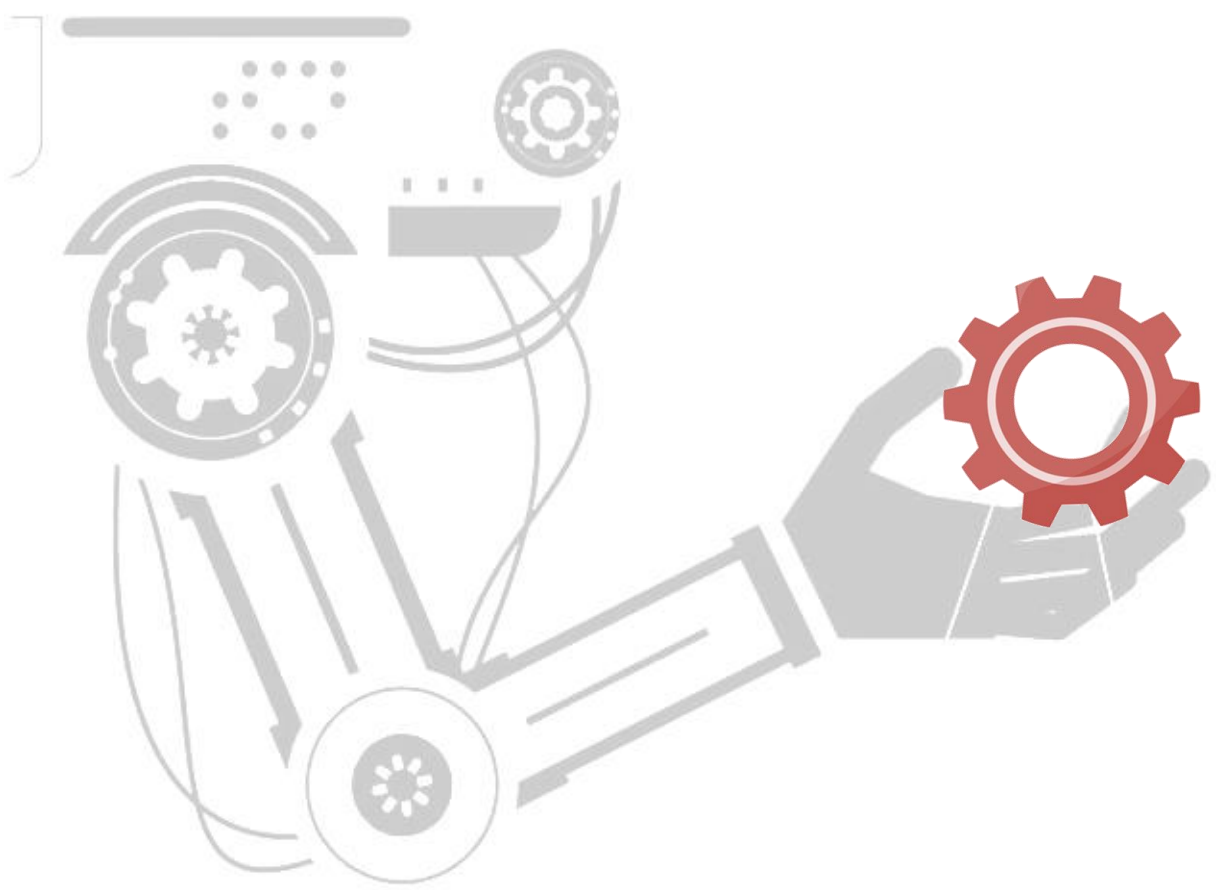


Scope of RPA Automation in MSME sector

Author,
Mr. Avinash Sah | MBA(IB), IIFT

Mentored by,
Mr. Anindya Das | Henkel (Germany)
Mr. Maulik Goswami | Accenture Strategy (London)

