

INTRODUCTION

By their very nature, Joint Ventures, Mergers and Acquisitions bring companies closer together. They also force new interfaces between formerly separate, independent entities. So, whatever the purpose of the joint-venture or merger, many different types and levels of interaction will be needed if the venture is to deliver the expected business value.

This chapter looks at the different types of connections between companies, the impact of these connections on both companies' Business Processes, and ways to appropriately integrate the Business Processes across corporate boundaries.

As they play an important role in supporting Business Processes, the role of (and impact on) information systems will also be addressed.

THE BUSINESS, BUSINESS PROCESSES AND INFORMATION SYSTEMS

First, let us provide a few definitions and models to clarify the terminology we will be using.

Business

For the purpose of this discussion, the 'Business' can be considered any entity made up of :

- Resources (human, financial, natural,...)
- Facilities (factories, warehouses, offices), and
- Equipment (machinery, information systems, furniture,).

Business Objectives and Value Elements

We assume that the Business aims to achieve those Objectives defined for its own set of Business Value Elements. These include such things as: Revenue, Profit, Market Share, Customers, Knowledge, Competitive Advantage, etc.. Though common elements exist within specific industries, Business Objectives and Value Elements are generally unique to each company.

Business Processes

We define a Business Process as "Any series of interrelated, cross-functional steps that contribute to the achievement of a defined outcome." (PROsys)

Whether or not a Business achieves its objectives will depend on how the business is conducted (through its Business Processes) and on how the Resources, Facilities and Equipment are managed and utilized to support those Processes.



Depicted in the diagram below, the Basic Systems Model shows how each step of a process requires specific Inputs before it can begin and, through the activities it carries out, produces specific Outputs. A 'Step' can also regroup a number of specific tasks or activities which depend upon a particular set of Inputs.



THE BASIC SYSTEMS MODEL

Business Processes can be made up of any number of steps or activities. Consequently, we can also define a Business Process as a collection of Activities which are performed in the business, and which include the Inputs these Activities require, and the Outputs they produce.

The Inputs and Outputs of different Steps can be determined by a set of Product Requirements, or specifications. Every Input and Output is meant to meet a specific set of requirements or quality criteria.



Because the Output produced during one collection of activities is a required Input for another collection of activities, it is really the Inputs and Outputs which create the interrelationship between seemingly independent Business Processes.

For example, most Product Development processes contain a point which we could call "Concept Approval". The Inputs to this step are the 'concepts' presented to decision-makers before the actual development begins. These 'concepts' have to meet certain predefined criteria. For instance, they have to be technically feasible,



economi-cally feasible, and, perhaps, even demonstrated with handmade prototypes. If this represents a set of minimum Input Requirements, and if these Requirements are not met, then the "Concept Approval" activity cannot be successfully executed. Hence, the Output of the process step "Generate Concepts" has to meet the Input requirements of the downstream activity "Concept Approval".

CONNECTED vs. INTEGRATED CORPORATIONS

Connected

Many of the reasons companies create 'connections' have nothing to do with the intentions that generally drive Joint Ventures or Mergers.

For example, a Customer-Supplier relationship represents one type of 'connection'. The connection is made when one company purchases materials from another company. Purchase Orders are made for materials which are described in requirements documents. From a process point of view, this Customer-Supplier relationship involves two companies that are 'connected' by the information and materials flowing between them. In more and more cases the exchange of order documents, invoices and other information is supported by 'connected' information systems carrying out electronic data transfers. But beyond the Order-Fulfillment process, there is little reason for any detailed integration efforts between the Customer's company and the Supplier's company.

Three levels of 'connection' exist between corporations. They are summarized in the table below.

Corporate Level	Company A	Company B	Connections are created by means of contracts and agreements.
Operational (Process) Level			Processes are connected through the Inputs and Outputs which cross organizational boundaries.
Systems Level			Systems are connected by exchanging information via interfaces and bridges.

