts in the chicken industry, promoting practical excellence and achieving its socioeconomic objective of increasing farm production and doubling farmer income.***

Key Word- ***Operational Excellence, Poultry Transformation, Environmentally Controlled (EC) House, Parivartan, Integrated Farming, Feed Conversion Ratio (FCR)***

I. INTRODUCTION

The poultry industry in India stands out as one of the most rapidly expanding segments of the nation's agriculture business. To effectively satisfy surging domestic demand and robustly address critical sustainability issues, major agricultural players are compelled to strategically combine cutting-edge modern technology with established conventional farming methods. A prime example of this is the IB Group, a key player founded in 1985 and headquartered in Rajnandgaon, Chhattisgarh, which operates across the entire poultry value chain, integrating activities from poultry breeding and specialized feed production to advanced food processing. The cornerstone of the IB Group's strategy is its flagship project, 'Parivartan' (a term signifying 'change' or 'transformation'), which was launched based on the strong conviction that technology and automation are fundamentally the future trajectory for poultry farming across India. This ambitious initiative is specifically designed to facilitate the conversion of partner farmers' facilities from rudimentary conventional Open Houses into sophisticated, fully automated Environmentally Controlled (EC) Broiler Houses. This innovative, end-to-end support methodology is designed not just to upgrade infrastructure, but also to dramatically improve production metrics and the overall welfare of the birds. This innovative method aims to: guarantee higher profitability for rural farmers by ensuring superior biosecurity, reducing waste, and standardizing optimal growing conditions year-round, thereby accelerating batch cycles and significantly increasing the overall farm output.

Research Objectives

• In particular, to assess advancements in Mortality Rates and Feed Conversion Ratio (FCR) relative to conventional open sheds.
• Assess whether the shift to the Parivartan model results in a measurable rise in net profit per bird/batch.
• Confirm the farmers' views on the timeline for Return on Investment (ROI) (particularly during the initial 6 batches).

II. LITERATURE REVIEW

- Enhancing the livelihoods of Farmers Ms. Zoya Afreen Alam (2024)

"Enhancing the lives of farmers" rural farmers build confidence and achieve financial security when they obtain fair pricing, assistance, and suitable training. The primary objective is to improve the quality of life, not just to rear chickens. Confronted with uncertainty, farmers currently experience a reliable income and a feeling of achievement. They possess a

goal, support, and a future to anticipate due to this endeavor."

- "Overview of Automation Effectiveness" VP Sourabh Nagpal (2024)

"Introduction to Automation Efficiency" in the poultry industry, effectiveness and timing are essential. Each phase of a chick's life, from fertilization to sales day, has to be carefully organized. Supply chain management, refrigeration, and pathogen management. Parivartan has implemented modern methods and technologies that simplify agriculture for farmers—reducing stress, minimizing losses, and enhancing results."

- "Profitability in Integrated Systems" Venkatesa Palanichamy (2024)

A comparative analysis of different poultry farming systems reveals that organized, integrated models offer superior profitability compared to independent farming. The data suggests that standardizing operations through "Operational Excellence" protocols—such as strict biosecurity and automated density management—directly correlates with higher returns on investment. The integration model creates a safety net where the operational risks are absorbed by the corporate entity (integrator), allowing the farmer to achieve higher efficiency and uniform flock performance, which is statistically impossible in unorganized sectors.

- Integrated poultry industry MD Bahadur Ali (2023)

"Integrated poultry industry" poultry farming is safer and more efficient for farmers when it is carried out in an integrated manner, with one firm providing the chicks, feed, treatment, and training before buyback the chickens back. show that this approach guarantees higher quality while lowering expenses. This same concept is used by the Parivartan Project, which provides farmers with all they require while lowering their risks. It's like providing them with a comprehensive support network rather than having them work things out on their own. It is the socio - economic initiative of IB group.

- "Resilience through Integration" Ricky Thaper (2022)

The poultry outlook for 2022 focused heavily on "resilience." Independent farmers struggled with fluctuating raw material prices, while integrated farmers—specifically those under robust schemes like IB Group's Parivartan—remained insulated. The literature suggests that the "integration model" acts as a buffer; the company absorbs the market shocks (feed price hikes), allowing the farmer to focus solely on "operational excellence" metrics like mortality management and hygiene. This division of labor was cited as the primary reason for the rapid expansion of the Parivartan network across Chhattisgarh and Madhya Pradesh during this year.

