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Secrets of Successful SAP Integrations: Mergers & Acquisitions

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Abstract:-

Purpose: The purpose of writing this paper is to provide insights of successful SAP integrations as part of mergers and acquisitions journey of the companies.

Problem: Companies allocate substantial budgets for SAP integration projects running in to millions of US $ and if these projects are not executed with a very structured and proven methodologies then it will have a significant downstream impacts not just to the dollars spent but a more significant impact to the overall supply chain strategy and companies will lose heavily on customer satisfaction levels and service level agreements set for supply chain metrics like on time and in full, Inventory turns, Fill rates, Inventory days of supply, Customer service, Inventory to Sales Ratio, Total replenishment lead times, Inventory carrying cost , back order rate etc.

With enterprise resource planning (ERP) at the heart of the many organizations operations failures of software roll outs can lead to shareholder dis-satisfactions due to crashing stock values and financial meltdowns. Based on research by CIO in 2015 just 58 percent of organizations rated their latest project a success, while by 2019 that figure had risen to 88 percent.

According to an article published in Bright Pearl Revlon brand was sued by its own shareholders for a failed ERP SAP S/4 HANA project. When Revlon acquired Elizabeth Arden Inc. in 2018 and signed up for SAP S/4 HANA for to merge the operations of both the companies the results are disastrous costing the brand a $ 64 Million in sales losses. Revlon claimed that SAP S/4 HANA software was not mature enough for such a large-scale integration.

Methods: Methods used to address the research problem are proven methodologies of SAP integrations gained by experience of doing these kinds of complex integrations again and again and getting the things right first time by following a proven, very structured, and disciplined approach are discussed in detail.

Conclusions reached: It requires lot of experience to execute these projects and there is a need to make quick decisions in each phase of the project. To be successful you need to have flawless execution skills in addition to a good strategy. There is a need to apply flawless execution skills in each phase of the project right from project initiation & planning, resource planning and allocation, Business process discoveries, Design/Build, Configurations and Customizations in realization phase, cut over planning, Final project preparation as part of Go Live and stabilizations. The strategies, challenges and best practice approaches are discussed in detail to conclude that we can make these complex integrations successful again and again if we follow these proven methodologiesand have an attitude of refuse to lose.

Significance: The significance of this research project is very high as many things are at stake, to name a few high investments running in to multimillion US $, supply chain risks not able to fulfill set targets in terms of metrics, loss of trust in the organization etc. These projects are highly significant because of the visibility of senior leadership teams as they are discussed in town hall meetings on regular basis.

Keywords:- *SAP (Systems, Applications and Products in data processing), Supply Chain Heavy Integrations, Mergers & Acquisitions, Food Industry Global Supply Chains.*

I. INTRODUCTION

This report shares the real-world experiences of author integrating acquired companies as part of mergers and acquisitions into SAP landscape working for a giant frozen food manufacturing company having 47 manufacturing plants across United States besides distribution centers for dry and cold storage. This company keeps acquiring new companies and consolidating IT systems is an ongoing activity. Recently we acquired another giant manufacturing company with 19 manufacturing plants across US and we quickly started the consolidation efforts. This report talks about proven methodologies, resource challenges, IT outsourcing through SI (System integrator), Program management, Design challenges Globalization vs Localization, build phase, testing phase, cut over planning, Go Live, Stabilization and change management.

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II. MATERIALS AND METHODS

We follow a roll out process of SAP implementations where global template is utilized. Different phases of SAP integrations we adopted are Discovery, Gap identifications, Configuration, Design phase/Build phase also called realization phase, functional unit testing, system integration testing, cut over, Go-Live and stabilization phases.

We go with the assumption that 80% of the business processes of acquired companies fit in to the global template of SAP and there is a possibility of 20% new business processes the acquired companies may be using and, they also may be using some new systems like MES (manufacturing execution systems) which are beneficial in terms of productivity and efficiency, and we should have a plan to integrate these systems with SAP. We adopt a strategy of taking inventory of systems and applications of acquired companies and make decisions on which systems and applications we will be bringing in the scope of integration and which we are retiring, either way we should define the scope well and manage it throughout the program.

