

Why integrate, when you can aggregate?

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In order to be responsive to customers, companies often restructure business units' boundaries, institute cross-functional teams, outsource and offshore functions, and spend huge amount of money in trying to integrate many organisational and technological silos, benefiting only the large scale technology suppliers and outsource service providers. Such attempts distract business units by contaminating their strategies, and rarely capture the value companies aim to achieve, besides low moral among employees.

But it doesn't have to be like this, and there is a better way. Rather than dismantling business units, companies can make them permeable to information. They can aggregate all their data on products and distilling the services through connected service bundles and delivering them in a coordinated and meaningful manner to customers. As a result, companies can present a single and unified brand to customers, which can evolve as market conditions warrant. Such aggregation can lead to better customer relationships and more sales, as well as improved operational efficiency – find out how.

Every medium and large-sized company has many organisational and technological silos, such as product development units, customer facing business units, sales and distribution channels, geographies and information technology (IT). These silos are separated by well defined and often rigid boundaries, which diminishes the company's ability to build strong brand, and broad customer relationships. Because the boundaries tend to obstruct the flow of information, different parts of the company can end up selling to same customers, sometimes competing for the same business without even knowing it. It is said that dog owners and their pets come to resemble each other. The same mechanism is at work for companies and their IT systems - companies come to look like their IT systems. Change the IT and the company changes its structure and delivery mode. The primary function of a company is to increase sales whilst reducing transaction costs. The higher the transaction costs are, the smaller the scope of the market. Today, in many organisations, over-engineered enterprise resource planning applications and IT silos have increased the transaction costs.

From pre-industrialisation to service industrialisation

In pre-industrialisation age companies had a simple structure. The central information processing device was the owner operator. Structurally, such companies resembled a person: a head, a set of hands and a few specialised organs. This stage of business was the *person model* of the company. In the industrial age, in contrast, the company resembled a well organised machine. Each part had its assigned responsibility, and each component was replaceable. A rigid hierarchy and clear process rules governed, and minimised the need for complex information flows. This stage was the *machine model*.

Following the Second World War, the classic company entered its mature stage. Coordination and control became major tasks. The central information processing tool was the mainframe computer. But it was still fairly simple, inflexible, large and vertically integrated. Information was at the centre and the periphery was connected through dumb terminals. All this resembled the company's structure: a rigid pyramid with middle managers as relays for information up and for decisions down, with little non-routine responsibility. This was the *mainframe model*.

In the late-80s, microcomputers began to proliferate, first standalone, but soon connected internally and then globally. Companies reorganised themselves, and the *network model* emerged that became the central organisational metaphor and principle. Lower costs for communications, storage and processing meant lower coordination costs. Companies could expand in scope and reach. Hierarchy declined and flexibility increased. Companies also embarked on implementing organisation wide supply-chain, accounting, customer relationship management and similar enterprise resource planning (ERP) applications to bring homogeneity across the organisation.

During the industrial age, companies who prospered mastered their supply chain to achieve greater flexibility and efficiency. Due to the advances of technology and globalisation, machine-to-machine communications can bypass the human element, and this generated another fundamental change – which is that services are being industrialised – just like the manufacturing industry revolution of our recent past. In today’s service industrialisation age, companies will need to coordinate and control their end-to-end service chains by way of service aggregation, to gain competitive advantage, without dismantling business units’ boundaries and contaminating their strategies.

Using the advance in technology, the company can move transactions that were previously internal to the outside. The same technology that reduces the level of internal communications also lowers the cost of external coordination. Companies no longer need to own the pieces if they can coordinate business elements offered externally by the market at a lower price. And indeed, lower costs have already led many companies to outsource and offshore production activities and increasingly such functions as research and development, marketing and design. Many companies have become coordinators and aggregators - employees become increasingly independent free agents; a myriad of highly specialised suppliers vie for their services; and customers seek customised services and products. One can have a company without any production activities but not one without service aggregation capability.