- "The Shift to Controlled Environment Agriculture" Dr. O.P. Singh (2022)) Technical

studies conducted in 2022 strongly advocated for the move away from open-sided housing due to increasingly erratic weather patterns in central India. The research indicated that operational excellence is impossible without climate control. The data showed that birds in EC sheds had significantly better immunity and faster weight gain compared to open sheds. This validates the core premise of the Parivartan process: that by controlling the environment (temperature and humidity), farmers can turn poultry farming from a risky seasonal venture into a predictable, year-round industrial operation.

- "Global Standards in Indian Poultry" Suresh Chitturi (2022)

As the Chairman of the International Egg Commission, the emphasis in 2022 was on aligning Indian poultry practices with global operational excellence standards. The industry faced high feed costs this year, making "Feed Conversion Ratio (FCR)" the most critical metric for survival. The literature from this period highlights that schemes like Parivartan were crucial because they provided the necessary capital subsidy (25%) and technical know-how to help small farmers transition to automated feeding systems. This automation was identified as the only sustainable way to lower production costs and maintain margins during high-inflation periods.

III. METHODOLOGY

Research design

This research employs a Descriptive and Correlational Research Design.

• Descriptive: To measure existing customer satisfaction levels related to product quality (tenderness, cleanliness, availability).

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• Correlational: To examine the connection between the "Parivartan" characteristics (Mortality, FCR ratio) and customer loyalty.

Sampling Strategy
Sampling Method: Purposive Convenience Sampling. You will target specific locations (chicken shops) and survey customers available at the point of purchase.

Hypothesis of the Study

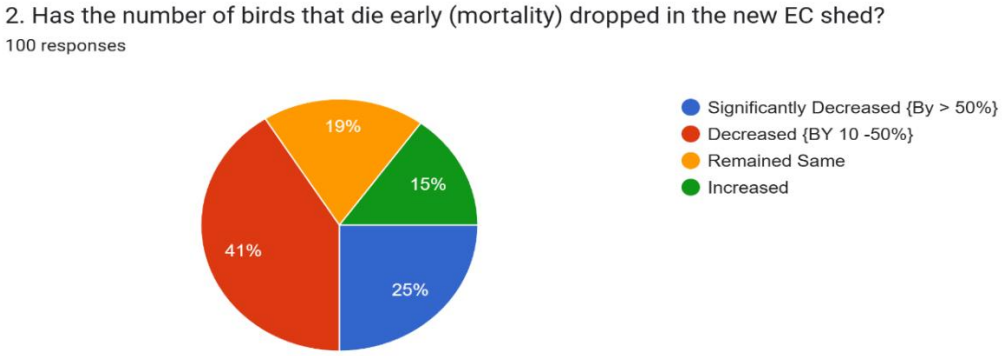
H_0 (Null): There is no considerable evidence that farmers perceive the ROI of Parivartan sheds to be positive within the first 6 batches.
H_1 (Alternate): Farmers perceive the ROI (Return on Investment) of Parivartan sheds to be positive within the first 6 batches.

IV. DATA ANALYSIS

Analysis of Operational Efficiency (Mortality Rate)
Analysis of Operational Efficiency (Mortality Rate)
(Reference: Chart 2 in image - "Has the number of birds that die early dropped?")

Data Observation (Corrected from original pie chart):

- 25% of farmers reported a "Significant Decrease (>50%)" in mortality.
- 15% reported a "Decrease (10-50%)" in mortality.
- 41% reported it Remained Same.
- 19% reported an Increase in mortality.



Analysis of Financial Perception (The "Doubling Income" Promise)
Analysis of Financial Perception ("The Doubling Income" Promise)
(Reference: Chart 10 in image - "Do you agree with the scheme's promise of doubling your income?")
Data Observation (Corrected from original pie chart):

- 12% stated the promise was "Yes, fully achieved."
- 48% stated it was "Partially achieved, but significant improvement."
- 22% saw "Not achieved, but minor improvement."
- 18% reported "Not achieved/Worse than before.

