



# MOMENTUM

*K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES & RESEARCH*

Volume IX, September'19 Edition



## Scope of Operations across Industries and Business Functions

**OPS  
QUIZ**

**ARTICLES ON SCOPE  
OF OPERATIONS**

**RECENT  
TRENDS**

**START UP  
STORIES**

**INTERNSHIP  
EXPERIENCE**

**BRAIN  
TEASERS**

K J SOMAIYA  
INSTITUTE OF  
MANAGEMENT  
STUDIES  
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RESEARCH

**“Supply Chain in the New  
Environment of  
Industry 4.0”**

**Date: 13 & 14 December 2019**

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With a view to aid practitioners and learners in the vast field of operations and interface areas, FORSE - the committee of enthusiasts has been making efforts to bring new and emerging concepts and topics for the readers. MOMENTUM is an outcome of these efforts.

I am sure the present issue will kindle your thoughts and further your knowledge in the field of Operations and Supply Chain. Congratulations to the team for their efforts in bringing out this issue.

Happy Reading !

**Dr. Pramod Shetty**  
**Faculty In-charge - FORSE**  
**Area Chairperson (Operations)**  
**KJ SIMSR, Mumbai**





Dear Readers,

*“Learning is a true wisdom that will follow its owner everywhere.”*

We are delighted to present you with our September 2019 edition of Momentum. In the past editions we have seen articles focused on specific topics such as Supply chain in 21st Century, Industry 4.0, Ecommerce and many more on similar lines. Operations is no longer treated as an independent field; it has merged with various aspects of business. To highlight this, we bring this edition to you with the theme “Scope of Operations across Industries and Business Functions”.

We at FORSE, have the desire to be one of the best magazines published by a student body as it provides a platform to share knowledge. The struggle for it is going to be long, but we have been successful in getting a notch up with each edition that we bring to you. And as we stand to spread knowledge with each edition, we bring to you some engaging article in this edition. You would also come across recent trends and Start Up stories in Operation, some Brain Teasers to activate your grey cells, and many articles to make your reading experience enriching.

The articles included provide insights into various topics like Interdependence of HR and Operations, Operations in Banking, Robotic Process Automation, and many more intriguing topics. We hope to generate awareness about the current happenings in the industry.

Last but not the least, we would like to thank everyone who has contributed to the magazine and wish for enthusiastic participation in the future as well. We hope you have a great experience reading this edition of Momentum. We also hope we were successful in leaving you with a richer knowledge base to cherish and apply in various aspects of your career.

Happy Learning,  
**Team Momentum**





Dear Readers,

We at FORSE (Forum of Operations Research & Supply Chain Enthusiasts), since our inception have been striving for excellence & building business acumen of students in SIMSR by not only organising simulation events, case study competition, international conference, magazines but also by executing campaigns, posts through social media handles thereby utilising the digital media space to communicate the very fabric of supply chain, operations strategy and *logistics* with all the operations enthusiasts across different geographies.

MOMENTUM our quarterly magazine is an attempt to bring forward enlightening topics and concepts in the field of operations, supply chain and logistics to our readers. It contains articles based on different themes in each issue. Since its inception, Momentum has covered many topics under various themes including but not limited to Green Logistics and Smart Supply chain, Rise of Service Operations in India, Industry 4.0, SCM & Logistics in E-commerce, Supply chain in 21<sup>st</sup> Century and many more.

Operations is the key to success in any business. It is not just about manufacturing, supply chain and logistics but also includes how business operates or provides services to customers. It mainly focuses on planning, organizing and supervising activities or processes of business. With the evolution of new business and startups ideas, there has been evolution in the functions and roles as well such as MarkOps, FinOps Service Operations, ITOps etc. In this fast changing and competitive environment, operations has become the key functionality for the business to survive. So there is lot of scope for operations to play a key role in the business.

Through the September 2019 Edition of Momentum which revolves around the theme “Scope of Operations across Industries & Business Functions”, we strive to enhance the knowledge of our readers on various aspects of Operations ranging from Operations in banking & financial sector, Information technology at the core of business, Interdependence between operations & other functions to Operations in the field of marketing.

On behalf of the FORSE Momentum Team, who has worked meticulously to bring this issue to you, we hope that the magazine gives you great insights and aggrandize your knowledge bank. Stay tuned for upcoming issues with more interesting themes.

Keep Learning!

**Anuj Agarwal**  
Convener

**Ankit Vyas**  
Co-convener

**Vinit Shah**  
Co-convener

**Jay Gala**  
GSCM President





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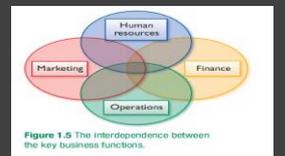
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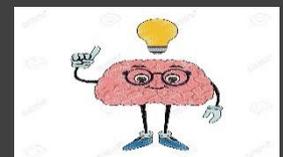
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## Brain Teasers





**W**e are amidst a constantly changing industry scenario in terms of how we produce things, how services are delivered as well as how valuables are exchanged between customers and providers all thanks to rapid innovations in technology and globalized competition. This change is so compelling that it has changed the way companies work and operate.

Operations Management can be defined as a series of activities or processes for planning, organizing, coordinating and controlling of resources so as to create value in the form of goods or services by transforming input into output.

Efficiency and effectiveness of any company depends upon its operations strategy. It is responsible for integrating various functions in the organisation to make the right product, at the right place keeping the time and cost consideration thus impacting the productivity of organisation.

Every company has its own customised set of operations, that is a series of activities that produces optimal output from a set of calculated inputs, whether it a manufacturing unit, or a service agency or a consulting firm.

Some of the applications of operations across business functions is as follows:

**Business** functions act in coherence as a system, no department can make a

decision that doesn't affect the rest of the firm. Operations act as the interface and medium to implement these decisions. The important decisions of the firm- those that have critical implications for its success highly overlap each other.

**OPERATIONS ACROSS VERTICALS**

Some of the applications of operations across different industry verticals and their functions are described below.

- 1 Financial Operations**
  - Estimation of Capital requirement
  - Strategic procurement and allocation of funds
  - Determining budgets and maintaining Financial control
  - Capacity Expansion and stockholder requirements
- 2 Marketing Operations**
  - Product/ Service Availability
  - Lead Time Estimates
  - Sales Forecasts
  - Customer Feedback Analysis
  - Promotions
- 3 IT Operations**
  - Run Solutions
  - Manage Infrastructure
  - Manage Configurations
  - Evolve Infrastructure
  - Mitigate Disasters
  - Govern IT Operations





Modern day managers recognize these implications because they understand the business.

Factors that affect the operations management today:

- Reality of global competition
- Quality, Customer service, and cost challenges
- Rapid expansion of advanced technologies.
- Continued growth of service sector
- Scarcity of operations resources.
- Social- responsibility issues.

## INTER DEPENDENCE BETWEEN OPERATIONS and other departments.

### ACCOUNTING

Accounting needs to know from operations how many resources were used in the production process by type and time period. Operations needs to know how effectively it is using the company resources.

### HUMAN RESOURCE

HR department needs to know from operations the upcoming needs in terms of numbers and skills. Both work in tandem to ensure the environment is conducive and that the workers are equitably compensated.

### ENGINEERING

Operations works with design engineers to enable them to design products that can be easily and inexpensively produced.

### FINANCE

Major points of contact between finance and operations occur during acquisition of capital assets such as equipment, and determination of the inventory policy. Besides there is a regular exchange of data between these two functions.

### INFORMATION

Information system needs to know from operations what data operations requires to conduct its activities. Also operations department needs to know what information is feasible and how long it will take to get it.

### MARKEITNG

Marketing department needs to know from operations what products will be available, when they will be ready, what will they cost and what characteristics will they have in order to devise an optimal marketing steategy.

### OPERATIONS

Thus operations works along side of all other business functions. It provides useful inputs, aids in smooth functioning of the system and also ensures business deliverables are met on time.



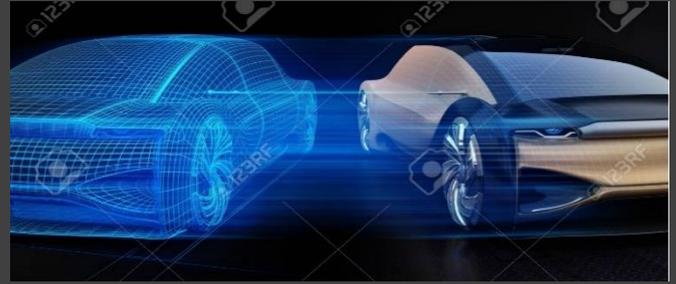
Whenever we come across operation management; process automation is the first thing that pops up. Manual processing, which is currently used in every industry, results in low efficiency and productivity which in turn leads to delay in time to market. Availability losses in the form of production line shutdowns and equipment failure are major concerns but other small scale losses which are more persistent in nature arising due to the manual process is also a blocking point for the management. Either way, they remove the margins intolerably.

The market, for process automation and instrumentation, globally, is forecasted to witness a growth that 6.4 percent per year over the next six years to over \$100 billion. Now let's move a little deeper into some of the major trends in process automation.

### Trend 1: The Digital Twin

A digital twin is a virtual duplicate of a product or process that enables to run simulations and other analytical tests before the products or process are actually manufactured or deployed. As manufacturing becomes more intricate and complicated, the affordability for errors is almost negligible. Industries can use a digital twin to evaluate their design alternatives and therefore expedite optimization. This means using the digital twin to model and evaluate alternative plans to performance asset management, edge computing, cyber security and more. This technology began with manufacturing industries but has now moved beyond and is being recognized in the fields of IoT, data analytics and artificial intelligence as

well.



### Trend 2: Edge Computing

Edge computing is a distributed, open IT architecture that features decentralised processing power, enabling mobile computing and Internet of Things (IoT) technologies. As the processes in manufacturing are getting data-driven, there is a need for powerful computing resources that are close to the source. Currently Industrial Internet of Things (IIoT) is used for handling operational management in the industry but if the data from a machine can't be analysed at the point of generation, it won't be of much use as another link in the chain is about to fail. Edge computing provides a solution to this. It decreases the dormancy in computing by processing analytical models at the origin and is therefore gaining acceptance as a way of using big data.



Implementation alongside mainframe computing in a hybrid environment is one of the major advantages of edge computing. Industries can now decide which data sets are to be sent to the cloud and which ones are to be analysed at the edge.