Integrated

We can distinguish between two clearly underlying aspects of most Joint Ventures, Mergers and Acquisitions. They are the *finance*-driven aspect of the merger and the *production*-driven aspect. The prior generally creates a new organizational entity under new ownership. The latter creates an operational entity which should be stronger than its two component parts, particularly if it is to generate the value that justifies the merger transaction.

But the needs which influence the production-driven aspect cannot normally be satisfied simply by multiplying the 'connections' between companies. They *can* be satisfied, however, through the *integration* of organizational structures, business processes and information systems. This means that, when we look at the Business Process level, we are normally considering the different 'operational' aspects of the merger.

Identifying those business processes and information systems which need to be integrated does depend on the purpose of the Joint Venture or Merger.

- If the purpose is diversification, or placing new products onto a market that was formerly not served, there are few areas that can or should be integrated.
- If the merger happens between two companies which, whether in principle or in practice, develop and produce the same products, the largest value-added potential comes through well-focused integration. For the business itself, this value-added translates into financial gain.

The traditional approach to business 'integration' is the stronger party pursuing a "you do it my way" strategy. The failure of this type of approach is probably best seen in the merger between AT&T and NCR, when AT&T tried to impose its own processes as the standard for the new business. While the complete standardization of processes across both companies may at first appear to be the most efficient way to create one manageable entity, great resistance was nonetheless experienced when the approach was tried. After all, why "do it *your* way" when we know that ours delivers better?

A REQUIREMENTS-BASED STRATEGY

A more sophisticated approach to integration issues will consider a Requirements-based methodology that covers three levels. The table below describes the integration of two companies through a Requirements-Based Business Process framework.

Corporate Level	Company A	Company B	At the Corporate Level, Integration is achieved by sharing common Objectives and Goals.
Operational (Process) Level			At the Operations Level, Integration comes from sharing Requirements for the Outputs of the Process
Systems Level			Integrated systems share the same information bases and algorithms.

The Requirements-based Approach does not mean that both companies must be managed in the same fashion. Nor do they have to operate in exactly the same way, or use the exact same information systems. But it does ask for both companies to share the same Business Objectives, meet the same Process Output Requirements and operate on the same Information base.

This three-tiered Requirements-based Approach generates many sources of Business Value:

1. It maintains strengths and eliminates weaknesses

The strengths of an organization, its culture and capabilities are reflected in its Business Processes. Maintaining those strengths and their value to the business can be demonstrated against the common goals defined for the Joint Venture or Merger. This is an important underlying objective of Requirements-based integration.

2. It reduces resistance

- Imposing process changes takes time, consumes resources and costs money. It tends to generate resistance and cause disruption to normal business operations, leading to unnecessary organizational and individual tensions.
- Applying a Requirements-based methodology means that executive-level management can carefully define the Output Requirements of all processes, but leave it up to local management to adjust the steps and activities of the processes themselves. In this way, the "Process Change" scenario becomes one of making policy decisions at the highest level and allowing implementation decisions to me made at the operations level.

3. It eliminates rework

Even though two organizations may in principle carry out the same operations and deliver the same service or product to the same customers, because they have grown independently there

are likely to be many differences in their Outputs. For example, the information generated within each activity step - and its form of representation - will probably be different.

When the information is passed to a new partner, it will have to be reworked. Rework creates waste and consumes valuable resources. To be able to exchange information between organizations without having to rework it each time, the content and form of the information will have to be standardized. With a standardized Output set as a Requirement, each Process Owner has the liberty to determine which process best generates the information required.



In order to exchange the information electronically, simply 'connecting' the information systems supporting Process A and Process B will not eliminate the need to rework the information. In such a case, system 'connection' has limited value. Real value is added when the Input Requirements of the common downstream process become the Output Requirements of the individual upstream processes. When this is done, the processes become 'integrated'.

4. It enables the global exchange of resources and capabilities

The ability to support projects with resources from either organization is requisite to creating a single, well integrated organization. Effectively sharing resources, capabilities and knowhow across corporate boundaries makes two merged organizations worth more than the sum of its former individual entities.

