



**SUPERIOR UNIVERSITY**

### **Fetching the Rational ERP – Chemsolve**

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Organization: Chemsolve Industries (pvt) Ltd.

This case was written by Muhammad Jawad Masood and Muhammad Rafiq. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation.

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## Fetching the Rational ERP – Chemsolve

On the monthly payment run of January 2nd, 2021. Mr. Farukh Izhar<sup>1</sup> was approving the invoice and the Oracle ERP invoice just came out with a load of payable for the sake of Resource planning management. After reviewing the whole invoice, he demanded the annual report for the Oracle. All attention was diverted to the huge payouts made as a whole report. After meaningful consideration and management discussion, the management decided not to go further with Oracle and have to find a substitute with the same paced work and more accurate integration. The cost reduction was becoming a priority for them to solve after taking it on a serious note. This issue was highlighted multiple times at the board meetings. All they have was to find an alternative with less cost and good performance.

### THE ORGANIZATION: CHEMSOLVE

Chemsolve Industries Pvt Ltd began as Izhar Enterprises Pvt Ltd in 1992 and changed its name to Chemsolve Industries PVT Ltd in 2004. Chemsolve Industries grew from humble beginnings to become a trusted name in the chemical industry through fair and honest business methods. Today, this company has branches all throughout the country, and this trust is a valuable asset for the people who operate it, as Chemsolve is the country as a whole. Chemsolve Industries has grown, extended, and diversified for over two decades, based on its experience and client satisfaction. Chemsolve Industries produces a wide range of chemicals, including formaldehyde and UF resins<sup>2</sup>. They are pleased to be introduced as a premier manufacturer and supplier of specialty chemical products. In today's world, everyone is concerned about finding high-quality goods at reasonable prices. That is exactly what they solve are doing. Chemsolve Pvt. Ltd. takes pride in providing Best Solutions to their Reputable Customers while keeping their needs and aspirations in mind. The product line is well-known and widely used. Chemsolve's products are designed with innovative technologies and precision methodologies in mind. Chemsolve is constantly improving the quality of our products and making changes to their composition, resulting in improved performance and total customer satisfaction. Their New Products are introduced to the market on a regular basis, and they always meet or exceed our Clients' requirements and expectations. Chemsolve Pakistan Private Limited is a Pakistani company that manufactures and sells formaldehyde, urea formaldehyde, and aminoplast molding compounds. It sells formaldehyde and resins containing formaldehyde. The company also offers aminoplast molding compounds for the production of dinnerware and electrical accessories. MCP<sup>3</sup>, UFC80<sup>4</sup>, and urea-formaldehyde are among its products. Chemsolve Pakistan Pvt Ltd was established in 1992 and is headquartered in Lahore, Pakistan.

### Expansion Plan

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<sup>1</sup> Chairman of Chemsolve

<sup>2</sup> Urea-formaldehyde

<sup>3</sup> 1-Methylcyclopropene is a cyclopropene derivative used as a synthetic plant growth regulator.

<sup>4</sup> Urea formaldehyde

Mr. Farukh Izhar plan to change the CMC to ERP system but the directors of Chemsolve does not agree to convert to ERP system because ERP system too much expansive therefore,CEO Mr. Farukh Izhar decided gave ERP system to other organizations for reduce cost of purchasing ERP system. Chemsolve Pvt ltd has been producing adhesives in various locations across Pakistan for many years. When the owners of Chemsolve Pvt ltd decided to sell the company's factories, they wanted to structure operations in such a way that investors would find them appealing. This included lowering the cost of running the manufacturing business so that the new owners could get off to a profitable start, as well as ensuring the best possible process efficiencies. The owners were particularly concerned about several factories that were to be resold as a group as they worked toward these objectives.

### **Change in IT infrastructure:**

Chemsolve Pvt Ltd's IT infrastructure and operating costs posed a challenge in this regard. Mr.Farukh Izhar CEO of Chemsolve Pvt ltd had invested in an ERP<sup>5</sup> system that was costly to maintain and run. To adjust this complex and highly customized system, an upgrade would be required, followed by adjustments to meet the needs of the new business entities. The owners felt that going this route would be too time-consuming and expensive and that the eventual day-to-day operating costs of the software would be far too high. In fact, these costs would rise by roughly 85 percent. The Oracle system was far too feature-rich for the relatively uncomplicated process manufacturing Chemsolve Pvt ltd performed, according to a consulting firm Chemsolve Pvt ltd leaders hired to help them manage the organizational and technical changes. While the primary goal was to reduce costs so that Chemsolve Pvt ltd could offer attractive terms to potential buyers, Chemsolve Pvt ltd also hoped to simplify the technology used to run the operation and avoid forcing any purchaser to invest in capabilities that chemsolve did not require.

