

Boosting service business with PLM

Introduction

In the globalized markets pure volume manufacturing is moving more and more towards east – to China, India and other Asian countries. The trend for western world has been already for number of years more towards high value adding services production. Especially tangible goods manufacturers have lately been looking for new business opportunities in the services business area.

The leading companies operating in the services business have been outsourcing their businesses as well to the East in order to cut costs through lower price of labour. This is not the only way to go. Service efficiency and quality can be increased dramatically through re-thinking the service and making it more “product” like. In this development work the traditional and proven methods of the manufacturing business can be tremendous benchmarks.

PLM (Product Lifecycle Management) in service industry

Productizing services is nothing new; actually it has been done for ages. For example, we have had highly defined insurance, accounting, accommodation and even telephony services already for hundreds of years. Traditionally these services have been very local what comes to production and usage. This is due to the traditional definition and understanding of service.

According to the often heard definition, service is a sequence of tasks or activities that produce the wanted (defined) service for each customer separately and by definition the service is consumed during its delivery.

However, this is not true anymore what comes to the place of production and consumption; services are often produced hundreds of kilometres from the place they are consumed.

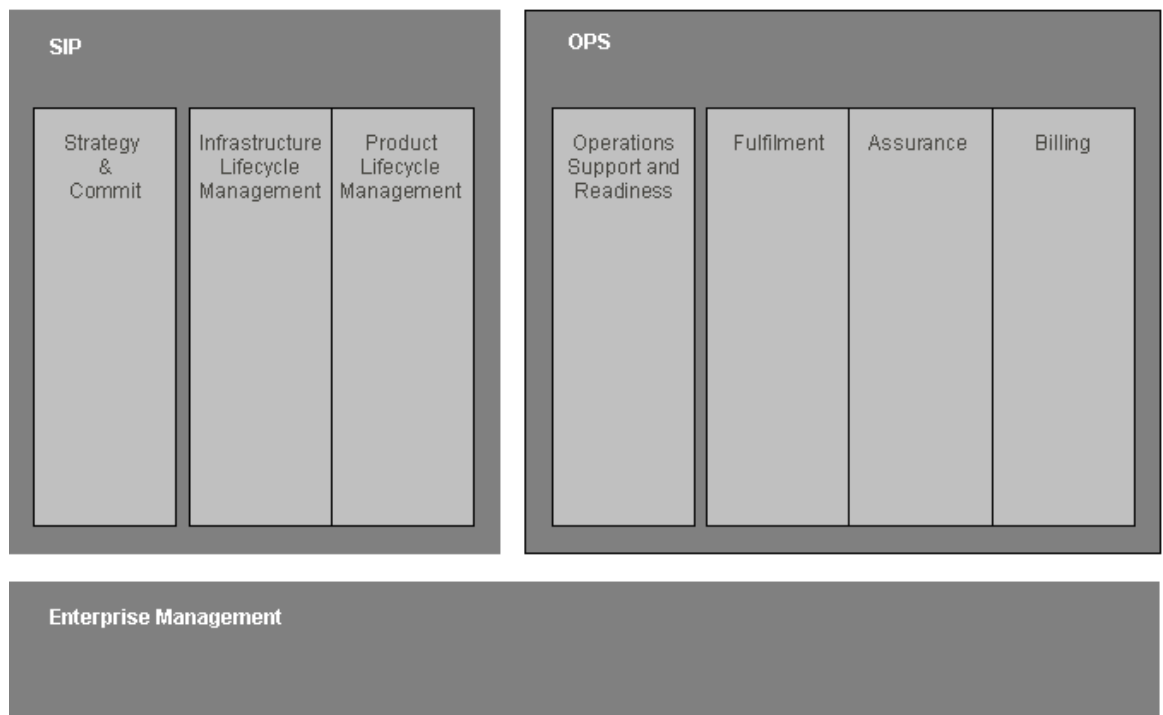
Knowing the above mentioned paradigm change, the change in the concept of service, one must wonder is there any other reason than the long tradition, why service industry in general is still lacking so much behind the manufacturing industry what comes to service production efficiency, automation, repeatability and quality. I would say that the reason is very simple and pragmatic - the creation of a service processes has always been so much cheaper than f. ex. setting up a manufacturing line for a car or cell phone. Therefore there has been no need to set up the processes as efficient as in discrete manufacturing. The service producers have not been so keen to re-think the “product” and design it for delivery while also making the service delivery smooth and efficient.

If this is the case, what could we learn from the manufacturing business when re-thinking service products, making services more defined, service processes more efficient; in order to yield better services, with higher quality and larger volumes.

One very obvious solution is to re-think the “product” - start building carefully defined, modular, configurable and easily repeatable service products, i.e. productizing and modularizing services further, making them more product like or “tangible”. I would claim that this is absolutely necessary in order to get closer to the efficiency, quality and volume levels seen in the tangible product industry. In practice this means that the service industry must start adapting the well thought information model definitions, processes, practices and product

definition tools that have been used for some time in the industries that make tangible products.