But only if the processes in both organizations operate against the same set of requirements can resources be exchanged without significant losses. Failing to define and communicate requirements leads to waste through repeated learning curves.

The example below shows an international pharmaceutical company that operates sites in the UK and the US. Both sites basically carry out the same activities for data collection, cleaning and reporting. A high-level picture of their basic process is described below.



Since clinical trials data is collected periodically and the bulk of the workload hits the organization during the data review and clarification stage, a free exchange of resources between the US and the UK would make the organization much more flexible and powerful. This could, in turn, dramatically reduce time to market. However, with different definitions of "Raw Data" in the US and the UK, the information review processes were different. A US resource temporarily supporting the UK process had to first familiarize itself with the UK "raw data" definition and with the different data review process. This consumed lead time and, consequently, increased time to market. There was essentially no added value for either organization in exchanging personnel, no matter how qualified they were in their specialty area.

A common definition of the key Products (process Outputs) for "Raw Data", "Clean Data", "Draft Report" and "Final Report" would give the organization the ability to exchange resources seamlessly, with no additional learning or ramp-up steps needed for exchanged employees. How the individual reviews, clarifies and corrects data becomes secondary, as long as the "raw" and "clean" data meet a set of predefined requirements which enable the upstream and downstream processes to move forward with no rework.

INTEGRATING PROCESSES ACROSS CORPORATE BOUNDARIES

The following 5 Step Approach describes a transition process to achieve better integration of Business Processes and Information Systems across corporate boundaries.



The approach ensures that both the common and individual Business Processes align with the Upper Level Objectives of the Corporation. Business Processes and Information Systems are created against common "product requirements".

Not only does this approach eliminate resistance and align both corporations, it also enables the decision making process to remain local. Decisions to change the processes in order to accommodate the common output requirements can be made very close to the operational process itself which reduces the lead time for these fundamental process changes drastically.

QUALITY GATES: MANAGING THE INTEGRATED ORGANIZATION

The previous section described points in the process at which the outputs must meet a set of predefined requirements. These points are ideally suited to managing the organization against more meaningful criteria than time and money, the traditional management metrics.

We call points in the process where Outputs are validated against a predefined set of Requirements "Quality Gates". These are essentially decision points which call for agreement to:

- **move forward as planned** (when predefined requirements are being respected and actions are advancing according to planning and requirements)
- advance "on probation" with additional support (when problems have arisen)
- **correct or stop** the action (when internal or external factors have adversely impacted progress or Outputs).

These decision points drive Process Quality, and serve to manage the quality of Business Performance.



Quality Gates essentially manage the Outputs (or products) of a process, not its activities

In the example used earlier, the data cleaning would not occur until the raw data meets the Requirements defined for the "Raw Data" Quality Gate. Likewise, report generation would not take place until the clean data meets the requirements defined for the "Clean Data" Quality Gate. Though Cycle Time and Cost may well be criteria related to managing the broader aspects of the business, how long the process takes or what financial resources it has consumed are meaningless in relation to the Quality Requirements defined for Clean Data. What counts is that the data meets all the Input criteria defined for the downstream Reporting Process.

In reality, if a team hands off information that doesn't meet the downstream process requirements, those working in the downstream process will have to rework the data (or clean the

data further). This means that, though the Cleaning Team reports its process finished, data cleaning and correction will continue to be done by the Reporting Team. Hence, further time and money are spent on data cleaning and correcting, but the time spent gets added on to the reporting activity.

Managing against Output Requirements means sending the data back into the Cleaning and Correcting Process, and attributing the time and cost to the correct activities.

The Quality Gates methodology reflects two well-known management approaches

Both Total Quality Management and Activity-Based Costing are reflected in the Quality Gates approach.

- TQM pursues the principle that a process is considered complete only if all product requirements and quality criteria are met.
- Activity-based (or, Product-based) Costing considers that, until they are completed, Outputs (and the cost to produce them) remain attributed to the process which creates them. This eliminates the possibility for cost and resource consumption to be attributed to areas where they do not belong.