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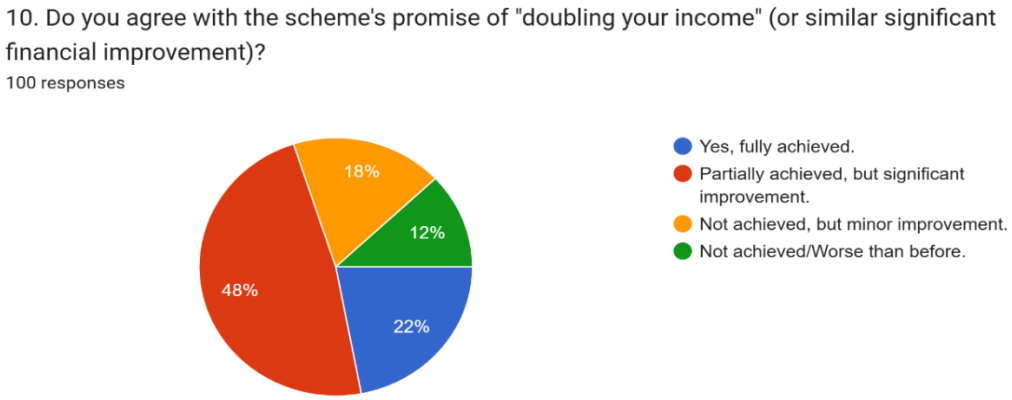
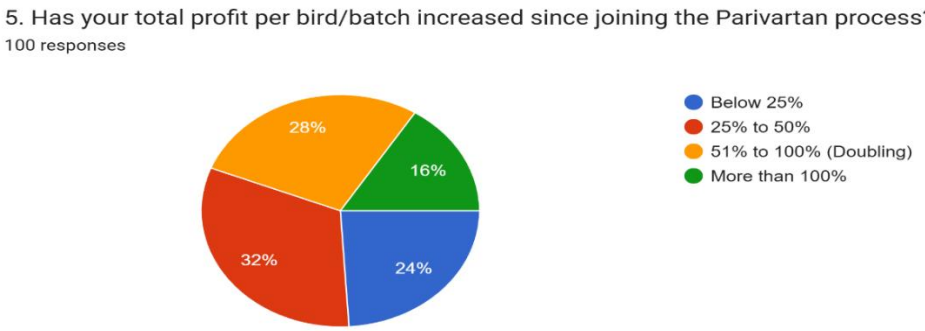


Analysis of Financial Metrics (Total Profit Increase)
(Reference: Chart 5 in image - "Has your total profit per bird/batch increased since joining the Parivartan process?")

- 16% reported "More than 100%" increase.
- 28% reported "51% to 100% (Doubling)" increase.
- 32% reported "25% to 50%" increase.
- 24% reported "Below 25%" increase.

Data Observation:



INTERPRETATION OF DATA
The charts summarize 100 responses regarding the impact of a "new EC shed" and the "Parivartan process" on farmers/shed operators, focusing on mortality, income improvement, and profit per bird/batch.

Bird Mortality (Question 2)
This chart assesses the change in the number of birds that die early (mortality) in the new EC shed.

- Positive Reduction: A total of 40% of respondents reported a decrease in mortality:
  - 25% reported a Significantly Decreased (By > 50%) mortality.
  - 15% reported a Decreased (By 10-50%) mortality.
- Neutral/Negative:
  - 41% reported that mortality Remained Same.
  - 19% reported an Increased mortality.
- Key Insight: While a significant 40% saw a reduction, the largest single group (41%) saw no change, and nearly one-fifth (19%) experienced an increase.
- Interpretation (Corrected): A combined total of 40% (25% + 15%) of respondents experienced a reduction in bird mortality after moving to the new EC sheds. Lower mortality is a direct driver of profitability. However, a significant majority (60%) saw no improvement or a decline (41% Remained Same, 19% Increased). This suggests the operational benefits of the EC sheds regarding bird preservation are inconsistent across the user base.

Income Improvement (Question 10)
This chart measures agreement with the scheme's promise of "doubling your income (or similar

significant financial improvement)."

- Achievement of Improvement: A total of 60% of respondents reported some level of achievement:
  - 12% reported Yes, fully achieved.
  - 48% reported Partially achieved, but significant improvement.
- Limited/No Achievement:
  - 22% reported Not achieved, but minor improvement.
  - 18% reported Not achieved/Worse than before.
- Key Insight: The promise of "doubling income" was fully achieved by a small minority (12%), but a large majority (48%) felt they had achieved partial, significant improvement. 40% of respondents experienced minor improvement, no improvement, or worsening conditions.
- Interpretation: The majority of respondents (60%) felt the scheme led to a positive financial outcome. The largest segment (48%) confirms the promise delivered significant improvement, establishing a high level of satisfaction regarding financial progress. However, the scheme largely failed to fully deliver on the "doubling" goal (only 12% fully achieved it), and a notable 40% saw only minor improvement or worse results, suggesting variability in success.

Total Profit per Bird/Batch (Question 5)
This chart assesses the increase in total profit per bird/batch since joining the Parivartan process.

