

#### THE INSTITUTE OF MANAGEMENT CONSULTANTS OF INDIA

# **CONSULTANTS FORUM**

**JUNE 2025** 

**ISSUE NO 150** 

#### PRESIDENT'S MESSAGE



CMC - GLOBAL



Dear Members,

I am delighted to share with you the exciting highlights of June issue of the Consultants Forum. This month, we will reflect on the successful celebration of **International Consultant Day** that took place on **Friday**, **6th June 2025**, at the prestigious Garware Club House, Mumbai. It was a truly engaging and thought-provoking event that brought together a diverse group of professionals in the consulting community.

We were honored to have Mr. Sumnesh Joshi, Deputy Director General (Joint Secretary level) at the Ministry of Communication, Government of India, as our esteemed Guest Speaker. His insights into the evolving landscape of consulting, especially in the realm of government policy and digital transformation, were invaluable. His session sparked meaningful conversations on how consultants can contribute to shaping the future of communication and technology in India.

As we continue to strengthen the fabric of our association, I would like to extend a special **appeal to all members** to help expand our reach. One of the best ways to ensure the continued growth and success of our association is by **recommending new members** who can bring fresh perspectives and expertise into our fold. Let's collaborate to build a stronger and more inclusive community that stands at the forefront of business and strategy consulting.

The Consultants Forum remains a vital platform for us to exchange insights, discuss industry trends, and expand our network. Let's continue to engage with one another to enhance our collective knowledge, and ensure that we remain influential and innovative in the world of consulting. I look forward to seeing many of you at future events, and to hearing about your ideas and contributions to the association.

Warm regards,

Anuj Bhargava President







### **EDITOR'S NOTE**

Dear Readers,

We are pleased to share with you the June 2025 edition of the IMCI Consultants Forum. This offers an opportunity to exchange your views, ideas, experiences, and knowledge for the professional development of the consulting community.

We thank Dr. Prashant Upadhyaya, Dr. T. Nagesh, Mr. Abhra Sinha, Mr. Mrinmoy Roy, and Mr. Vijay Karna for their valuable contributions, which have significantly enriched this issue of the Consultants Forum. IMCI successfully celebrated International Consultants' Day on June 6, 2025. The event was attended by the consulting community, who shared their views on the current developments in the consulting profession.

The management consulting industry continues to grow and adapt to the new technological advancements and economic challenges, providing valuable expertise and innovative solutions to businesses worldwide. It has seen significant growth in recent years. According to one estimate, the global management consulting market was valued at \$936.85 billion in 2024 and is expected to reach \$2,655.14 billion by 2034.

IMCI offers an opportunity for learning. This helps you develop critical consulting skills. In the current complex economic environment, consultants are expected to deliver innovative solutions that align with the latest industry trends and technological changes. You acquire these skills by continuously upgrading your expertise and sharing your consulting experiences. Your active participation is appreciated in making the Consultants Forum a vibrant platform for knowledge sharing and professional growth. We eagerly look forward to your continued involvement in the forthcoming issues.

With best wishes, Ramesh Tyagi







### STRATEGIES FOR 3X-5X GROWTH FOR SMES

**DR. T. NAGESH** 



In today's competitive business landscape, small and medium-sized enterprises (SMEs) face numerous challenges, from rising costs and increasing competition, global tariff barriers to the need to adapt to rapid technological advancements. Many SMEs are unsure about the future direction of their business.

A recent report revealed a staggering 48% of MSMEs will shut down within 8 years.

Despite these challenges, SMEs have the potential to achieve significant growth. By adopting a focused approach to growth and leveraging digital strategies, thus SMEs can achieve 3x-5x growth.

#### **Understanding the Value Proposition**

The value proposition is the unique benefit that an SME offers to its customers. It is what makes the SME stand out from its competitors. In today's digital age, the value proposition is more important than ever. The SMEs need to be able to articulate their value proposition concisely that resonates with their target audience.

There are three main ways that SMEs can improve their value proposition:

- Improve: This involves making existing products or services better. For example, an SMEs could improve the quality of its products, or it could make its services more customer friendly.
- **Expand**: This involves adding new products or services to the SME's offerings. For example, an SMEs could add a new product line, or it could start offering services in a new geographic market.
- New: This involves creating entirely new value propositions. For example, an SME could develop a new technology or business model.





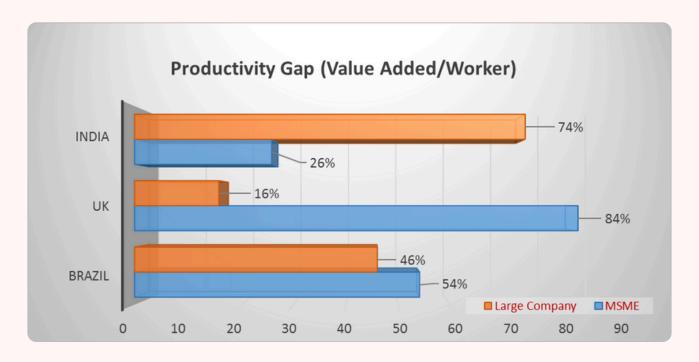
#### Understanding Margin Improvement and Growth Strategies and when to leverage them

Margin improvement and growth strategies are two key approaches that SMEs can use to achieve growth

- Margin improvement involves streamlining operations, enhancing efficiency, and reducing costs. Examples include negotiating better rates with suppliers, implementing automation to increase efficiency, or optimizing production processes to reduce waste.
- Growth strategies focus on expanding the business, tapping into new markets, and generating new revenue streams. This can be achieved by launching new product lines, expanding into new geographic markets, or acquiring another business.