In association with,
Arbalest Partners

RPA market size

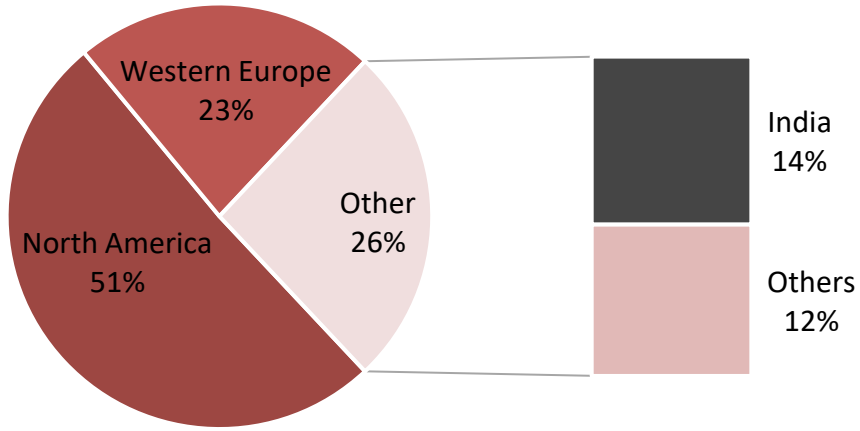
Global market size ~$2.9 Bn (FY '19) & $1.9 Bn (FY '18)