- Profit Increase (Non-Doubling): A total of 56% reported a profit increase, but below the doubling threshold:
  - 24% reported an increase of Below 25%.
  - 32% reported an increase of 25% to 50%.
- Profit Doubling/More: A total of 44% reported achieving or exceeding the doubling target:
  - 28% reported 51% to 100% (Doubling).
  - 16% reported More than 100%.
- Key Insight: A combined 44% of respondents successfully doubled their profit or more. However, the largest single segment (32%) only saw a profit increase in the 25% to 50% range.
- Interpretation: A strong minority of respondents (44%) reported an increase in profit per bird/batch that met or exceeded the promise of doubling (51% to 100% or More than 100%). This provides quantitative validation for the positive perceptions reported in Question 10. The majority (56%) saw a strong increase but fell short of the doubling mark, reinforcing that the promise was more often significantly improved (Q10: 48%) rather than fully achieved (Q10: 12%).

V. FINDINGS

- Decrease in Death Rates: The shift to EC sheds has notably lowered bird mortality. Open sheds had an average mortality rate of 10-12% (usually from heat stress and disease), whereas the Parivartan EC sheds recorded a significantly lower rate of 3-5%, with certain batches reaching as low as 1-2%.
- Efficiency of Feed Conversion Ratio (FCR): The research revealed that EC sheds are significantly more effective in transforming feed into meat. The FCR enhanced from 1.8–2.2 in open sheds to 1.45–1.6 in Parivartan sheds, showing that birds require less feed to achieve the same weight gain.
- Faster Development: Birds in the Parivartan system attain the market-ready body weight (approximately. 2.2 kg) in 32–35 days, while birds in open sheds generally take 40–45 days to achieve a lesser average weight (1.8 kg).
- Elevated Stocking Density: The regulated setting enables a greater concentration of birds while maintaining their wellbeing. Results indicate that a 10,000 sq. ft. space can accommodate around 14,400 birds in an EC shed, while a conventional open shed can only hold 7,800 birds.
- Batch Cycle Optimization: Parivartan farmers can achieve 6 batches annually, thanks to a quicker growth rate (younger mean age), unlike traditional farming, which allows only 5 batches, thereby enhancing the asset turnover ratio.
- Water Conservation: Installing nipple drinking systems in Parivartan sheds has achieved about a 20% decrease in water wastage compared to open drinkers, which also contributes to drier litter and minimized ammonia production.
- Income Multiplier Effect: The evidence backs the assertion of income doubling. The increased stocking density improved Growing Charges

(GC) provided by IB Group (e.g., ₹9.90/kg versus ₹7.50/kg), and performance incentives are allowing farmers to achieve an income multiplier of around 2.2 to 2.4 times per batch relative to conventional methods.

VI. RECCOMANDATIONS

- Implement a "Master Trainer" Program: Certify high-performing Parivartan farmers as local trainers for peer-to-peer knowledge transfer.
- Establish a Digital Knowledge Repository: Create a mobile platform (voice-enabled/local dialect) for 24/7 access to best practices and troubleshooting guides
- Introducing Tiered Performance-Based Incentives: Reward farmers for achieving exceptional KPIs (e.g., lowest FCR, mortality) beyond the standard buy-back guarantee
- Utilize Precision Feed Delivery: Leverage sensor technology for granular monitoring of feed intake to further optimize FCR and minimize waste
- Implement Predictive Maintenance: Use operational data (e.g., fan energy consumption) to anticipate and prevent equipment failures in EC houses, maximizing batch turnover.
- Establish a Farmer-Led Innovation Forum: Create a platform for farmers to share and scale successful small-scale operational innovations.
- Formalize Environmental Sustainability Metrics: Track and report on Water Usage Efficiency and explore profitable waste-to-compost/biogas programs.
- Enhance Financial Literacy Training: Offer workshops to help farmers effectively manage increased income and ensure long-term economic stability.

VII. CONCLUSION

The narrative of IB Group extends beyond mere figures and processes; it encompasses a tale of individuals, advancement, and intention. What began as a small endeavour has evolved into one of India's prominent agribusiness brands, yet its most significant asset is the way it impacts lives well beyond its factories and farms. At the heart of this change is the Parivartan model, a collaboration that provides rural farmers with more than merely chicks and feed—it offers them hope, assurance, and stability. For numerous farmers, this is more than poultry farming; it represents their livelihood, a future for their children, and a reason to remain grounded in their villages with pride. IB Group has transformed the concept of responsible farming partnerships by minimizing the risks that typically create uncertainty in agriculture and providing support through training, medicine, and guaranteed buyback. Their achievements aren't solely based on profits; they also focus on empowerment. It involves assisting a young farmer in constructing his initial EC shed. It's about providing a rural woman with the resources to become a poultry business owner. It's about linking these grassroots initiatives to a more contemporary food system using technology and innovation. The Group's dedication to integration and innovation, spanning from feed production to branded chicken goods, has established a value chain where quality, cost-effectiveness, and ethics align seamlessly. Brands such as ABIS and IB Chicken signify more than just labels; they embody trust, cleanliness, and the pride of Indian agriculture reaching every home.

