Brij Disa Centre for Data Science and Artificial Intelligence

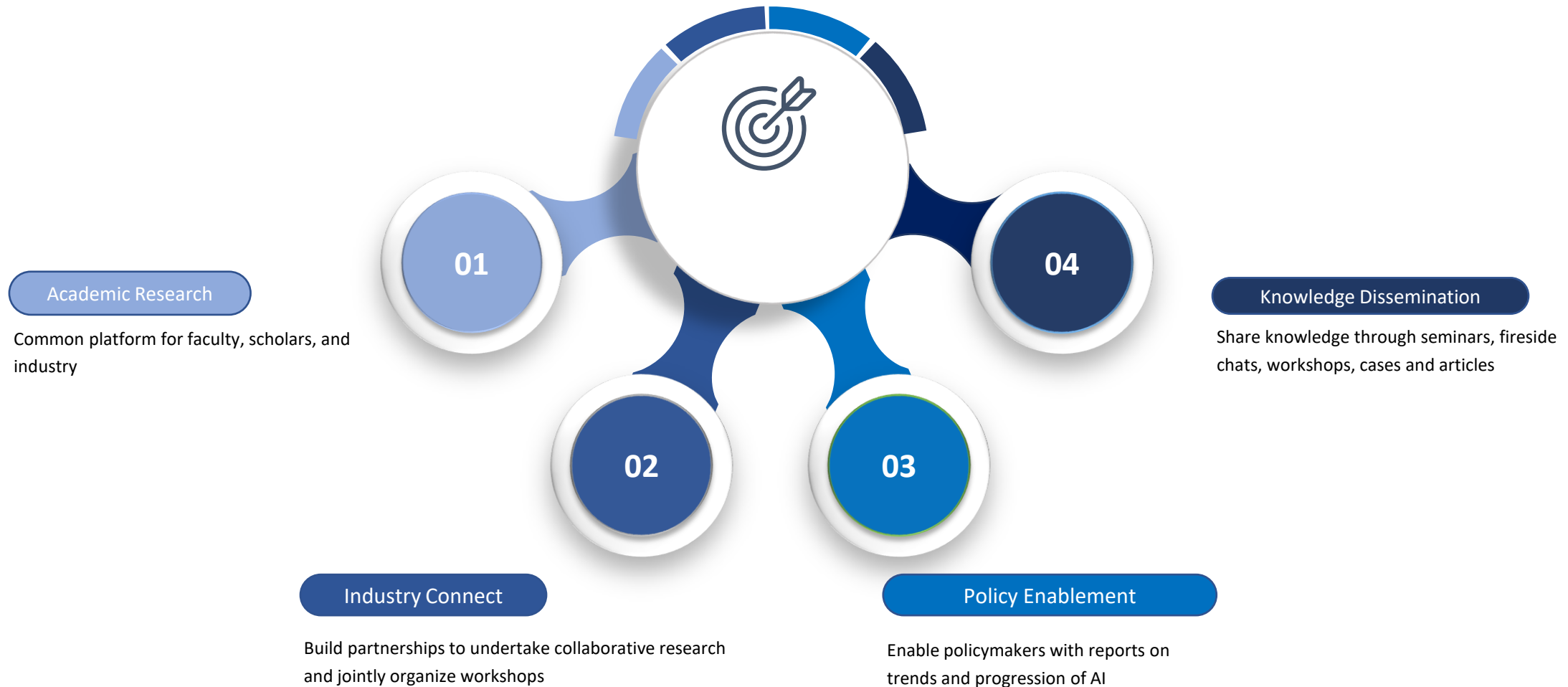INDIAN INSTITUTE *of* MANAGEMENT AHMEDABAD

विद्याविनियोगाद्विकासः

Established in August 2021

Supported by Mr. Dipak Gupta, Joint MD, Kotak Mahindra Bank

CENTRE ACTIVITIES

Academic Research

Common platform for faculty, scholars, and industry

01

02

03

04

Industry Connect

Build partnerships to undertake collaborative research and jointly organize workshops

Policy Enablement

Enable policymakers with reports on trends and progression of AI

Knowledge Dissemination

Share knowledge through seminars, fireside chats, workshops, cases and articles

CENTRE ACTIVITIES

Academic Research

Common platform for faculty, scholars, and industry

16 research projects with financial grants supported

01

02

03

04

CENTRE ACTIVITIES

01

02

03

04

Supporting industry through consulting and training

Industry Connect

Build partnerships to undertake collaborative research and joint initiatives

CENTRE ACTIVITIES

01

02

03

04

Policy Enablement

Enable policymakers with reports on trends and progression of AI

Published reports to give insights to policy makers

CENTRE ACTIVITIES

01

02

03

04

Knowledge Dissemination

Share knowledge through seminars, fireside chats, workshops, cases and articles

Quarterly communique published by the centre and regular events supports learning at IIMA

Centre members

Anindya s. Chakrabarti	Anuj Kapoor	Adrija Majumdar	Ankur Sinha
Chetan Soman	Karthik Sriram	Sobhesh Agarwalla	Cheong Siew Ann
Anirban Banerjee			

Arindam Banerjee | Dhiman Bhadra | Indranil Bose | Swanand Deodhar | Anil Deolalikar | Samrat Gupta | Sachin Jayaswal | Sudha Ram | Hyokjin Kwak

Andrea Lodi | Thomas Lux | Tanmoy Majilla | Neelkant Rawal | Pekka Malo | Sheri Markose | M P Ram Mohan | Suprateek Sarker | Soumya Mukhopadhyay

Aditya Chistopher Moses | Sundaravalli Narayanaswami | Sriram Sankaranarayanan | Pankaj Setia | Avinash Sharma | Peng | Hemant Kumar Singh | Pranav Singh | Sitabhra Sinha

Anish Sugathan | Abhishek Tripathi | Arvind Tripathi | Ellapulli Vasudevan | Sanjay Varma | Pritha Dev | Ambrish Dongre

