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# Business Elements: Getting More Business Out Of Your Processes

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## Acknowledgments

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## Introduction

The concept of business processes as a means to create value is not new. In fact, it has gone through various generations -- or revolutions. The first revolution, *process rationalization*, was driven by Adam Smith, in the 18th century. He described how the division of labor, dividing work into a set of simple tasks, would increase the output of a process. Taylor introduced the second revolution, *process industrialization*, through scientific management in the early 20th century. The third revolution, *process automation*, was driven by Hammer in the 1990s based on “business process reengineering”. Automating business processes does not necessarily lead to better processes, but automation itself opens up new ways of structuring the processes themselves. This also opened the door for process specialization, creating processes exclusively for specific customers and products.

Now, twenty years later, another transformation is needed; *process combination*. Business processes have become so efficient and have reached such a high level of specialized automation that it has limited the organization's ability to change and innovate. Business processes, based on current best practices, have become a bottleneck in making new combinations of activities and resources for a number of reasons.

- **Change.** Due to regulations, adaptive strategies, an ever-increasing number of new product and service requirements and other drivers, processes are in a constant state of change. The way processes are organized (in chronological order, in combination with current process management techniques and documentation) often does not allow a fast rate of change. Processes need to shift from being “lean” to being “agile”, and then allow “continuous business transformation”<sup>1</sup>.
- **Integration.** Processes have been optimized and managed in isolation, creating the most efficient single processes. The business reality has changed from business process optimization to value chain integration. Many organizations have outsourced activities, such as manufacturing, logistics, and all kinds of services. As a result, business and management processes span multiple systems and, in many cases, even multiple organizations.
- **Reuse.** Usually, business processes are optimized to deliver a certain output, like a product or a service. If the output (the product or the service) needs a change, or new products or services are added to the portfolio, often a new process is needed or the complete process needs a redesign.

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<sup>1</sup> “Continuous Business Transformation: The CIO's Perspective”, Oracle white paper, [www.oracle.com/thoughtleadership](http://www.oracle.com/thoughtleadership)

- **Self-service.** Processes have become increasingly interdependent. With the emergence of customer self-service processes (where customers have access to order systems, billing systems and analytical systems), there is no clear difference between back-office and front-office anymore. Furthermore, as customers choose when, and through which contact channel to access these processes, organizations are not entirely in charge of their own processes anymore. New ways of process optimization are needed.
- **Ambiguity.** There are many ways to describe processes, each having their own emphasis and interpretation. A process flow designed to implement an application, is often not usable for auditors to audit the process. At the same time, the work that auditors do is not usable by six sigma experts that search for business process improvement; and so forth. These different interpretations, although often overlapping, in combination with the speed of change needed in processes, make process management expensive and burdensome.

In short, current business processes are often way too specialized and hard-wired to create a specific product market combination. Thinking in terms of output-oriented processes that need to be optimized limits our capability to innovate, change, and reuse what is there already. This is often referred to as the exploitation versus exploration dilemma.

## The Next Process Model

With processes being the engine of execution, it is clear that new business models and new business strategies require new process models. Most new business models and business strategies are "options-based"<sup>2</sup>. Options-based strategies allow for making flexible or staged decisions under uncertainty. It captures the value of managerial flexibility to adapt and revise decisions at a future time, under the right conditions, with the benefit of better information.

Often the underlying business and management processes prohibit the organization from capitalizing on this capability. A different way of looking at processes is needed, based on the concept of "business elements".

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<sup>2</sup> "Return on IT: Measuring Agility", Oracle white paper, [www.oracle.com/thoughtleadership](http://www.oracle.com/thoughtleadership)

*Definition: a business element is a combination of an organization's core competences and a set of activities, to be used and reused for multiple customers, products, even potentially in multiple markets. In order to be successful, business elements should fit into the structure of the organization, based on available or attainable assets, geography, and other constraints.*

This different view appears when you do not think in terms of different activities that are needed to generate the required output, but in terms of (core) activities that can generate different types of output. Take for instance waste management. Currently, it consists of three main processes: collection of waste, processing of waste and recycling of waste. All processes are based on a specific topic: waste. However, by disconnecting the processes from the output – waste management – other business opportunities arise. For instance, offering an infrastructure for battery distribution for electric cars and bicycles using the same activities; collection, processing and recycling.

