Rahul Kale

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Education

Bachelor of Engineering

Pune, India

Pune University

June. 1999 - May. 2003

- Completed my Mechanical Engineering degree with overall First Class with Distinction grade, Secured 71.9% in the degree examination, 7th in a class of 74 students.
- Research Project included product (tool changer) design and development for a educational CNC lathe machine

Post Graduate Diploma in Business Management

Pune, India

Symbiosis International University

Jan. 2010 - Feb. 2012

- A two year comprehensive Business Management Diploma by Symbiosis University, a top university for management studies in India
- Studied a range of subjects covering Supply Chain, Operation Management & Financial Management securing 1st Rank in the course.
- Course project included defining supply management strategy, new supplier onboarding and development for John Deere Sirhind Works.

Post Graduate Diploma in Data Science

Mumbai, India

National Institute of Security Management & Mumbai University

May. 2018 - Nov. 2019

- Studied a broad collection of units covering many aspects of data science. I learned data manipulation, statistics and econometrics, machine learning and behavioural analytics, securing 2nd Rank in the course with First Class and 81.25% marks.
- My course project included developing product recommendation system for old obsolete products with closest equivalent current products based on machine learning

Assignments

A Brief Timeline

In John Deere, I have had the fortune to work in multiple functions in various capacities. In these assignments, in addition to Pune factory, I could work with Dewas *(I relocated there)* and Sirhind factories while they were still being constructed.
The other significant aspect of my career has been the privilege to explore multiple facets of the functions; developing components at one end and developing factory sourcing at another.
The journey continues…

2016 :	**India Factory OF Manager**: Lead the Factory OF for Pune, Dewas and Sirhind.	*Order Fulfillment.*
2013 :	**Factory SM Manager**: Setup the process and build team for starting the Dewas Tractor Factory.	*Supply Chain.*
2013 :	**Factory SM Manager**: Lead the Factory OF Supply Chain in Dewas.	*Supply Chain.*
2010 :	**Development Lead**: Lead the Supply Chain Sheet Metal and Fabrication Commodity.	*Supply Chain.*
2010 :	**Development Lead**: Lead the Harvester Project as part of Supply Chain including localization of the machine in Sirhind.	*Supply Chain.*
2006 :	**Manufacturing Project Lead**: Lead for the Krish Project for Manufacturing Engineering, an introduction of a new product family with over 7 million USD budget. This project presented a rare opportunity to work with complete product development cycle from conception to Start of Production.	*Mfg. Engg.*
2005 :	**Industrial Engineer**: Lead implementation of WPlanner, a time study tool in John Deere Pune Works.	*Mfg. Engg.*
2004 :	**Line Design**: Selected as Management Trainee, a fast track program in L&T. Introduced new manufacturing stations and worked on capacity and line design.	*Mfg. Engg.*
2003 :	**OFP Buyer**: Joined as a fresh Graduate with L&T - John Deere, responsible for hardware and sheet metal procurement.	*Supply Chain.*

Leadership Experience

Few important learnings

Each of my assignments brought me new learning and opportunities to apply skills gained along the way. I want to highlight few of those learning.

Managing Disruption

Order Fulfillment

Managing through COVID *2020 - Current*

- Pune Factory restarted in early May while Dewas and Sirhind in late April. All the factories had closed in late March. This was a disruption of 40+ days (lockdown period).
- Maintaining team engagement in lockdown period with regular communication , supporting them through home working, and ensuring meaningful projects.
- Develop scenario planning to work through resumption plans of factory and arrive at optimum market commitments and factory stretch. Execute the plan and reconcile with on-the-ground challenges.
- While we have lot to learn, the pandemic is a humbling experience which teaches us to look at how we have optimized our businesses and potential of disruptions due to black swan events

Lead change management

Order Fulfillment

Digital Transformation *2016 - 2019*

- Recognizing the urgent need to move away from traditional processes such as manual excel based planning to overcome the challenges of *one version of truth, inefficiencies in scaling, lack of reproducibility and making the process* ***vulnerable to increasing complexity.***
- Overcoming the questions of *why-break-a-working-system, this-increases-work, and why-learn-something-new*
- My learnings: Start small and with step by step approach, drive smaller changes first or easy wins enabling all to see benefits of change.

