



## **Advancements in ERP for FMCG**

### **Introduction**

Prior to a discussion of the advancements in Enterprise Resource Planning (ERP) for the Fast Moving Consumer Goods (FMCG) industry, it is important to first take a look at some of the environmental impacts to understand the context in which we need to place our discussion.

The FMCG industry is currently functioning in an uncertain political and economic environment. All of this is impacting the industry in a climate where corporate accounting practices are being heavily scrutinized and anything perceived to be discretionary spending is queried.

In addition, the industry is seeing dramatic consolidation via merger and acquisition activity with leaders increasing their market share and dominance in the supply chain. Traditional product lifecycle management is being challenged with the frequent introduction of new products and services with shorter lifecycles and a focus on brand extension.

All of the above is placing intense pressure on conventional manufacturing and supply chain practices.

### **IT Trends**

Recent research conducted by SSA Global Technologies shows that there is an increased emphasis on cost saving and efficiency, with demands on IT to do more with less, and for new IT investments to deliver significant returns on investment than were expected in the past.<sup>1</sup>

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<sup>1</sup> SSA GT Global Manufacturing Survey 2002

Not surprisingly, in the context of the above environmental factors, research conducted by AMR Research<sup>2</sup> found that for 2003, projected software spend for manufacturing organizations with US\$500m+ turnover would be mostly in the area of supply chain management (33%), customer relationship management (18%), business intelligence (17%), portals (12%) and only 3% on core ERP. For organizations under US\$500m turnover, however, the picture is very different. AMR Research found that an overwhelming 31% of projected software spend would be in the area of core ERP, this was followed by 27% for supply chain management, 12% for customer relationship management and 11% for business intelligence.

In general the IT analyst organizations such as Gartner and AMR believe that organizations now look towards tangible business values from core ERP and the extension strategies that surround ERP, having gone through a peak of inflated expectations followed by the trough of disillusionment. Future demand will be based on the productivity benefits that ERP can deliver in phased delivery. Incremental implementation will be the way to realise the ROI faster. This is summed up by the following quotation from AMR Research.<sup>3</sup>

“Manufacturers’ investment in strategic infrastructure, such as Enterprise Resource Planning (ERP) and networks, can provide the foundation to bring people, processes, and relationships together to build an integrated business system that supports the e-business strategy for critical business initiatives without huge IT investments.”

The key to strategically leveraging an existing IT infrastructure then is to recognize that no one application can deliver all of an organisation’s requirements. The importance lies in the extent to which the technology can be integrated and is interoperable to allow all of your systems and the Internet (for communication and collaboration) to work in concert.

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<sup>2</sup> AMR Research (2002) *ERP Application Spending Report*

<sup>3</sup> AMR Research (2002) *E-Business Outlook 2002-2003*

The other part of the equation is for FMCG organizations to start from the point of their strategic objectives and identify the key performance indicators that will enable them to measure their performance. Then use the technology with workflows and action triggers to ensure that the organization stays on track.

### **Flexibility and transparency of ERP**

The ERP of today is very different from ERP. The systems are now modularized and very flexible in terms of implementing only the functions required. Typically within ERP systems now, there are modules for Supply Chain, Plant Maintenance, Financials and Manufacturing. Within each of these modules are sub modules such as inventory management, purchasing, inbound logistics management and promotions, prices and deals.

Added to the core ERP systems now are extended solutions that are intended to optimize the core. These typically are process management, business intelligence, eCommerce, collaborative commerce, enterprise relationship management and budgeting/planning.

To take advantage of the extension or add on modules, the ERP system must have an open architecture that facilitates:

1. Electronic commerce.
2. Internal and external collaboration.
3. Best of breed optimisation extensions.
4. Integrated process flow.
5. Configurable transaction processing cycle.
6. Agile process workflow.
7. Best practice techniques.
8. Industry standard technologies.

There are three levels of open (interoperable) ERP architecture.

1. The first is the data level. At the data level, there is master data, transactional data and data that might be viewed as somewhere in

between. This 'in-between' data is that which is typically stored with the master data but becomes dynamic as the result of transactions – inventory and account balances, allocations and reservations.

2. At the next level is application logic. The best descriptor of application logic is by way of example. A centralized order entry function, which has access to multiple sources for inventory will need to apply certain logic to determine the priority sequence of locations from which to pull inventory. Do you always ship from the closest warehouse? Do you always ship from a certain location unless there is no availability? If so, how do you select the alternative location? These examples require more than simple sharing of data. They require logic that applies business rules, decisions and policies.
3. Finally there is the level of integration that resides in the presentation or visualization layer.

