The Non-Invasive Haemoglobin Monitoring Market: A Strategic Analysis of Global Trends and the Indian Opportunity

- **Measures hemoglobin without needles using light sensors (fingertips, smartphones)**.
- **Benefits**: Painless, safe, results in 30-60 seconds.
- Uses: Anemia screening, surgeries, chronic disease management.
- **Key Technologies**
- Pulse CO-Oximetry: Precise Hb readings (Masimo).
- AI & PPG: Smartphone-based screening (Quick Vitals).
- Device Types: Continuous (hospitals), spot-check (clinics), wearables (home).
- **Competition**
- Global: Masimo (premium), OrSense (cost-effective).
- India: EzeRx (affordable, rural), Quick Vitals (AI app).
- Trend: Local startups focus on cost and access
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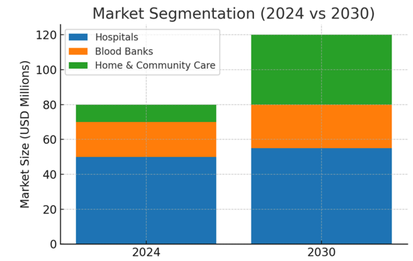
Strategic Moves

- Solve skin-tone accuracy for diverse populations.
- Partner with government for mass screenings.
- Develop low-cost, rugged devices for rural India.

Future Vision

- AI improves accuracy and predicts health risks.
- Wearables enable home monitoring.
- Multi-vital devices for holistic care.



Blood Banks show moderate growth, indicating stable demand in that segment.
• By 2030, Home & Community Care grows significantly from $10M to $40M.
• Hospitals remain the largest segment in 2024 with $50M share

SWOT ANALYSIS

Strengths

• Strong brand reputation and clinical validation (for MNCs). • Access to advanced, proprietary technology (e.g., Pulse CO-Oximetry). • Established global supply chains and manufacturing expertise.

Weaknesses

• High product and operational cost structure. • Lack of an established distribution network in rural India. • Potential for technology to be misaligned with local needs (e.g., skin-tone bias, lack of ruggedness).

Opportunities

• Massive unmet clinical need due to high anemia prevalence.3

Threats

• Strong government support via 'Make in India' and public health programs (Anemia Mukt Bharat).3

• High smartphone penetration enabling disruptive SaMD models.48

• Growing healthcare expenditure and insurance coverage.12

• Intense price sensitivity and government tender system favoring lowest cost.13

• Bundled payment reimbursement model (PM-JAY) disincentivizes high-cost tech adoption.12

• High threat from low-cost, locally developed substitutes (both invasive and non-invasive).41

• Complex and evolving regulatory (CDSCO) 10 and environmental (EPR) compliance landscape.51

EzeRx and Quick Vitals target lower-cost segments with emerging validation, signaling opportunities for cost-sensitive markets.
• OrSense is well-validated with mid-to-high cost positioning.
• Masimo occupies the high-cost, high-validation quadrant, indicating a premium, proven solution.

Global Market

- **2024**: USD 320M.
- **2033**: USD 634-864.9M (CAGR: 8.2%).
- **Drivers**: High anemia rates, demand for quick diagnostics.
- **Challenges**: Skin-tone accuracy issues, high costs.
  >**India's Opportunity**
  Market: USD 80M (2024) → USD 130M (2033, CAGR: 5.2%).
- **Why India?:**
- Anemia affects 57% of women 67% of children.
- Anemia Mukt Bharat program drives demand.
- Smartphone penetration supports AI diagnostics.
- Challenges: Complex regulations price sensitivity, rural access.
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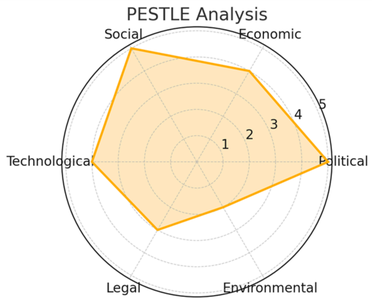
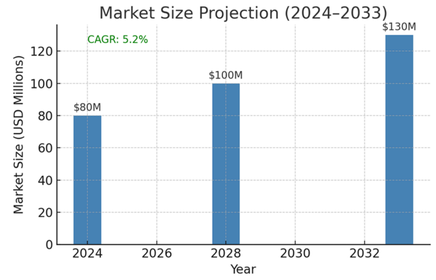


• Legal (3) shows evolving regulatory environment; Environmental (2) reflects minor e-waste considerations.
• Economic (4) and Technological (4) highlight cost constraints and enabling technologies.
• Social impact scores 5 due to high anemia prevalence necessitating solutions.
• Political factors score 5, driven by government health initiatives.



Reflects increasing adoption of non-invasive hemoglobin monitoring technology over the decade.
• A compound annual growth rate (CAGR) of 5.2% indicates steady expansion.
• The market is projected to grow from $80M in 2024 to $130M in 2033.