The telecommunications industry has already made their first initiatives in this area to define their services better in order to increase the efficiency of their business. I would say that the eTOM framework by Telemanagement forum gives an excellent framework for all service industries. The fundamental idea behind the eTOM concept is to make clear distinction between definition of the service and its fulfilment. First of all, the product (service) and its delivery are defined in the definition domain possibly using modular product definitions and PLM systems and then it is implemented in to the fulfilment domain to be able to deliver the product (service) to customers.



Picture 1: eTOM framework by Telemanagement forum

In order to start utilizing the possibilities brought by the information technology and automation, a standard definition of a service-product is needed. This is the first thing that could be adapted from the manufacturing business. The manufacturing industry has used product models and product information models to define their products carefully in all respects and from all necessary views needed to be able to modularize, outsource and repeat the production of one single product or one certain part of a product. This product “concept” (as defined in the product model) as well as its design in the product definition domain and its procurement, sales, production and delivery functions in the fulfilment domain are managed, supervised and executed by the help of modern IT-technology. The manufacturing industry has realized ages ago, that efficient and IT-enabled management of products across the entire product portfolio is not possible without a common and standard definition of what is a product and from what entities it is built out of.

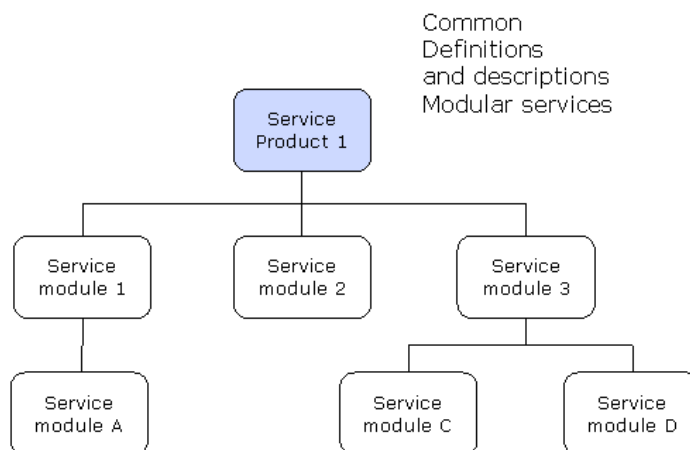
The point that I would like to make in this respect is not that the service industry has not done this-. No, they have definitely created a number of well functioning service delivery support systems. What the service industry is clearly missing is the standard definition of a service product. This is vital in order to be able to modularize the service products, define the service levels, manage the products in the complete product portfolio in the same way, compare the performance of various processes, integrate processes end-to-end, standardize the delivery of service products, bundle a number of products together easily, use standard IT-systems to support the delivery of the entire service portfolio and so on.

In order to realize in practice the benefits of smooth and efficient definition, creation and delivery of service products, a “service”-product life cycle management concept is a necessity for companies in the service industry business.

In this respect, a service-product lifecycle management concept, at its simplest, is a general plan for practical product lifecycle management in daily business at the corporate level, in a particular business or product area. It is a compilation of business rules, methods, processes, and guidelines as well as instructions on

how to apply the rules in practice. Usually, the concept of product lifecycle management covers at least the following areas:

- Terms and abbreviations used in this field: (careful definition of a service product and lifecycle, the phases of the product lifecycle, etc.)
- Product information models and product models
- Definition of products and product-related information objects (service/product items (elements, modules, components, structures, product-related documents, definition of product information, etc.)
- Product lifecycle management practices and principles used and applied in the company (how products are managed throughout their lifecycle, identification of information management principles such as versioning principles, information statuses, etc.)
- Product management related processes
- Product information management processes
- Instructions on how to apply the concept in everyday business



Picture 2: Product structure for modular service product definition. Good examples of pure services that are easy to modularize are support services, insurance services etc. For example by combining support module 1 and 2 with module 3 a new support service is

created quickly with all necessary definitions to sell, deliver and invoice the service.

The significance of building this kind of product information concept lies in the need to set common business rules for the entire corporation and its business and product areas. A carefully specified concept makes it possible to achieve synergies between businesses, processes and between products. A common product information concept allows for the smooth and speedy implementation of PLM-related processes and practices, because the most crucial areas of information have been agreed on at common and conceptual levels.

A good PLM-concept is never static; it keeps evolving in tune with the business and its requirements.

Conclusion

As a brief summary, I would say that there are vast possibilities for large and global service organizations for developing their business. The most innovative and flexible of them will be the most successful ones. There is a number of very clever solutions in the manufacturing business that could be utilized though innovation also in the service industry. Modular product thinking and product lifecycle management are two of the most interesting of them.

Abstract

In today's world a lot of businesses are looking for more innovative ways to; create and provide their services more efficiently and with better quality. Service productization through well designed, defined and standardized methods adapted for example from the manufacturing business can bring tremendous increase in the efficiency and quality of service production and delivery. Productizing services further also makes it possible to distribute and outplace service production around the world. A modern PLM IT-solution is a great help when making a standardized service definition and enabling modular services definition.

Copyright owned by Sirrus Capital Ltd. Helsinki Finland.

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the Finnish Copyright Law.

In its current version, and permission for use must always be obtained from Sirrus Capital Ltd. Violations are liable to prosecution under the Finnish Copyright Law.

Product liability: The publisher cannot guarantee the accuracy of any information about dosage and application contained in this book. In every individual case the user must check such information by consulting the relevant literature.