WHITE PAPER

CRM–ERP INTEGRATION:

Driving Revenue Growth and Customer Satisfaction

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expandable

Expanding Your Potential

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Executive Summary

CRM (Customer Relationship Management) and ERP (Enterprise Resource Planning) are generally considered the core business platforms required to manage organizations that have reached a certain plateau in their growth and/or complexity.

While CRM is the principal tool used for managing outward-facing front office sales and customer support activities, ERP is the overarching framework deployed to manage inward-facing back office business operations including order management, production and accounting.

For most growing manufacturing companies, CRM and ERP systems operate as stand-alone systems with little sharing of data. Typically, CRM applications and the sales and support personnel who use them, lose visibility of sales-related activity once an order has been processed and placed into production.

Clearly, competitive advantage can be gained when the two essential business systems are integrated so that vital information is shared and synchronized automatically. The ability of CRM users to follow or expedite an order as it moves from inception to production, shipment, receipt and final payment is an achievable ideal that will increase customer satisfaction as order inquiries are responded to with immediate, accurate, real-time information.

In today's fast-paced world, timely delivery of critical business information is not only an important driver of productivity, it's the key to elevating and maintaining a high customer satisfaction level.

By integrating CRM and ERP systems using industry best practices to apply readily available technologies, companies can break the silo barrier between the two systems and gain seamless data interchange that unleashes productivity, revenue growth and customer satisfaction.

The Role of CRM

The strategic objective of a CRM system is to be the front-office focal point for all information regarding external marketing, sales lead generation, prospect management and conversion, and ongoing customer management. CRM's clout comes from sharing certain information so outward-facing employees can have full context regarding all external activities of the business. As such, the deployment of a solid CRM system is almost a basic requirement to be a highly successful company in today's business world.

From a top level summary perspective, CRM provides the following functionality:

- Customer contact information
- Customer contact activity scheduling, notes and attachments
- Sales pipeline management including sales process, forecasting, quoting and management reporting dashboards
- Marketing campaign automation and management
- Customer support ticket management, activity, notes and attachments
- Call Center and Service Center integration
- Mobility access for Smart Phones and PDAs

A successful CRM deployment will not only provide the platform for the company to share information, but enables a focused effort to increase top-line revenue and to improve the customer experience. Given its objectives and goals, the main users of CRM are the sales force, customer support, marketing and executive personnel. Passive users of CRM may be finance personnel and managers in operations.

Sales pipeline management is the tool that executives use to better understand deals across the pipeline spectrum including deals that are close to becoming orders, seem to be stuck in the pipeline, or are in trouble and in danger of falling off the pipeline completely. This insight obviously provides an improved view into the health of the pipeline and therefore the ability to achieve forecasted results. In addition, it enables the company to be more proactive on numerous fronts including providing additional resources or focus on a particular deal, managing raw inventory levels (pushing-out or pulling-in), adjusting manufacturing production quantities and ramping up or ramping down company headcount.

Market campaigns can be effectively targeted and therefore by definition be more successful. CRM also assists in the measurement of market campaigns, so marketing efforts can be continued, adjusted or cancelled as appropriate in a more timely manner.

The customer experience is greatly enhanced by CRM as all previous customer touch points can be noted in the system This seemingly simple act allows a customer support representative to read the notes history and quickly get up to speed on a past or present issue without the customer becoming annoyed by having to rehash previously provided information. In addition, a sales or a customer support representative can make the customer feel special by "remembering" small details of past conversations.

As a final note, given all the above, a CRM system has to be very flexible in terms of data sources, as at any one point, an important piece of information might need to be entered and shared by the entire team. Establishing access and usage rules up front is highly recommended.

The Role of ERP

The strategic objective of an ERP system is to maximize business performance and to control business processes and assets. Companies, during their initial start-up phase can usually survive quite nicely on an off-the-shelf accounting package. However, once the company reaches, or is even in anticipation of reaching, a certain size or level of business complexity a more robust system will be required. The anticipation of reaching the point where ERP is needed is an important consideration, because if a company waits too long to deploy a solid ERP system it runs the risk of drowning in the wave of success (i.e. employee productivity reductions, morale issues, lack of control) as opposed to riding the wave. In fact, in today's world of SOX (Sarbanes-Oxley), stepping up to an ERP system at the right time cannot be over-emphasized.

From a top level summary perspective, some of the basic functionality that ERP provides are:

- Creation of sales orders for operations to manufacture and ship
- Invoicing and collection management of shipments or services provided to customers
- Manufacturing modules including MRP (material requirements planning), labor tracking, inventory control, part serialization or lot tracking, and handling of customer returns
- A general ledger module for recording transactions, analyzing activity, and producing financial reports for internal and external consumption
- Purchasing capability to procure materials, supplies or services from vendors

A successful ERP deployment will not only provide a platform for the company to share and leverage information, it is the fundamental tool that a company uses to record accounting transactions, perform basic and complex business activities, monitor business performance enterprise wide, and to control assets. Given its objectives and goals, the main active users of an ERP system are finance, operations, and quality control/assurance personnel. Passive users (i.e. reviewers of results) of an ERP system include department managers with budget responsibility and executive personnel.