Although this may be a future prospect for most organizations, there are already organizations successfully deploying it.

#### **Primary processes**

- Since the beginning, beer breweries have realized that their distilling process can be used for other spirits as well, such as whisky.
- Amazon realized its infrastructure is not only capable of selling books, but also second hand books, goods other than books, and is currently even capable of selling IT capacity itself (cloud computing).
- Some warehousing companies realize that efforts to grow their business by horizontal integration (extending their reach into the value chain) require heavy investment. By opening up their warehousing capabilities for other goods and customers, superior shareholder return can be generated for a fraction of the investment.

#### **Supporting processes and management processes**

- Utility companies, such as those specializing in water supply infrastructure, sometimes offer invoicing services for all utilities (gas, water, light). It is only a small step to also provide invoicing for many more invoicing services for products and services that are based on any infrastructure subscription and pay-as-you-use business model, such as telecommunications, on-demand television, or even a short-distance rental car model.
- Organizations across many industries realize that the information they have, and the management processes to create and disseminate that information, can be used for purposes other than internal ones as well. Various organizations use their internal “business intelligence” for external purposes, creating “BI-as-a-customer-service” or as part of their value-chain integration.

In all these cases, traditional thinking in terms of processes and outputs is abandoned and replaced by thinking in terms of functional capabilities with which to build new business. A traditional value chain offers a good starting point for determining an organization's functional capabilities.

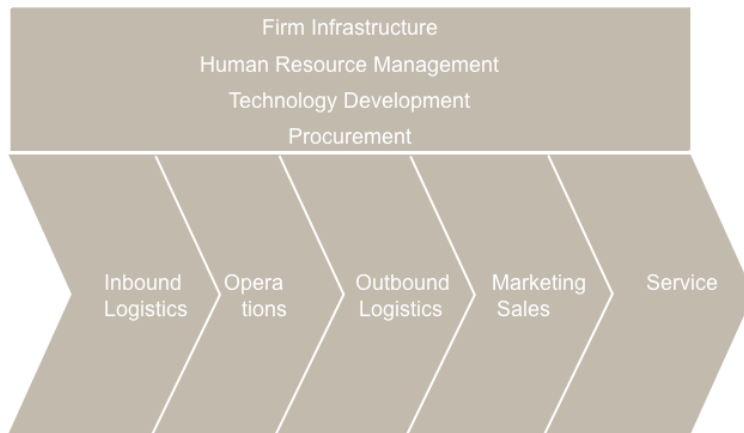


Figure 1: Traditional value chain

Logistics, operations, marketing, sales and service form an organization's set of primary business activities. Primary activities are supported by an organization's secondary activities: firm infrastructure (management, IT, facilities), human resource management, R&D and procurement. A business process is a chronological order of business activities, geared to create a particular output.

Often existing business processes are copied and amended for different products or customer segments. With hundreds of business activities across all business processes, having multiple copies of a similar activity is not very efficient. There must be more efficient ways of managing business activities. Data modelers use a technique called normalization, where data is optimally stored by classifying it in terms of function, such as grouping all data around a customer, an order, or a product. Interior architects designing houses define functional spaces, such as grouping all cooking facilities in a kitchen, or bathing facilities in the bathroom.

Translating this principle to a business architecture, accountants use a way of classifying activities based on a functional view. This is called the *segregation of duties*. Different categories of functions include executing activities, recording of activities, authorizing activities, and auditing activities. Although too generic to describe meaningful business activities, the principle of describing business activities in more general and functional terms can be useful. A functional view on the business activities reflects the nature of the business and offers a stable foundation. It supports the needs of the business, not the requirements of the individuals, and without regard to the

artificial limitations of organizational boundaries. A more componentized way of managing and combining business activities with similar functionality for multiple purposes, would be to create a classification of *business elements*<sup>3</sup>.

## Business Elements

Business elements are the collection of business activities, grouped based on their similarity in terms of activity, competence and structure. Examples could include secure and precise data entry, monitoring progress or flow, understanding customer behavior, or -- as GE once defined one of its core competences -- "management". This stands in contrast to business processes that tend to be grouped based on their output in terms of a specific product or service, in specific markets. Some business elements are very generic, such as those in finance. Finance operations tend to be highly regulated and uniform. Other business elements are very specific to an industry or the skill set of a single organization, such as logistical services or a specific competitive edge in IT. Business elements can span multiple organizations. In fact, many innovative business models and products are based on co-innovation.