Indian market size (FY '18) ~ $ 260Mn,

>30% CAGR 2017-23

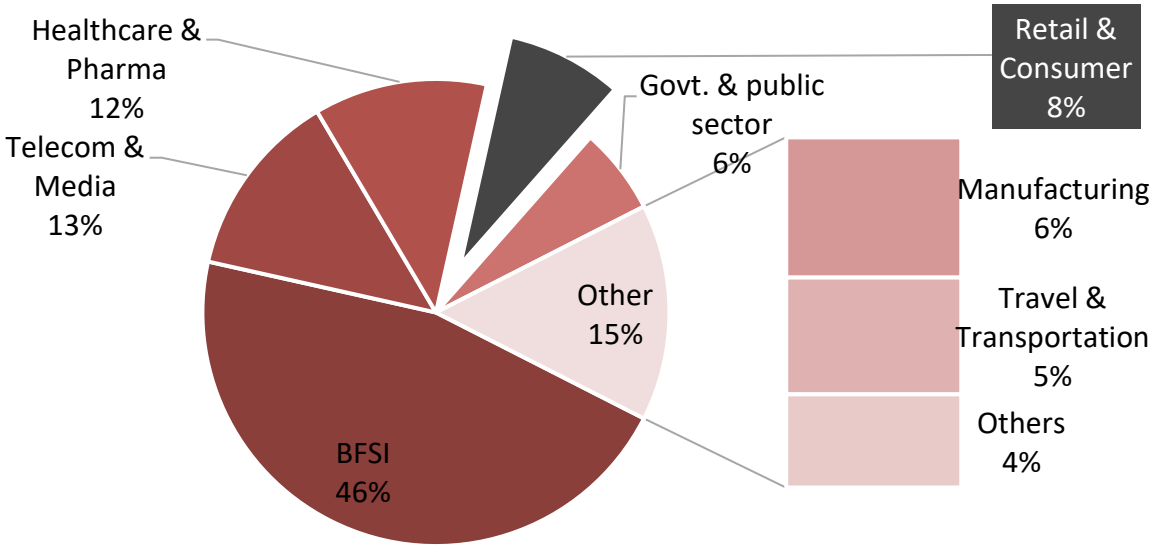
>20% CAGR 2019-25

Global RPA market share



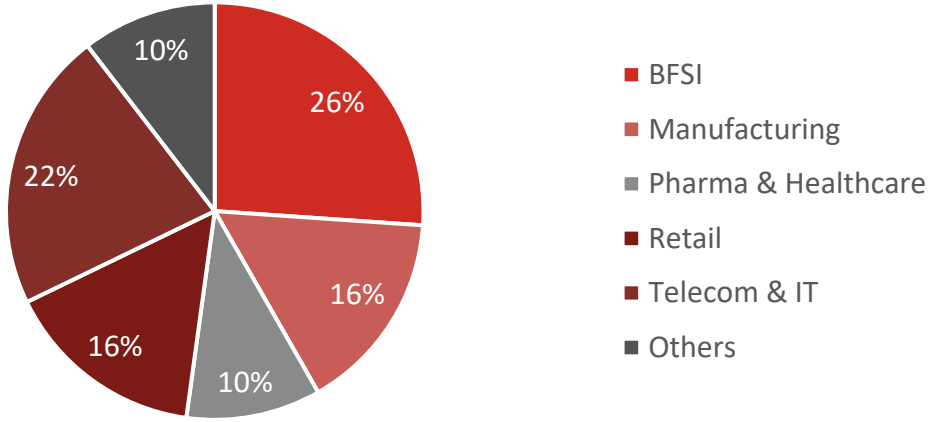
Source: Gartner

Indian market sector wise distribution



Source: NASSCOM

Global RPA market share, by application, 2019 (%)



Source: Grand View Research

OPERATIONS				
R&D/design and innovation	**Procurement**	**Supply chain planning**	**Manufacturing**	**Warehouse and transport**
Consumer and trends research	Source to contract and supplier relationship management	Sales and operations planning	Manufacturing strategy	Inbound/outbound planning
New product/ prototype development	Procurement requisition	Demand planning	Bill of materials management	Route optimization
Testing and technical services	Travel	Supply planning	Plant maintenance	Logistics execution
Quality assurance	Spend analytics	Production planning	Production scheduling	Freight settlement
Product phasing and life-cycle management	Category management	Network optimization	Production execution	Yard/dock management
		Inventory management	Engineering	Inventory management/ warehouse automation
			Safety, health and environment	Labor management
			Quality assurance	
Reporting and analytics				
Data management				

High potential | Some potential | Low potential

Source: Bain & Company

Source: Bain & Company

SUPPORT					
Customer service	**IT**	**Finance and accounting**	**Human resources**	**Real estate and facilities management**	**Legal**
Intake and verification	Enterprise architecture	Budgeting and forecasting	Talent strategy	Document management	Intellectual property
Log-in and opening applications	Application development and management	Decision support	Diversity and inclusion	Payments and receivables	Contract management and terms
Customer contact	Provisioning	Record to report	Workforce planning	Reconciliation and dispute management	Governance
Diagnostic and resolution of customer issues	IT service management	Credit	Talent acquisition	Lease administration	Litigation
Self-service	Database development	Billing, collections and accounts receivable	Talent onboarding and staffing	Compliance/ FASB 13 reporting	Labor and employment
Field services	Network configuration	Accounts payable	Performance management	Facilities management scheduling	Mergers and acquisitions
	Infrastructure operations	Tax	Talent development/ succession planning	Utility billing processing	Risk management
	Service desk	Treasury	Learning scheduling	Utility consumption monitoring	Regulatory compliance
	End user services	Internal audit	Learning delivery	Space and occupancy data management	
	IT security	Payroll	Labor relations	Workspace optimization	
			Total rewards	Security access management	
			Time and attendance		
			HR reporting		
Reporting and analytics					
Data management					

High potential | Some potential | Low potential

Note: FASB 13 is Financial Accounting Standards Board Statement No. 13
Source: Bain & Company

Indian MSME sector

MSMEs contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP from service activities as well as 33.4% of India's manufacturing output.

They have been able to provide employment to around 120 million persons and contribute around 45% of the overall exports from India.

The sector has consistently maintained a growth rate of over 10%. About 20% of the MSMEs are based out of rural areas

Sector contribution to GDP, FY 18

~30%

Distribution by activity

Manufacturing: 31% | Trade: 36% | Services 33%

Distribution by region

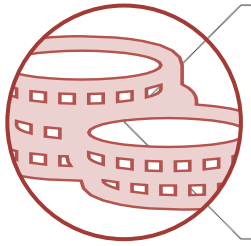
Urban: 49% | Rural: 51%

According to International Finance Corporation (IFC) reports, informal SMEs in India are 17 times more than the total of formal SMEs.