### **Lean management principles**

Lean management can best be described as an enterprise wide culture, affecting all parts of the business, with a focus on the flow of:

- Products.
- Information.
- Cash.
- Elimination of all waste.

ERP systems have come a long way in providing for lean management principles that are employed by FMCG organizations. ERP now provides an agile transaction workflow that can be adapted to meet the needs of FMCG businesses.

There are five key principles of lean management that FMCG organizations should consider:

1. Specify value from the customer's point of view.
2. Identify the value stream (concentrate on the object, not the organisational department).

3. Make the value flow. If possible use one-piece flow. Avoid batch and queue. Remove obstacles that prevent flow from taking place
4. Pull at the customer's rate of demand. Use one – make one. This extends to the full supply chain.
5. Seek perfection through continual improvement and the steady adoption of the first four principles.

### **Supply chain collaboration**

Supply chain collaboration has had a lot of air play in the last couple of years, but there are not many FMCG organizations that have actually taken full advantage of the technology. This can be attributed to the fact that it requires a large amount of cultural change. Collaboration is not just information sharing, it is doing what you do now in terms of interacting with your internal and external suppliers, just faster and better. Collaboration only works when the ERP system is properly integrated. The WWW or eCommerce just provides the vehicle for collaboration.

Some of the main areas where collaboration has an impact are outlined below. These are the supply chain optimisation targets that SSA Global Technologies have found can be achieved with coordination.

#### Delivery performance

Collaboration should deliver a 16-28% delivery performance improvement for an organisation.

A critical requisite to the manufacturing process is the sourcing of raw materials. Historically this has been controlled in 'silos' within an enterprise with the result of lack of coordination and cooperation between departments. Collaboration will deliver visibility across the 'silos'.

#### Reduced inventory investment & increased forecast accuracy

Inventory improvement gains of 25 – 60% can be obtained from collaboration and forecast accuracy can increase from 25% - 80%.

When we talk about reduced inventory investment, we are really referring to an increase in forecasting accuracy to reduce the number of finished goods held.

Currently, FMCG manufacturers tend to complete their forecasts internally with little or no direct liaison with the organisation's customers. In fact, sometimes forecast information is not even shared amongst appropriate stakeholders internally, example, price promotions run by marketing without adjusting for inventory holdings or capability to deliver on the factory floor.

eCommerce allows customers to share their demands and expectations with the enterprise. This proactive market intelligence will also benefit the product development life cycles within the organisation. Sales representatives can advise what they think they can sell, feedback indicates whether this is actually what customer is expecting to buy and if they aren't going to buy at that level then why not. Sales and marketing then can better develop marketing campaigns to coincide with the product life cycle.

#### Reduced fulfilment cycle time

Cutting fulfilment cycle times by 30 – 50% can be achieved with eCommerce. With the ability for the whole of the supply chain to be visible to key stakeholders, goods can get faster out the door. For instance, being able to anticipate for a large order from a customer enables the warehouse to organise its picking and packing operations to accommodate. Transportation can be better coordinated, as well as allowing for other time saving functions such as cross docking to occur.

#### Increased overall productivity

When the left hand knows what the right is doing, and when supply is being produced to more accurately cater for demand, it is inevitable that overall productivity will increase. Past collaborative efforts have seen increases of between 10-16%.

The use of the Internet also allows for a manufacturer to communicate the MRP requirements to the RM suppliers, the load and transportation requirements to the carriers etc. so that overall productivity up and down the supply chain improves.

Overall productivity is heightened when the collaborative planning tools link to Advance Factory Planning systems to provide the manufacturing execution benefits of SCM optimisation.

#### Reduced supply chain costs

Coordinated supply planning will enable the planner to configure multiple models of the supply chain network, take into consideration factors such as supplier lead times, profit to market, least cost to market, and transportation alternatives. Supply chain costs can be reduced by 25 – 50% when using collaborative tools.

#### Increased fill rates

Delivery in full and on time can improve by 20 – 30% based on the fact that the organisation is now better able to estimate the demand patterns of the customer based on historical data. Add to this the fact that the customer is giving more advanced notification of changes in expected carton fill rates, and the manufacturer is able to better make adjustment to the changing demand. In collaborative solutions, exception messages are generated and actions recorded by both the supplier and the customer which enhance communication between the parties.