In a McKinsey's research it highlights a significant productivity gap between large organizations and MSMEs. When productivity is measured as the ratio of value added per worker, MSMEs in emerging economies are only 29% as productive as larger firms. This indicates that they generate less economic output per worker.

As it is evident from the chart below that the gap is even more pronounced in emerging economies like India compared to advanced economies. In India, the MSME productivity stands at 26, compared to Brazil's 54 and the UK's 84. This underscores the pressing need for improvement in India's MSME sector.







Indian MSMEs also face significant challenges that threaten their growth and sustainability. Productivity inefficiencies drive up costs, leading to eroding profit margins. Their lack of digital readiness often excludes them from lucrative OEM clusters, causing a loss of critical contracts. Competitors, both domestic and global, with superior technology adoption, overshadow MSMEs, resulting in declining market share. Furthermore, their inability to scale or meet quality benchmarks weakens their bargaining power, limiting pricing leverage and long-term competitiveness.

#### **Prioritizing for Maximum Impact**

While both margin improvement and growth strategies are essential for long-term success, prioritizing one before the other can unlock significant potential and set SME on a path to sustainable success. Prioritizing allows SMEs to concentrate resources, develop expertise, and achieve a certain level of maturity before taking on the additional complexities of the other strategy.

Typically, it's more effective to focus on margin improvement first. This creates a strong financial base to fuel future expansion without overextending resources.

#### Assessing the SME's Readiness

To achieve growth in today's competitive market, the SMEs need to adopt a multifaceted approach. Assess the SME's readiness by evaluating the maturity level across key drivers of margin improvement and growth, which will be discussed in detail in subsequent articles in detail.

#### Benefits of a Phased Approach

- Focused Execution: Concentrating on one area initially allows for more effective execution and faster achievement of goals.
- **Resource Optimization**: Resources are allocated more efficiently, avoiding overextension and maximizing impact.
- Reduced Risk: A phased approach minimizes risk by ensuring a strong foundation before pursuing ambitious growth targets.
- Sustainable Growth: Achieving maturity in one area creates a solid base for pursuing the other, leading to balanced and sustainable growth.





#### **Case Study: Lenskart**

Lenskart a well-known Indian eyewear company that has successfully navigated the different stages of growth by strategically improving, expanding, and introducing new value propositions.

Value Proposition Focus	Lenskart's Actions	Impact
Improving the Existing Value Proposition	Streamlined operations to reduce costs; invested in technology for efficient lens manufacturing; established a strong online presence for convenient ordering.	Offered high-quality eyewear at competitive prices, attracting a large customer base.
Expanding the Value Proposition	Expanded geographic reach by opening stores across India and internationally; expanded product offerings to include sunglasses, contact lenses, and other eye care products.	Catered to a wider range of customer needs and preferences.
Creating New Value Propositions	Developed a virtual try-on tool for online customers; introduced a subscription service for contact lenses.	Enhanced customer experience and convenience; created innovative solutions to address evolving needs.

#### Conclusion

While margin improvement and growth strategies complement each other, a phased approach can be more effective for SMEs seeking to unlock significant growth. By focusing on one area initially, achieving maturity, and then transitioning to the other, SMEs can optimize their resources, minimize risk, and create a sustainable path toward increased revenue and profitability.

Ready to embark on your growth journey? Start by assessing your current strengths and weaknesses and then develop a focused plan to prioritize either margin improvement or growth strategies. Remember, consistent execution and adaptation are key to achieving sustainable success.

To learn more about the specific drivers of margin improvement and growth strategies, and a roadmap that provides a clear path for SMEs to follow, stay tuned for the next articles in this series.

#### About the author

**Dr. T. Nagesh (CMC®)**, Member Bangalore Chapter IMCI, specializes in strategic planning, operational excellence, and smart factory strategies, driving revenue growth and cost efficiency. He holds a Ph.D. in Management, a master's in industrial engineering, and certifications in Lean Six Sigma, Industry 4.0, and Supply Chain Digitization, and offers consulting in these areas. For more details, please visit his website: <a href="https://www.mgmtsolns.com">www.mgmtsolns.com</a>.







### ASKING THE "WHY" - HELPING YOUR CLIENTS ASK THE WHY QUESTION

**ABHRA SINHA** 

The Matrix trilogy was one of my favourite movie series of all times. There was one dialogue I remember where one of characters told the lead character "I don't know how the machines work but I do know why they work ". As consultant we frequently engage with two sets of people - People who take Decisions and people who get impacted by those decisions. Decision takers might not always have the technical expertise or knowhow but should be able to answer at least the why part of the decisions taken. We will proceed with an example about how Business leaders, Board members and KMP's of an organization are taking a decision with the example being of moving their Data to a third-party provider having it's own Data Center.

First let us see what the decision is to be taken — it is for deciding that instead of storing data at your own Premises and Custody we will need to outsource it to a service provider who has expertise in this field and will store the data on your behalf.

Sounds Simple, isn't it? - but is it really that simple.

