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Value Chains and Other Processes

Lots of people talk about value chains. Unless you listen carefully to what they say, however, you are unlikely to understand what they mean since everyone seems to feel free to use the term in his or her own way.

What no one disputes is that the term originated with Michael Porter and was introduced in his book, *Competitive Advantage*, in 1985. Porter was writing about how companies organized to gain competitive advantage and argued that the key was organizing their activities in a highly integrated fashion that made it hard for others to copy. The figure Porter included in his book is reproduced as Figure 1.

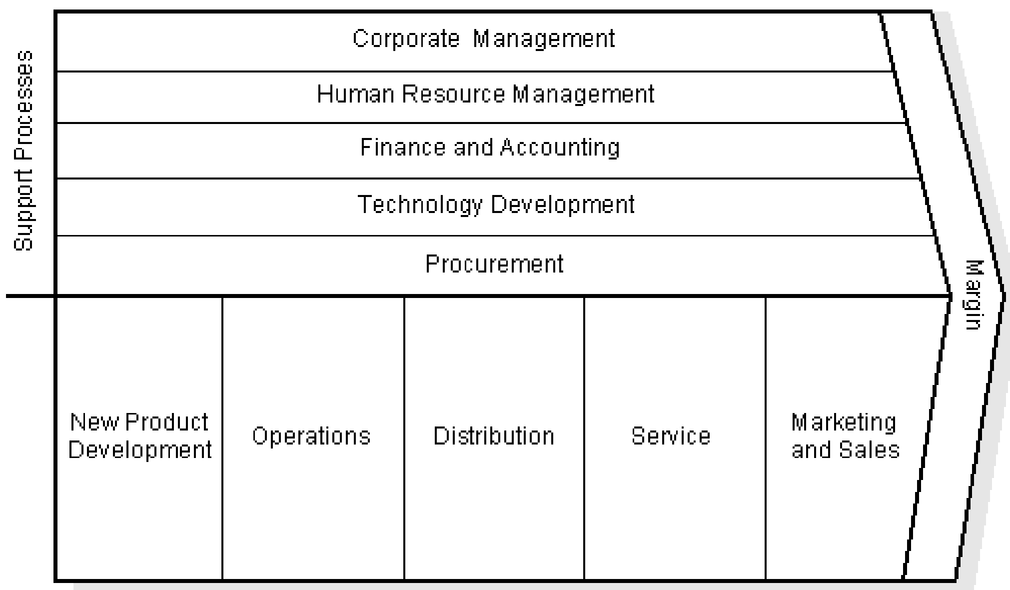

Figure 1. Porter's Value Chain

Notice that Porter suggests that a value chain includes not only operational or core processes like operations and marketing and sales, but also all the overhead processes like IT, HR and corporate management. Porter's goal was closely associated with Activity-Based Costing (ABC) that would determine ALL of the costs involved in the production of a product or service.

Porter suggested that conglomerates with multiple lines of business would probably have one value chain per line of business. Separately, Porter used the term Value System to refer to sets of value chains, each from a separate company, that are aligned in a complex chain, stretching from multiple suppliers through manufacturers and various distributors to customers.

Michael Hammer made quite a bit of Porter's Value Chain concept in Business Process Reengineering and often worked with large companies to determine how many value chains they had. Hammer's work suggested that most large companies had from 5 to 10 value chains. Along the way, most people stopped trying to assign all the support and management processes to specific value chains, and, increasingly, the term value chain was taken to refer to all of the core processes involved in creating a single product line or service.

Value Streams

Independent of Porter, several writers started using the term *Value Stream*. This term isn't associated with any one author in the way that *Value Chain* is associated with Porter, so it's difficult to provide a single definition. Recently, this term has been most widely used by individuals in the Lean community. Figure 2 provides an illustration of a value stream taken from a Lean text.