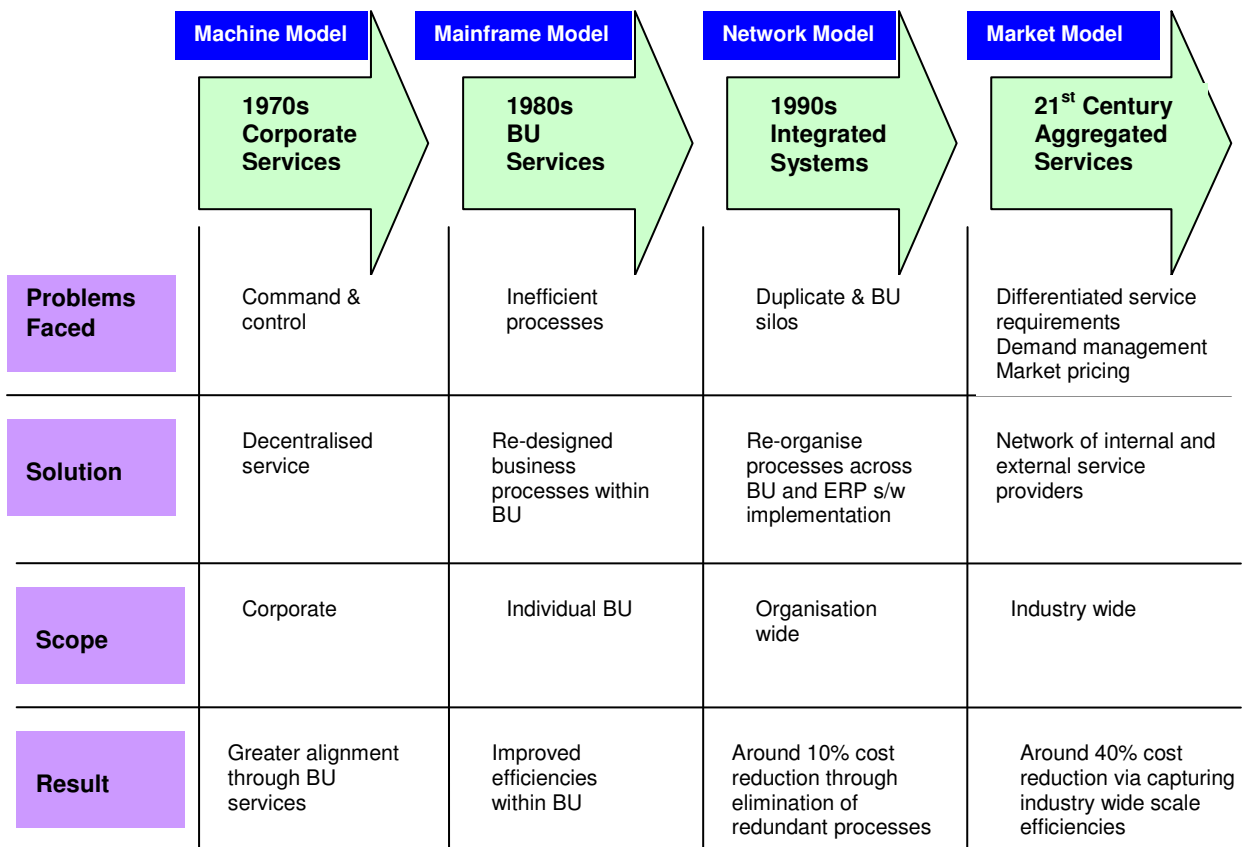


Figure 1: The evolution of corporate service from industrialised age to service industrialisation age

The company can be seen as a kind of service aggregation apparatus, consisting of many nodes capable of creating service bundles in a meaningful manner to meet customers need. This form of business organisation is the *market model* of the company in today’s service industrialisation age (see Figure 1).

Fighting against the natural way companies operate

Just think of how a customer’s relationship with a company is fragmented. A customer of an insurance company may have several different relationships: as a life insurance policy holders, a car insurance policy holder, a health insurance policy holder and as a building insurance policy holder. Tracked in four

different databases, an individual appears to the insurance company as four different customers. The more decentralised the business, the greater the transaction costs of such fragmentation. As the number and rigidity of silos increase, a company will tend to miss more and more market opportunities. Senior executives understand the problem well and they see and experience its consequences on a daily basis. But, they assume it is a people problem, and wish they could just get their employees to reach out to one another across organisational boundaries. And the thinking goes that employees could be much more responsive to customers and much more productive in their performance. Though understandable, this reaction often leads to superficial solutions that create more problems than they solve. Senior executives starts to urge and even force employees from different business units to work together, setting up all manner of cross-functional and cross-business task forces and teams. They seek to establish companywide processes and embark on implementing multi-year ERP software to create a single customer focused culture. In theory, such moves sound rational. But, in reality attempts to erase organisational boundaries often prove destructive and costly. Different business units have different strategic and product imperatives, and different functions rely on different kind of employees with different skills and ways of working. Imposing uniformity blurs the organisation's focus on products and services and functional excellence. By trying to improve cooperation across business units, senior executives end up lowering the performance of each business unit (see [Change management or Reinvention](#) by Pal and Hammond).