Discovery phase: In discovery phase we make plant visits where we try understanding the business processes of the acquired companies literally watching the manufacturing execution process how the product is moving from one machine to another, how material is staged from warehouse to manufacturing staging area closer to consumption.

How many semi-finished products are there and how they are getting transformed into finished products and how the products are being packed, are we storing semi-finished products in inventory, or they are continuously processed on the conveyor lines/machines defines the levels of semi-finished materials in bills of materials and the number of processing operations in master recipes.

Also are there any materials which will be backflushed like consumable ingredients like oil versus direct issue materials against the shop order. There are different methods of production like discrete manufacturing, process manufacturing and repetitive manufacturing. In discovery phase we identify the products which will fit in to these manufacturing types and accordingly SAP will be configured.

In discovery phase there is a need to bridge the knowledge gap by bringing in resources who are knowledgeable both in business process area and SAP module wise who can work closely with business experts in respective functional areas like plan to manufacture, plan to procurement, warehouse management, quality management, finance and controlling, plant maintenance etc. Discovery questionnaires will need to be prepared upfront in each area which can be shared with business stakeholders and in working sessions (workshops) all the questions need to be addressed and documented. These questionnaires serve as in input to AS-IS and To-Be business process flows, and they will become an input for documenting the business requirements. Business requirement documents are used to arrive at fit-gap analysis, a particular business requirement can be fulfilled by standard out of the box configuration or by a custom enhancement. Custom enhancements are tricky, and we should be very careful while making decisions related to custom enhancements for several reasons like how these decisions will have a global impact especially in template-based roll out projects where the enhancements at times can negatively impact other plants which are already live with SAP. Also, you need to pay attention while designing the complex enhancements thinking long term how they can negatively affect production support when the project is transitioned to Run/Maintenance phase as part of AMS (Application management services) and the company SAP SE which owns the software will not provide any product support for custom enhancements as part of your regular contracts or max attention premium services contracts.

Max attention premium services are the offerings of SAP to premium customers where they support the product by deploying TQM (Technical Quality Manager) who essentially works with SAP back-office product resources to solve OSS messages raised for critical issues.

Build Phase: Based on the identified gaps as part of the discovery phase there is a need to address these gaps. Some of the gaps can be solved by standard out of the box configuration which is the best practice. There will be some gaps which may not be solved by standard out of the box configuration especially when there is a need to integrate/interface SAP with third party applications like MES systems example CAMSTAR, Kitchen batching systems, LIMS (Laboratory Information Management Systems) etc. In these circumstances we document these gaps and will address as part of Build phase or Realization phase where technical development resources from coding perspective and integration architects from interfacing SAP with third party applications utilizing middleware applications like SI (Sterling integrator from IBM), MuleSoft, BIZTALK, PI/PO etc. are onboarded. One of the latest technologies SAP SE is promoting is BTP (Business Technology Platform).

III. TESTING APPROACH AND METHODOLOGIES

As part of SAP projects whether they are roll out or green field/brown field implementations testing plays a significant role. There are various types of testing strategies but at a high level they can be classified as functional unit testing, System integration testing and User acceptance testing.

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Functional unit testing: Is primarily executed by system consultants to validate the module specific configurations related to master data and transactional data. Example testing a BOM (Bill of material) creation or Master recipe creation or process order creation. Functional unit testing can be specific to one module or may be two at the most.

System Integration testing: Is primarily executed by the system consultants to validate end to end business processes cutting across multiple SAP modules including interfaces with third party applications

User acceptance testing: Is primarily executed by business users to validate end to end business processes cutting across multiple SAP modules including interfaces with third party applications.

IV. CUT OVER APPROACH

Cut over basically means transitioning to live SAP production systems. As part of cutover many decisions are made related to inventory. Example cycle counting of the inventory and loading the inventory into SAP production systems is one of the major activities. During cutover plant/factory is completely shut down and no manufacturing/production happens.