#### **Corporate performance management**

Corporate performance management (CPM) extends the value of an ERP system by transforming operational data into consistent, reliable information optimised for reporting and analysis. CPM will assist FMCG organizations to identify opportunities, uncover the effects of changes, strengthen business relationships, and gain a marked competitive advantage.

As FMCG companies start realising the benefits of their numerous business system implementations, they can now focus on improving the work practices and the management environment necessary to effectively run their business. They can create an environment that allows them to proactively manage events across the supply chain, instead of constantly struggling to react to them.

The important thing is to ensure linkage of strategic objectives right through the organisation to the key performance indicators and then to use corporate performance management to track these measures:

- define what an organisation's value drivers are and how the objectives will fulfil these value drivers
- pinpoint the critical success factors for each of these objectives, that is, what will make or break achievement of these objectives
- identify the measures (KPIs or key performance indicators) that will show how well the organisation is adhering to accomplishment of the critical success factors
- use CPM systems to monitor and steer the organization.

CPM will:

- Manage increased volumes & compressed cycle times.
- Provide real-time monitoring & management of supply chain events at a micro level.
- Support collaborative business processes across trading partners.
- Accelerate workflow across organisations.
- Respond to unplanned events on an exception basis.
- Facilitate communications necessary to resolve exceptions as they occur.
- Support increased business volumes without increasing staff.

### **Role based portals**

Personalised Intelligent Portals are used to customise the information being delivered to an individual. What is important to the corporate level executive

may not be appropriate for an operationally focused manager, so the information provided is role based. For instance, a portal could be developed for a Customer Service Representative, a Material Planner or Department Manager.

The information can also be extended to include information that is external to the organisation. This may include information obtained via the Internet or from trading partners. The applications underneath a role based portal become invisible to the user.

The role based portal concept recognizes that:

- Individual responsibilities have broadened.
- There is a constant need for higher productivity.
- Technology is a foundation of enterprise.
- Today's application system user needs simultaneous access to multiple capabilities.

The identified benefits of role based portals are:

- Customer retention/recapture.
- A lower cost of goods sold.
- Reduced paper & communications costs.
- Lower service costs per customer.
- Greater amortization of existing systems.
- Lower systems costs supporting partners.
- Reduced working capital requirements.
- Faster inventory turn-over.
- Collapsed product rollout & training cycles.
- HR administration cost reduction.

## **Conclusion**

The advancements in ERP discussed above have the ability to have a significant impact on FMCG organizations. It is the recommendation of this white paper that FMCG organizations not only leverage the internet for collaboration, but ensure they optimize their existing ERP systems by utilizing

the 'openness' of the software and taking advantage of new supply chain management principles, such as lean management which are now incorporated well into ERP.

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### **About Mal Hetherton**

Mal Hetherton is a Business Consultant in the SSA Global Technologies (Australia) Pty Ltd Melbourne Office specialising in the Manufacturing and Distribution applications.

Mal has been a solutions provider to clients in the distribution, manufacturing and financial markets for over 20 years. During this period Mal has had extensive experience managing projects in many diverse distribution and manufacturing operations in a wide variety of markets including automotive, electronics, chemicals, pharmaceuticals, food and beverage. This experience has included plants that make to order, custom build manufacture, repetitive process manufacture and have multi-channel distribution.

Mal has been with the solutions team at SSA Global Technologies for over 7 years and has managed projects that involved implementations at multiple sites with multiple manufacturing plants and distribution channels throughout Australia and New Zealand. His work ethic, skills, experience and knowledge are highly regarded by his clients.

Prior to joining SSA Global Technologies, Mal was responsible for a Professional Services Group within a multi-national corporation specialising in implementing manufacturing system solutions. Mal also achieved APICS CPIM certification at Monash University in 1997.

### **About SSA Global Technologies**

SSA Global Technologies, Inc., is a leading provider of enterprise solutions for FMCG companies worldwide. SSA GT's enterprise resource and planning (ERP) platforms easily integrate with strategic business applications to deliver e-business, business intelligence, customer relationship management (CRM) and supply chain management (SCM) solutions. Headquartered in Chicago, SSA GT serves more than 10,000 active customers who represent market-leading companies in over 90 countries from 121 worldwide offices. For additional information, visit the SSA GT web site at [www.ssagt.com/pacific](http://www.ssagt.com/pacific).