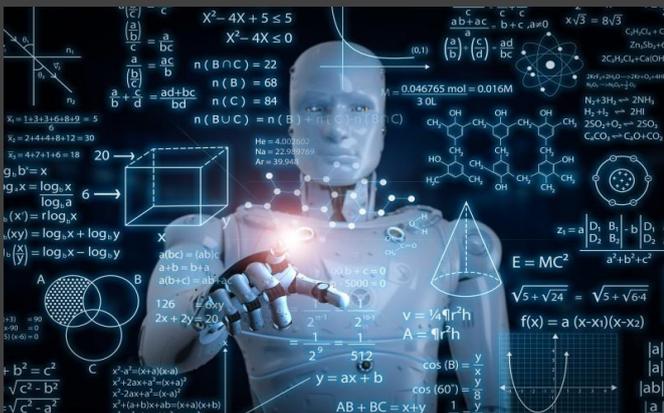
### Trend 3: Machine Learning

Most of us must have come across this term at one point or the other. It is a branch of artificial intelligence that helps machines to improve and improvise based on experiential learning and not explicit programming. Manufacturing companies are harnessing the power of big data and machine learning algorithms to improve manufacturing uptime and other KPIs (Key Performance Indicators) which majorly includes time to market. Machine learning can build baseline models based on past history and analyse IIoT data to accurately predict when a machine might fail. At a more advanced level, such algorithms working in the cloud can even learn from machine performance at other plants. Manufacturing companies are moving from preventive maintenance to this more proactive approach using embedded machines and high-powered, cloud-based analysis.

concept. Industries can go (and have already started) micro in their production and create exclusive, customer-designed products. Exclusively customized product requires greater clarity in the supply chain, something the rebooted digital supply network provides. Manufacturing companies of diverse technological knowledge can avail these principles by digitizing in the most significant, if not all, of their production processes.

### Trend 5: Collaborative Robots

Robots that needed to be programmed by experts to perform specific functions have now become a thing of the past. In this new era of industrialization, automation robots, focus on repetitive tasks and used alongside workers. These are called Collaborative Robots or Cobots and are designed with various high technology sensors, softwares and EOATs (End of Arm Tooling). The programming and integration are made simpler that enables even the workers. Its market is expected to reach an astonishing \$95 billion by 2024, according to Transparency Market Research.



### Trend 4: Customer-Centric Manufacturing

A study from Forrester Research indicated that most of the manufacturers are still practising product-oriented manufacturing and customer is placed at the bottom of the pyramid. Due to the possibilities offered by process automation, this approach will soon become an obsolete





- Daaman Bhatia  
Delhi School of Economics, Delhi University

Operations management and human resource management both seem to be different and we believe that HR manager and operations manager cannot switch their roles. But we can develop the ways to combine HR and operations management towards a common goal. Operations management deals with process of planning, organizing and analyzing the input in context of manufacturing, production or any service sector. Human resource management deals with management of human resource of an organization. Combining both fields of management e.g. aligning human capital as per operations management framework, we can deliver best of output in an organization by acknowledging that human consideration is vital for operation management.

Consider a case of a manufacturing plant of a big automobile manufacturer that is suffering from a problem of lower productivity and output. Taking into consideration that worker contributions are essential, management starts a motivational campaign, which includes dress code, motivational talks by senior management, using signs with slogans such as “I love my job”, “I can do it” or “You are the best”. If these efforts fail to promote higher output, but also the workforce is not motivated on their own and become doubtful of their improvement efforts in general. Then, the manufacturing plant adopts an alternate approach, which make use of both

Operations Management principles and a more complex approach of motivation. It includes training workers in the principles and key success variables of pull systems, investment in additional capacity that give work teams more ways to share and combine tasks, and installation of new control systems that the workforce can understand. Output is doubled within months; total cycle time is slashed by three quarters in a year. The Observation from this short story is that a clear operational focus can be critical to the success of human relations initiatives. Only when the workforce is provided with appropriate vision and tools are people really pushed to make a difference.

Ultimately, performance of an output delivery system (both manufacturing and service) depends on effective management of approach between Operations and Human resource management. To understand how and to help us identify research opportunities in this interface, there are number of factors required by workers to perform their jobs.

**Capability:** The skills, knowledge and abilities that are required to meet goals of an organization

**Opportunity:** When worker/employee encounter a situation that can help him to achieve a desired result.

**Motivation:** It is a factor that can help to achieve a desired target and award.

**Understanding:** It is also an important that can help worker/employee to engage in various action to achieve a desired goal.





On this view, human resource management and operations management can work in best coordination of each other to deliver a better output.

### **Impact of HRM on OM**

Operations management modelling mainly deals with simplistic approach of a human behavior which can have relevant impact on decision making. There are certain assumptions that goes in making and projecting simplified human behavior-

- People's factor does not get any weightage
- People' behavior can be determined and similar. They are perfect in their approach and don't commit any mistake. They don't get tired, emotionless, they like the product they are working on and they don't have any customer interaction.
- Workers are independent of their environment and not affected by it.

Consider an example of a manufacturing plant making automobiles with less involvement of automation but more of worker's talent, knowledge, competencies etc., making better products and its variety. Each worker assembling various component and working in inventory is limited so there will be work stoppage till

previous worker finish as predicted by model. So, workers and managers come up with a scheme of task sharing that avoids idle time. There is a clear Operation management explanation of why the new operating method should be effective, worker flexibility is used to smooth out variations in workload. The Operations management model of this process assumes that workers switch tasks at appropriate times, and that the new system will make no difference in the quality of component placement.

From Human resource management approach such assumptions have significant implications for talent. Workers must be able to design and alter the work process, be motivated to take on the extra work, and understand how their task switching decisions improve overall output and avoid idle time. Also, in task sharing approach it is difficult to identify individual contribution. The workers have pride in their unit, and they do cover for each other on breaks and for tiredness. These issues can either improve or detract operations management policy. Yet neither operations model or human resource approach included these effects, nor explained training, leadership, motivation and other HR variable may lead to result of worker induced change.



- Chandan Kumar  
Indian Institute of Management Amritsar

Lets discuss about linking strategies to operational goal. Business strategies is a type of master plan for success and securing a position in market, carry on its operation, pleased customer to achieved the desire ends of the market. Company make strategies after collecting every types of data, market survey, research about the market segment company doing many studies. There are three types of strategies: -

## CORPORATE LEVEL

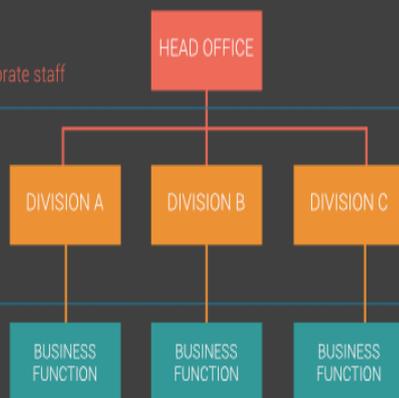
CEO, other senior executives,  
Board of directors, and Corporate staff

## BUSINESS LEVEL

Divisional managers  
& staff

## FUNCTIONAL LEVEL

Functional managers  
(marketing, finance, etc...)



**Corporate level strategies** is used to ascertain business lines company growth, turnover, integration, diversification and investment area. Corporate planning affects company HR, Management, Finance and also where company sold product. This strategy plans basically for maximize his success and prevent loss of company and also for maintaining its financial success in the future. This strategy utilizes to increase competitive advantage over its competitor in market

and continue more unique offer a product or service to the customer. Company focus on a single industry because concentration making the strong business success opportunity.

**Business level strategies** It is like a blueprint of the entire business basically this strategy developed by the general managers who try to convert mission and vision into concrete strategies. According to Michael Porter, a professor at Harvard Business School there are three types to gain an advantage over its competitors.

## Cost Leadership

Decide cost of leadership reduce operating cost to below level of the industry average and gain competitive advantage. Owners use the cut cost for avail their customer low price product, merchandise, service and maintain average pricing to increase profit margin.

## Differentiation

Differentiation strategy is used for defend price increasing for their valuable customer because people want a low cost product customer doesn't interested for price increasing.

## Focus

Company focus on the above two cost of leadership and differentiation with niche market in ways broadly focused.





## Functional Level

It may sound like a difficult concept, but its overall understand business strategy that will drive your business towards success. The strategy should reflect the fact of corporate and business required multiple involvement of functional areas e.g., HR, Production, R&D, etc. for increasing market share. Increase hiring of highly trained employees, improve brand identification and reduce rejection.

Once these strategies are set department can advise individual employee assessments to support the departmental goals. Combination of proactive actions on the part of management for the purpose of enhancing the company's market position and overall performance and reactions to unexpected development and new market conditions. When market condition takes an unanticipated turn company strategy require reaction to cope with contingencies. Operational goals are specific efficient operation make easy for the employee to function and to excel within their work environment to run a business. Operation mainly focus the market demand and supply of products and services which required by customer and fulfil. Operation management is mainly concerned with planning, organising and supervising the context of production, ensure that organization input and output efficient in successfully manner. There are two terms of operations: -

- Supply chain management
- Logistics

Principles of operations management  
Reality, Organization, Humility, Success,  
Accountability, Causality, Change,

collaborating with customer, Knowing the Competition and Quality Control.

Operation handle these type of service and work and now we are talking about how linking business strategies to operational goals. What we are planed and prepared our strategies without implement that we cant got success and wen we are going to apply our strategy in market we have to these type of operation work, all the work can't handle single person without taking help. In the market field operation handle between realistic work company doesn't work in the field alone they have to take help handed to get success and operation is the best partner as a key of success for any organization or company so it's a only way that we have to link our strategies with operational goals. If we are see the goals of operation they have more heavy weight vision for there success. It also use the term of APS(Advance Planning and Scheduling) in which manufacture operations customer demand for increased product mix and fast delivery. Schedule production efficiency and delivery performance, Maximize output increase revenue, Synchronize supply with demand to reduce inventories, Provide company wide visibility to capacity, Enable data driven decision making.

So, as we can see the prospect and operation work what kind of step used and dedication toward his work as a company partner we have to share our strategy with them. Operation also works between customer and company delivery product and service.



- Payal Nobokumar Golui & Deepansh Garg  
K. J. Somaiya Institute of Management Studies and Research, Mumbai

**B**anking industry is evolving exponentially with time. In India, this was given a boost by the government through making the public more involved with digital transactions. Hence, the economy going towards cashless transactions. For a country like India, where most of the transactions happened in cash, with little or sometimes no recording, it is a huge change. This change is not only for the public at large but for the banking sector too. This is so because for the support of the cashless transactions, banks have to be ready with the right infrastructure and security to facilitate such exchange.



For banks to be ready, technology has to be placed to take care of the massive trade happening in such a diverse country like India. Banking sector as a long did move towards the same with certain steps taken by leading banks which are followed by others. What was this step?