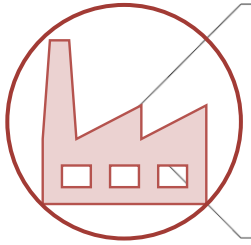
Global MSME sector

SMEs account for over 50% of GDP in high income economies Two-third of total employees in OECD members and emerging market economies

SMEs are also called as the “backbone of the European economy” as they constitute 98% of all enterprises (20.7 million businesses in total) within European Union region (EC, 2012).



In EU, significant amounts of grants and financial support are provided to SMEs, for protecting the flexible and innovative structures and competitiveness of SMEs, which is not present in developing countries such as India.



Business statistics of UK revealed that there were an estimated 2,740,000 unregistered businesses as of 2013, representing 56.0 percent of all private sector businesses

Process

- Focus on narrow localized market, results in smaller market to service
- Low enthusiasm for implementing quick-to-market distribution resulting in lack of competitive advantage for growth
- Very low scale of production hinders the capacity to reduce the costs of products and engage in technological upgrades.
- Underdeveloped Knowledge transfer systems

People

- Lack of managerial skills & vision in the management team of MSMEs
- Lack of effective selling techniques
- Shortage of management talent
- Managerial mistakes, failure to develop a strategic plan and poor financial control

Technology

- Lag in keeping up the pace with technological advances
- Low access to adequate technologies
- Inability to meet the demand for multiple technological competencies
- Lack of funds for implementing software such as ERP systems
- Lack of innovativeness, due to high costs of R&D, is a major cause for the unsatisfactory levels of modern technologies of SMEs

Others

- Excessive costs of product development projects
- Lack of stability in the regulatory environment
- Lack of financing
- Strong competition faced from foreign companies

Key Secondary Research Findings

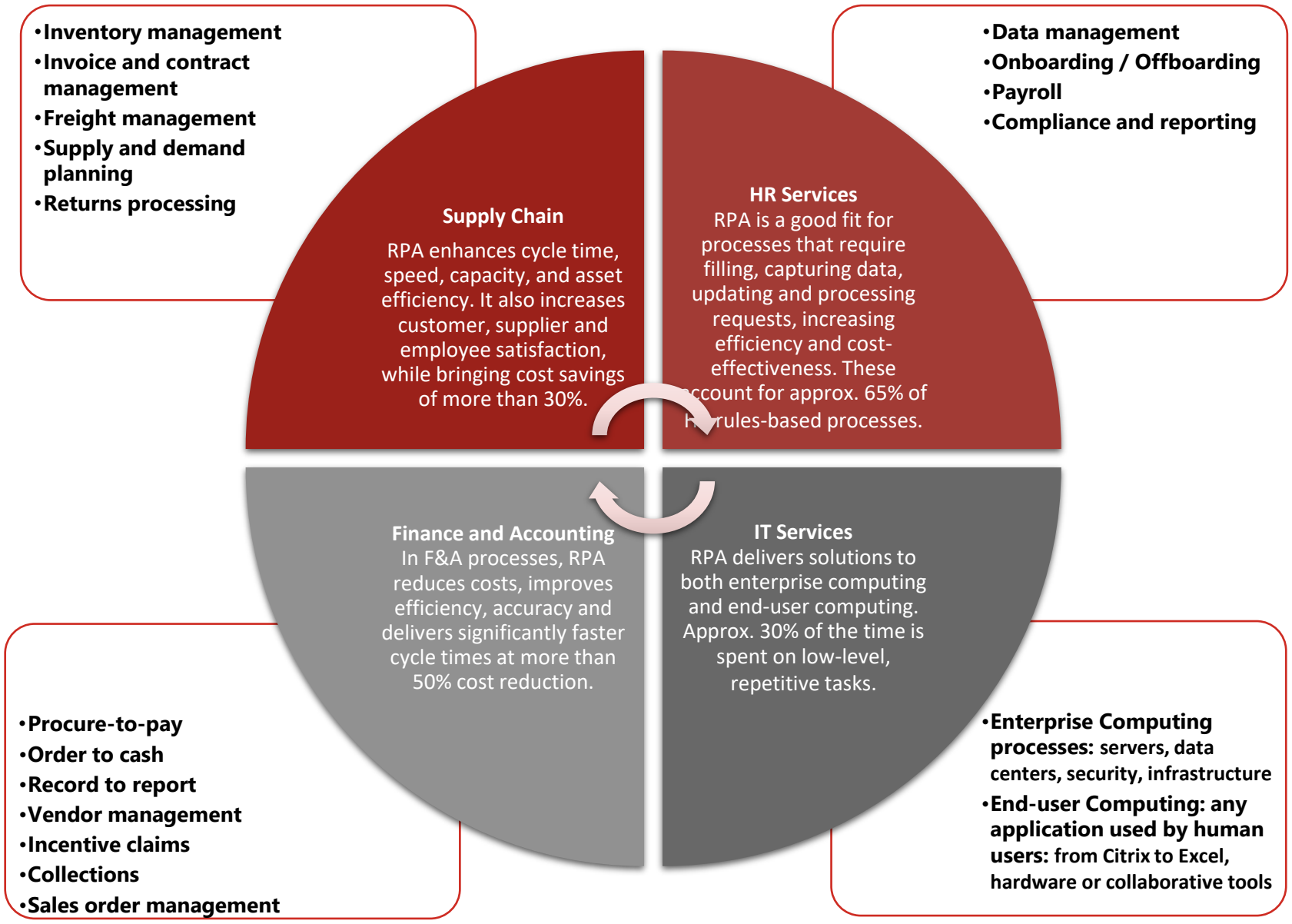
In India, major strategies for SMEs to improve productivity at all level are