The goal of combining various business elements is to create processes that:

- Are able to serve different products, services or other purposes. This generates entirely new business options.
- Can handle required changes in processes, through composition, decomposition and recomposition. In this way business processes move from being lean to being agile.
- Can be adopted within multiple supply chains to serve multiple markets.

Waste management, utility companies, beer breweries, and cloud computing were already mentioned as examples. Let's look at another example in more depth: running a pharmacy.

Traditionally, the mission statement for a pharmacy might sound something like this: "We are committed to serving the health care needs of our community with personal service, professional expertise, and community spirit". Its business would be described in terms of functional processes, such as procurement, preparation, delivery, and sales of medication, as well as providing advice on the use of medication. From a customer orientation, you could identify the three *value streams*: delivery of prescribed medication, mostly paid by a health management organization; delivery of over the counter (OTC) medication to customers; and providing advice

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<sup>3</sup> Enterprise architects often use the term business functions. However, business executives typically associate this term with organizational functions such as marketing, finance or sales. Borrowing from chemistry, the term "element" is appropriate as it describes a compound consisting of similar atoms; hence the term business elements as collections of similar activities.

on the use of medication, both for prescribed and OTC products. However, looking at it from a business elements point of view, we have to look at other things:

- Pharmacists and assistants need to have a specific skill set. In addition to knowing about the effects of medication, they need to be *precise*. Even small mistakes can have serious repercussions.
- Pharmacists usually run a small and diverse transaction business. Customers, one at a time, typically only require a small amount of product each time they visit the pharmacy.
- Pharmacies usually have a neighborhood orientation.

With these characteristics in mind, we can now start to look how we can apply the same business elements to new combinations. From a back-office point of view, for instance, pharmacists could offer logistical services, shipping valuable items such as SIM or SD cards, jewelry or small consumer electronics. As they are often part of a cooperative or a chain, getting national or even international coverage should be possible (structure). Consumers might be more willing to trust a pharmacist, being diligent and careful, with handling valuables than the post office (competence). This business also fits to the "heartbeat" of a pharmacy; running a small transaction business (activity).

Another core competency of a pharmacist is the preparation of medication: mixing ingredients (activity) in very small quantities (competence) according to specific protocols (structure). This competency could also be applied to mixing “personalized perfumes”, “personalized tea blends” or “personalized tooth paste flavors”.

Electronic patient files are not available in every country. This poses a risk for specialists and hospitals that may not be aware of a patient’s medical history, allergies and so forth. Pharmacists could offer an online approval service (activity) based on the information available about the patient (structure). The idea of online capabilities can be extended in many directions. For instance, medical devices may likely become connected to the internet in the future. Self-diagnostic capabilities from medical devices could be monitored online (activity) by the pharmacist, who would respond in case of imminent failure (competence) or stock up on elements for devices that wear out over time. This service-model is already common in some industries, such as photo imaging.

The first steps for pharmacists online could be the ordering of medication by patients. Pharmacists already know how much has been delivered on an existing prescription and the required dosage. There are already systems where the pharmacist automatically ships repeat, prescription medication.



In summary:

BUSINESS ELEMENT DESCRIPTION	
Business Case	Business Elements in a Pharmacy
Traditional process	Preparation of medication
Activity	Preparation
Structure	Local shops
Core competence	Precision, in-depth knowledge about combining ingredients
Adjacent outputs in other markets	<ul style="list-style-type: none"> <li>Personalized perfume, tea, tooth paste</li> </ul>
Future outputs in current or other markets	<ul style="list-style-type: none"> <li>Online approval</li> <li>Online monitoring</li> </ul>

Figure 2: Example, Business Elements in a Pharmacy

Combining different business elements may challenge the current, limiting mission of a pharmacy (serving the health care needs of their community), but only to broaden the products and services that they provide to their community. They would still maintain the attributes of personal service, professional expertise, and community spirit.