## Introduction to Robotic Process Automation (RPA)

RPA is a technique that replicates the actions of a human performing simple rule-based processes. The system interacts with interface of any application and performs the exact steps just like anyone

working across multiple applications. As per a report jointly published by CII and Deloitte, “RPA is the natural evolution of labour arbitrage, it takes Robot Out of the Human”. The advantages of this system is that it scalable, easy to implement and cost effective at the same time. As long as there is manual and repetitive work being done in a company, there is a potential for automation using RPA.

Some examples where RPA is applicable is as follows –

### 1. Investment Banks -

RPA helped clients improve case handling productivity to address existing backlogs and meet regulatory requirements.

### 2. Insurance Firms -

It has also helped insurance firms enhance customer experience by reducing inbound calls.

### 3. Financial Services -

In financial services, complex processes pose quality issues, and RPA helped reduce such errors and significant quality improvement.

### 4. Professional Services Firm -

Seasonal volume peak for certain work types require hiring and training of temporary staff. Hence, automation of these processes using RPA helps not only in efficiently but also effectively handling these seasonal volume fluctuations at a much-reduced cost.

### 5. Pharmaceutical Company -

For pharmaceutical company, RPA has significantly improved operational efficiency and helped in overall reduction of operations cost.





## Why Banks Need RPA?

With the economic slow down and it is upon enterprises to look for ways to boost productivity. For banks it becomes all the more crucial as banks have to evolve to match customer expectations and counter competition from fintech companies. Another aspect for banks to consider in this situation is the rising personnel costs, scarcity of skilled resources and the challenge to increase productivity has set the stage for adoption of robotic process automation (RPA).



As per a report by TCS, “RPA represents the next wave of automation that will help address a slew of challenges in the financial services industry”. Commoditization of financial services has spurred banks to improve front end services and customer experiences. But backend operations did not receive the same attention. Though backend has tremendous scope for improvement. When RPA came into picture, these tasks will not require skilled human resource supervision and hence the bank can focus on higher value adding activities. From investment point of view, investments are minimal as RPA does not entail any changes in the underlying legacy IT infrastructure. It also helps speed up core processes, enhances productivity and accuracy, lowers costs and reduces time to

market for new offerings.

Some banks have already started with the journey with RPA, and a couple of places where RPA used is below –

- **ATM Testing:** Banks have deployed an ATM testing robot to automate the process of test cases that were earlier conducted by humans.
- **Transaction Processing and Sweep operations:** As per a report of TCS, leading banks in UK has robots deployed in the areas of transaction processing and sweep operations. This has reduced the turnaround time by 30% to 35%.
- **Account opening process:** Banks have used robots to account opening process to extract information from forms and feed it into different host application. Improvement of this process has reduced the time by nearly 30%.

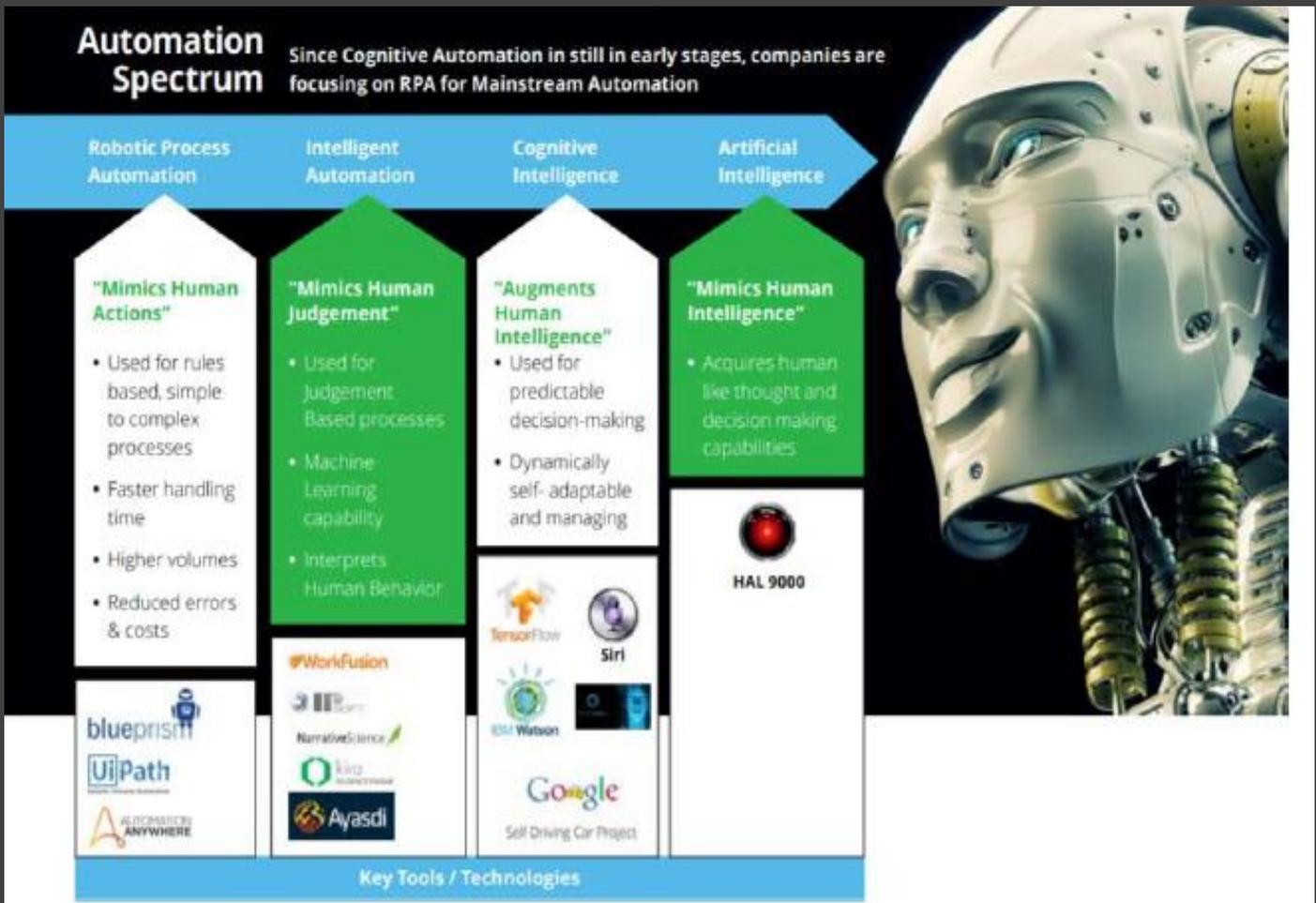
## Why is RPA important?

- There is a high volume of heterogeneous clients in the industry and too many digital investment managers are chasing after the same set or segment of customers. Thus, an operational edge will give a competitive advantage to the firm.
- Customer experience highly depends upon the back-office efficiency and how fast the desired goals are met.
- In this era of competition, efficient service comes from operational competency and this helps in retaining the customers for long run in this era of competition.



- Convergence of operations management along with finance and marketing to enable a healthy optimization of departments and functions so as to reduce costs and friction.

Hence, we can see that operations aspect for financial institutions is evolving dynamically and RPA is one of the preferred way banks are looking forward to. Other options for operations optimisation can be seen in the graphic below-





- Queenci Kotak & Maitri Shah

Prin. L. N. Welingkar Institute of Management Development & Research, Mumbai

## Introduction

Every world-class organization has a strong operational base. Operations plays a quintessential role in the functioning of any organization. It is transformation of a company's inputs into output with the highest level of efficiency and effectiveness. It is that area of management which is responsible for the creation of goods and services, thereby adding value for the customer.

In the early age, operations management was confined only to manufacturing. Over the period of time, with the help of intensive research, analytical methods and the use of technology, operations expanded on to the service industry. The evolution continued with the help of digitalization kicking in, leading to operational excellence. Additionally, it became an integral part of the software-based products and services companies. Yes, as a matter of fact, Google and Oracle also needed operations!

## Interdependence of operations department in an organization

### 1. Human Resources (HR)

HR and operations have always been closely connected since the beginning. Laborers are the process owners of the operational activities, who run and manage the entire process. Overseeing and control of these laborers and management level employees form a part

of the HR department. It is very important for the HR department to know the process and skills required so that they can hire employees accordingly. Recruiting, training, welfare, etc. of the employees (including operations) is taken care of by the HR department.

To illustrate, in June 2005, the employees of Honda Motor Cycle, Gurgaon went on a strike to protest against differentiation/discrimination in wage rates. As a result of which the Gurgaon plant production dwindled from 2000 units per day to 400 units per day. The company suffered a loss of Rs 130 crores (approximately). It is an HR personnel who is responsible to look into such matters! This clearly shows how an issue of wage rate can halt the operations of a company leading to an irreversible loss to the company.

### 2. Marketing

Marketing deals with the promotion and sales of the products. It also provides feedback on the product, which leads to alterations and modifications in the existing production process. Further, the actual and forecasted product demand is provided by the marketing team to the operations team. In addition to the same, the marketing department is also expected to know the entire operational process of the product so that they can persuade potential customers.





In the case of customized products, it becomes crucial for the marketing team and operations team to work in tandem. This is because the marketing team needs to communicate the customers' requirements to the operations team. In simple terms, if operations are responsible for making the products then marketing is responsible for selling the products and they both need to be synchronized.

To illustrate, IKEA is known and promoted as a DIY Furniture brand and this marketing would not have been possible without the innovative approaches of logistics that the company uses to ultimately meet the requirements of its customers. The innovative approaches include flat-packs, cost per touch strategy and operation of retail outlets simultaneously as warehouses. These supply chain strategies help the customers to receive their products more efficiently, effectively and at minimal costs. Thus, these logistical approaches help IKEA to satisfy existing customers, retain customers and entice potential customers to purchase the products at low costs and easy availability at the local IKEA retail stores cum warehouses.

### 3. Finance

Operations is an expensive affair that needs funding and this is taken care of by the Finance department. All the decisions related to buying and selling of equipment, relocation, plant expansion, factory infrastructure, etc. are taken care by the finance department along with the operations department's inputs. The costing of the production is also looked at by the finance team. They also set budgets for the operations team and ensure that

the financial targets are met.