MOTIVATION FOR THE IIMA-BCG STUDY

AI in India: A strategic necessity

- Economic Development: Measure benefits that the AI technologies bring through enhanced productivity, competitiveness, and innovation, thereby fostering economic progress

- Global Competitiveness: Identify India's position in AI research, development, and adoption, and compare with the international landscape

- Technological Advancement: Examine the opportunities and challenges that lie ahead given that AI has the potential to revolutionize and disrupt industries

- Policy Formulation: Support policy makers with insights and recommendations to shape India's AI journey

- Social Impact: Addressing issues such as job displacement, upskilling the workforce, and ensuring responsible and inclusive AI deployment

AI IN INDIA
A STRATEGIC NECESSITY

AN IIM AHMEDABAD – BOSTON CONSULTING GROUP COLLABORATION

AGENDA

01. The Collaboration

Bringing together Industry insights and Academic rigor

02. India's Potential

GDP growth and Global Competitiveness

03. Study & Findings

130 organizations across BFSI, Consumer and Industrial Goods

04. Industry-tailored Recommendations

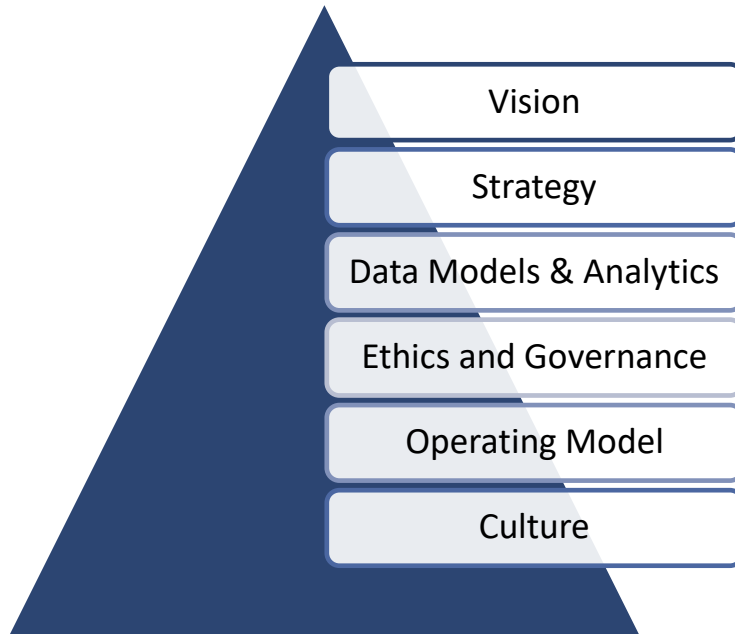Recommendations for organizations across sectors and maturity levels