There is a better way

Instead of tear down organisational boundaries, companies can make them permeable to information. They can aggregate all their data on products and services, filtering it through connected databases and applications and delivering it in a coordinated, meaningful way in the form of service bundles to customers.

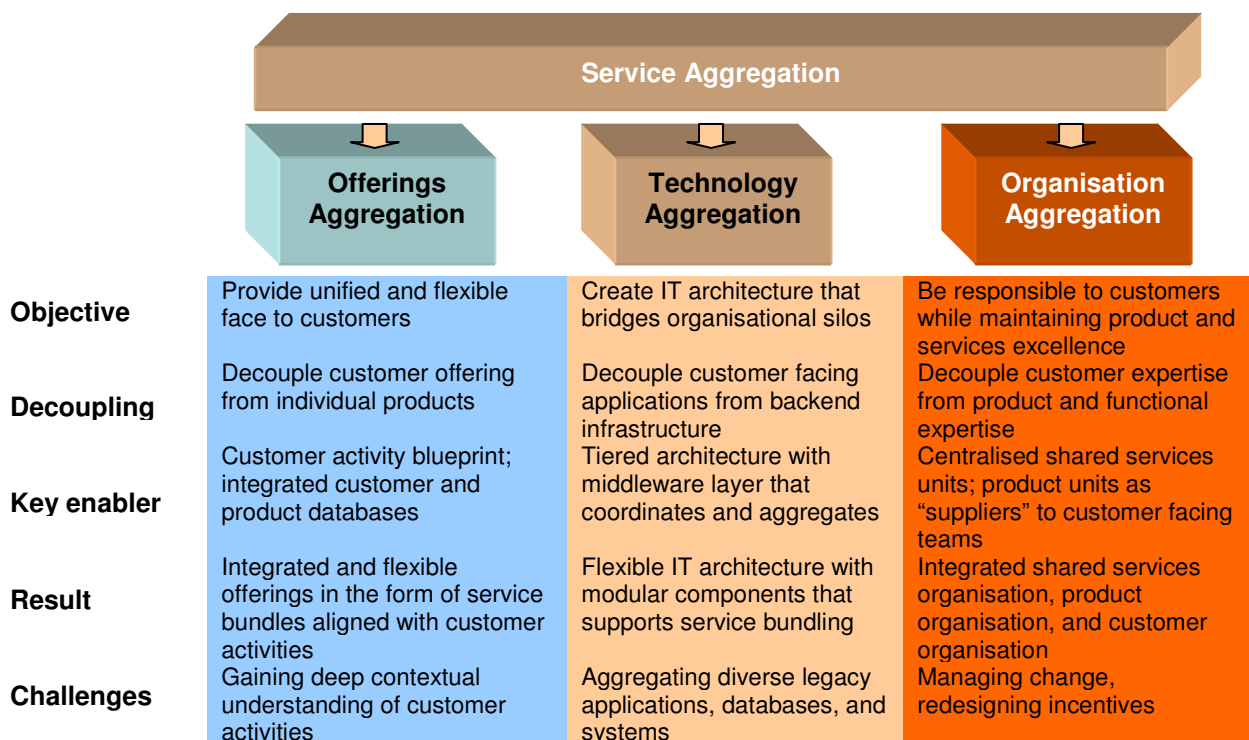


Figure 2: The three dimension of service aggregation

As a result, companies can present a single, unified brand to customers quickly and seamlessly – a brand that can change as market conditions warrant without imposing company wide homogeneity on their employees.

Such aggregation can lead not just to better customer relationships and therefore more sales but also to greater operational efficiency. It allows a company, for example, to avoid the high cost of maintaining different IT systems with redundant data while at the same time reducing costs. However aggregation

needs to take place along three dimensions: the offerings a company presents to customers, company's IT systems, and the company's organization (see Figure 2).

Service Aggregation - how to go about it

Consider a £1.0 billion company, which is a provider of market and securities data and other financial services for brokerages, investment bankers, traders, portfolio managers and other investment professionals and financial planners. The company draws information from a number of sources, including public filings, analyst reports, data feeds, and third-party providers, and makes the information available through several product lines, as well as offers transaction processing and trade settlement services. The company operates over 20 countries and has in excess of 8,000 employees. In response to the mounting market pressure and competitions, the CEO decided to transform from a product-centric company, which found customers for its products, to a service oriented company, which would find products for its customers. To achieve this transformation, the company aggregated its formerly fragmented products, enabling it to create flexible new offerings tailored to the needs of different customers, and it revamped its IT architecture to support this new way of going to the market.

Offerings Aggregation

The company started by identifying and profiling its three major customer segments: portfolio managers who manage money for clients, equity analysts who research stocks and bonds and traders who buy and sell financial instruments (see Figure 3).