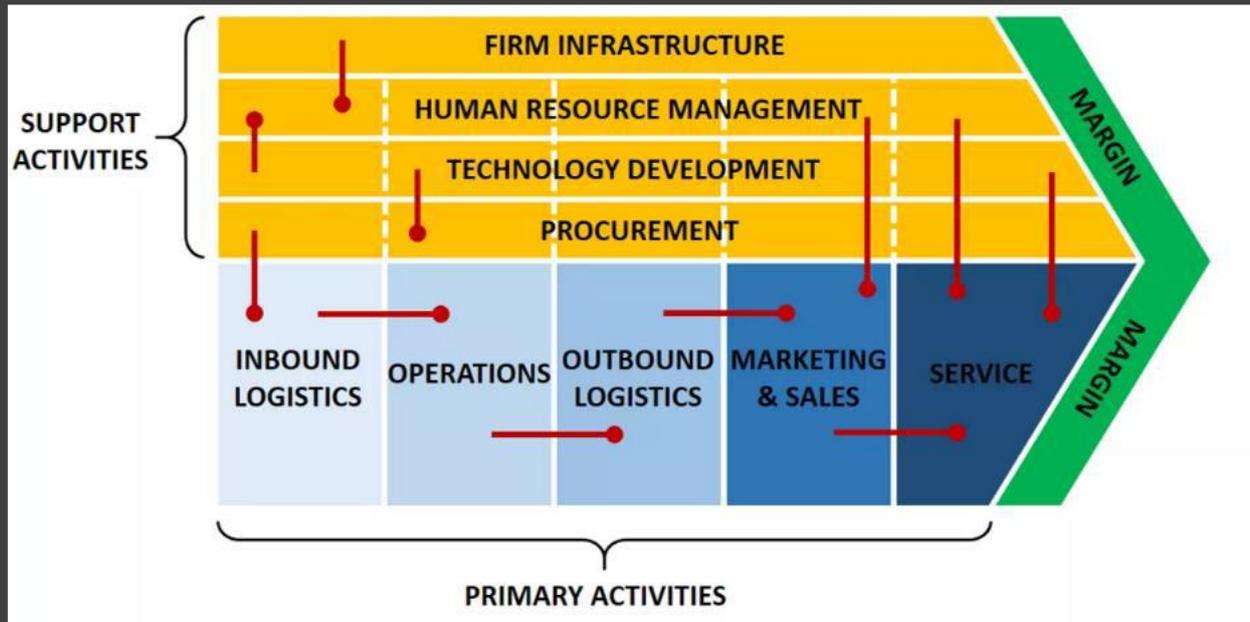
On the accounting aspect, it is very important for the operations team to provide timely details that form a part of the financial statements. The finance department is also responsible to take "Make or Buy" decision. While operations manage the stock and outsourcing, the finance team manages the cost aspect.

To illustrate, P&G, a leader in the development of menu pricing, in 1994 launched the first program under its Streamlined Logistics Initiative (SLOG). The program led to a reduction in inventory, transportation, and administrative costs, resulting in supply chain cost savings of \$50mn. This shows how the organization can benefit when departments work in Synchronization.

### 4. Information Technology (IT)

Nowadays, every department is heavily dependent on IT. Several operational functions take place on IT platforms, to name a few, forecasting of demand, labour schedules, quality checks, supplier deliveries, etc. IT with the help of information flow from the other departments allows operational activities to function smoothly.

To illustrate, Kanban method is a workflow management tool. It was first applied by Toyota as a visual system. This was later adopted by the IT industry. This tool is used to boost the team's productivity by applying lean management principles to the processes. Thanks to cloud-based technology an online version of this software was launched.



Source: <https://www.google.com/amp/s/www.business-to-you.com/value-chain/amp/>

### Operations within departments (each department is a customer and a supplier)

Moreover, operations are not just interlinked to other departments but also a part of all departments. Like we all know in today's world every department is a customer and supplier to each other. For instance, let's just consider the case of the Finance Department: the transformation of the data collected from other departments is analysed and seeded into the financial tools/software which produces the financial statements. When other departments ask for these statements, those departments become the customer and the finance department becomes the supplier. As it is mentioned above, operation is nothing but conversion of inputs into outputs to satisfy the needs of the customer. Hence, this process that takes place in a department can be classified as operations in modern times.

### Conclusion - Future of operations

There has been an upgradation in the inventory management process as a result

of the huge availability of real time big data now on the internet and through various interconnected enterprise software systems. Thus, in order to effectively use these systems and stay competitive, the organizations will be required to revamp their supply chain processes.

With the boom in technology and industry 4.0, several opportunities are now available for the organizations to streamline their processes. There has been a lot of buzz around industry 4.0 and technologies related to it, to name a few, augmented reality, virtual manufacturing, predictive analysis, cognitive analysis, etc. These technologies blend all departments, leading to an increase in their interdependence. One software can be used by many departments improving the flow information among these departments.

To quote Lee Iacocca *"In the end, all business operations can be reduced to three words: people, product and profits"*.

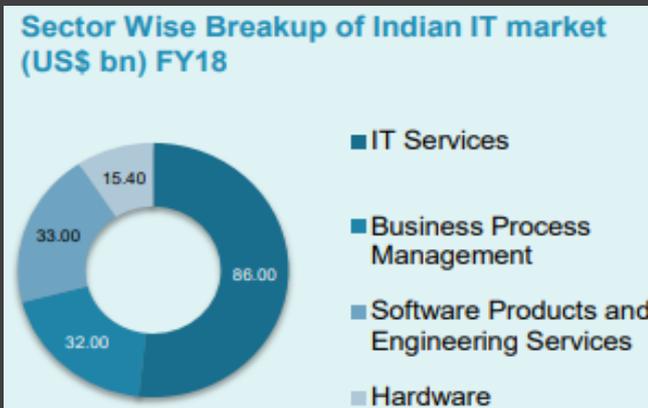


- Ankit Vyas & Ekta Arora

K. J. Somaiya Institute of Management Studies and Research, Mumbai

## Introduction

Information Technology (IT) is a sector that deals with computing, including software, hardware, telecommunications for storing, retrieving, transmitting, and manipulating data, or information, often in the context of a business or other enterprise to facilitate communication. The contribution of this sector to the India's GDP has increased from 1.2% in 1998 to 7.7% in 2017. There was a compound annual growth of about 52% in the IT software sector between 1991 and 1996, which was twice as fast as world's leading US software industry during the same period. The exports have also increased from 4.9% in 1997 to 20.4% in 2002-03.



Source: [www.ibef.org/industry/information-technology-india/infographic](http://www.ibef.org/industry/information-technology-india/infographic)

Today, Indian IT and ITeS companies are spread in over 80 countries in the world across 1000 global delivery centres. India with a share of 55% of a total of US\$ 185-190 billion global services sourcing business in 2017-18 is a leading sourcing destination. Revenue from digital segment is expected to comprise 38 per cent of the forecasted US\$ 350 billion industry

revenue by 2025. The cloud market in India is expected to grow with the help of analytics, Big Data, Internet of Things (IoT), artificial intelligence to three-fold to US\$ 7.1 billion by 2022.

The figure shows the composition of domestic and export in the Indian IT Industry from year 2010 to 2019. Export which was approximately twice of domestic in FY10 has increased to more than thrice in FY19.



Source: [www.ibef.org/industry/information-technology-india/infographic](http://www.ibef.org/industry/information-technology-india/infographic)

## ERP as a Breakthrough

What is ERP? It stands for Enterprise Resource Planning. It evolved from Manufacturing Resource Planning (MRP & MRP II). It started gaining importance in the late 1990s. It is used for managing day-to-day business activities. It integrates and ties together different business processes and enables data flow between them. It has always been one of the hot topic in the field of Information technology. It changed the way businesses and operations were carried out. Today, ERP is critical for managing thousands of businesses and their processes. Global ERP software market is expected to reach at \$41.69 billion by 2020 (Growing at CAGR of 7.2% from 2014-2020).





## Features of ERP

ERP solution is quite flexible and one of the main features is that it efficiently integrates different business operations from Finance, Marketing & Sales, Human Resource, Customer Relationships, Manufacturing, Purchasing and Inventory to Supply chain. It increases efficiency, promotes collaboration, increases data security, increases operational flexibility, allows to make accurate forecasts and reduces operational costs.



Source: [www.mydbsync.com/blogs/benefits-of-automating-erp-system/](http://www.mydbsync.com/blogs/benefits-of-automating-erp-system/)

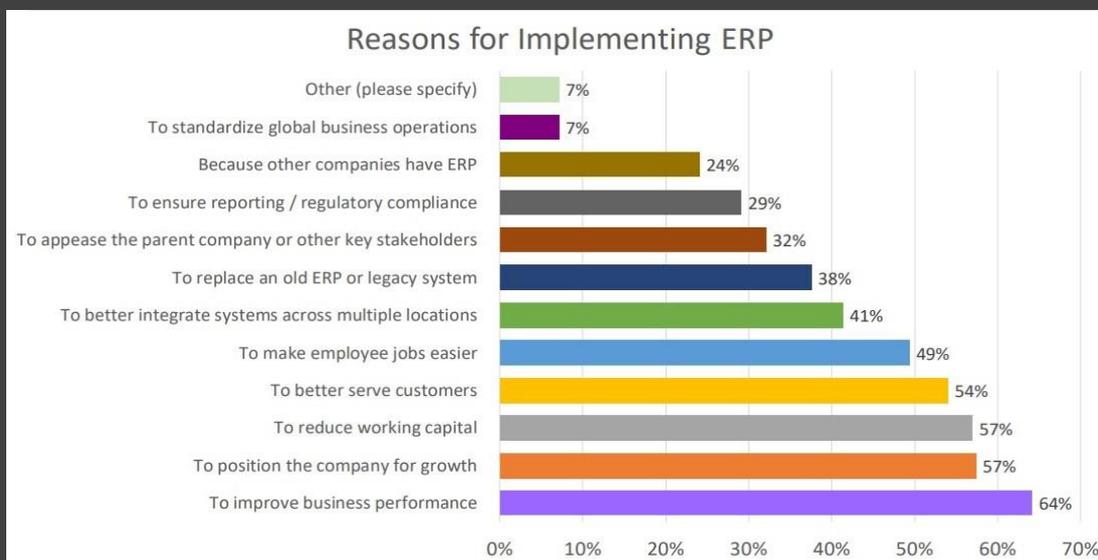
Some of the top ERP tools are: Netsuit ERP, SAP Business One, Oracle E-Business

suite, Microsoft Dynamics NAV and many more.

## Reasons for Implementing ERP

With such features & benefits offered by ERP, it has become one of the most important parts of the Business & its operations. Around 81% of the organizations are implementing or have implemented ERP. Earlier, it was accessible only to large enterprises because of the requirement of high capital, complexity in deployment & maintenance. But nowadays, various ERP softwares are available in the market which caters to the needs of Small & medium enterprises as well. Even the small retail outlets have started using ERP. Why these organizations started using ERP? What are the reasons behind implementing it?

Based on the research conducted by Panorama Consulting Solutions, improving key drivers behind implementing ERP followed by positioning the company for business performance (64%) is one of the growth (57%), reducing working capital (57%) and serving customers better (54%).