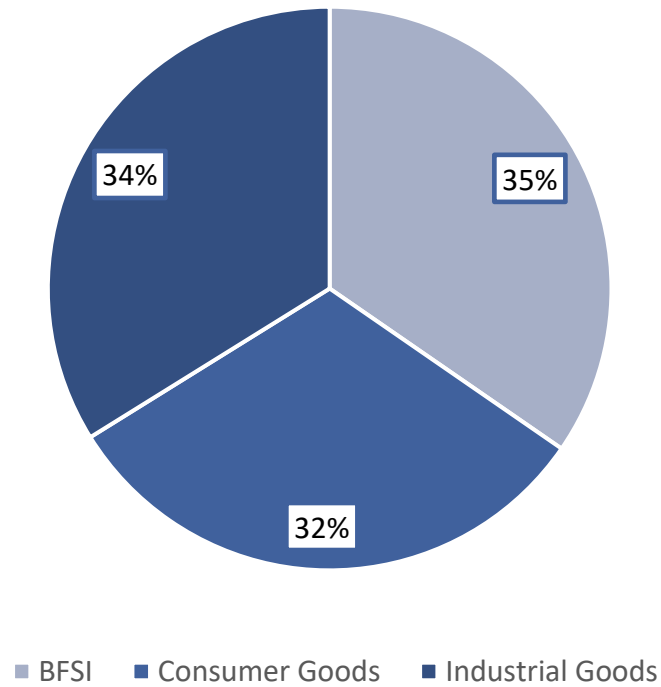**05. The Road Ahead**

AI for Good

Safeguarding social interests

STUDY APPROACH

Vision

Strategy

Data Models & Analytics

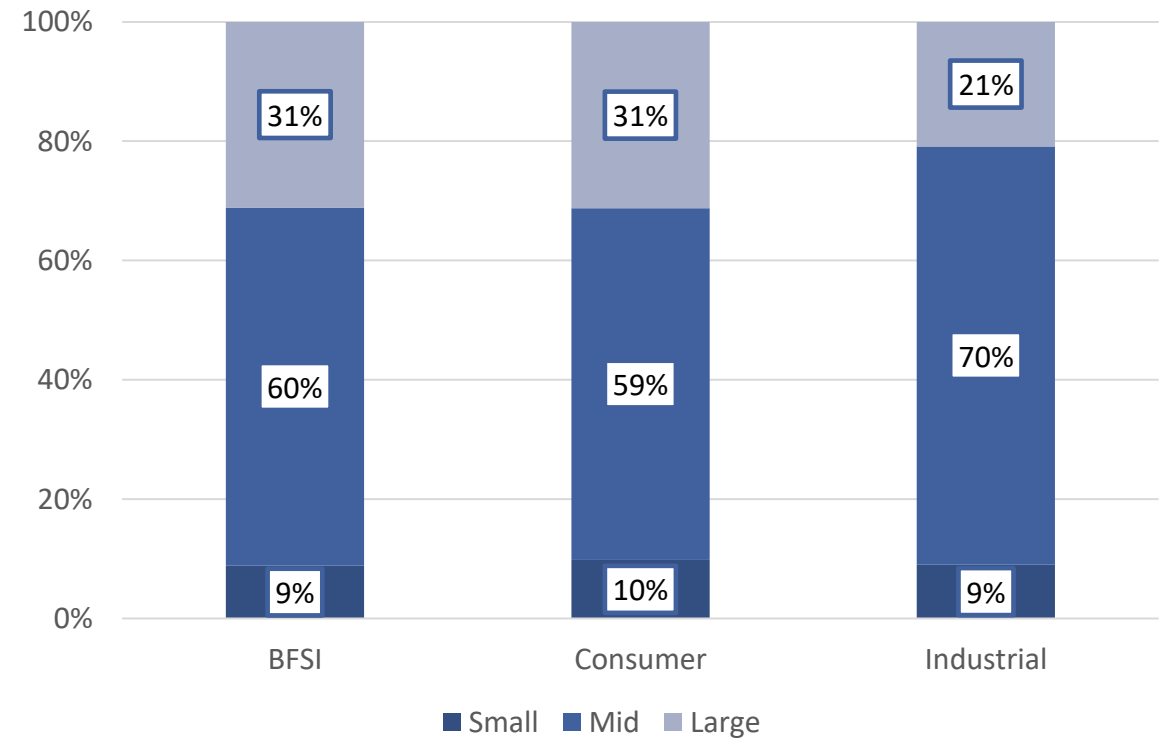Ethics and Governance

Operating Model

Culture

Survey Participants: CXO/ CXO-1 (Chief Executive Officer, Chief Digital Officer, Chief Digital Transformation Officer, etc)
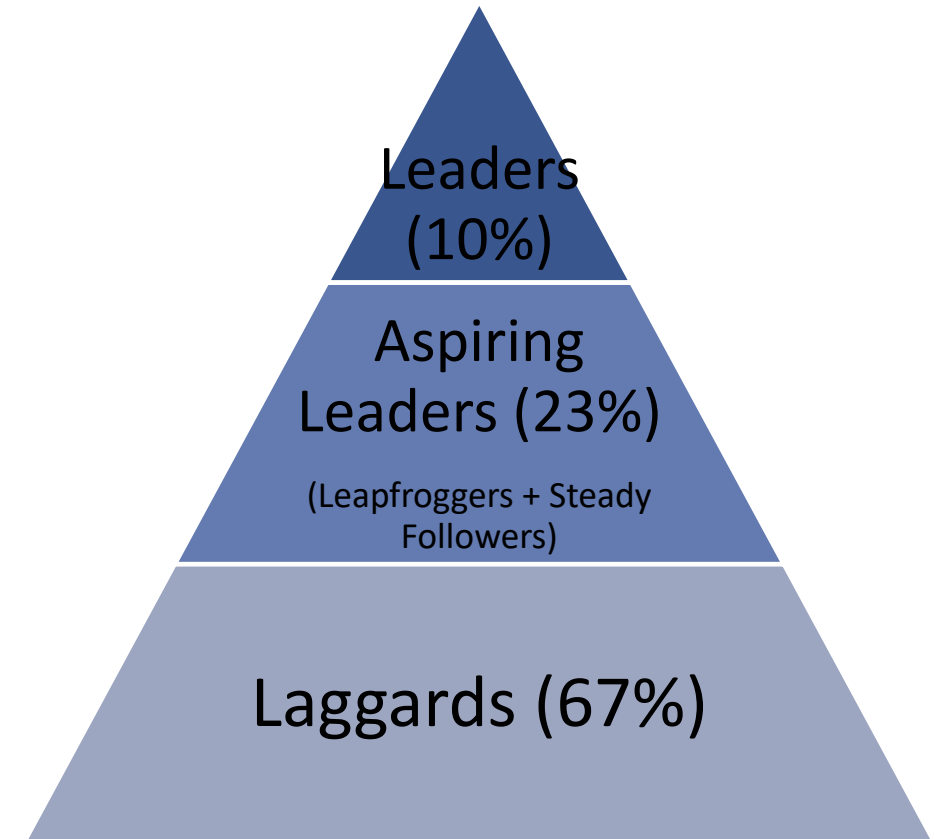
SCOPE OF STUDY