The maintenance and daily operations part is taken care by the concerned infra provider who in turn will be responsible for the safety and security of the data stored. This allows corporations to focus on their core businesses and not bother about Data Center infra which is not among their core expertise, which by the way for most businesses had been quite taxing. Also it reduces the overall Technology infra cost but most people are getting into a mode of taking a safe decision without understanding or deep diving much. This is where consultants should step in.

One of the use cases of consultants for organizations have always been for decisions like this where the board is presented with something like "look this is what the consultant is advising, they are the best advisors in the field, so this what we should do ". The board members who would obviously want to play safe will pass the resolution without much discussion or questions asked and even not attempting to even understanding the rationale behind that decision. The BIG 3 of the consulting world are now minting money based on the above mentioned thought process. They might have started as purpose driven consulting firms who would bring about positive changes, but their use cases have reduced to scenarios like these in most situations.





In our example of moving to a third party data center consultants should ideally work with these decision makers and explain to them how moving to a data center provider would help them achieve cost optimization but at the same time they should not overlook the risk component and the level of dependency they will have on these Service providers and their corresponding Data Centers. Additionally, given the level of consolidation we have seen in technology industry we find that each area in technology is dominated by few profit-making entities, thus it is very likely that the Data Center Industry is likely to go on the same path and will be limited to a few big players dominating over the smaller ones. Once major businesses move to the selected few service providers we might see revamp of costing, an oligopoly of sorts in this market which will make these Infra providers dictate terms to big businesses. Thus Consultants should be able to explain their client what works for one organization might not work for the other. The necessity of the decision would vary upon a range of factors like the volume & Value of business, geographic market covered, future vision of the company, amount of data generated, regulatory guidelines regarding data storage and so on. The comprehensive analysis should be backed by data and information and in business language that would be easier to comprehend for the decision makers. This will help Business Leaders to do a honest assessment whether the Business they run need it and to what extent even if they do.

If you have read this far you might understand that the example of Data Cetner is just one in a lot of numerous decisions taken, the real issue is that most decisions are taken without understanding the "Why" part of it, whether it is related to manpower reduction, business expansion or relocation of manufacturing units to name a few. Consultants in way should be able to educate the decision makers so that they are able confidently say that this is their decision after they have understood the overall impact of the same and after taking a holistic view throughout their decision making process. It should not be portrayed as something like "we are doing this because the Consultants have advised us on this".

To conclude a consultant should be able to help these Business Leaders decide upon their strategy keeping their specific Business requirement in mind and ensure they not join the flock blindly. This can only happen if Consultants enable these Key individuals in understanding the "Why" part of the decision. I will end with what I started with by mentioning the dialogue again from the movie where one of characters tell the lead character "I don't know how the machines work but I do know why they work ".







# BRIDGING THE PATIENT ENGAGEMENT GAP: A LIFECYCLE-BASED FEEDBACK FRAMEWORK FOR INDIAN HEALTHCARE SYSTEMS

**MRINMOY ROY** 

#### **Executive Summary**

India's healthcare system faces challenges in delivering consistent and satisfying patient experiences. With fragmented provider network and low digital feedback integration, patient engagement is suboptimal. This article presents a lifecycle-based engagement and feedback system designed through a consulting-research approach to improve satisfaction, trust, and operational efficiency in Indian hospitals. Drawing on Global best practices and a Bangalore pilot study, the proposed model demonstrates how strategic frameworks and digital tools can transform patient-provider relationships.

#### Introduction

Context and Background

In today's healthcare environment, patient engagement directly influences treatment adherence, recovery, and satisfaction. In India, despite increasing health awareness, engagement strategies lack structure and continuity (Ballard, 2023). Globally, digital tools and structured feedback have transformed care delivery, prompting a need for localized yet scalable models within Indian contexts.

#### Research Objectives

- 1.To design a structured, stage-wise patient engagement system.
- 2.To implement real-time, AI-supported feedback loops.
- 3.To benchmark India's engagement strategies with global best practices.

#### **Problem Statement**

Indian Healthcare Challenges

- Access Gaps: India faces a 16% shortfall in primary health centers (Ballard Brief, 2023).
- Fragmented Touchpoints: Private dominance (70%) in service delivery results in inconsistencies.
- Poor Feedback Loops: Cultural barriers hinder honest feedback, affecting quality improvement.





#### Strategic Opportunity

Bangalore, with its concentration of digital health innovators, presents an ideal testbed. However, inconsistent adoption of digital engagement tools impedes progress. Consultants can bridge this gap by designing practical, data-driven systems aligned with both user needs and global standards.

#### Literature Review & Global Benchmarking

Global Best Practices

- U.S. Healthcare: Patient portals and AI chatbots improve satisfaction and reduce errors (PMC, 2023).
- Europe: Remote monitoring and chronic disease management via telehealth have expanded reach and lowered costs (PMC, 2023).

#### Indian Comparison

- Limited digital health penetration.
- Fragmented patient feedback systems.
- Absence of lifecycle-centric engagement models.