Source: [www.financesonline.com/erp-software-analysis-features-types-benefits-pricing/](http://www.financesonline.com/erp-software-analysis-features-types-benefits-pricing/)



## Information Technology - The Way Forward

Information technology has advanced way beyond the traditional ERP. It has evolved and advanced over the period of years. In general, Information technology is very dynamic in nature and hence advancement is continuous process in this field.

Based on the changing needs of organization, even ERP has advanced recently. Latest ERP trends are:

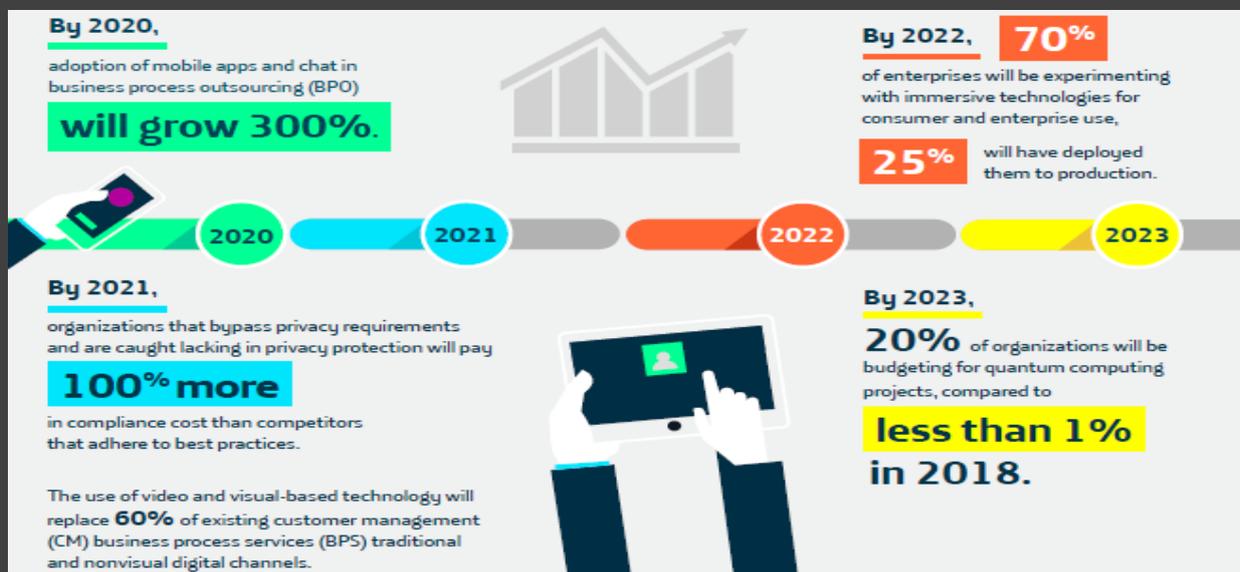
- **SaaS and On-Premise Hybrid:** Integrates cloud inventory management into the on-premise accounting centric-ERP
- **Two-tier ERP:** Two ERP systems in place, having tier 1 at the corporate level and tier 2 at the subsidiary level
- **Social ERP:** Adds social media data of Twitter, Facebook profiles and posts into the system
- **Mobile ERP:** Offering apps for iOS, Android and Windows

Global Information and Communications Technology (ICT) trends for 2019 shows an estimated use & implementation of

advanced technology which is not yet fully implemented. As an example, 20% of organizations will be budgeting for Quantum computing projects by 2023, which is less than 1% in 2018. It is expected to increase further. Main reasons behind moving towards the use of new technologies are increase in the competition, globalization and providing unique & better services to customers.

Modern technologies such as Artificial Intelligence, Machine Learning, Deep Learning, Internet of Things and Blockchain Technology have found their way to change the businesses and their operations. Application of these technologies would be in almost every field of business. Apart from these technologies, other advanced technologies that are expected to have their impact on businesses are:

- **Quantum Computing:** Quantum computers, which are under research, can technically work on millions of computations at once. Such computing would require less computational capacity and RAM.



Source: [www.businesssolutions.telefonica.com/en/information-entre/multimedia/global-ict-trends-2019/](http://www.businesssolutions.telefonica.com/en/information-entre/multimedia/global-ict-trends-2019/)



- **Augmented & Virtual Reality:** Interactive experience of real-world environment with real-time 3D vision, sound, sense of touch, location details and even other senses such as smell
- **5G Networks:** It is expected to unlock a huge Internet of Things ecosystem. It guarantees to offer 10x faster internet services than 4G.
- **Digital Twins:** Virtual replicas of physical devices that data scientists and IT professionals can use to run duplicates before actual devices are produced and deployed.
- **Smart Spaces:** These are physical environment enable with technology such as monitors, sensors which enhances interaction between human and integrated system.

### **Conclusion**

So concluding, Information technology started gaining its importance in the late 1990s. Businesses started using tools such as ERP, which offered wide range of benefits. Earlier though it was accessible only for large enterprise, but with the time, it was available for small & medium enterprises. Today, even ERP has evolved from the traditional on-premise ERP to SaaS and Cloud based ERP. Advanced technologies such as Artificial Intelligence, Machine Learning, Deep Learning, Internet of Things, Blockchain Technology, 5G Network, Augmented Reality and Digital Twins would change the way business are working today. Information technology is very dynamic in nature. Advancement & evolution of IT would continue to progress. In the future we may even witness technologies that don't event exist today.



- Anmol Singhal & Punyakrit Ranawat

Prin. L. N. Welingkar Institute of Management Development & Research, Mumbai

**M**arketing operations is the backbone of a marketing team. The main focus for marketing operations is optimization of end to end marketing. This includes Planning, budgeting, execution, governance, analysis and other support functions. Marketing operations management today looks at consistency, efficiency, effectiveness, integration through automation. The major task associated with the management team is in regards with marketing strategy development, asset creation, campaign execution, post campaign analysis and reporting. The essentials of operations and marketing when put together include people, process, metrics and goals that are completely aligned with the top management, middle management and first line managers.

One of the important parameters to judge efficiency in marketing operations is a trackable return on investment made by the firm. The need for marketing operations management today comes in the picture strongly due to digital disruption, processes becoming increasingly complex and challenging and the integration of all these channels in the end. When it comes to technology, to manage and infuse it within the processes is becoming an increasingly daunting task, why this is so is-because the technology being developed is at much higher pace as compared to the development of these processes within the firms. Another challenge faced by operations

management and marketing management team is building and maintaining synergy in the global context. The global context is often neglected within the firm. It is essential for the companies to realise that what they promise and what they deliver are not two separate things. For example, an Indian company in the field of manufacturing and exporting its goods promises to bear in mind the international quality standards for its product. Hence it is essential for the company to maintain its entire fleet of operators and marketers. To over promise and under deliver is always a sin committed by a firm.

### Five core marketing operations Principles:

- **Customer life cycle management:** It involves managing the customer metrics from his considerations, purchase to customer service building the customer loyalty for the product or service. It is the coordination between acquisition, retention and loyalty of customers.
- **Lead scoring:** Lead scoring is an important process to rate the lead generated in order to realize their worthiness based on their behavior and the level of their interest in product and service. It ensures that leads generated gets converted and maintains the loyalty in coming future.
- **Lead routing:** Lead routing is lead assignment and is very crucial step towards successful process. Proper





assignment/distribution of incoming leads is very important among sales representatives

- **Marketing attribution:** There are various check points while purchasing activity of the consumer and evaluating these checkpoints helps to determine the factors that determine the decision to convert and to take desired steps. Moreover, this is about maintaining all the channels of marketing through automation including social media, digital marketing etc. This ensures that all the platforms of marketing are optimized through automation and operational efficiency
- **Database management platform:** It is the unified unique platform to gather all the data from eclectic sources centrally and analyzing large sets of data to gain insights of their customers. Marketers can use the data of their audience whenever and where ever they want.

### Marketing Operations Responsibilities:

- **Technology, Data and Analytics:** Today's business world is dynamic and competitive. Relying on just intuitions and personal insights would not be sufficient to outshine others unless decisions are backed by data and analysis done using technology. New era is marketing based on customer data and their insights. With the time analysis, optimization and management of data is becoming more complex, precise and

sophisticated because of upcoming management platforms. Marketing operations can be much effective by proper technology selection, integration and optimization for right kind of predictive analysis and research

- **Process, engineering and optimization:** process engineering comes in play during campaign operations when you try to build, design, execute persons and buyer journeys. Here lead management, lead scoring, lead nurturing and lead conversion are given high priority and also asset utilization and asset tracking be it people, process or any other is crucial aspect. Opportunity management hence is the one word for all this mentioned previously mentioned aspects of marketing operations
- **Project management and training:** The project management expertise sometimes is loaned to other parts of the firm, still the execution of a project is the task of the entire team put together. Budget and budget tracking is essential while executing new projects. This comes with a huge onus of financial compliance for the firm. The firm needs to understand that it has limited resources and needs to make judicious use of each and every penny. Important aspect marketing operations is to ensure all the trainings and education of the employees. Be it the employees who are new to the company, processes or even new to field of marketing.



Marketing operations come in play here as well.

- **Change management and customer insights:** Change is the only constant and the firm has to bring in collaboration amongst the team members, proper flow of communication internal and external to the firm, innovation and fuel its strategy to lead its target market. Here alignment of sales team and operations is important as well as empowering of employees to take up bold projects that can benefit the firm in the short as well as long run. The firms often become skeptical about bringing consultants on their projects and the projects lose real track of the market. The company needs to understand its strengths and weaknesses and should be open to outside views from consultants.

### Role of IT Department and Marketing in Operations

- **Performance measurement and reporting:** within an organization ERP systems established amidst various departments can help the marketing and the operations team to keep their data together. The use of ERP systems is also accompanied with data warehousing and culmination of various heterogeneous sources of data in one place.
- **Campaign reporting:** while executing a campaign the two teams have to

keep in mind the importance of data science and establishment of data systems.

- **Ops and governance:** server breakdowns, software disasters can happen at any time within a firm and specially in a banking or trading firm while are heavy on using proprietary software, the recovery mechanism has to be in place to be able to deal with such things. Governance of software use and technology use is also important here.
- **Data hygiene and analytics:** infrastructure and security, cleaning of data, ensuring authenticity of data, removal of corrupt and inaccurate data as well as replacing, modifying and deleting dirty and coarse data, all this forms part of data hygiene and eases the process of data analysis for a firm.

### Conclusion

Marketing and operations are two very important departments which often due to organizational inefficiency don't get to work in tandem, as mentioned above the various roles and responsibilities of the two departments can help bring a lot of synergy to the overall execution of product campaigns and make the firm not just survive in the market but thrive in the market. Hence every firm should look at maximizing the efficiency in the two departments.