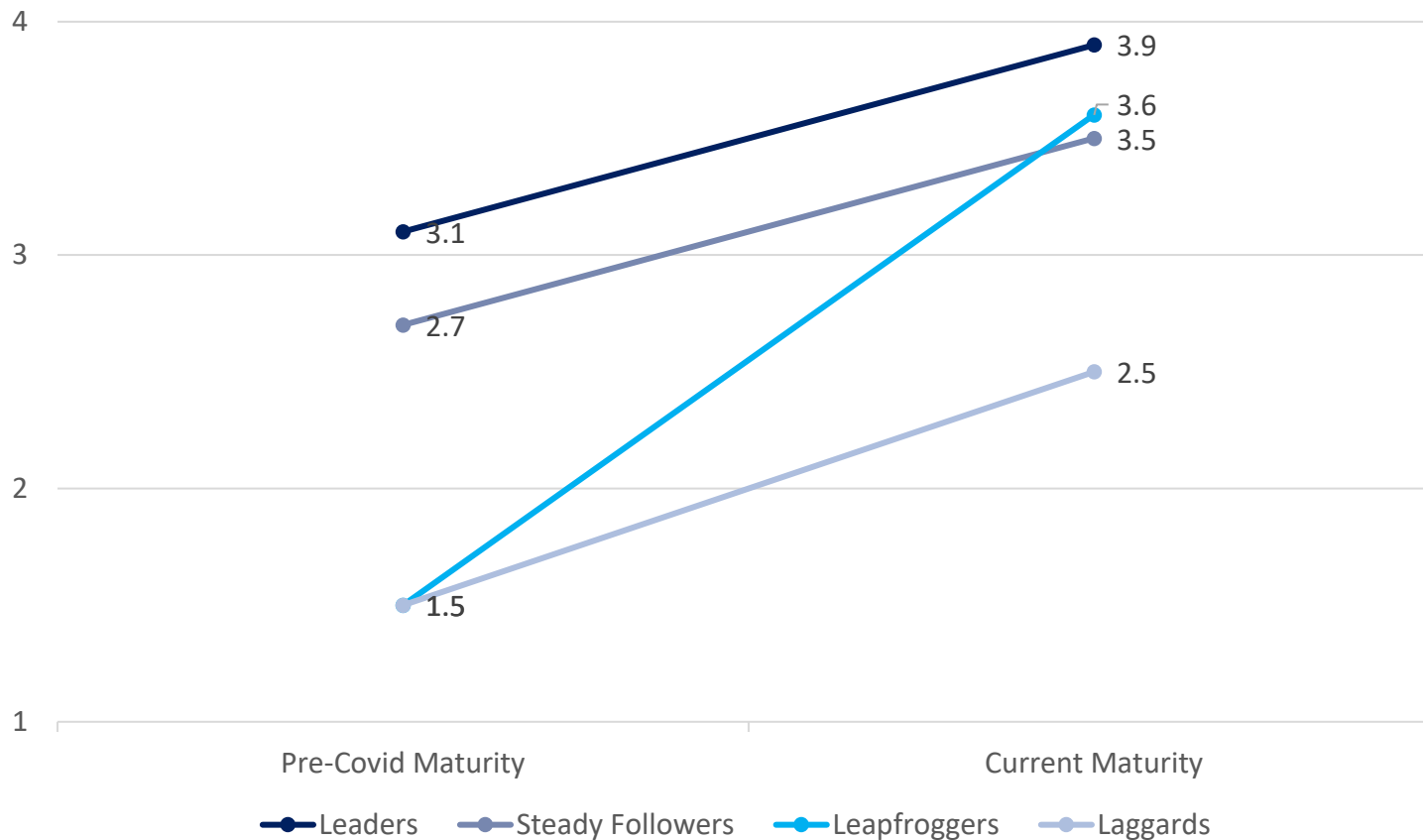Organizations surveyed by Sector

Organizations surveyed by Size

ORGANIZATIONAL AI MATURITY LEVELS

Level 5
- The company's AI maturity comparable with the best globally and is a source of competitive advantage

Level 4
- The company has very substantial AI capability and has started making impact at strategic level

Level 3
- The company is serious about AI, several steps are taken, but yet to get the act together

Level 2
- The company has taken some tentative steps but AI is not a strategic priority

Level 1
- The company has not started the AI journey

Leaders (10%)

Aspiring Leaders (23%)

(Leapfroggers + Steady Followers)

Laggards (67%)

AI MATURITY CHANGE THROUGH COVID

Chart axis labels: 4, 3, 2, 1

Data points:
- Leaders: Pre-Covid 3.1 → Current 3.9
- Steady Followers: Pre-Covid 2.7 → Current 3.5
- Leapfroggers: Pre-Covid 1.5 → Current 3.6
- Laggards: Pre-Covid 1.5 → Current 2.5

X-axis: Pre-Covid Maturity | Current Maturity

Legend: Leaders — Steady Followers — Leapfroggers — Laggards

- All companies have seen improvement in their AI maturity after Covid
- Maturity gap with leaders are narrowing
- Leapfroggers significantly improved their AI maturity and can give tough competition to leaders

INDIA MACRO SNAPSHOT

AI benefit to Indian companies

Successful AI adoption can add INR 1.5-2.5 trillion in incremental pre-tax profit, for the top 500 Indian companies, over following 5 years
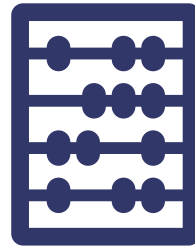
GDP growth

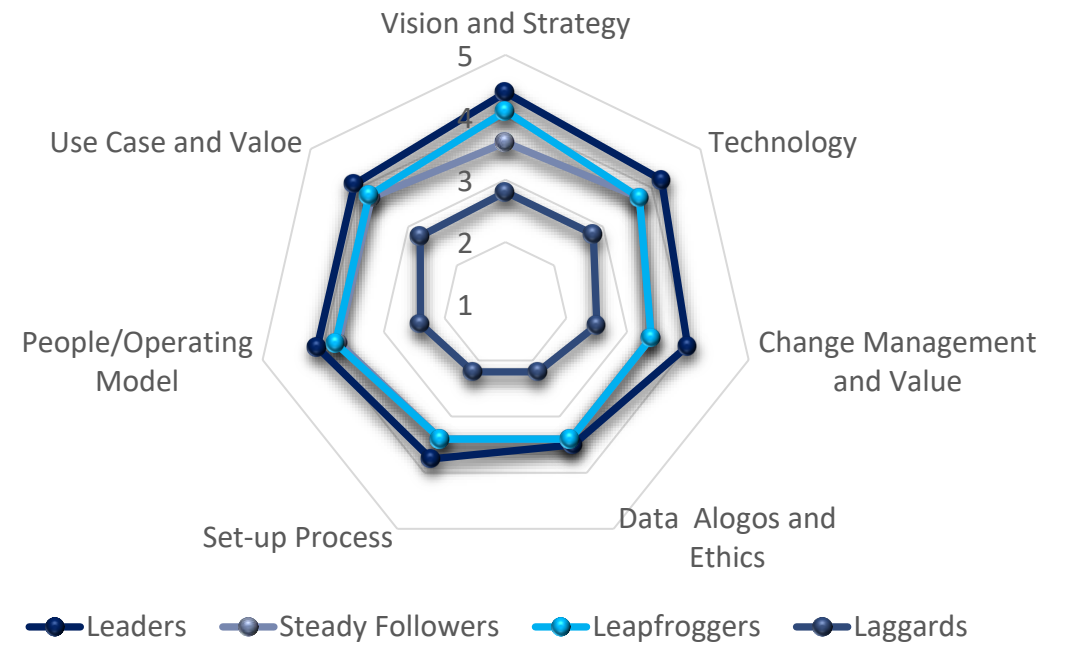Successful AI adoption by Indian businesses could consistently add ~1.4 percentage point to real GDP growth.