#### Methodology

Consulting-Driven Design

A four-step consulting approach was used: 1. Diagnostic Review (Stakeholder Interviews)

2. Gap Analysis (Benchmarking against global models) 3. Model Development (Lifecycle & Feedback Systems) 4. Pilot Testing in select Bangalore hospitals

#### **Patient Lifecycle Touchpoints**

Source: Adapted from PMC.gov articles and internal project mapping

#### Proposed Model: Lifecycle-Based Framework

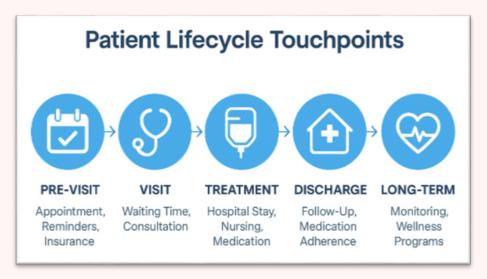
A. Stages of Engagement

- 1. Pre-Visit: Scheduling, reminders, insurance checks.
- 2. Visit: Reception, consultation, diagnostics.
- 3. Treatment: Hospital stay, medication, nursing care.
- 4. Discharge: Instructions, medication adherence.
- 5. Long-Term: Preventive care, remote monitoring.





#### A diagrammatic representation is provided in Figure 1.



**Figure 1: Patient Lifecycle Touchpoints** 

Source: Adapted from PMC.gov articles and internal project mapping

#### B. Feedback Collection Mechanism

- Real-Time Channels: SMS, mobile apps, kiosks.
- AI Analysis: Sentiment and topic modeling of responses.
- Metrics: Net Promoter Score (NPS), Experience Index.

#### A diagrammatic representation is provided in Figure 2.

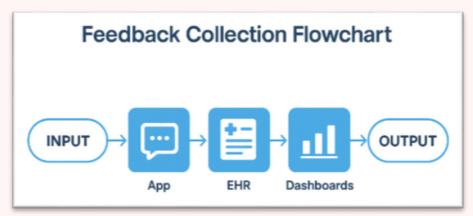


Figure 2: Feedback Collection Flowchart

Source: Adapted from PMC.gov articles and internal project mapping





#### **Pilot Implementation in Bangalore**

Scope

The pilot was conducted in three mid-sized private hospitals located in Indiranagar, Jayanagar, and Whitefield—areas known for moderate to high patient footfall and urban affluence. These hospitals serve a mix of insured and self-paying patients, with over 60% of users aware of digital tools like health apps and online portals. Their existing semi-digital infrastructure enabled smooth integration of the lifecycle-based feedback system.

#### **Key Findings**

- 43.11% increase in care delivery time due to RPMS (PMC, 2023).
- 80% staff acknowledged better engagement.
- Feedback insights reduced communication delays and improved discharge planning.

#### **Strategic Consulting Insights**

- Low-Cost Adoption: Use of open-source tools and in-house training.
- Dashboards: Empowered administrators with data visibility.
- Cultural Integration: Sentiment-aware feedback channels improved authenticity.

#### **Financial & Operational Impact**

- 39% of patients avoid providers post bad experience (Authenticx, 2023).
- Cost of retaining patients is lower than acquiring new ones (InMoment, 2023).
- Operational efficiencies include reduced waiting time and resource optimization.

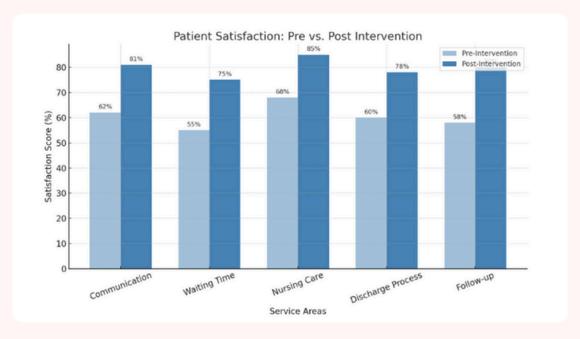


Figure 3: Bar graph comparing pre/post intervention satisfaction scores.

Source: Authenticx.com patient retention studies.





#### **Roadmap for Scaling and Resource Considerations**

The implementation of the patient lifecycle feedback system was strategically divided into four well-defined phases to ensure clarity, efficiency, and adaptability in a healthcare environment.

In Phase 1 (0–1 Month), the focus was on requirement gathering and stakeholder buy-in. During this stage, consultations were held with key hospital administrators, clinical staff, and IT teams to map out the existing service workflows and understand the gaps in patient engagement. Input from patient representatives was also gathered to ensure the system would address real concerns and expectations.

Moving into Phase 2 (1–2 Months), the system development and training phase commenced. A prototype of the digital feedback collection framework was built using open-source technologies, particularly DHIS2 and OpenMRS. These platforms were chosen for their proven efficacy in low-resource settings and ability to integrate with existing hospital systems. As illustrated in Figure 4, DHIS2 dashboards offer extensive visual insights into health indicators such as immunization and visit trends, while Figure 5 shows OpenMRS's ability to track patient interactions, admissions, and demographic data in a user-friendly dashboard. Parallel to technical setup, comprehensive training sessions were conducted for frontline hospital staff to familiarize them with the new workflows and tools.