- Anushq Borase

Oriental Institute of Science and Technology (OIST), Bhopal

### FinTech in today's world – The emerging trend

**F**inTech, a combination of the words “financial technology,” it is the biggest story in startup growth in 2015. While the term has been around for several years, it seems that 2015 is really the year that this fledgling offshoot of the larger banking industry has finally come into its own. It is one of the fastest growing areas for venture capitalist; now let's dive into how financial technology is turning the conventional financial industry on its head.

But first we need to understand, what is fintech? It is describes as a business that aims at providing financial services by making use of software, computer program and other modern technology used to support or enable banking and financial services. The main motive of this is to change the traditional banking method.

In today's world were computers and other modern gadgets are very common and they are reliable too and body needs a faster and safer way of transaction, Especially today's generations prefer quick and easy banking services over walking to a branch, appointments with bank consultants and lengthy processes setting up accounts etc while many of them chooses mobile and digital banking services which allows a more frictionless

and stress-free process. That's why fintech is gaining popularity in today's world it allows people an easy financial support when they need it also eliminate the in-between lengthy banking process. Now a day's fintech is a buzz word in the banking industry.

Do you ever wonder how fintech works? This is how all this actually works, it is the new applications, processes, products, or business models in the financial services industry, composed of one or more complementary financial services and provided as an end-to-end process via the Internet. Fintech companies aim for improved speed of service and transactions; an easier, more enjoyable user experience; and pricing that cuts down on your costs. All versus the traditional finance sector. Basically fintech is start-up which usually contains a team of engineers and developers on one side and market experts, financial analysts and the like on the other.

As the year passes by, since the traditional finance service has always been monopolized by small band of banks and they have made this process intricate and difficult to understand, with a lack of transparency and high pricing. Can fintechs replace banks? No, it is not going to replace banks since banks have also made new schemes to attract customers like other telecom companies did when Jio put his feet in the market.





Some well-known companies such as Personal Capital, Lending Club, are examples of fintechs that have emerged in the past decade, providing new twists on financial concepts and allowing consumers to have more influence on their financial outcomes.

Lending Club, Funding circle, Common bond etc are there in the market to compete directly with the banks and many other finance companies due to their more attractive deals, instant payment method and low interest rate by this both the consumer and the investor get the desire amount of profit from the deal. Investor gets the profit when the company or start-up started earning profit by this the start-up get the desire funding to run the business initially. Since more and more people are attracted

by it. Fintech apps (or financial technology apps) are extremely popular today since they change the way business is done completely. They include diverse financial education apps, retail banking and lending apps, peer-to-peer money transfer applications, investment apps, crypto currency-powered apps and other.

Today fintech company's companies directly compete with banks in most areas of the financial sector to sell financial services and solutions to customers. Mostly due to the regularity and structure issue banks struggles to cope up with the Fintech.

This also shows that the future of fintech is very bright as everyone wants smoothness in their work and it provides the same.



**F**reightbro was founded in 2016 by Raghavendran Viswanathan, Mohammed Zakkiria A and Anand Babu V. It has an annual revenue of \$2.5 million and is headquartered in Navi Mumbai.

Freightbro helps freight forwarders to solve complex problems through a SaaS platform. It enables them to create their own digital front-end and automate their sales and shipment management processes. Through Freightbro freight forwarders can save upto 70% of their time of answering requests, minimize manual work, increase sales by 30% approximately and decrease cost by 50%.

Currently it is associated with 400+ forwarders and has 1250+ active users. Some forwarders associated with Freightbro are Expeditors, Agility, DHL, DB Schenker.

Freightbro is certified by DIPP (Department for Promotion of Industry and Internal Trade). It has been listed in NASSCOM 1000 Start-up 2016 and CIBA (Centre for Incubation and Business Acceleration) and Start-up India 2017.

### **Blackbuck**

Founded in 2015, Bengaluru-based BlackBuck is an online marketplace platform that empowers numerous shippers and fleet operators to optimize their resource utilization to achieve maximum results.

Blackbuck brought the offline operations of trucking online which included matching a shipper with a trucker,

reshaping the trucking infrastructure to facilitate payments, insurance and financial services. It enables the truckers to easily book a load and move at a capacity and also makes it easier for shippers of all sizes to have access to the right truck at the right time and right place.

Blackbuck has 10,000+ clients, 250,000+ trucks and operates in 2000+ locations. It's clientele include Aditya Birla group-Ultratech, Amul, Asian Paints, Britannia, Coca Cola, HUL, Tata Steel.

Blackbuck was awarded CNBC Start-up of the year in 2018, Zee Business Company of the Year- Logistics 2018.

Start-ups now a days are constantly moving towards digitalization of the conventional methods of monitoring the process flows and taking corrective actions before the process falls into the delayed mode and causing substantial losses to the firm

**Fog Horn Systems Inc.**, a US based start-up working on similar lines has successfully produced exceptional results for its clients like General Electric, Daihen etc. using Artificial Intelligence and IOT. This involves real time monitoring of all the participants in the manufacturing process viz. raw material batch, CNC machines etc. The results help in determining the expected failures or malfunction probably about to occur or the scope of improvement in a particular production process flow. The company has





developed two Industrial applications for this purpose namely Lightning Edge AI and Lightning edge mobile.

The success of these technologies is evident from the fact that Fog Horn was able to solve the issue of scrap reduction in the capacitor plant of General Electric that involved around 30 machineries. The scrap generated was quite high in value and was a major concern for the company. Fog Horn analyzed the real time data generated from RFID sensors of these machines and was able to identify the defects quickly by installing efficient monitoring systems and eventually find out the root cause of the defects.

In this way, the issue of scrap was addressed and the overall plant efficiency of General Electric was enhanced by 8 per cent. This kind of monitoring also lead to the automation of one of the processes (oil filling) involved in manufacturing capacitors. The changes were brought about only by analyzing the data generated from the machinery and finding out the defects.

**Machinmetrics**, another start-up using IOT and AI driven predictive analysis with a customizable application dashboard helps the workers to identify the technical parameters such as overall equipment effectiveness (OEE), machine downtime and utilization, production cycle analysis etc. that enables the managers to make an informed decision regarding the resource utilization. Moreover, with a robust communication facility, the workers can be

instantly alerted for any development on the shop floor.

These insights were useful for companies like Carolina Precision Manufacturing (CPM) to an extent that their plant capacity as they claim, grew by \$1.5 million in 2016 with no additional machines installed which is quite significant.

On the other hand, start-ups have also identified the need for interaction between various stakeholders involved in the operations.

For instance, **Symphony Communication Services LLC**, a US based start-up offers technological solutions to its Fintech clients by incorporating tools such as forecasting forecast future workloads and resources by accessing historical administrative and support data, identifying potential discrepancies in the trading process, reducing the amount of time required for switching applications, addressing urgent trade requests by customizing signals based on #hashtags, \$cashtags, and @mentions, centralized real-time communications platform between different business units etc.

These parameters are crucial for the companies into trading as every second can impact their client's perception. Symphony has successfully been able to identify this kind of criticality and has designed their operations structure accordingly.



## POMS International Conference, 2019

The flagship event of FORSE, an international conference on Operations and Supply Chain, in collaboration with the National Institute of Industrial Engineering (NITIE) and Production and Operations Management Society (POMS)

India Chapter, is going to be held on 13th - 14th December 2019. This year's theme is "Supply Chain in the New Environment of Industry 4.0".

**Look out for updates at:**  
[www.scmconferencesimsr.somaiya.edu](http://www.scmconferencesimsr.somaiya.edu)

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**"Supply Chain in the New Environment of Industry 4.0"**

**Date: 13 & 14 December 2019**

**Keynote Speakers**

**Prof. Sushil Gupta**  
 Executive Director - POMS USA,  
 Florida International University,  
 Miami, FL, USA

**Prof. M. R. Rao**  
 Professor Emeritus, ISB,  
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**POMS INTERNATIONAL CONFERENCE 2019 INDIA**

**KEYNOTE SPEAKERS**

**IMPORTANT INFORMATION**

**CONFERENCE DATES**

**DECEMBER 13TH & 14TH 2019**

**MORE INFO >>**

We are pleased to announce an international conference on Operations and Supply Chain, being organised by K. J. Somaiya Institute of Management Studies and Research in collaboration with National Institute of Industrial Engineering (NITIE) and Production and Operations Management Society (POMS) India Chapter. The conference theme for this engaging academic conference is "Supply Chain in the New Environment of Industry 4.0". The conference will be held on **13th & 14th December 2019** at K. J. Somaiya Institute of Management Studies & Research, Vidyapeeth, Mumbai.

**VENUE**

Sarodaya Buddhi Vihar Marg, Vidyapeeth, Vidyapeeth East, Ghatskopar East, Mumbai, Maharashtra - 400077

**IMPORTANT DATES**

Submission of Abstract (1000-1200 words) 31 August, 2019  
 Abstract Acceptance Notification 13 September, 2019  
 Last Date of Registration (Early Bird) 13 October, 2019  
 Last Date of Registration for Inclusion of Abstract in Conference Proceedings 11 November, 2019  
 Conference Date 13-14th December, 2019

**COMMITTEES**

This includes the Steering committee, International Advisory Committee, National Advisory Committee, Conference Co-Chair, Programme Co-Chair, Organising Committee.

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 Maharashtra - 400077





## Interaction with Seniors

We at FORSE have always believed in Knowledge Sharing and Caring, and it carries on even after we graduate. A recent event conducted by FORSE had the Super Seniors interacting with the first-year students, helping them with insights about the corporate world and resolving their queries. With the kick start of Summer placements, the seniors proved very effective in helping the students understand various placement processes, different roles and job profiles, how to understand in which field their interest lies in. They shared their experience of the placement process and how they tackled their interviews.

Super Seniors also shared that how being part of FORSE, helped them grow at an

individual level. They shared how some of them learned how to be a team player, while some shared how they changed from being an introvert to leading the committee. The one thing that was common among all was the excitement to visit the campus again and the enthusiasm to answer the unending questions of their junior batches.



## Buddy-System

Buddy-system is one of the most common cultures adopted at workplaces these days and also an integral part of the orientation program. FORSE has introduced a "buddy-system" wherein each first-year student in the committee has been assigned a "buddy", a second-year student who will act as a mentor.

This will provide a much-required guidance to the mentees, giving them a one-stop redressal for their queries and access to a pool of extensive knowledge which the seniors have gained in their time at the institute.