Global competitiveness: With 3/4 of "Laggards" Consumer Goods and Industrial Goods need to accelerate adoption to remain competitive globally and benefit from the India focus
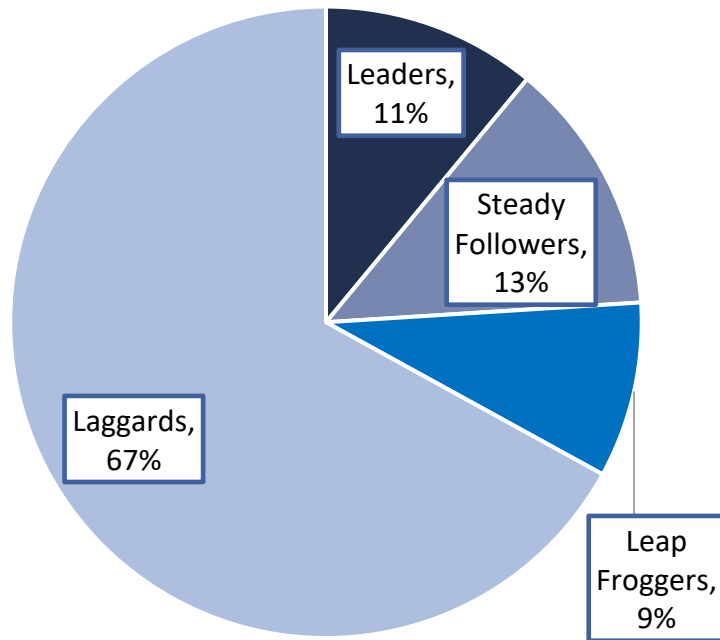
MATURITY ACROSS DIMENSIONS


Pre-covid maturity

Current maturity

INDIA: CURRENT STATE OF AI MATURITY

Pie chart:
- Leaders, 11%
- Steady Followers, 13%
- Leap Froggers, 9%
- Laggards, 67%

Bar chart:
- Industrial Goods: Leaders 5%, Steady Followers 16%, Leapfroggers 5%, Laggards 75%
- Consumer Goods: Leaders 5%, Steady Followers 11%, Leapfroggers 8%, Laggards 76%
- BFSI: Leaders 22%, Steady Followers 11%, Leapfroggers 13%, Laggards 53%

Legend: Leaders | Steady Followers | Leapfroggers | Laggards
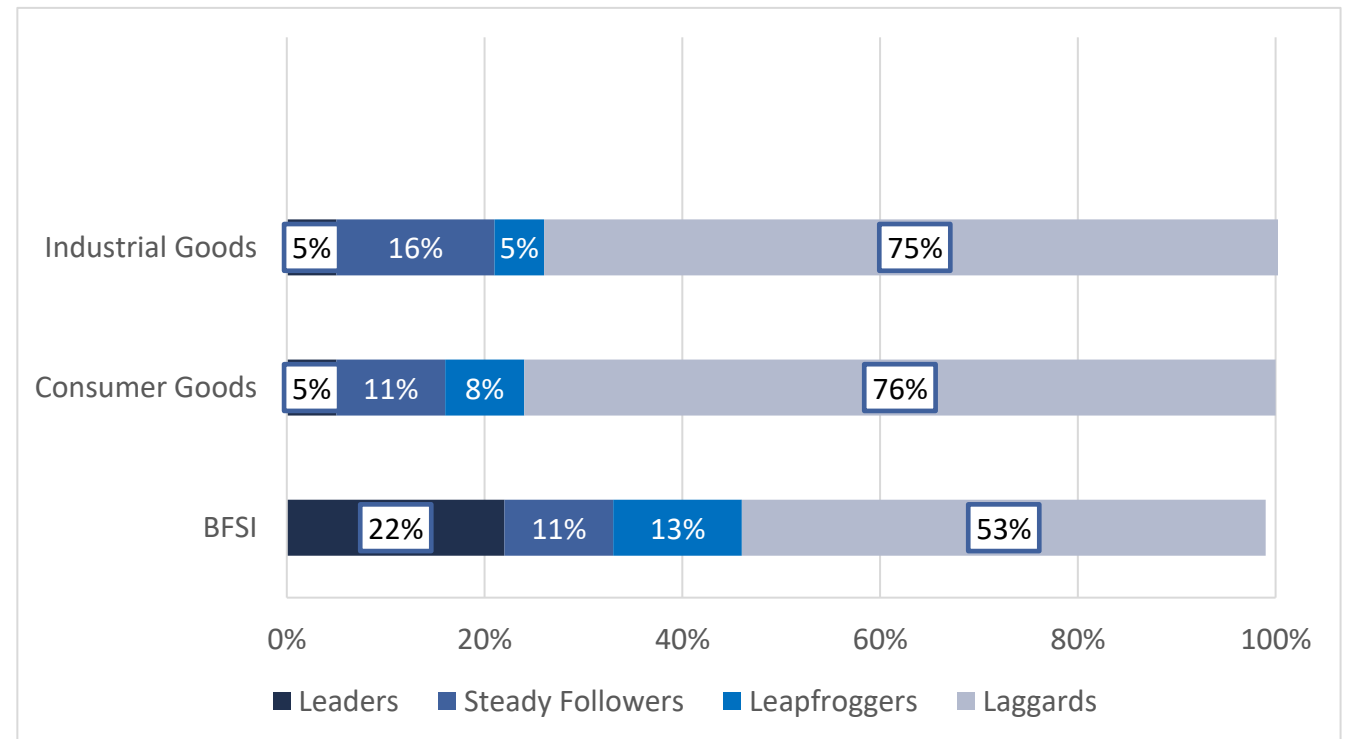
2/3rds of Indian companies are AI laggards