Figure 4: A Diagrammatic representation of DHIS2 Dashboard

Source: Open Source DHIS2



Figure 5: A Diagrammatic representation of OpenMRS Dashboard Source: OpenMRS

Phase 3 (2–3 Months) involved pilot testing and feedback collection. Three mid-sized private hospitals in Bangalore—located in Indiranagar, Jayanagar, and Whitefield—were selected for their urban demographics, diverse patient footfall, moderate affluence, and high digital awareness. During this period, real-time data collection mechanisms (via apps, kiosks, and SMS surveys) were deployed at each touchpoint of the patient lifecycle. Insights from the data helped fine-tune the system for full deployment.

Finally, Phase 4 (3–4 Months) focused on full-scale rollout, monitoring, and iterative improvement. Dashboards provided live tracking of key satisfaction metrics, allowing administrators to respond quickly to pain points. Continuous feedback loops ensured that both patients and staff remained engaged, and regular analytics reviews guided process refinements.

Resource efficiency was a core principle throughout the rollout. The use of **open-source solutions like DHIS2 and OpenMRS** minimized licensing costs while offering scalable functionality. All training and patient awareness campaigns were managed **in-house**, leveraging hospital educators and digital communication tools to maximize reach without incurring external consultancy expenses.





This phased approach proved essential for managing change within hospital systems while demonstrating how digital transformation in patient engagement can be both cost-effective and impactful when aligned with strategic consulting insights.

#### **Conclusions**

The study demonstrates that structured, digital-first patient engagement models improve not just satisfaction but loyalty and healthcare outcomes. For consultants, this presents an opportunity to enable hospitals through process design, technology alignment, and capability development.

#### Recommendations

- 1. Hospitals: Adopt lifecycle engagement frameworks as strategic tools.
- 2. **Policymakers**: Incentivize digital engagement solutions.
- 3. Consultants: Use this case for replication in similar Tier-1 and Tier-2 cities.

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# HOW MANAGEMENT CONSULTANTS CAN ADD VALUE TO GLOBAL CAPABILITY CENTRES IN INDIA VIJAY KARNA

India's position as a strategic hub for **Global Capability Centres (GCCs)** has evolved beyond cost arbitrage to **value-centric innovation**, **transformation**, **and enterprise enablement**. With over 1,600 GCCs employing more than 1.4 million professionals, India is no longer just a back-office destination—it is the **epicentre of digital and operational capability building**.

This evolution calls for a corresponding shift in how management consultants engage with GCCs. The traditional advisory model must pivot to one that delivers measurable outcomes in productivity, innovation, governance, and customer experience.

#### **Strategic Role of Management Consultants in GCCs**

Management consultants can add value by becoming transformation partners who:

- Shape operating models aligned to global business objectives
- Drive enterprise digital transformation across IT-OT-Business
- · Optimize talent, process, and technology maturity
- Institutionalize ESG, compliance, and sustainability initiatives
- Enable GCC-to-GCoE (Global Centre of Excellence) transitions

#### **₩**Case Study: Manufacturing GCC – Digital Twin Maturity Roadmap

Client: European industrial equipment manufacturer

**Location**: Bangalore GCC

**Challenge**: Fragmented engineering and production data led to inefficiencies in digital twin deployment.

#### **Consulting Intervention:**

- Conducted a digital readiness and PLM maturity assessment
- Aligned use-cases to an enterprise-wide digital twin strategy
- Defined a future-state architecture leveraging IoT, edge computing, and simulation

#### **Impact:**

- 40% faster engineering turnaround
- Digital thread integration across global product lifecycle
- Bangalore GCC repositioned as the Digital Engineering CoE





← Case Study: Automotive GCC – Agile Transformation Playbook

Client: Japanese auto major

**Location**: Pune GCC

Challenge: Legacy waterfall development slowed down innovation and time-to-market for

connected vehicle solutions.

#### **Consulting Intervention:**

• Developed an Agile CoE framework tailored for embedded and infotainment software

- Trained 150+ team members in scaled agile (SAFe) methodology
- Realigned product squads to KPIs across value streams

#### **Impact:**

- 30% faster feature deployment cycles
- Improved collaboration with German and US R&D hubs
- GCC recognized as a model for Agile-at-scale within the group

#### **←** Case Study: Energy & Utilities GCC – Integrated Operations Centre

Client: European oil & gas major

Location: Hyderabad GCC

Challenge: Decentralized asset management systems and low predictive maintenance

coverage.

#### **Consulting Intervention:**

- Designed a federated Integrated Operations Centre (IOC) architecture
- · Used ISA-95 framework to integrate SAP PM, SCADA, and reliability systems
- Introduced predictive analytics using AI/ML over historian and sensor data

#### **Impact:**

- 50% reduction in unplanned downtime
- \$7.5M annualized asset reliability savings
- GCC formally upgraded from operations support to enterprise asset optimization hub

#### **Why Now? The GCC 4.0 Imperative**

As GCCs transition from transactional centres to **enterprise transformation accelerators**, management consultants have a pivotal role to play in enabling:

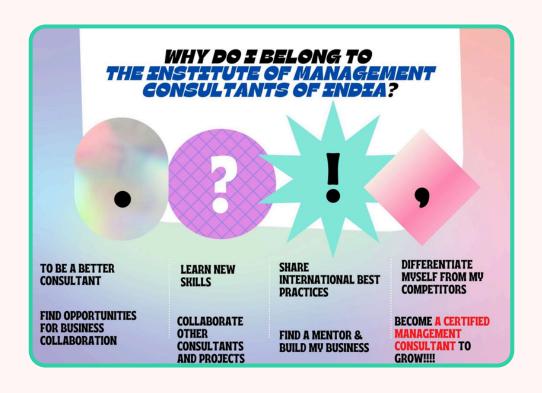




Area	Consultant-Driven Value
Digital Transformation	Define, pilot, and scale emerging tech like GenAI, AIOps, Digital Twins
Talent Strategy	Upskill teams to future capabilities, optimize hiring models
ESG & Compliance	Build frameworks for carbon reporting, circular economy, and ethics
Risk & Governance	Introduce robust cyber, data, and vendor governance models
Innovation Acceleration	Create innovation pods and cross-functional sprint models

#### **∠** In Closing

India's GCCs are no longer just "doing the work." They're designing the work of the future. Management consultants who bring industry depth, technology foresight, and transformational governance models will be indispensable to GCCs' next wave of growth. As GCCs move from cost to capability, and from capability to competitive advantage, the consultants who evolve with them will unlock unmatched strategic relevance.









# RECLAIMING DIGITAL SECURITY FOR HUMANITY: DR. PRASHANT UPADHYAYA'S "MANUSCRYPT" AND THE FIGHT AGAINST TECHNOLOGICAL APOCALYPSE

#### PRASHANT UPADHYAYA

Dr. Prashant Upadhyaya (CMC) has two decades of experience across several industry sectors and has authored three books viz. Ternicode: Law of Three (genre: Business & Leadership), ManusCrypt: Designed for Mankind (genre: Strategy & Information Systems) and Swarbhanu Rahasya: Role of Nodes in Destiny (genre: Indology). He has served over two hundred clients across four continents. He holds double doctorate, is a post-doctoral senior fellow and an executive alumnus of IIM, Indore and IIT, Kanpur. His LinkedIn profile is – https://www.linkedin.com/in/prashantau

In an era where artificial intelligence systems increasingly govern our digital lives and quantum computing threatens to render our current security measures obsolete, a fundamental question emerges: Have we designed our information security systems for machines rather than the humans they're meant to protect? Dr. Prashant Upadhyaya's groundbreaking work "ManusCrypt: Designed for Mankind – Anthropocentric Information Security" confronts this critical oversight with both urgency and practical solutions.

As we hurtle toward what many technologists call the "Singularity" - the theoretical point where artificial intelligence surpasses human intelligence - Upadhyaya argues that we're witnessing not just technological evolution, but a potential "Technological Apocalypse" where human agency in digital security becomes increasingly marginalized. His book presents a clarion call for what "Anthropocentric Information Security" - a paradigm shift that places human needs, capabilities, and limitations at the center of cyber security design.



#### The Perfect Storm: IR 4.0, Web 3.0, and Machine-Centric Security

We stand at the convergence of the Fourth Industrial Revolution (IR 4.0) and Web 3.0, where the fusion of technologies blur the lines between the physical, digital, and biological spheres. Traditional information security has long focused on six fundamental purposes: authentication, authorization, prevention of data theft, sensitive data safety and privacy, data protection and integrity, and non-repudiation. However, as Upadhyaya demonstrates through his analysis, "modern cryptography is more suited for machines rather than humans." This isn't an accident of technological development – it's a deliberate design choice that has profound implications for human autonomy in the digital age.





The current cybersecurity landscape faces unprecedented challenges. With billions of connected devices, the potential entry points for cybercriminals have multiplied exponentially, while malicious actors are leveraging AI to create more sophisticated and targeted attacks, outpacing traditional security measures. The advent of quantum computing threatens to render current encryption methods obsolete, and Web 3.0's decentralized nature introduces new vulnerabilities in smart contract management and private key security.

This machine-centric approach becomes particularly problematic as we witness the "man versus machine" scenario playing out in real-world situations. The hypothetical conflict that dominates cybersecurity discussions isn't merely coincidental – it's "by design," as Upadhyaya reveals through his critical assessment of algorithm-based modern cryptography.

#### The Technological Apocalypse: Real-World Evidence

The concept of a "Technological Apocalypse" in Upadhyaya's framework isn't about robots taking over the world in a Hollywood sense. Instead, it represents the gradual erosion of human agency and understanding in digital systems that increasingly govern our lives. This apocalypse is already manifesting through documented real-world incidents that demonstrate the dangerous trajectory we're on.



Consider the 2010 "Flash Crash," where the Dow Jones Industrial Average plummeted nearly 1,000 points in minutes due to highfrequency trading algorithms, highlighting AI's potential for significant financial disruption without human oversight.

The fatal Tesla Autopilot crash in 2016 raised critical questions about AI reliability in life-ordeath scenarios, while IBM's Watson for Oncology made unsafe treatment recommendations, demonstrating the risks of over-relying on AI in healthcare decisions.

The technological apocalypse also includes systematic manipulation of human behavior and democratic processes. Amazon's Rekognition facial recognition system incorrectly matched 28 members of Congress to criminal mugshots in 2018, revealing AI bias in law enforcement applications. The Cambridge Analytica scandal exposed how AI algorithms could manipulate public opinion and influence democratic processes on a massive scale.





This apocalypse manifests in multiple ways: password systems that require inhuman memory capabilities, authentication processes that prioritize computational efficiency over user experience, and encryption methods that remain opaque to the very people they're meant to protect. The cumulative effect is a digital environment where humans must constantly adapt to machine requirements rather than technology adapting to human needs.