V. GO LIVE & STABILIZATION

Go Live is the planned established date when users start using SAP systems for all the supply chain activities like production, procurement, quality, shipping etc. During stabilization which is normally planned for couple of weeks depending on the size of roll out we make sure that all the business first transactions are executed in SAP systems and a 24/7 support is provided to the plants to make sure that critical supply chain activities are performed efficiently and effectively. SAP forces users to be disciplined when they are executing transactions and any wrongdoings are not tolerated. Both Go Live and stabilizations are high visible activities of the project as everyone in the organization including top management teams are closely watching the activities. War rooms are created staffed with skilled resources to solve all the system issues for an uninterrupted business.

VI. MANAGING SYSTEM INTEGRATORS

SAP projects are complex from resource perspective as these projects needs subject matter experts who are knowledgeable from both systems and business process perspective. These projects require anywhere between 100-150 skilled resources for the entire duration of the projects. It's important to manage the system integrators work closely in every phase of the project. We use multiple vendors/System integrators to get the specialized knowledge and sometimes we even hire contractors to accomplish our goals. So, it's like buying multiple cars to fulfill the required skills but we always are the drivers responsible and accountable and making all those crucial decisions related to resourcing. At times we made tough decisions to roll off the underperforming consultants from system integrators or independent contractors. There is a need to make decisions quickly in these projects and it is important to constantly evaluate the work of multiple vendors who have their own business interests many a times which are not aligned to ours for example the system integrators will deploy less knowledgeable resources and claim high billing for the underperforming resources so if you are not making those tough decisions then you may not be successful.

There is a shortage of combined skillset of manufacturing, Information technology and project/program management in United States, meaning key leaders who have experience gained through working for working for domain manufacturing companies and at the same time have experience with latest technologies like SAP and project/project management of business transformation projects with technology enablement.

There are many lawsuits between consulting companies and fortune 500 end user companies blaming each other for the failed enterprise resource planning projects (ERP). Miami based firm that makes and distributes diesel and gas-powered generators, filed a lawsuit against SAP America Inc. and Vision 33 Inc., itsservices contractors seeking more than $ 2 million in damages over an SAP Business One ERP project. All this due to making wrong decisions and not so knowledgeable resources.

According to a report published by Panorama consulting Chicago based brewer MillerCoors sued Indian technology services firm HCL (and its American affiliate) for more than $ 1 million.

Based on the report published by the Institute of Electrical and Electronics Engineers (IEEE) which relied on responses from 350 chief information officers, chief technology officers and other technology leaders in United States predicted that in 2022 they will have a plethora of difficult IT problems to solve which includes managing software, applications, and data.

VII. RESULTS

Once we followed a very structured and proven methodologies based on our designed template for each phase of the project, we achieved successful results. However, based on the challenges you face in a particular phase there is a need to make some quick decisions based on the situation instead of blindly following a particular process or methodology, for example in some of the phases when we are not getting the desired results due to some wrong hirings we quickly made some tough decisions to get the project on track. Also, in another phase we introduced a scope change

management discussionand made sure that any major design change is discussed thoroughly and designed a process for necessary approvals. It's not possible to follow agile methodology for all the phases of project, mostly waterfall is the proven methodology however for build phase you can attempt agile methodology so that you can validate the real impact of enhancements and can accordingly re design based on business feedback, correctly understanding the exact business requirements and defining the problem accurately is a specialist skill for providing right solutions.

VIII. DISCUSSION

Its important to track the results on a weekly basis otherwise there is a strong probability that you miss out any key deliverable or a key decision. We followed a very structured 4-Box reporting methodology where accomplishments, key decisions, planned activities, risks, decisions needed, and progress of the milestone activities are documented and discussed on weekly basis and appropriate risk mitigation techniques were applied. We also tracked the project in terms color coding legends like green for on track, yellow for minor delay and red for major delay in key areas like budget, resources, technology integration, scope etc.

IX. CONCLUSION

We have a phase post go live and stabilization where all the good things, not so good things which happened during the overall project are well documented as part of lessons learned and these are taken as an input to future projects for redesigning a particular methodology, for example one of the learnings is related to change management both from business process and system perspective. In these business transformation projects there is a need to redesign a business process if it is not benefiting the organization through business process reengineeringinstead of carrying those wrong practices and trying to map those wrong doings into the systems. So, it becomes very crucial to follow best practice methodology in these business transformation projects with technology enablement.

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