3 out 4 companies in IG and CG are laggards

BANKING, FINANCIAL SERVICES, INSURANCE – SNAPSHOT
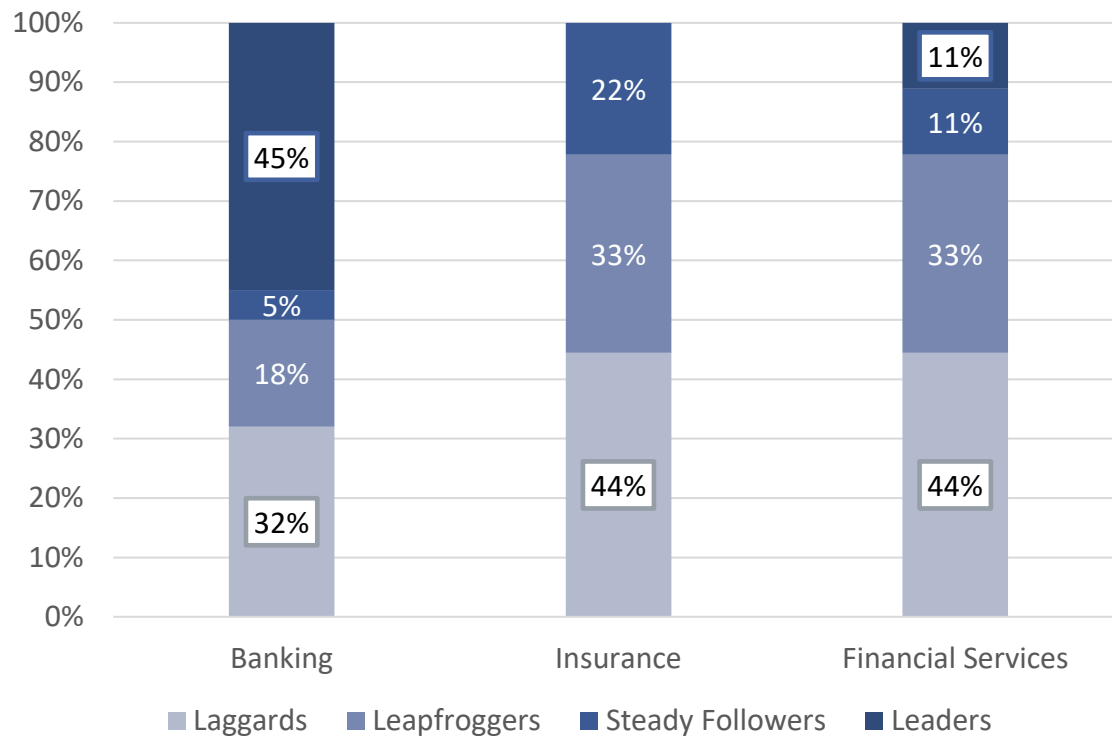
Banking leads maturity, No leaders in Insurance
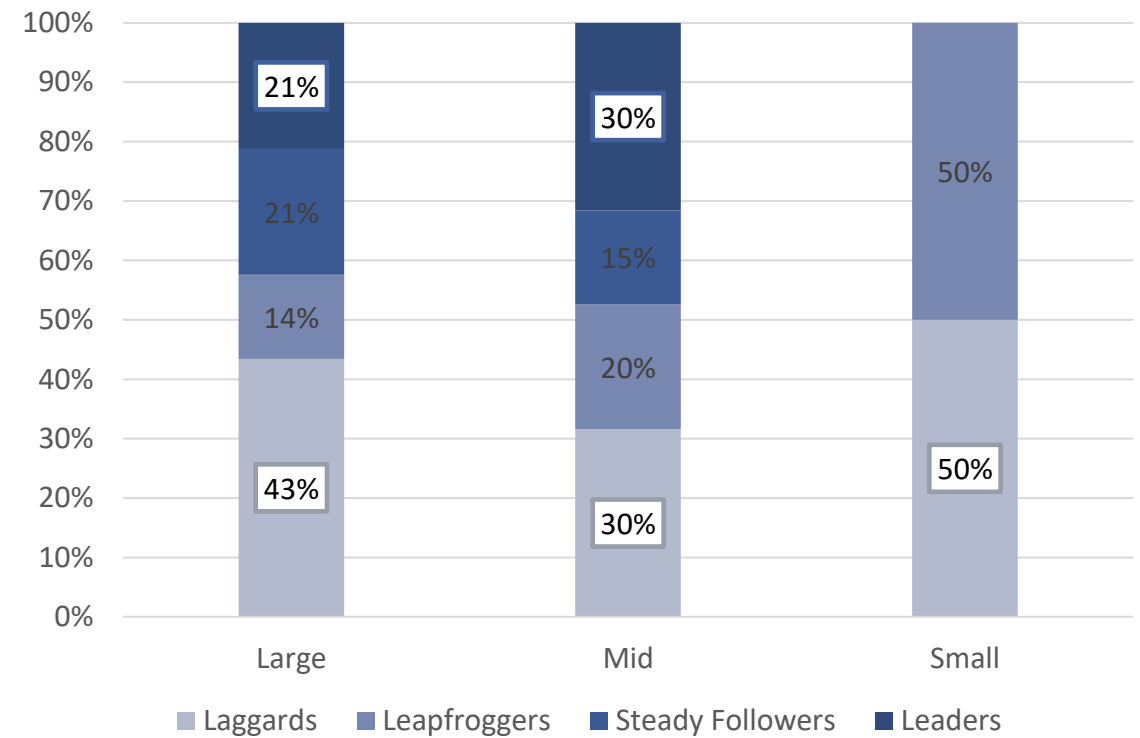
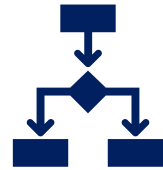Category distribution by company size