The path toward Singularity exacerbates these challenges. As artificial intelligence systems become more sophisticated, they increasingly make security decisions without human oversight or understanding. The risk isn't just technological failure – it's the complete alienation of humans from the systems that protect their most sensitive information, creating scenarios where critical infrastructure could be held hostage by ransomware at unprecedented scales, AI-driven deepfakes manipulate markets, and quantum computers crack encryption protecting sensitive data.

#### **Anthropocentric Information Security: A Human-Centered Solution**

Upadhyaya's concept of Anthropocentric Information Security represents a radical departure from current practices. Rather than asking humans to adapt to machine-optimized security systems, this approach designs security around human capabilities, limitations, and natural behaviors. It acknowledges that humans have cognitive biases, memory limitations, and behavioral patterns that should be accommodated rather than ignored.

This human-centered approach encompasses several key principles that distinguish it from traditional cyber security models. Human-centric design means security solutions should be intuitive and easy to adopt, making secure practices natural rather than burdensome. Ethical considerations must guide AI and automation deployment in security systems, ensuring that bias, fairness, and accountability remain central concerns. Digital literacy investment creates a more security-aware population capable of meaningfully participating in their own protection.

The anthropocentric model also emphasizes adaptive security systems that learn and adapt to human behavior, providing personalized protection rather than one-size-fits-all solutions. Transparent AI ensures that artificial intelligence-driven security solutions remain explainable and allow for human oversight and intervention. Privacy by design incorporates privacy considerations from the ground up, and resilience training prepares individuals and organizations to respond effectively to security incidents.





The anthropocentric model considers human factors as design requirements rather than implementation challenges. It asks: How do humans naturally think about secrets and privacy? What cognitive patterns can be leveraged rather than fought against? How can security systems enhance rather than hinder human decision-making? These questions lead to fundamentally different design principles that prioritize human agency and understanding while addressing critical ethical implications of AI integration.

#### ManusCrypt: Practical Implementation of Human-Centered Security

The book's titular "ManusCrypt" system represents Upadhyaya's practical implementation of anthropocentric principles. Rather than ending with theoretical discussions about ethics and eventual human-machine merger, the work presents "a very much practicable solution with a real-world use-case scenario, wherein infosec is designed around the needs, biases, flaws and skills of humans."

This practical focus distinguishes Upadhyaya's work from much of the contemporary discourse around AI and security, which often concludes with vague calls for ethical consideration or inevitable acceptance of human-machine convergence. Instead, ManusCrypt offers concrete alternatives that maintain human agency while providing robust security protection.

The system's design philosophy recognizes that human "flaws" – such as the tendency to use familiar patterns or the difficulty in remembering random strings – aren't bugs to be fixed but features to be accommodated. By working with human psychology rather than against it, ManusCrypt creates security systems that are both more usable and potentially more secure, as users are more likely to implement them correctly and consistently.

#### Paradigm Shift: Implementing Human-Centered Security in Practice

Perhaps the most ambitious aspect of Upadhyaya's vision is his belief that anthropocentric information security can catalyze broader changes in technology development. As he argues, "This innovative approach, as trivial as it may seem to some, has the power to bring about a paradigm shift in the overall strategy of information technology that can change our world for the better."





This paradigm shift requires concrete implementation strategies that move beyond theoretical discussions. Organizations and policymakers must invest in human-centered security research and development while incorporating behavioral sciences into security strategies. Comprehensive digital literacy programs become essential infrastructure, and regulatory frameworks must mandate ethical AI and privacy considerations in technology development.

The implementation also demands collaboration between technologists, ethicists, and policymakers, with ethics review boards for AI security systems and international standards for AI ethics in cyber security. This approach addresses critical concerns like AI bias – where facial recognition systems show higher error rates for minorities and women – by ensuring diverse training datasets and regular bias audits.

Transparency and explainability become crucial as the "black box" nature of many AI algorithms poses security challenges. We need AI systems that can explain their decision-making processes, especially when those decisions impact human lives or rights. This includes clear frameworks for AI accountability and maintaining meaningful human oversight in critical security decisions, while balancing the need for data with individuals' right to privacy.

The implications reach into policy, education, and corporate governance. Organizations that adopt anthropocentric security principles may find themselves better positioned to maintain human oversight and decision-making authority as AI systems become more prevalent. Educational institutions could use these principles to teach technology literacy that emphasizes human agency rather than passive consumption of technological solutions.

### **Conclusion: Reclaiming Human Agency in the Digital Age**

Dr. Prashant Upadhyaya's "ManusCrypt: Designed for Mankind" arrives at a critical moment in technological history. As we approach potential Singularity and grapple with the implications of increasingly autonomous AI systems, the book provides both warning and hope.







The warning is clear: current approaches to information security are gradually marginalizing human agency and understanding. The hope lies in the practical alternative: anthropocentric design principles that can restore human centrality to digital security.

The choice before us isn't between security and usability, or between human agency and technological advancement. Instead, it's between continuing down a path that treats humans as the weakest link in security systems and embracing an approach that recognizes human intelligence, intuition, and agency as essential components of truly robust security.