Build for future

Supply Chain

Strategy and Execution *2013 - 2016*

- I was the OF Supply Chain lead in Dewas during the start-up phase for this group-up new facility.
- In this role, I was responsible to develop procurement and warehouse strategy and process for Dewas OF Supply Chain. In addition to setting up the procurement process I got the opportunity to define raw inventory accuracy
- Among the highlights of the Dewas OF SM is 100% raw material warehouse operations outsourcing. This is the only facility in India where this is implemented.
- I continued working in Dewas beyond the startup phase and successfully executed SM operations for a total of 3 years. We also had the satisfaction of completing the comprehensive Internal Control Audit in Dewas with high score and no unfavourable remarks.

Establish Supply Base

Supply Chain

Navigating unknown challenges *2010 - 2013*

- In my first job in managerial role I was responsible for new part development in sheet metal commodity, tooling development, costing and price settlement. I was also responsible from Supply Chain side for start-up of Grain Harvester facility at Sirhind

Navigating unknown challenges

Supply Chain

Establish Supply Base *2010 - 2013*

- Sirhind facility was the first endeavour for bringing in *a Grain Harvester* ,in India from John Deere other than tractors. The project involved rapid localization of parts and implementation of, *kitting process from China* ,for other remaining parts.
- The novelty involved in this activity was exceptionally high compared to other localization due to a novel product and design requirements.
- Me and my team was responsible for scouting supply base for sourcing of the new complexity introduced by Harvesters, developing the suppliers and onboarding them. We developed sources for complex sheet metal tooling, designing and executing the localization.
- I worked with the China sourcing team for consolidating the common parts which were not part of immediate localization efforts. We onboarded a new supplier to consolidate the parts from the supply base, do quality checks and follow a import schedule.

Influencing

Manufacturing Engineering

Creating trust *2006 - 2010*

- I was responsible for implementation of two critical projects: the first was implementation of new time standard on Pune assembly lines and the second was leading the Manufacturing Design subprocess for the EPDP program for 5C tractor platform.
- For the implementation of time standard, I had the opportunity to work on a new tool *WPlanner* and interact with the workforce, explaining them the changes in work standard which would impact the work pace.
- While working as the lead for Manufacturing Design subprocess on 5C product line introduction, I worked with my colleagues to ensure the activity of capital procurement, line design, workstation changes were executed as per project expectations and timeline
- Both the projects involved working as a individual contributor while working with multiple stakeholders. This phase taught me the importance of building relationships, developing trust and credibility and acting in fair and transparent manner to be successful in executing the goals.

Work Experience

Sales and Operation Planning : *Order Fulfillment - 5+ years*

- Lead a team of planning engineers for doing Sales and Operation Planning for Pune, Dewas and Sirhind factories in India. Planning involves domestic India forecast for rolling 18 month and working with stakeholders for export planning. Manage annual volume of 100K tractors with 20K+ DT aggregates among other interfactory parts

Production Planning and Control : *Order Fulfillment - 5+ years*

- Guide the team for day to day production planning, guiding on balancing constraints and executing control

Product Configuration & Complexity Management : *Order Fulfillment - 5+ years*

- Guide the team to develop complexity index, understand pruning of portfolio to limit variant proliferation and for new EPDP projects work on creating variant configurations

Complete Goods Asset Management : *Order Fulfillment - 5+ years*

- Develop targets and band charts for Finished Good Inventory, execute control to manage the Inventory. Work with finance to manage aging of FG and appropriate liquidation plans. Work with stakeholders for PxP DOH targets and control.

Factory Leadership Council Member : *Order Fulfillment - 5+ years*

- Participate and Contribute in Factory Leadership Council on strategic planning and initiatives, long term planning, annual goal setting among other.

Direct Material Procurement : *Supply Chain Management - 6+ years*

- Leading a team of buyers for establishing and executing procurement policies and managing procurement with diverse and international Supply Base for commodities including Sheet Metal, Electrical, Hydraulic, Castings and Machining, Gear and Shafts, Hardware, Oil and Coolants among others. Managing annual procurement in excess of m$100.
- Leading warehouse staff for working through warehouse plans including designing layouts and storage systems, replenishment systems, Kanban or 2-bin systems. Defining material handling needs and working on optimum layouts for reducing congestion. Management of Docks and receipt planning. Designing transport storage systems for optimized logistics cost.