- Supplier development
- TPM
- Building an appropriate organizational culture.

Human resource development and quality improvement are highly correlated with competitiveness.

The results suggest that Indian SMEs give the lowest attention to IT applications.

To sustain a fair level of competitiveness in both the domestic and global markets, **SMEs must strive to utilize information and communication technologies to reach the right markets in cost effective ways.** SMEs of both countries should concentrate on developing HR initiatives and implementing quality improvement techniques.



PROCESS

Problem	Reason	Impact	Solution
Focus on narrow localized market, results in smaller market to service	• Small scale operation, • less business opportunities, • lack of diversified operations	• Face high purchasing power of customers • High uncertainty in business • Absence of synergies between different operations	• Deploy a chatbot in the website to take user queries & redirect to contact centre in case of sales opportunities
Low enthusiasm for implementing quick-to-market distribution resulting in lack of competitive advantage for growth	• Lack of funds to initiate costly R&D activities • Low technological capabilities to reduce time to market • Lack of management capabilities to fulfil the changing customer needs	• Lower top-line growth • Threat of competitors • Decrease in brand value • Low enthusiasm in workforce	• Invoice and contract management • Freight management • Supply and demand planning
Very low scale of production hinders the capacity to reduce the costs of products and engage in technological upgrades.	• High CAPEX costs hinder the upgradation activities • Lack of infrastructural facilities hinder expansion activities • Lack of financing for upgradation	• Higher fixed cost/unit resulting in higher price or lower margins • Low production leading to low market share • Inability to service big clients results in lower top line & margin growth	• The solution would require infrastructural & financial improvements. Since RPA solution is suited for support activities, RPA may not be able to
Underdeveloped Knowledge transfer systems	• Poor IT ecosystem to store & access the contents for workforce development • Lack of coordination among different departments	• Underutilised technological capabilities across the organisation	• Create a repository & deploy RPA bots to process the query & give possible solutions

	Problem	Reason	Impact	Solution
PEOPLE	Lack of managerial skills & vision in the management team of MSMEs	• Weak employee training activities • Lack of intellectual talents, who can strategize for new opportunities	• Lack of direction for the firm • Slow growth • Lack of competitive advantage • Lack of small deals	• Reporting excel based dashboards will help the senior management to analyze the performance better & take better decisions
	Lack of effective selling techniques	• Low motivation to perform better, possibly due to lower compensation • Poor skill development activities to train people for better sales output	• Low growth in top line • Lower realizations • Lower brand reach	• Implement sales intelligence that can automatically acquire data from any website and integrate it with internal sources such as customer resource management (CRM) systems, resulting in more time to engage with prospects, counter competitive issues and close sales faster
	Hiring right talent	• Partnership with average placement agencies • Slow career growth in the company hinders potential applicant to join • Lack of vision & direction refrains polished talents to join	• Ineffective strategies to steer the growth of the company • Missing potential partnerships with leading organizations • Low prospects of growth for the employees	• Automate processes that require filling, capturing data, updating and processing requests, increasing efficiency and cost-effectiveness. These account for approx. 65% of HR rules-based processes.