Chemsolve Pvt ltd implemented Microsoft Dynamics AX 2012 in a private cloud as the ERP system for the factories and operations to be sold, based on recommendations from project team members. (Annexure 1) Furthermore, To-develop Business Integration Solutions for Microsoft Dynamics Connectivity Studio, To-develop Data Collection Studio, and To-develop EDI<sup>6</sup> Studio were used to facilitate the transition and support efficiently, ongoing operations in the spun-off entities.

### **Installation of Microsoft Dynamics:**

Mr.Farukh Izhar CEO of Chemsolve PVT Ltd project was a huge success. The entire software implementation, including data migrations and system integrations, took only 10 months. (Annexure 2) The factory operational requirements they solve are fully met by using standard Microsoft Dynamics AX<sup>7</sup> without any customizations. The new ERP infrastructure, on the other hand, will not have anywhere near the administrative burden that its predecessor did. Annual software running costs them solve reduced by approximately PKR 990000 as a result of this change in ERP software. An equity firm based in Saudi Arabia purchased the group of seven

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<sup>5</sup> Enterprise resource planning

<sup>6</sup> electronic data interchange

<sup>7</sup> Software name

factories that now trade under the brand Prefer Resins. Other investors quickly snapped up the remaining Chemsolve Pvt Ltd operations on the market.

### **Business integration strategy:**

Mr. Farukh Izhar plays a very important role. To-develop Business Integration Solutions helped us perform the rapid and successful technological and organizational change on a large scale, says the project's lead consultant, owner of Briter Chemicals and Ittehad Core as a service at Prefer Resins. They contributed to a much smaller overall IT footprint and significantly reduced complexity, allowing the businesses to introduce the flexibility and scalability they desired." To-develop Connectivity Studio, which supported smooth, reliable data uploads during the initial implementation, now serves as the link between Chemsolve Microsoft Dynamics AX and DeltaV, a process manufacturing tool used in glue factories, in the newly simplified ERP infrastructure. DeltaV manages actual manufacturing, including material consumption, in response to production orders from the ERP system. Connectivity Studio then facilitates DeltaV updates back into Microsoft Dynamics AX at the end of the process. "The interface provided by To-develop Connectivity Studio between Microsoft Dynamics AX and DeltaV is very efficient and extremely reliable. (Annexure 3) Chemsolve is now making it available to other factories so that they can simplify their manufacturing processes as Chemsolve.

To-develop is tightly integrated with Microsoft Dynamics AX. Data Collection Studio took the place of two third-party warehouse management software tools that communicated with both the previous Oracle system and each other. Data Collection Studio, which is embedded within the Microsoft Dynamics AX solution environment, provides us with a fully automated warehouse management system that primarily uses barcode readers and truck-mounted terminals. Data Collection Studio provides warehouse workers with the information they need to pick the right goods from the right locations, finish and label goods coming out of production, and perform accurate, efficient shipping.

Chemsolve's previous operations relied on CMC<sup>8</sup> software to receive and scan electronic invoices, insert them into a workflow for the company's finance team, and expedite Chemsolve invoices to customers. Chemsolve paid for the software license as they solve the services of receiving, scanning, and forwarding invoices on a yearly basis. To avoid these costs, To-develop and Columbus consultants replaced those software functions with a workflow and electronic data interchange (EDI) connections with customers and suppliers created with To-develop EDI Studio. This work included creating an EDI connection between Microsoft Dynamics AX and the SAP system, which allows for seamless information and document exchanges between Chemsolve SAP and Microsoft Dynamics AX.

### **Proven technology to support organizational change:**

Mr. Farukh Izhar to Increase team addressed our requirements and worked quickly and effectively to ensure that the solutions provided the functionality Chemsolve hoped for. To

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<sup>8</sup> Computer maintenance corporation

Increase was critical in facilitating a smooth and problem-free technological transition. This allowed them to concentrate on other aspects of change, particularly the impact on people. The To-Increase solutions work flawlessly within the Microsoft Dynamics AX environment, have a low operational and financial overhead for day-to-day operation, and have a very low upfront cost.

To remain competitive, you must offer a rich set of benefits to attract and retain your best employees. In addition to standard benefits like medical and dental coverage, you might also want to offer expanded services like adoption assistance, recreation programs, and clothing allowances. Benefits management in Microsoft Dynamics 365 Human Resources provides a flexible solution that supports a wide variety of benefit options. Human Resources also includes an easy-to-use employee experience that showcases your offerings.