The idea of combining different business elements to create new business options works in every industry, but here are some additional retail examples:

- Most retailers already have an online business. Some offer customers the ability to design photo albums online, then produce and ship them. Large retailers also have HR departments that offer training programs for staff members. With much of the infrastructure already in place, what about combining two activities and offer online training and education programs, with content from a community college or university, to customers?
- Furniture shops often have a coffee corner for customers. Why not create a few places in the shop where people can hold meetings sitting on a few of the couches or at a meeting table? This is an ideal value proposition for self-employed professionals who cannot afford office services, and a new way of promoting furniture.
- It is easy to bypass most of the steps in the value-chain for organically produced fruits, vegetables and meat. Farmers could offer their products to customers via an online service, and the ordered goods could be sealed and delivered through the local flower shops that already have experience in handling perishable goods. This way, customers know where their products come from, it enhances the food experience, prices might be lower, and margins could be higher. Furthermore, flower shops would gain an additional source of income.

- Guests in a restaurant typically choose from a fixed menu in order for a restaurant to handle its procurement efficiently. Menus usually change only a few times per year. Consumers may not always like what is on the menu, or can't agree which restaurant to go to, as one feels like Italian and the other fancies Asian food. Why not connect a restaurant to a supermarket? Customers pick the food they would like to eat, and the style of preparation, and the chef prepares the food at the table -- Teppanyaki style. The restaurant charges for the preparation, the chefs have a more challenging job, the customers see what the chefs do with the ingredients, and the supermarket has created a new customer experience.

Not all combinations work. Large financial services institutions (FSI) that combined banking and insurance are now separating these divisions, as society is not accepting FSIs as being “too big to fail” anymore. After the accounting scandals in the early 2000s, many accounting firms separated their audit and consulting practices. In both cases, this was caused by externalities, not the business model itself. Also, not all combinations are possible by law. For instance, in some countries, supermarkets are not allowed to sell hard liquor.

## May the Five Forces be With You

Business elements can help improve your organization's competitive position, by turning threats into opportunities. Porter's Five Forces describe the different market threats that a company faces. These are:

- Current competitors
- New entrants
- Adjacent markets
- Customer bargaining power
- Supplier power.

By adopting the concept of business elements, these five forces can start to work in your favor.

### Customers

By adopting customer self-service processes, you integrate your business elements in the business activities and the lives of your customers. This creates a higher interdependency between you and your customers, and higher switching costs in case customers are considering other suppliers. By having an investment in each other, the balance of power becomes equal.

### Suppliers

The same principle applies when working with suppliers. By actively investing in value chain integration, and inviting suppliers to integrate in your administrative and logistical business

elements, you raise “asset specificity”. This interdependency also balances the power and tightens the relationship.

### Adjacent markets

Adjacent markets can be a source of formidable competition. Think of a retailer offering banking services, or Internet businesses threatening traditional newspapers. By using the concept of business elements to see what other business activities you could effectively offer, you become an adjacent competitor yourself instead of the other way around.

### Current competitors and new entrants

By using your assets more efficiently than others, because business elements allow multiple uses, you can create superior returns. These returns can consist of economies of scale (doing things more), as well as in creating a larger market footprint (doing more things). If your processes are able to handle many different situations, it raises the stakes for your current competitors and raises the barrier to entry for new competitors.

## Getting Ready

Small organizations will have no trouble implementing business elements and generating new business combinations; this comes naturally to them. Large enterprises, however, need to evolve to a level where it becomes possible -- again. Driven by operational excellence and regulatory compliance, many large organizations have over engineered and over-optimized their processes, making them lean, but not agile enough to drive business transformation. A number of new combinations are needed to get ready for business elements modeling.

### Combining big and small

You should think big and small at the same time. Stop describing processes in terms of output, and start focusing on the differentiating skills. Business elements should be grouped around these skills. Organizations should ask themselves these questions:

- **Competence:** With these differentiating skills, what other activities can we deploy that require the same skills, the same activities, and follow a similar business model?
- **Activities:** With these business elements, how can we create business processes that can be decomposed and recomposed to make different combinations based on changing requirements to the process, or new opportunities?
- **Structure:** Which activities should we continue to deploy ourselves, which ones should we outsource, and which activities could we deploy for others?