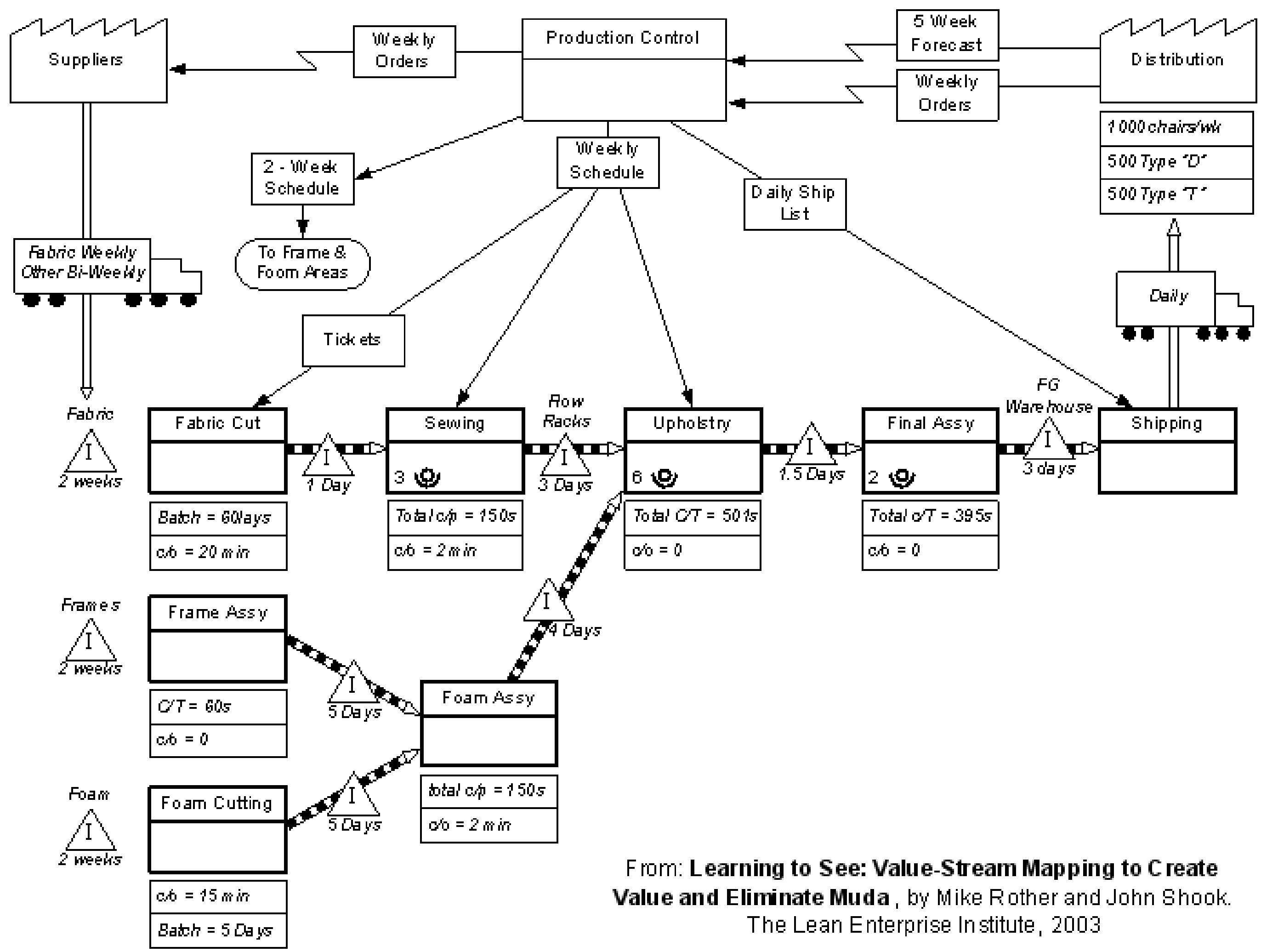

Figure 2. One Version of a Value Stream

The Lean practitioner usually uses the term Value Stream to refer to a core set of processes that define a circle that begins with a customer order and concludes when the product or service is provided to the customer. This approach derives from the Toyota Production System and is oriented toward manufacturing problems. Thus, for example, value stream maps often focus on inventory being held and whether a process "pushes" outputs to downstream processes or waits to have outputs "pulled" by the downstream process. Also, notice that the value stream concept, at least as it is defined by Figure 2, does not include support or management processes. The stream only includes a string of value-adding activities.