BFSI – LEARNINGS FROM LEADERS

People

Senior data specialists with business knowledge and ability to innovate use cases

A thriving R&D community

64% Leaders

Process and Operating Model

A value-realization team that goes beyond project office scope, measuring and feeding back to continuously improve the data-driven systems

73% Leaders

Technology

Advanced ML tools and automation capabilities allowing faster and more effective feedback loops, significantly crashing the period of streamlining of models
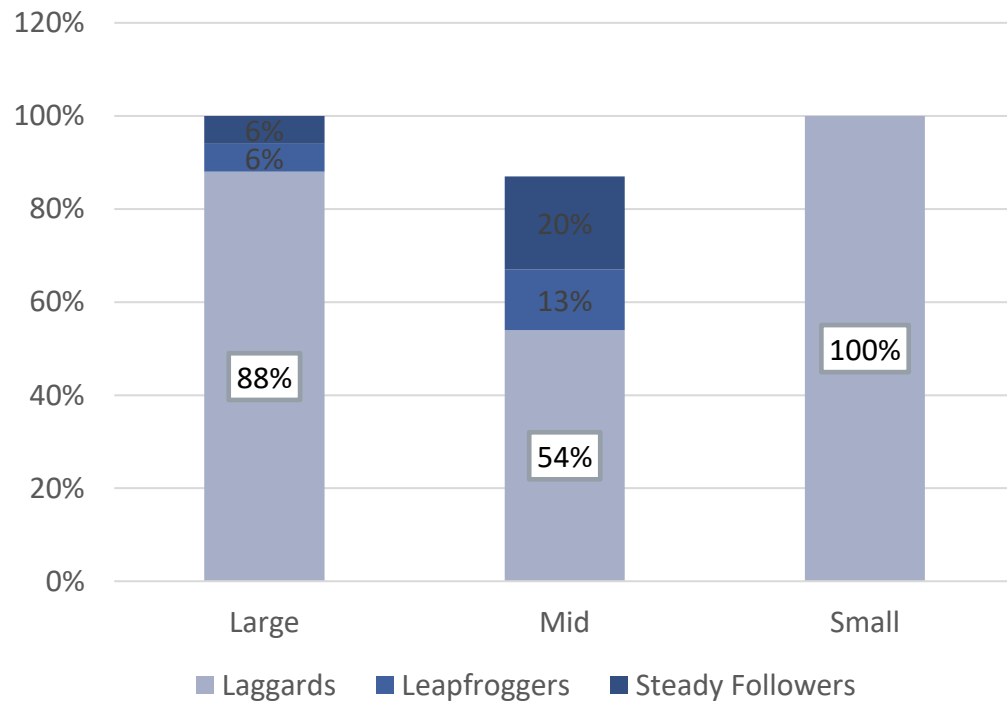
72% Leaders

Use cases

Moving from cost- and optimization-based use cases to a differentiating customer experience through product and service personalization

82% Leaders

CONSUMER GOODS

- Average Maturity level at 2.7, up from 1.6 three years ago.
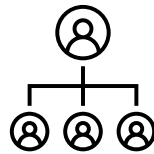- Only 5% organisations are AI Leaders, while 76% are laggards.

WHY DO LAGGARDS FALL BEHIND?