When taking inventory of your business elements, consider distinguishing between three types: primary, supporting and managerial. Primary business elements are groups of activities bundled

based on a core competence within the organization's operation, such as assembly, warehousing, or education. Next to primary business elements there are supporting and managerial business elements, such as strategy, project management or business development (management), control (in finance), or architectural thinking (IT), or coaching (HR). Business elements need a context as well. Mass distribution may be a core competence, but if all assets are based on the distribution of small consumer goods, heavy equipment or valuables falls outside that context. At the same time, you should start small. A first initiative might represent a “burning platform” (a process currently not working well), or a “low hanging fruit” (immediate payoff through improving something at which you are already good). It is important to start small because business elements benefit from organic growth; one combination leading to the next. A grand design would violate these principles. At the same time, the first step of taking inventory provides a crucial context. Many small business elements do not make one coherent business model.

### Combining capability and process

Organizations should spend less time on designing airtight processes, and more time building capabilities and competences. Once these capabilities are in place, the different processes will be figured out, almost automatically, around the identified business elements. The idea of loosely-coupled processes based on competences and activities is not entirely new in business process management; it is called the human-driven approach (in contrast to the system-driven approach). People are responsible for doing the right things, and can determine which steps in a process should be taken and which can be skipped using a workflow-based approach in which they place instructions for the process, the systems, and for management approval where needed. The process is adaptable to specific needs.

Of course there needs to be a certain sense of repeatability and reliability in deploying these capabilities. In fact, process management in a business elements world actually might be a business element in itself. A good place to start looking for efficiencies, after taking inventory of all existing and required business elements, is to look at all the places within the organization where similar processes have been duplicated to create output in the form of different products and services. Consolidating this to a single set of business elements creates efficiency, probably offsetting the loss of efficiency of the loosely defined processes based on business elements. This is even more the case when you can offer to perform those business elements-based services to other stakeholders as well.

### Combining process and data

The worlds of process and data have traditionally been very separate. Processes are optimized and normalized in such a way that they use a minimum of data to complete a transaction. In data-rich environments, such as a data warehouse, there is a minimal amount of process to keep the analytic capabilities as open as possible. This artificial separation needs to be lifted for business elements to be effective. Running various products, services or value streams through the same process requires a heterogeneous approach to data. Every transaction has its own fields,

attributes and definitions. Instead of having a fixed application that prescribes what every transaction should look like in order for it to be processed, it is the other way around. The transaction prescribes how the process should flow and should consider all relevant data, in order for it to be processed successfully. This requires a different way of implementing systems – more based on workflows and business-rule engines, and less based on formal implementations.

### Combining growth and control

The biggest mind-shift organizations have to go through is to transform their urge to be in control. In economically challenging times, the urge for control, centralization, and cost-consciousness increases. In times of growth, the opposite is the case. However, growth and control do not have to represent an either/or situation. Traditional command and control is no longer a functional mechanism in most organizations that consist of many outsourced activities and multiple partnerships. Collaboration and communication are more effective forms of management. Although essentially business elements modeling is a growth-related discipline, it brings a new form of control; the ability to capitalize on new opportunities quickly, to follow changes in the market faster than the competition, and to keep your options open for future possibilities.

### In Conclusion

Many organizations have already undergone a “back to basics” exercise, rediscovering their “core competences”. So what’s so new about business elements? The difference is in how skills and competencies are being used. After a phase of convergence – going back to basics, inevitably there will be a phase of diversification, again. Thinking in terms of business elements allows an organization to use its unique skills and competencies to build up a new portfolio of products and services, while still being true to the nature and structure of the organization. Business elements modeling is such a fundamental shift, it even impacts the organization's mission. Traditionally, the mission is defined in terms of products and services. For instance, pharmacists that strive to improve the health of their customers could now also aim at improving the lifestyle of their customers with precise personalization.

Getting ready sounds like a tall order. You have to combine a big vision with a small start; focus on building capabilities, and bring the world of process and data together, all while orchestrating a mind-shift about control within the organization. However, getting started may be easier than it sounds. Every organization already has the activities in place; they just need to be unleashed from the boundaries of the current output-oriented process. People do have the capabilities and competences to make the right decisions, and are likely already doing so by circumventing existing processes and systems. By identifying new combinations, the human-centric business elements-driven processes will most likely emerge in an organic way.

Business processes should not stand in the way of change and growth; instead they should be the engine of generating more business.



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