In facing the potential Technological Apocalypse, Upadhyaya offers more than just another cybersecurity framework – he provides a blueprint for maintaining human dignity and agency in an increasingly automated world. The question isn't whether we can build better machines, but whether we can build technology that makes us more human rather than less. "ManusCrypt" suggests that we can, and that the future of information security lies not in replacing humans with machines, but in creating systems that honor and enhance human capabilities.

The path forward requires courage to challenge existing paradigms and wisdom to recognize that the most sophisticated security system is ultimately only as strong as the humans who must live with and through it. In this light, anthropocentric information security isn't just a technical innovation – it's a declaration that humans will remain at the center of their own digital destiny.

#### Read My New Book

"ManusCrypt: Designed For Mankind" is a groundbreaking work by Prashant Upadhyaya that explores the intersection of humanity and technology in the digital age. This book delves into the concept of 'ManusCrypt,' a term that likely combines 'Manus' (Latin for 'hand,' symbolizing human touch) and 'Crypt' (suggesting encryption or protection).

Click here to buy it (if in India): https://amzn.in/d/8TVdCRI Click here to buy it (if outside India):

https://www.whsmith.co.uk/products/manuscrypt-designed-for-mankind--anthropocentric-information-security/prashant-a-upadhyaya/paperback/9781032863641.html







#### INTERNATIONAL CONSULTANT DAY CELEBRATION

The Institute of Management Consultants of India proudly celebrated International Consultant Day with a thought-provoking and engaging event held on Friday, 6<sup>th</sup> June 2025 at Garware Club House, Mumbai, bringing together professionals, experts, and thought leaders from the consulting fraternity.

The highlight of the celebration was an inspiring address by Mr. Sumnesh Joshi, Deputy Director General (Joint Secretary Level), Ministry of Communications, Government of India, who spoke on the theme: "Digital Bharat – A Destination for Opportunities to Reap the Digital Public Infrastructure Benefits."

Mr. Joshi eloquently outlined the transformative journey of Digital Bharat, emphasizing the immense potential and inclusive growth driven by India's Digital Public Infrastructure (DPI). He shed light on how DPI—powered by platforms like Aadhaar, UPI, DigiLocker, and more—is fostering innovation, bridging the digital divide, and creating new economic and service delivery models that benefit citizens across the spectrum.

The event served as a meaningful platform for consultants to reflect on their evolving role in shaping Digital India, share insights, and network with peers committed to national progress.

We extend our heartfelt gratitude to Mr. Sumnesh Joshi for his valuable insights and presence, and to all members and attendees who made the celebration of International Consultant Day a memorable and impactful occasion.

#DigitalBharat #ConsultingForChange #InternationalConsultantDay #MCACelebration #DPIIndia









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### **About IMCI**

The Institute of Management Consultants of India (IMCI) is the apex body of management consulting professionals in India, being the only registered institute of established management consultancy firms and practicing individuals in the country. Originally founded in 1963 as Management Consultant's Association of India (MCAI), MCAI was renamed as IMCI in 1991 when it joined the ICMCI as the first Asian Country to become a full member. The International Council of Management Consulting Institute (ICMCI) <a href="https://www.cmc-global.org">www.cmc-global.org</a> has authorized IMCI to award Certified Management Consultant (CMC) certification in accordance with International Standards.

At IMCI, we understand that the world of business is rapidly evolving, presenting new challenges and complexities. That's why we have created a community that brings together industry leaders, seasoned consultants, and aspiring professionals like you. Our association serves as a platform for networking, knowledge sharing, and continuous learning.

By becoming a member of the IMCI offers several benefits, both for individual consultants and

By becoming a member of the IMCI offers several benefits, both for individual consultants and consulting firms. Some of the key benefits include:

- 1. Recognition and Trust: For individual consultants, obtaining the Certified Management Consultant (CMC) qualification, which is recognized in ICMCI member countries, provides formal recognition of training, development, and experience, and demonstrates high standards of performance, experience, and ethics.
- 2. Professional Development: Membership encourages the discipline of continued professional development, ensuring that consultants stay updated with the latest industry trends and best practices. Attend workshops, seminars, and webinars led by industry experts to stay up-to-date with the latest trends, best practices, and innovative strategies.
- 3. Client Attraction: The CMC qualification serves as a Gold Standard for excellence among management consultants, making it attractive to clients who seek consultants that meet the highest professional standards of competence, ethics, and independence.
- 4. Global Network: Members become part of a global network of management consulting professional bodies, facilitating knowledge sharing, collaboration, and access to international conferences and events.
- 5. Firm Branding: Consulting firms can use the CMC-Firm branding elements on their marketing materials, reinforcing their status and reach vis-à-vis major international firms, and demonstrating a commitment to professional standards and ethics.
- 6. Discounted Attendance To Domestic And International Events on Zoom, Domestic And International Magazine And Cep's

These benefits contribute to the professional growth, recognition, and credibility of both individual consultants and consulting firms within the global management consulting community (International Council of Management Consulting Institutes (ICMCI))

Institute of Management Consultants of India (IMCI) Membership is an investment in your professional growth and a commitment to excellence in the consulting arena. We believe that your unique perspective and experience will greatly enrich our community.

If you have any questions or would like to learn more, please feel free to reach out to our membership team at [Mob: +91 8767261288 Tel No.+91 22 23005376 / 75 Email ID: <u>info@imcindia.co.in</u>].