### Advantages of Buddy-System:

- 1.Builds relationships between co-workers
- 2.Welcomes the newcomers

- 3.Helps develop confidence
- 4.Provides assistance in emergency situations

Below are some examples where the newly implemented buddy system proved to be beneficial for the juniors.

*"Having a senior as a buddy has helped me get clarity with respect to the choice of specialization in the final year"* - Neha Sarkar, PGDM Core, 2019-21

*"From the experience of my buddy, I got insights about the placement process of different companies which has helped me prepare better for my interviews"* - Nalin Sharma, PGDM Core, 2019-21



## Knowledge Sharing Session

**K**nowledge Sharing Session a.k.a. K.S.S. is a peer to peer learning conclave conducted by FORSE.

There are certain things not taught in a classroom, and this is where K.S.S. comes in. It basically is a kick-start to learning something new and helps clear basic concepts of the topic in discourse. In a

nutshell, it. is a platform dedicated exclusively for the overall development and skill enhancement of an individual.

FORSE conducted its first KSS of the academic year 2019-20 on 12<sup>th</sup> & 13<sup>th</sup> August 2019 where basics of Excel, Photoshop and MailChimp were covered. Moreover, the session was quite engaging and informative as per feedback received.



## Live Project Opportunity

Live Projects are a good way to enhance knowledge, skills and experience. They let us work on real industry projects, analyse the industry workings and contribute to it. Hence for this academic year **FORSE** presented a live project opportunity to students.

such as pitch presentation, business communication, and so on. The students may also be offered internship opportunities on the basis of their performance.

**Triangle Technologies Pvt Ltd** a safety, security and automation solution provider offered students a role in B2B

business development which will help the students to develop understanding of the concepts of B2B and B2C. Apart from this students will also learn various skill sets





## Industrial Visit

FORSE conducted yet another enriching industrial visit to TCPL Packaging Limited, Silvassa, India on 24<sup>th</sup> August 2019.

TCPL Packaging Limited is one of India's largest manufacturers of folded cartons and one of the two largest converters of paperboard in the country. It manufactures folding cartons, printed blanks & outers, litho lamination, plastic cartons, blister packs, and shelf ready packaging. They have also have installed the best equipment in the world in order to supply cork tipping paper, laminates, sleeves and wrap-around labels. Industrial visit was very exciting and enriching.

### Our Share of Experience

*"Packaging is something that is always overlooked. Post my visit, I realised that the entire process of making a "carton" which is usually thrown away without giving a second thought, is highly complex and intricate. The visit gave me an insight on how much hard work goes behind making small cartons, their designing, choice of material, choice of colour, rigorous quality control checks etc., just to make sure that a perfect package that suits our eyes and needs is waiting for us."*

**- Vedang Makwe, PG Core 2019-21, SIMSR**



## Six Sigma by KPMG

Six Sigma certification opportunity was presented to the students by FORSE in collaboration with KPMG from 07<sup>th</sup> to 10<sup>th</sup> September 2019. This 4 day 32 hours classroom programme helped students to learn business process improvement. The sessions are held explaining usage of statistical tools for solving business problems. Six sigma certification contributes to various channels and specialisations to a large extent and thus

proves to be extremely helpful to students.





### Intern@



**Malvi Chawhan**  
**PG Operations**  
**2018-20**



Summer Internship is that period of the MBA journey which allows a student to apply all the concepts that were learned during the 1st year, an experience entirely different from the degree college. Speaking of students without any work experience it gives a glimpse of how the corporate world looks like and how it is entirely different to have deadlines in college and deadlines at the office, while for students with work experience it's an opportunity to understand work culture of various organizations and how it varies from industry to industry.

I belong to the second category of students with 3 years of experience with Accenture and entirely new experience during summer internships since I was interning with Hikal Ltd. a manufacturing firm. The selection process of Hikal Ltd. was a 3-step process including initial resume-based shortlisting followed by Group Discussion and Personal Interview. The GD pattern followed was a bit unique. Each student in the panel was given a different topic to speak on, post which each one had to convince others to discuss his/her topic.

Fast-forward to my 1st day at Hikal. It was very unique as compared to my 1st day at Accenture since the office at Hikal was relatively small as compared to Accenture but when compared to that of any other

manufacturing firm it was quite large. On my 1st day at Hikal, I was given a basic briefing about the firm and they had also well planned about the projects that I would be working on. It was customized to my knowledge and my experience - **“Inventory Analysis based on Industry 4.0”** something which I admire since it was a unique learning experience. Similarly, the other who joined with me had been assigned to various projects. We had complete ownership of our project and received time to time guidance from our mentors who provided precious insights based on their vast experience.

The internship tenure of 2 months at Hikal was a great experience since I could apply all the knowledge gained during my first year at SIMSR and Hikal also provided the required resources as and when required. I had an opportunity to visit their pharmaceutical plant and understand the manufacturing process which was a unique experience.

The opportunity to interact with Sameer Hiremath, Joint Managing Director and the CEO of Hikal Ltd. was inspiring! He spoke about his journey and the lessons he learned. I am really glad and thankful to our college and Hikal Ltd. for giving me this opportunity to be a part of Hikal Ltd. It had been a wonderful and memorable experience.





## Intern@



## Rohit Deshpande MMS Operations 2018-20



Summer Internship plays a very important role in an MBA student's life as he/she gets clarity of the field in which they want to work post-MBA and get a gist of the corporate environment. My internship at FSC has been a fruitful one with a lot of learning opportunities and management experience.

Being associated with a firm like FSC, I was very much excited to join and was introduced to the various processes carried out in the warehouse on the first day of the internship. I was shifted to Lonad warehouse where FSC were planning to set up a new warehouse for their client JKHC. I could explore more in the field of warehousing as it was a new process and was accompanied by very well experienced subordinates.

My first month of the internship was focused on understanding the new set up process where I learned various aspects of warehouse layout design, workforce management, integration of

systems of the two parties involved and many more. Since the process was new, data entry and other functions were carried out manually. My main task was to aid in the planning of day-to-day activities which will help streamline the process and cut the turnaround time of the process which we managed to do in a short span of one and half month. We managed to dispatch 45000 boxes as per the invoices with negligible errors.

Last two weeks, I was back in the main warehouse to learn the warehouse management system which FSC uses to manage its warehouse operations. It was a great experience working on software which handles such complex warehouse operations so effectively.

I'm thankful to the staff at FSC Lonad for giving me opportunities to explore and implement my ideas in the early phase of the warehouse set up and for being cooperative in my internship tenure.



- ❖ **Sheetal Tayal and Snehil Singh, Ecole des Hautes Etudes Commerciales (EDHEC), France**

*“As aspiring consultants, it is really important to understand different functions and strategies. Working on this article helped us to gather in-depth insights about SCM, a thing of paramount importance. And Momentum gave us the right platform to present our knowledge and skills in BI.”- Winner and Writer of The Impact Of Business Intelligence In Supply Chain Management, June 2019 Issue*

- ❖ **Abhiram Padmanabhan, Indian Institute of Foreign Trade**

*“Penning an article for FORSE on the technological revolution in the logistics sphere was a splendid experience. I'm sure FORSE has come a long way in fostering the SCM erudition in the B-School fraternity. I wish them the very best in all their future undertakings.”- First Runner-up and Writer of Technology - Orchestrating The Revolution Of The Logistics Sphere, June 2019 Issue*

- ❖ **Sachi Ahuja, Narsee Monjee Institute of Management Studies**

*“MBA has a lot to do with reading Case studies, articles and those endless material on a daily basis. Intaking so much of knowledge made me write articles. The more I wrote, the more I found a nee thing I got interested in reading. It has been a wonderful experience for me and I wish to continue writing on the topics that interest me.” - Second Runner-up and Writer of What Makes Box 8’s Delivery System Different, June 2019 Issue*

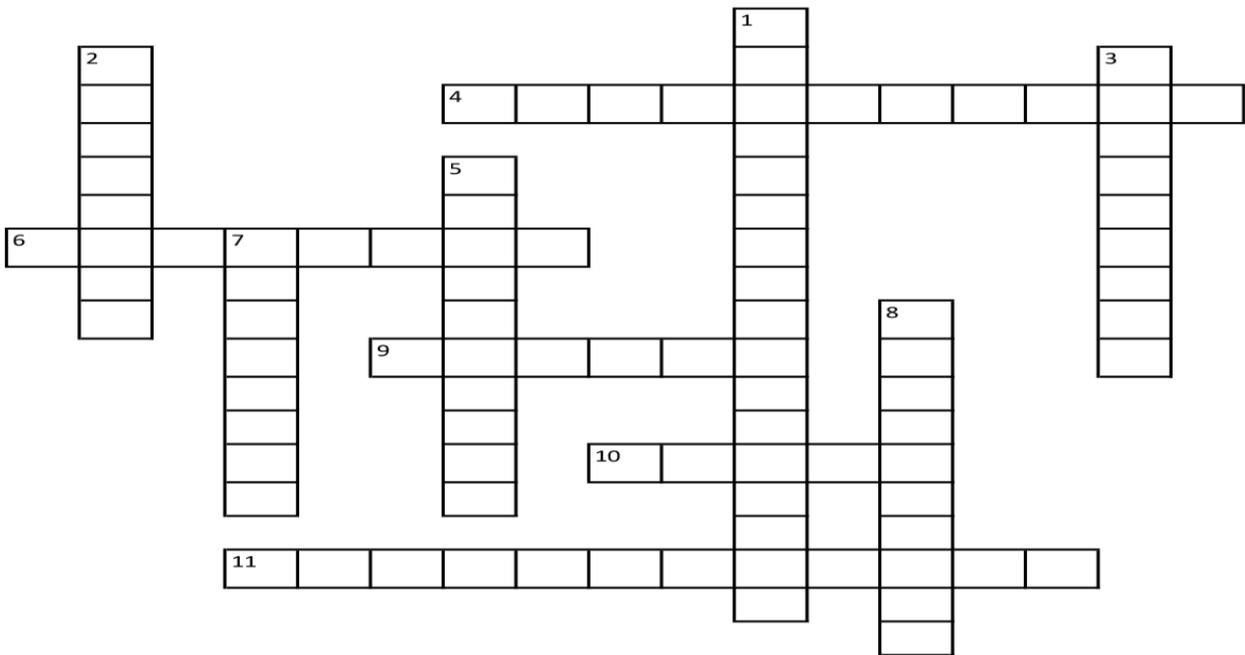
- ❖ **Piyush Rathi and Ankit Vyas, K J Somaiya Institute of Management Studies & Research**

*“The water does not flow until the faucet is turned on. This was the inspiration for me and my co-author to write an article about a topic which we always loved and wanted to pen our thoughts about. It was an enriching experience and a good learning curve as we discovered the writer in us.” -Writer of Journey Of Logistics: From Wheels To Drones , June 2019 Issue*