According to the tech giant, Dynamics 365 will be a gateway to digital transformation for organizations across the globe, vowing to turn business processes into business advantages. Let's take a look at what Dynamics 365 brings to the comparison, and how it aims to drag the world's business processes into the 21st century vs oracle. ([Annexure 4](#))

### **Increased flexibility (and reduced costs)**

Mr Farukh Izhar work very hard for Chemsovle customers & other organizations for the latest technology ERP system. Dynamics 365's modular licensing model means that users don't need to saddle themselves with a monolithic suite of apps they don't use. Instead, businesses can select the apps they need, and build a tailored solution that best fits their requirements. Dynamics 365 also has its own dedicated app store, packed with Microsoft-approved extensions and plugins to help you tailor your solution even further to your own, industry-specific needs.

Its cloud-based nature also gives the flexibility of access too. With its web-based interface, all users need is an internet connection in order to connect to and work with Dynamics 365, meaning your team can get things done anytime, anywhere.

### **Intelligent, native insights**

Rolling together all your processes into one solution isn't just convenient, it can help you learn more about your business. Dynamics 365 comes with Microsoft's AI-infused business intelligence tool Power BI built-in, bringing near-limitless reporting and analytical power to your business data. Mr Farukh Izhar Ceo of Chemsolve completely study & collect information about ERP about analyzing data, business tools, dynamics apps etc.

Power BI's dashboards are natively integrated with the Dynamics 365 apps, so you can get all the insight you need from within one interface. Analyzing data from across your entire stable of Microsoft products, Power BI is able to give cohesive, actionable feedback, make predictions about new opportunities, and visualize your data in ways limited only by your imagination.

### **Boosted productivity**

Mr Farukh Izhar expand the ERP system they share the apps to other organizations for workflows bank data transfers, automations fuctions and also Dynamics help to their tasks.

Breaking down data silos and allowing business apps to share information creates a centralized system, giving your team access to all the data they need in one place. Having a complete picture of your organization and its workflows will help users work more productively. Having one consolidated data bank as a foundation for your apps also negates the need for time-sucking duplicate data entry.

Microsoft has made artificial intelligence a big focus in recent years, and now they're feeding back that technology into their Dynamics 365 products. With inbuilt automation functions, Dynamics 365 can help take care of the repetitive tasks, while pointing you in the right direction on big picture actions.

### **Improved security and compliance**

Mr Farukh Izhar as a Ceo of Chemolve industries also work first for the security. With all the product infrastructure based off-site, keeping Dynamics 365 up to date, functional, and secure no longer falls to you and your IT department. Microsoft handles all of the back-end frameworks at their end, so you can sleep soundly without worrying that you missed out on one of the office computers when installing the latest security patch.

The platform's security model also helps ensure the integrity and privacy of your data. Firstly, you'll never lose your data, as it is safely backed up in Microsoft's secure cloud. Secondly, you have full control over the data that users have access to, meaning your users are never a party to any information they don't need to know to do their jobs. With Microsoft data centers now located around the world, your data will not only be secure, but fully compliant with local laws.

### **A simpler, unified way of working**

Dynamics 365 offers a unified, user-friendly interface that provides your team with everything they need to do their job; no more flitting between apps, or transferring data across programs. Its familiar, Microsoft-esque interface can also help boost user adoption when it comes to rolling out your new solution.

A boon for Citizen Developers all over the world, Dynamics 365 also makes it easier for users to customize their solutions and create new apps with programs like Microsoft Flow. A cloud-based program that helps users quickly integrate other solutions into your Dynamics apps, Microsoft Flow can even help you create workflows based on those third-party interactions. Say you want to implement a social listening strategy as part of your marketing plan; by integrating Twitter with Dynamics 365, you can set up a workflow to create a new lead in your Sales app every time someone tweets a certain word or phrase.

Also included in the 365 packages is Power Apps, a new tool that enables users to build mobile apps that meet their individual needs. The drag-and-drop nature of the app builder means users can build apps without the need for complex code, empowering users to customize their solution and ensure they get the most out of its functionality.

Unsurprisingly, Microsoft is super keen on all of their products playing nicely together, and Dynamics 365 is the epitome of hyper-connected software. Dynamics 365 not only has a similar look to its Microsoft brothers and sisters, but it also incorporates their features, meaning you can create documents and track emails from within its interface.

With all of your apps able to talk to each other and share information, Dynamics 365 can do helpful little things like show previous contact and relationship information when you receive an email, or remind you to add an appointment in your calendar if a customer asks to be

contacted on a specific date. Dynamics 365 also boasts native features which previously required third-party add ons, such as tracking email opens and click-throughs. With Dynamics 365 so fresh on the scene, it'll be some time before we see to what extent it can deliver on such big promises. In the meantime, keep an eye on our blog for the latest news and updates on Microsoft Dynamics.

**Annexure 1: Dynamics 365 vs Oracle Sales Cloud Result:**

Both companies took approximately 15% more time than what was planned. Dynamics 365 did take a bit more time in total than Oracle. Oracle takes this one, but not by much.