Vision and Strategy

Data plan backed by top-level value drivers

13% Laggards

Executive Support

Executives participate in ideation of use cases and show visible support

8% Laggards

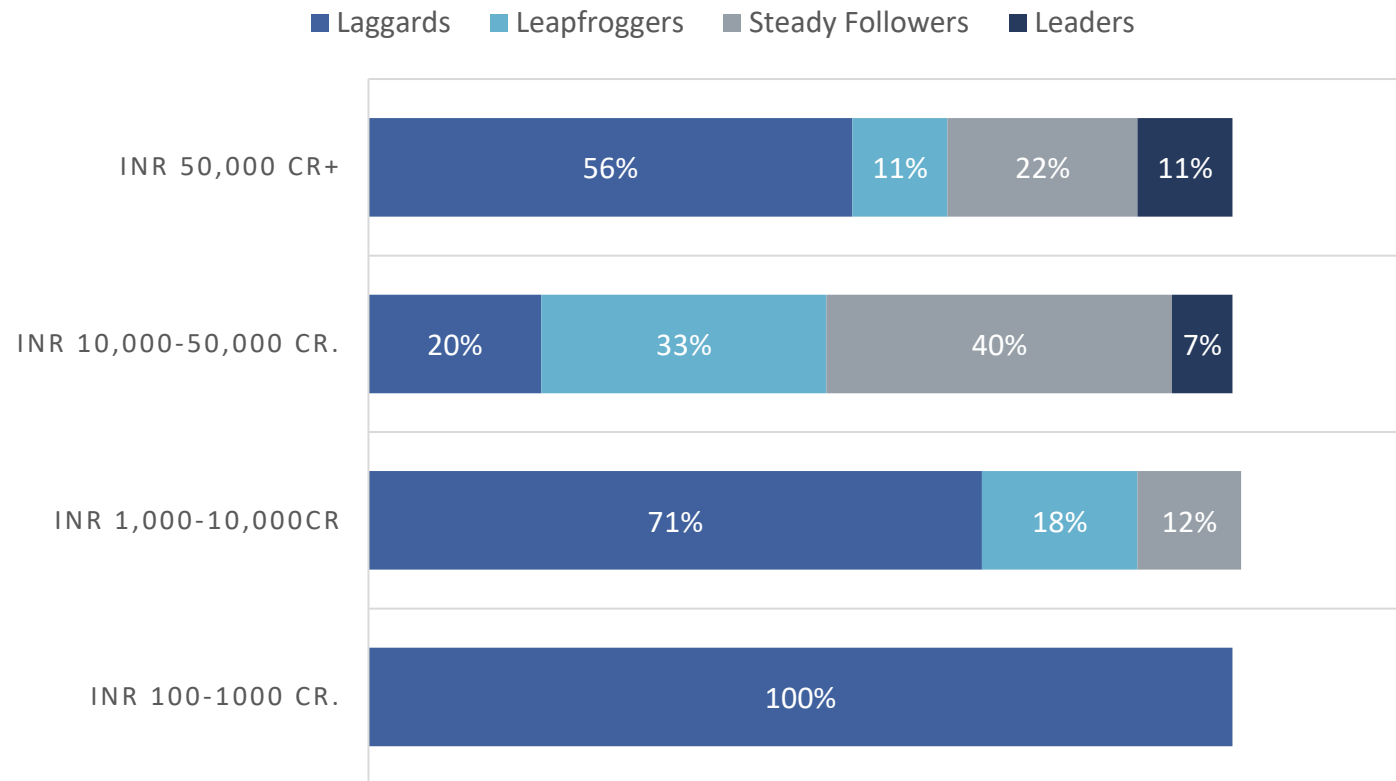**Use Cases**

Business logic drives use cases

13% Laggards

Impact

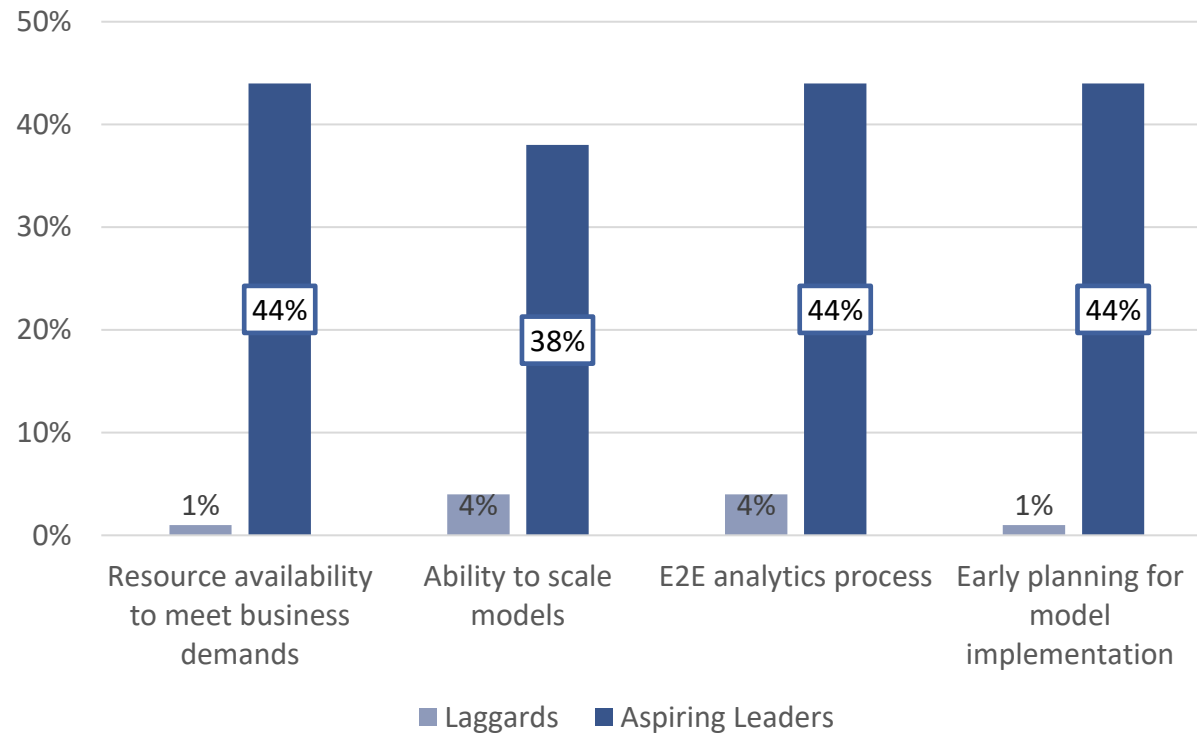Use cases impact on select functions

4% Laggards

FOCUS AREA FOR LAGGARDS

- Key Areas were laggards need to invest to move up the curve

- The maturity levels set by Aspiring Leaders are achievable with time, focus and investments by most organizations

THE WINNING FORMULA

10%

ALGORITHM
- Rapid design, build and deployment of AI use cases
- Performance of the algo; Data engineering
- MVP solutions in market in weeks

20%

TECHNOLOGY / ARCHITECTURE
- Scalable, modern data, digital platform, open architecture
- Platform integration with existing systems to scale outcomes
- Focus on enabling value delivery vs. "IT solution"

70%

BUSINESS PROCESSES AND CAPABILITIES
- Data quality and availability
- Integration into org and business processes to drive business decision-making
- Building team capabilities throughout the journey
- Enabling team with tools/ operating model to deliver
- End-to-end engagement model to wire changes into ways of working across business

Most critical factor for long term success

ROAD AHEAD FOR INDIA'S AI JOURNEY+

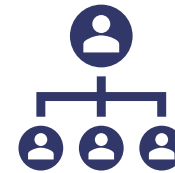**Effective Analytics**
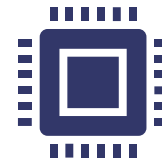
Business Acumen	
Processing Capabilities	
Information Resources	

Managerial upskilling required: The top 500 Indian companies would require at least **1 Million hours** of training in upskilling mid and senior level management on the business aspects of AI

Investment in Infrastructure: Calibrated business-case driven modernization a necessity to drive large scale AI

Dearth of AI Specialists with Domain expertise: Just the top 500 Indian companies they would need at least **25,000 to 30,000** advanced practitioners of AIML in the next 3-5 years

Thank You