# Brain Teasers

## OpsWords



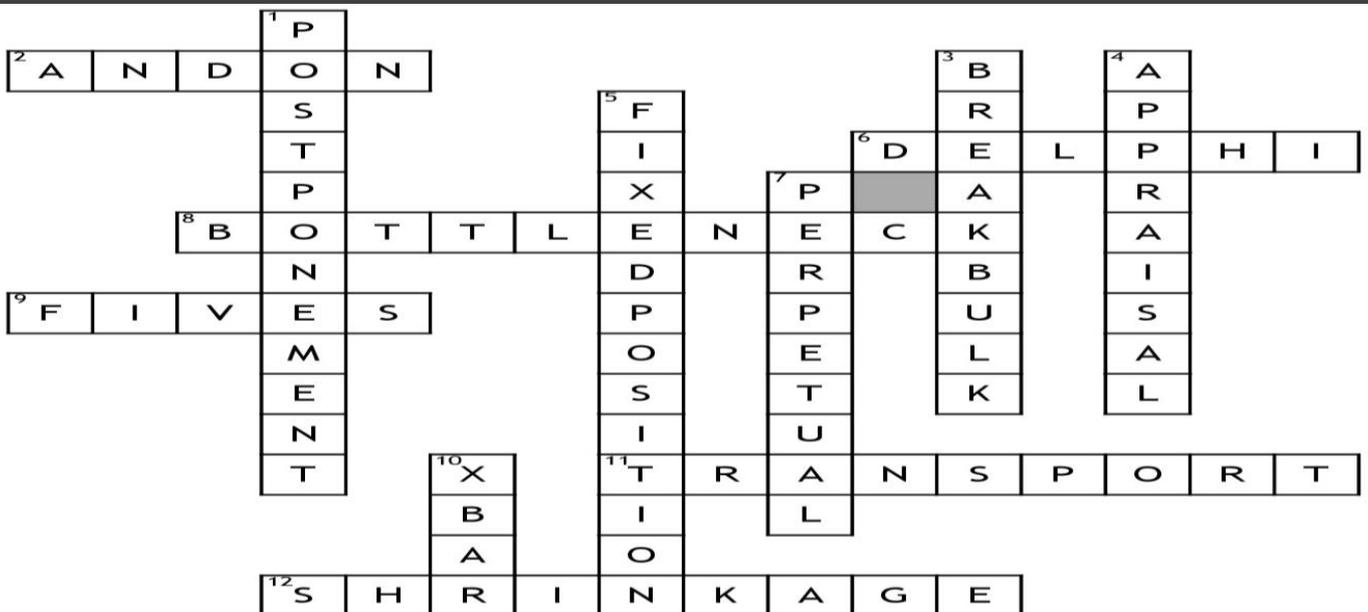
### Across

4. a tool for communicating the critical relationships and metrics needed to understand and implement the strategy
6. A pattern of increasing variability in the demand from the customer to the retailer to the distributor to the manufacturer, to the supplier to the manufacturer etc.
9. Japanese practice of designing processes and empowering workers to shut down the process when abnormal conditions occur
10. Japanese term that refers to the warning lights on an assembly line that light up when a defect occurs.
11. reducing the number of inventory transactions by relieving (reducing) the inventory count for parts only when the final product is shipped

### Down

1. a cost process system that maintains and processes data on a firm's activities and products. Identifies the activities performed, traces cost to these activities.
2. service quality instrument that measures the gap between customer expectations and perceptions after a service encounter
3. term is used in project management and new product development to suggest that a set of steps is not started until the previous set of steps is complete
5. amount of time a visitor stays on a website and the ability of the website to hold the attention of the visitor
7. It is time between ordering and receiving.
8. science of designing work to be consistent with the capabilities (and limitations) of the human body

## Answers of OpsWords of June 2019 Edition:



## Brain Teasers

- Caselet

### ESCOM-COPING WITH RUNWAY CAPACITY NEEDS

ESCOM is a producer of electronic home appliances, including VHS (Video Home System) television recorders, located in northern California. The packaged product weighs about 75 kg. ESCOM was not the innovator of the system. Rather, its managers sat back and let RCA and others develop the market, and ESCOM is currently producing under license agreements. ESCOM has a conscious strategy of being a follower with new product innovations. It does not have the financial resources to be a leader in research and development.

ESCOM's present opportunity is indicated by the fact that industry sales of VHS recorders have increased 30 per cent per year for the past two years, and forecasts for the next year and the two following are even more enticing. ESCOM has established a 10 per cent market share position and feels that it can at least maintain this position if it has the needed capacity; it could possibly improve its market share if competitors fail to provide capacity at the time it is needed.

	Year					
	0	1	2	3	4	5
Forecast, 1000 Units	100	140	195	270	350	450
Capacity (gap), or slack 1000 units	5	(35)	(90)	(165)	(245)	(345)

The forecasts and capacity gaps are indicated in Table. ESCOM regards the first year forecast as being quite solid, based on its present market share and a compilation of several industry forecasts from different sources. It is less sure about the forecasts for future years, but it is basing these forecasts on patterns for both black and white and color TV sales during their product life cycles.

ESCOM's VHS model has a factory price of Rs 600. Variable costs are 70 percent of the price. Inventory carrying costs are 20 per cent of inventory value, 15 percentage points of which represents the cost of capital. ESCOM's facility planners estimate that a 40,000 unit plant can be built for Rs. 5 million and a 200,00 unit plant, for Rs. 10 million. Land and labour are available in the area, and either size plant can be built within a year.

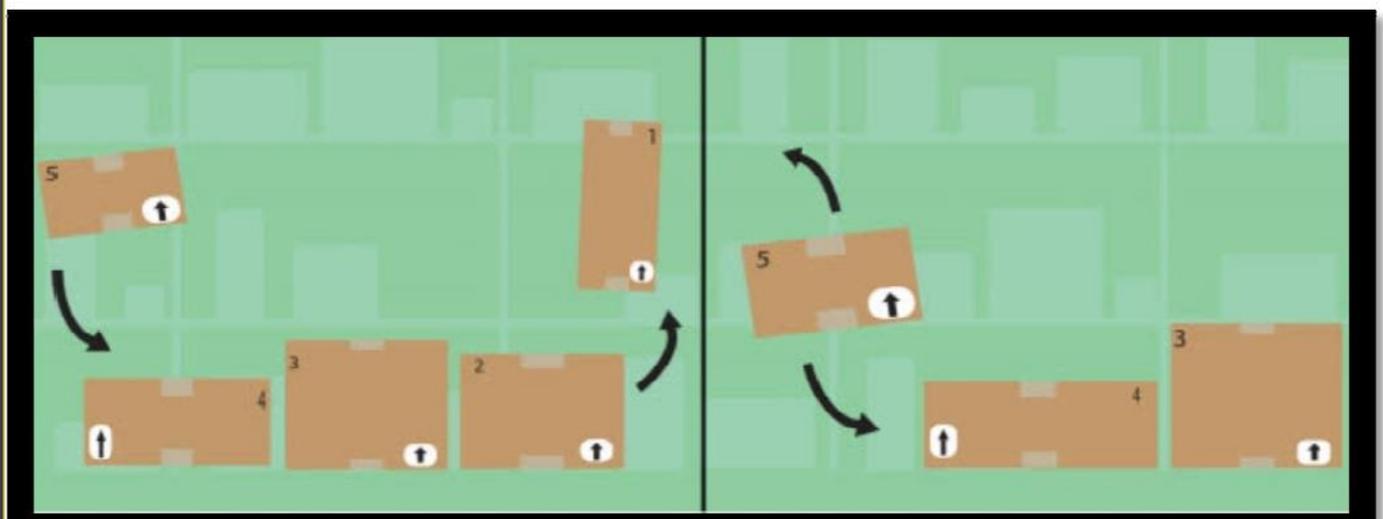
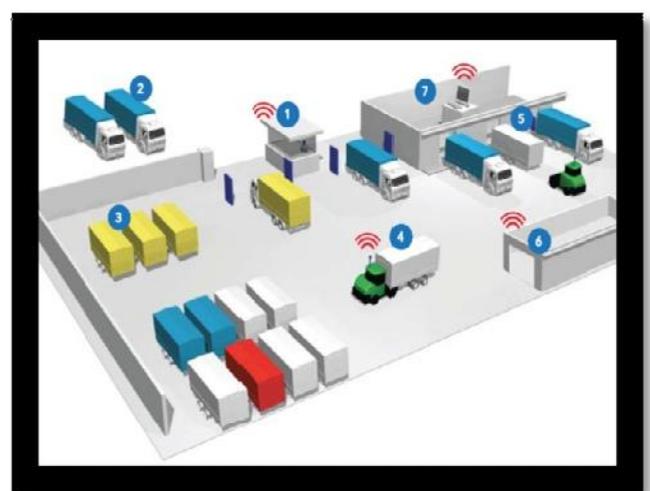
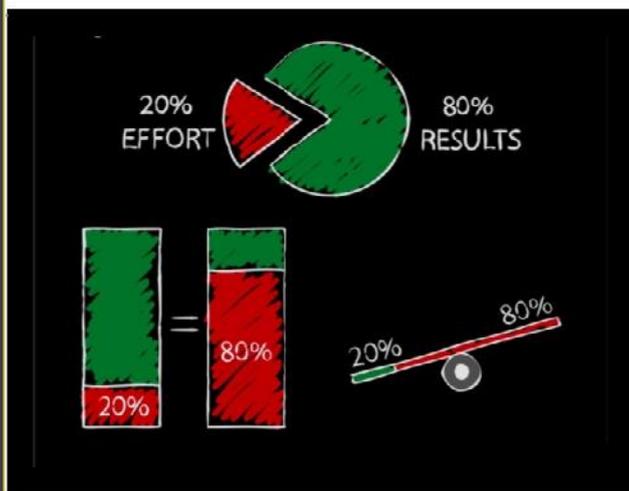
- (a) What capacity plans do you think ESCOM should make for next year? Why?
- (b) What longer-term capacity plans should ESCOM make? Why?
- (c) What are the implications of these plans for marketing, distribution, and production?

[Source: *Modern Production/Operations Management* by Elwood S. Buffa & Rakesh K. Sarin]

# Brain Teasers

- Quiz

➤ Identify the System/Process/Principle from the given images:



# The **ACERS**, The **NEW BEGINNING** ...



**“Coming together is a Beginning;  
Keeping together is Progress;  
Working together is Success.”**

– Henry Ford



# TEAM MOMENTUM



"No one can whistle a symphony. It takes a whole orchestra to play it." -- H.E. Luccock

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