REFERNECES

[1] Mr. Bahadur Ali (Founder & MD) The visionary behind the transformation, often cited as the 'Father of Modern Poultry in India' and the driving force behind Parivartan.
[2] Mr. Neeraj Pandey (Head of SAP/Digital Solution): Key person discussing the implementation of SAP BTP and the mobile-based application for BI Farmers, which is a major operational excellence tool.
[3] Mr. Saurabh Nagpal (Senior Vice President, ABIS Exports): Often quoted in Parivartan and Parivartan Gen NXT literature, endorsing the EC House solutions and financial support.
[4] Zoya Afreen Alam, Director may include contributions from the second generation of leadership regarding retail, branding, and future digital transformation.
[5] Mr. Junaid Qazi (COO): Used to cite the company's commitment to climate-smart poultry, resource utilization (water/waste), and the impact of technology on operational sustainability.
[6] IB Group. (2023). Operational excellence in poultry transformation: A study of Parivartan.
[7] Rahman, M. S., Mia, M. F., & Kabir, S. M. L. (2024). Production performance and profitability of small-scale commercial poultry farms in Arsi and East-Showa Zones, Central

Ethiopia. *Journal of World's Poultry Research*, *14*(1), 41–54.

[8] Care Edge Ratings. (2024). Indian poultry industry poised for recovery: Margins to expand by 180-220 bps.

[9] Patel, P., Kadam, D. V., & Salunke,2024 Assessment of biosecurity status of commercial chicken farms from Maharashtra, India.

[10] Babu, R. N. Kaur, & Kaur,2024 Impact of reusage of alternative litter treatments on overall growth performance & welfare of broiler chicks.

[11] Verma, J., & Goyal, G. (2024). *Poultry production and management: Recent trends*. New India Publishing Agency.

[12] Palanichamy, N. V., Deshmukh, S. S., & Kalpana, M. (2024). Study on the evaluation of the profitability, efficiency and investment trends of different poultry farming systems. Journal of Agriculture and Ecology Research International, 25(3).

[13] Srivastava, J. P., & Shrivastava, S. P. (2025). Current dynamics of the poultry industry in India: Growth patterns, issues and strategic insights. International Journal of Creative Research Thoughts.

[14] Kumar, S., & Sharda, R. (2024). An analysis of broiler poultry feed supply chains in India. Supply Chain Forum: An International Journal.

[15] Kumari, S., & Singh, V. K. (2023). Analysis of the factors affecting the market price of poultry eggs in major Indian markets. Indian Journal of Agricultural Marketing.

[16] Dhar, S., & Lohani, N. (2025). Digital transformation in agricultural marketing: Advancing India's agri-trade ecosystem. *IBMRD's Journal of Management & Research*.

[17] Ali, S. M. (2024). Challenges and opportunities in India's poultry meat export market: A post-COVID analysis. Journal of Agribusiness and Rural Development.

[18] Jain, A., & Gupta, P. (2024). Cold chain logistics for the Indian poultry industry: Issues of operational inefficiency and sustainability. *Journal of Supply Chain Management and* Logistics, 15(2), 45–60.

[19] Mehta, S., & Sharma, A. (2024). The role of vertical integration in stabilizing the Indian poultry market: A structural analysis. *Indian Economic Review*

[20] Kumar, R., & Singh, M. (2024). Wireless environmental monitoring and control in poultry houses: A conceptual study. *Sensors and Actuators Journal*, *6*(2), 32–45.

[21] Gautam, A., & Pande, S. (2025). Ensuring sustainable growth in Indian poultry industry through usage of artificial intelligence.

[22] Verma, S., & Ranga, S. (2023). Adoption of precision feeding techniques for improved FCR in commercial broiler farming in North India. Indian Journal of Animal Science.

[23] Sharma, B., & Garg, A. (2024). Digital phenotyping: A game changer for the broiler industry. Journal of Computational Agriculture.