**Project Cost**

The total project cost includes the cost of the actual system and its implementation and customization.

<ul style="list-style-type: none"> <li><b>Dynamics 365</b> – \$2.04 Million</li> </ul>	<ul style="list-style-type: none"> <li><b>Oracle</b> – \$2.06 Million</li> </ul>
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**Dynamics 365 vs Oracle Sales Cloud Result: Draw**

**Annexure 2: Implementation Duration of Software:**

There are many factors that can influence implementation duration such as complications of business processes, type of software, type of industry, and organization size. Here is the planned and actual implementation duration for both Dynamics 365 and Oracle.

<ul style="list-style-type: none"> <li><b>Implementation Duration for Dynamics 365</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Implementation Duration for Oracle</b></li> </ul>
Planned – 21.4 months	Planned – 20.4 months
Actual – 24.9 months	Actual – 23.4 months

**Annexure 3: Functionality Achieved**

Today, most organizations are implementing new systems to enhance their business benefits. Functionality achieved is the percentage of companies that have used more functionality of their ERP.

<ul style="list-style-type: none"> <li><b>Dynamics 365</b> – 55%</li> </ul>	<ul style="list-style-type: none"> <li><b>Oracle</b> – 74%</li> </ul>
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**Dynamics 365 vs Oracle Sales Cloud Result:** Oracle is the clear winner in this category since users were able to use more of the functionalities from the system

### Supported Devices

- **Oracle** – Windows, Mac, Web-based
- **Dynamics 365** – Windows, Android, Mac, Web-based

### Support Available

- **Oracle** – Phone, Ticket, Live Support and Training
- **Dynamics 365** – Phone, Ticket

### Languages Available

- **Oracle** – International, USA, France, Canada, China, UK, Japan, Germany, India, Spain, Italy, Portugal
- **Dynamics 365** – International, USA, Canada, UK, China, Germany, India, Japan, Spain, Russia, Italy, Dutch, Portugal, Polish, Turkish, Swedish

### Annexure 4:

#### ERP Oracle VS Microsoft dynamics:

Business benefit	Finance/Supply Chain (formerly AX)	Dynamics 365 Business Central (former NAV)	Oracle Cloud ERP	Why this matters
Functional depth	Basic functionality for supply chain planning, demand management, advanced procurement, EPM, and HCM.	Minimal supply chain planning, demand management, procurement, EPM and HCM.	Market leading supply chain planning, demand management, advanced procurement, EPM, and HCM.	Oracle Cloud ERP has industry recognized functional depth and advanced capabilities. Oracle ERP is successfully deployed across companies of all sizes and complexity.*
True SaaS applications	On premise deployments and customization allowed	On premise deployments and customization allowed.	Software-as-a-Service only.	Maintaining multiple versions and deployments makes keeping all customers current virtually impossible. With Oracle's automatic updates, the latest capabilities are always available.
Written for the cloud	Lift and shift of legacy product to the cloud with new user interface only.	Migration of a legacy product to the cloud with new user interface.	Written from the ground up for the cloud.	ERP vendors that "evolve" previous generation products become irrelevant.



<p><b>One system for life</b></p>	<p>Limited reports as the financial backbone in companies &gt;\$3B.</p>	<p>Limited reports as the financial backbone in companies &gt;\$1B.</p>	<p>Numerous Fortune 500 customers.</p>	<p>As customers evolve and grow, so do their application needs. Unlike Microsoft, ERP Cloud offers functional depth and breadth so you will never outgrow it. If growth is in your future, let ERP Cloud be your last ERP implementation.</p>
<p><b>Configuration not customization</b></p>	<p>"One Version" is a Microsoft deployment option but many continue to deploy and customize the software.</p>	<p>Partner community prone to customize the system.</p>	<p>Configurable.</p>	<p>Rule-driven configurations and workflow changes don't require IT support, won't be impacted by software updates, and offer better performance and security.</p>
<p><b>Anticipate and react to market conditions with scenario modeling</b></p>	<p>Likely requires Power BI (custom) reports or a partner extension.</p>	<p>Likely requires Power BI (custom) reports or a partner extension.</p>	<p>Out-of-the-box support for multiple scenario planning approaches.</p>	<p>Out-of-the-box software supports faster response to market conditions for disruption for unforeseen events.</p>
<p><b>Budgeting and forecasting across lines of business and multiple data sources</b></p>	<p>Simplistic budgeting and forecasting.</p>	<p>Simplistic budgeting and forecasting.</p>	<p>Cross enterprise, multiple planning approaches out-of-the-box.</p>	<p>Planning and forecasting across functions leverages all enterprise data provides a complete view of the business.</p>