In so far as the Value Stream concept is derived from Lean practices, a lot of emphasis is placed on determining whether each given activity is "value adding" or not.

Value Creating Subprocesses

Many writers and practitioners today use the term *value stream* or *value chain* informally to refer to a subprocess - like the order to cash cycle or to the order fulfillment process - and the emphasis is simply on whether or not the subprocess is creating value for a customer. This usage doesn't match either of the original definitions of value chains or value streams. The term *value stream* has been used more informally and in many different situations. Therefore, if one has to use this terminology and thinks of a company as having numerous subprocesses that add value, then it's probably best to use the term to refer to these small-scale value creation sequences.

Reading the initial responses to the OMG's request for information on value creation processes, one is struck by the fact that no one is using the terms consistently at all, but, again, most of the descriptions are closer to *value streams* than to Porter's large scale *value chains*.

Value Nets

It would be nice if we could leave the discussion at this point and use value chain to refer to lines of business and value steams to refer to any process that is made up of value-adding activities. Unfortunately, about 5 or so years ago, a number of writers began to push the idea of *value nets*. This approach is often associated with a book, *Value Nets: Breaking the Supply Chain to Unlock Hidden Profits* by Bovet and Martha, published in 2000. The authors went out of their way to contrast their approach with *value chains* and argue that value chains were associated with manufacturing and were inappropriate for service businesses. Value chains, according to this argument, were focused on optimizing tight integration among activities, which was desirable when you wanted to manufacture things inexpensively and of consistent quality. Service businesses, however, were often less interested in efficiency and more interested in flexibility. The authors cited numerous examples from consulting companies that suggested that organizations could analyze their processes more or less independently and then assemble them into larger processes in response to specific requests from customers.

To date, Bovet and Martha's Value Nets book hasn't exerted very much influence on the commercial business process market, although it has excited quite a bit of discussion in academic circles. Recently, awareness of the value nets approach started to change, however, when IBM began to cite the book and promote their own approach to value nets, which they termed *Business Component Models*. The best introduction to IBM's approach is an article by Cherbakov and others, "Impact of Service Orientation at the Business Level" that appeared in the *IBM Systems Journal* in 2005. (See Figure 3.) The IBM authors offer a systematic way to organize a company's major processes that falls short of organizing them into a value chain or stream. In essence, you simply identify high level processes and then assemble them when there is a customer demand.