An ERP system's main leverage point is that the different modules of business functionality within an ERP system are fully integrated within the ERP itself. This high degree of integration enables work performed by one department to be used by another department without the need to reenter information (e.g. accounts payable uses the purchase order information entered by purchasing to pay an invoice and charge the correct general ledger account).

Information generated through ERP is viewed by the external world, including board members, investors, auditors, Wall Street, and most importantly the SEC (Security Exchange Commission) as the single source of truth for all reported information by the company. So, while CRM's data source/entry can be very flexible the ERP system's data source/entry needs to be very tightly controlled including audit trail capabilities.

In addition, although CRM data might be interesting and provide some analytical assistance, its information will always be trumped by ERP data. This is an extremely important concept in any discussion regarding CRM and ERP integration.

Customer Expectations

Much has been written and discussed around the importance of meeting or exceeding customer expectations. The National Quality Research Center at the Ross School of Business, University of Michigan is best known as the research designer and source of the American Customer Satisfaction Index (ACSI).

The ACSI is a closely monitored index by many as companies with scores in the top half of the ACSI consistently show far greater growth in market value added, than companies with satisfaction scores in the bottom half.

It is important to remember that every touch point your company has with a customer or prospect has an impact on their overall satisfaction level.

A touch point can be from a sales account manager, a customer support representative, an executive or even an accounts receivable clerk trying to collect unpaid past-due invoices. Having the right information available, at the right time, can dramatically impact the effectiveness of customer-facing personnel in meeting and exceeding customer expectations.

Pulling against this objective is the fact that the pace of the business world and the pace of life in general is increasing, and increasing at an accelerated rate. This pace trend seemingly has no end in sight as the world of technology (e.g. cell phones, e-mails, smart phones, and cloud networking) has tightly latched on to people's personal space and time. The result is a customer's level of tolerance for inefficiency on the part of others is decreasing. Customers more than ever are evaluating vendors not only by their product, but by their efficiency and how they treat their customers.

When a customer calls a support hot-line or a sales representative they fully expect, as they should, to speak to someone who is knowledgeable about the account. This knowledge encompasses past purchases, open and closed customer support tickets, or the status of an existing order. Customers want to deal with vendors who show their respect not only by their words but by their actions as well.

Companies that can meet and exceed these expectations have created a huge differentiation vs. their competitors that can be aggressively exploited. Therefore, having the availability of a tool that can improve a customer's satisfaction level should be considered a strategic weapon.

Silos of Information

As a company goes through its natural growth cycle, it will acquire business applications at the appropriate time. In order to preserve cash most companies will tend to delay purchasing CRM or ERP until the current application or approach is at the breaking point. Basically, the decision to purchase will be made when the cost or the pain threshold of not having the appropriate business solution far outweighs the cost of obtaining a solid application.

Different companies have different needs, so the CRM purchase may come first or the ERP deployment may take priority. Regardless, the typical "go" decision is made on an independent analysis of cost vs benefit for that particular application. The second application purchase decision will typically follow the same path.

Given this buying behavior, most companies start out with CRM and ERP that are stand-alone applications with no integration or synchronization other than through manual efforts. Manual efforts will quickly become futile due to volume, key stroke errors or a lack of understanding what really needs to be accomplished.

Without a robust integration between CRM and ERP systems, each system will quickly become a silo of information. The ramifications of having silos will be employees required to either access both applications or employees from one function contacting employees in a different function in order to obtain the required information (for example a sales representative calling the factory to see if an order shipped

or a customer support agent calling the finance department to check if a part in need of repair is still under warranty. Other inefficiencies include employees switching between the two applications and the learning curve of having to use a second application.

The cost, in addition to reduced productivity, is having to buy additional user licenses for each system, but more importantly, the functional productivity reduction will inevitably show up in a reduced customer satisfaction level as the ability to respond to customer requests or inquiries accurately and timely will be impaired.

The good news is all the above issues can be completely eliminated by replacing the silos of information with high quality integration between CRM and ERP.