	Problem	Reason	Impact	Solution
TECH	Lag in keeping up the pace with technological advances	• Costly investments for a financially constrained organization • Rapid upgrade roll outs, making difficult for the organization to keep up the pace	• Unoptimized processes • Decline in competitive advantage • Increase in downtime	• Industrial technological upgrades are not under RPA. If the company already using RPA, then RPA SaaS would be the solution.
	Low access to adequate technologies	• Costly investments • Lack of awareness about possible business use cases	• Unrealized potential • High % of manual tasks • Low productivity • High cost of production	• Automate the simple processes resulting in low cost & high benefits, keeping in consideration of simplicity of handling that automated process. For ex- email automation
	Inability to meet the demand for multiple technological competencies	• Lack of direction in prioritizing the technological upgrades • Budget constraints • Limitations on the IT workforce	• Slower growth • Unmet potential	• Perform process mining to identify the processes to automate. Prioritize them using prioritization matrix & firm specific factors such as budget, present stage in learning curve etc.
	Lack of funds for implementing software such as ERP systems	• Budget constraints • Lower fund allocation • Lack of motivation in senior management for tech upgrades	• High % of manual tasks • Slower & error prone processes	• Reporting excel based dashboards will generate insights to analyze the performance of the company better & take better decisions instead of going for ERP
	Lack of innovativeness, due to high costs of R&D, is a major cause for the unsatisfactory levels of modern technologies of SMEs	• High R&D costs • Constrained budgets • At lower levels in the learning curve	• Weak competitive advantage • Unoptimized & slower processes	• RPA for R&D activities is not a good option because R&D requires lot of highly variable non repetitive tasks.

OTHERS

Problem	Reason	Impact	Solution
Excessive costs of product development projects	• Lagging existing capabilities, resulting in high cost of upgrades • Lack of financing	• Loss of business due to costly upgrades • Affects on the top line • Lesser capabilities to service	• Automate Client or owner invoice creation, Cost monitoring, Processing invoices, Document management & other processes involved in handling a project
Lack of stability in the regulatory environment	• Different governments have different political bias • Changing business landscapes demand updated regulations	• High cost of compliance • High errors in meeting latest compliance • Instability in business functioning	• RPA automation can help in maintaining the latest repository of regulations & guidelines to follow. This would reduce highly repetitive manual efforts
Lack of financing	• High interest rates for SMEs • Collateral required • Cap on the loan amount • Limited banks offering loans to SMEs	• Unmet potential • Loss of growth opportunities • Impact on upgradations & R&D investments	• Since financing is not a repetitive task carried by SMEs. Automating it would not make sense
Strong competition faced from foreign companies	• Lack of product/service differentiation • Lack of capabilities in comparison to competitors • High cost of production	• Unstable business • Lack of long term growth outlook • Uncompetitive pricing	• This is due to unsatisfactory capabilities such as lack of R&D, poor product quality, lacking infrastructure. RPA is better suited for support activities & hence may not be a good solution