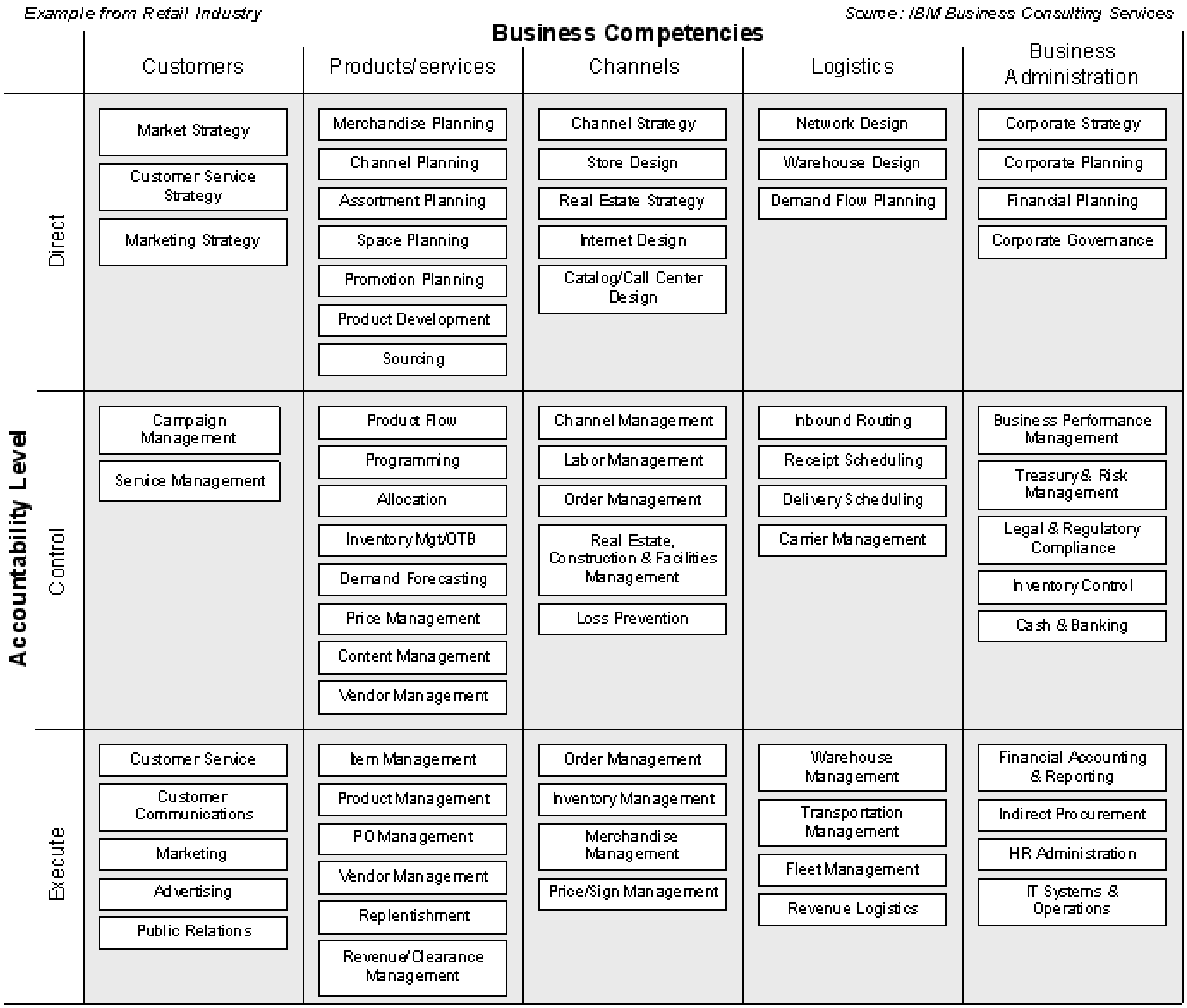

Figure 3. An IBM Business Component Model (a type of Value Net)

Obviously, if a company wanted to assure efficiency and competitive advantage along the lines that Michael Porter discussed in *Competitive Advantage*, the IBM approach leaves a lot to be desired. Without knowing in advance which processes will be linked to which other processes, one can hardly refine the handoffs between processes, or assure feedback between them. Similarly, without knowing who the ultimate customer is, it's hard to know if any one of the business components is, in fact, delivering value to anyone.

IBM has been promoting their value net approach, but to date the general business process community seems largely unaware of it. (Probably, most who have encountered it think of it as an IT technique associated with SOA and not as a way of organizing the flow of value or creating a high level process architecture.)

The point to stress here, however, is that in addition to value chains and value streams, there are business theorists who are working on alternatives to both which they term a value net. Moreover, the citations we provide only offer a glimpse into the literature. There are hundreds of books and articles that refer to *value chains*, *value streams*, *value nets* and *value systems*.

More important, many practitioners seem to have drawn ideas from these various approaches and mixed them together in odd ways. It would be helpful to have some common agreement on the basic terms. The OMG's effort to define a value creation model will be useful, but only if it is careful to respect these different traditions and define its intentions very clearly. The early proposals to the OMG only added to the confusion by mixing these concepts into a rather messy stew. Hopefully, later drafts will improve in clarity and usefulness.

The idea that processes create value for customers is important. The idea that efficient processes should integrate subprocess handoffs across functional boundaries is very important. The idea that non-value adding activities should be eliminated is important. The idea that there should be a way to assemble large scale processes in response to unique customer requests is important. To be useful, we need clear definitions and precise, standardized ways of talking about how we can realize these important ideas.

Till next time,

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