Benefits of Integration

The benefits that integration can bring to different functions in the organization leading to an increase in customer satisfaction levels include the following:

Sales

- Enable quick and accurate responses to customers by placing information about prior activity at the fingertips of the sales force (orders, shipments, payment history, returned product and pricing)
- More time selling vs. researching for answers
- Ability to quote using the price book's pricing and parts residing in the ERP
- Quote to sales order automation (with appropriate controls/reviews in place); increased productivity
- Increased focus on installed based selling given the increased visibility to prior purchases

Operations

- Quote to sales order automation, increasing productivity by reducing errors through higher data accuracy in production builds
- Less talking to sales team on order status; increased productivity

Customer Support

- Warranty end date for all products and components as serialized part information will be synchronized from ERP to CRM
- Visibility to the configuration of the installed base; improved support

Finance

- Automation of adding new customer from CRM to ERP; with appropriate finance review before insertion into ERP
- Quotations from sales using ERP price book and products; greater control combined with higher accuracy and less financial review

Customer Satisfaction Levels

- Quick and accurate responses to questions
- Sales to manufacturing process improvements reduces order fulfillment cycle
- Customer relationship strengthened as customer feels more valued

Best Practices for CRM–ERP Integration

From a top level perspective, the five best practices to a successful CRM–ERP implementation are:

1. Don't "Reinvent the Wheel"

Ideally, your ERP vendor should own the implementation as they know the key touch points and control points of their ERP system, which needs to remain the single source of truth. If the ERP system or the CRM system changes, then the ERP vendor will be responsible for making any modifications to their integration that might be required.

If your ERP vendor is unwilling to own the integration, then you should hire a consultant that has done integration between the specific CRM and ERP applications deployed. This will save implementation time and cost as the consultant won't have a steep learning curve to overcome.

The obvious downside to using a consultant occurs when changes to either the CRM or ERP systems are made and you end up having to pay the consultant to make the necessary modifications in order to keep your integration up-to-date and working correctly.

2. Use an Integration Platform

The value of an integration platform is it will handle the mapping of the key data elements between the CRM and ERP systems. In addition, vendors that provide integration products maintain integration points to various data sources assuring correct use, maintenance and support for integration points and application interfaces. This will significantly reduce the amount of time needed to make any changes in the integration necessitated by a change in the CRM or ERP systems as well as ease the ongoing support of the integration engine and integration points.

3. API Validation of Data coming into the ERP

It is important to maintain data integrity across any integration with validation of incoming data through the use of an application program interface (API) for the given business application. This holds true for both the CRM and the ERP platforms to maintain a consistency of data across the business. Since the ERP is the single source of truth, it is critical that data integrity be maintained at all times. The best way to ensure that the ERP database remains clean is to validate all inserts requested to be made from the CRM to the ERP system before the insertion occurs. For example, before a new sales order is automatically created from a quote coming from the CRM side, all parts, pricing and customer information needs to be validated before the sales order is created. If the quote was rejected by the validation process, any modifications would need to be made to the quote or the ERP master tables before the sales order can be created.

4. Elements to Consider for Integration and/or Synchronization

In general the best CRM-ERP integration practice covers the following areas:

- Customer activity history: invoices, shipments, payments, discounts, returns
- Serialized part identification
- Customer insertion and the finance department's acceptance of insertion
- Parts and prices
- Quote to sales order automation

5. Get Key Stakeholders Involved

Key users, finance employees and executives need to determine the key integration points for your particular company in order to ensure that important integration elements are correctly identified and targeted. In addition, the proper workflows for approvals in the CRM and ERP systems are part of the deployment strategy.

Summary

CRM and ERP applications are very powerful and necessary tools in today's business world. CRM–ERP integration adds significant capabilities that can lower certain costs while enabling increased data accuracy, employee productivity, customer satisfaction and revenue growth.

The actual integration deployment is a task that should not be taken lightly as the learning curve, time to deployment and ultimately the total project cost will need to be considered and can work against you. The ideal integrator should be the ERP vendor with full knowledge of the ERP application that has a tight partnership with a CRM vendor in building a best practice integration that is maintained as the products move forward with added capabilities. A fallback recommendation could be to hire an experienced consultant that has expertise in both the CRM and ERP systems to be integrated. An experienced consultant will assure you are not paying for their learning curve or double-paying for the consultant plus the ERP vendor's (and/or CRM vendor's) resource assisting with touch points and data validation details.

Data validation is an extremely important and critical component of the integration and expertise is a prerequisite for a successful project. Failure to adequately validate data before it is inserted into the ERP system will mostly likely lead to a corrupted ERP database requiring a painful restore and recovery process.

About the Author

Bob Swedroe is President and CEO of Expandable Software, Inc, a leading provider of manufacturing software since 1983. Bob has held executive management positions at both startups and Fortune 500 companies including XO Communications, Silicon Graphics, and Concentric Networks.

About Expandable Software, Inc.

Expandable Software, Inc. develops, markets and supports an enterprise resource planning (ERP) software suite designed to help both fast-growing and well-established manufacturing companies maximize business performance through visibility and control of manufacturing operations. Expandable's fully integrated accounting, engineering and manufacturing modules provide a solid back office foundation while its CRM, e-business, and supply chain solutions deliver front office tools to manage business relationships, and streamline transactions.

Through its ISV Partner relationship with salesforce.com and strategic integration platform partnership with Pervasive Software Data Integrator products, Expandable provides best-of-breed integration between its comprehensive ERP system and Salesforce CRM. A full description of its "Expandable ERP Integration for Salesforce CRM" product is available on the salesforce.com AppExchange or Expandable web site at www.expandable.com.