INDIAN

epiance SOFTWARE

DATAMATICS

JIFFY.ai

INTELLIBOT

bots

GLOBAL

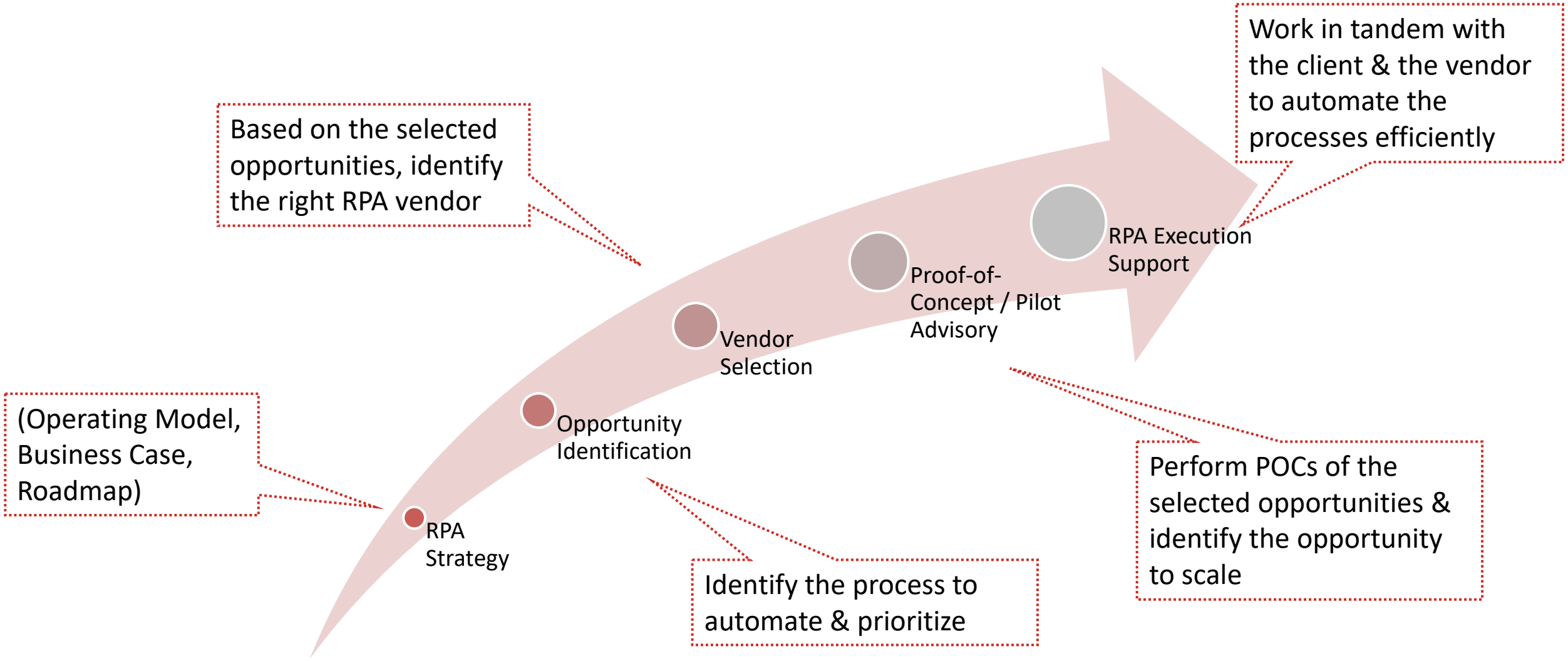
KOFAX

PurchaseControl™

Catalytic

GIANT

CICERO


Work in tandem with the client & the vendor to automate the processes efficiently
Based on the selected opportunities, identify the right RPA vendor
RPA Execution Support
Proof-of-Concept / Pilot Advisory
Vendor Selection
Opportunity Identification
RPA Strategy
(Operating Model, Business Case, Roadmap)
Identify the process to automate & prioritize
Perform POCs of the selected opportunities & identify the opportunity to scale

Case Study: Archer Daniels Midland

CASE STUDY 1

Story	Problems:	RPA Solution:
• An organization needs to generate reports by getting contents from files. Needing metrics to help assess program effectiveness and impact on an important KPI.	• High volume • Time Consuming • Unfulfilling	• Using citizen built bots, the company was able to process thousands of files per within 4 hours, which used to takes weeks to complete.

CASE STUDY 2

Story	Problems:	RPA Solution:
• An organization generated reports every month at closing	• High volume • Time Consuming • Unfulfilling	• Using citizen built bots, the company was able to process 180 reports in a day, which used to take 6 days of manual efforts. The company saved 384 hours of employees & **got the ROI in the 1st run itself.**