Inventory Management and Control : *Supply Chain Management - 6+ years*

- Defining Inventory DOH targets, SAP MRP parameters, and working with suppliers and buyers to optimize procurement and minimize inventory. Defining Cycle count process based on ABC categorization and ensuring inventory accuracy.

Part Development : *Supply Chain Management - 6+ years*
- Leading team of PDP SM engineers for managing development lifecycle from design drawings to PPAP of Sheet Metal components.
- Defining costing norms, doing should-cost analysis and settling part cost with suppliers. Working on tool design, production process and establishing quality norms for regular procurement.

Line Design : *Manufacturing Engineering - 5+ years*
- As a Industrial Engineer define line or station layout, work content, conduct time study and establish work norms.
- Engage with indirect suppliers for procurement of tools, machine and equipments for capital purchase and establish required manufacturing capacity.
- Work on EPDP process and Manufacturing Design engineer and lead through completion of all program execution phases.

Digitization Potential

Working with Data

Increasingly technology and data have become more accessible. Leveraging these offer tremendous opportunities in changing the way we work, bringing in a completely new paradigm, enabling us to ask questions and expect *reproducible and repeatable* answers to those questions.
Seeing the potential of data in my area of work, i embarked on completing my Post Graduation in Data Science to help learn and drive progress in this exciting domain.
Here is summary of the work initiated in OFP:

Data Pipeline
- With data being generated with every transaction, it is important to think about how accessible is the data, is the process generating it consistent, what is the refresh cycle and the ease with which we can use it.
- Before embarking on our journey of a digital OF, we worked on developing strong underlying process to ensure our data capturing is consistent.
- We leveraged the SAP - HANA sidecar for accessing the data our process generate.
- This is a very significant portion of the digitization journey and takes time. We established and ingrained the new processes into our work culture abalbing a high degree of reliance on the underlying data and it's reliability; making it reproducible and repeatable.

Replace
- Bringing in change is difficult, especially so if you are trying to make reports automated which were painstakingly generated by individuals.
- To make the process smooth and make sure we develop trust on the new system, we started replacing one report at a time, deploying automated reports in-parallel.
- I leveraged R - open source programming language to connect the data and work with it to deliver majority of the reports, deploying programmers where necessary.
- Majority of our reports were changed with this process; some example include our OFP summary production and shipment summary report, order bank reports, configuration process preparation reports, production control reports etc.

Innovate
- With the reports automated, focus was on going beyond summary and asking more analytics out of the data.
- One area which is of particular pain to us was India domestic Shipment forecast.
- I leveraged historical sales to generate rolling sales forecast utilizing multiple forecasting models and ensembling the results.
- Another area was to identify current equivalent products for the old obsolete ones. I deployed clustering approach using machine learning algorithm to automate this process.
- A third example is deployment of SAP - IBP tool, a first in Deere for making our S&OP process capable, fast and structured.
- We will continue to work on innovate-report-innovate cycle through multiple other reports
- These anlaytic cycle help business bring in structure and advantage.
- The last aspect is to take generation process out of the cycle to make the deployed analytics autonomous. This is done leveraging markdown and data visualization

Potential
- This approach converts the traditional process where focus is on as-is status reports to focus on asking meaningful what-if questions and make the data provide answers - in a reproducible and repeatable way.

My skills
- Understanding of Data Science, leveraging the same for Business Analytics and lead transformation projects. *- High to Expert.*
- R Langauage for analytics, visualization and reporting. *- Moderate.*
- Tableau for data visualizaton and reports. *- Moderate to Expert.*
- MS Excel. *- Expert.*
- Python Programming Language. *- Beginner.*
- This resume is programatically generated using R-langaue and RMarkdown. Data is in stored in a googlesheet, making the generation process repeatable for updates.

Distinctive Mentions

2019	**2019 President Award of Excellence** Trade Flow Realignment Project
2019	**Outstanding Team Achievement** Dewas Business Improvement Team
2018	**Trade Secret: P28429** Export Production Planning and Dispatch tool.
2017	**A&T Asset Project of the Year** m$ 40+ reduction in assets in Pune, Augusta and EU
2010	**CEO Award** 5C Platform introduction in India
2010	**2010 President Award of Excellence** 5C Platform introduction in India