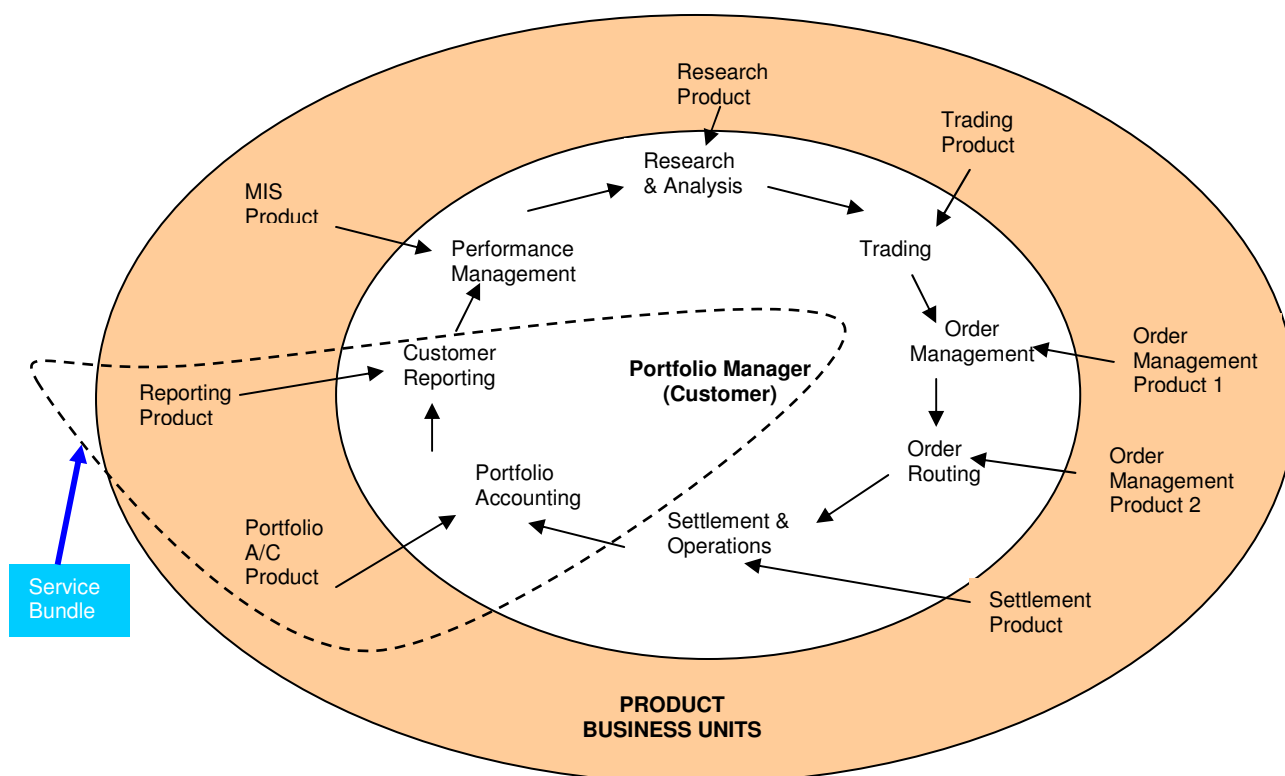


Figure 3: Example of aggregating offerings of a financial service provider

Next, the company analysed the workflows of each customer segment and produced a detailed map of customer activities. For example, the activities of a portfolio manager included researching stocks, placing trades, tracking settlements, tallying portfolio values, reporting results to customers and other institutions and evaluating performance. The next step was to overlay the company's products and services on to the customer activity map, showing how they supported the various activities (see Figure 3). This exercise allowed the company to see how its products could be assembled into flexible and loosely coupled new bundles (called service bundles) that would meet the needs of the three customer segments, providing

the basis for the design of customised interfaces for each segment. By bundling these products together with services, the company delivers much greater value to customers at a much lower cost.

Technology Aggregation

To make the service aggregation work, the company moved from an IT environment, where individual business units controlled both IT infrastructure and customer-facing applications, to a tiered architecture, where control over the customer facing applications is consolidated with customer-focused teams. The decoupling of customer facing applications and backend infrastructure is made possible by a new application server, called “middleware”, which allowed legacy applications and products to be presented as “objects” or modular components that can be aggregated and flexibly assembled to create customised solutions for customers. In addition to creating a tiered architecture, the company then enhanced IT aggregation by developing a common nomenclature for products, common protocols for accessing applications components, common XML standards, and common standards for look and feel and by consolidating it hardware and network (see Figure 4).

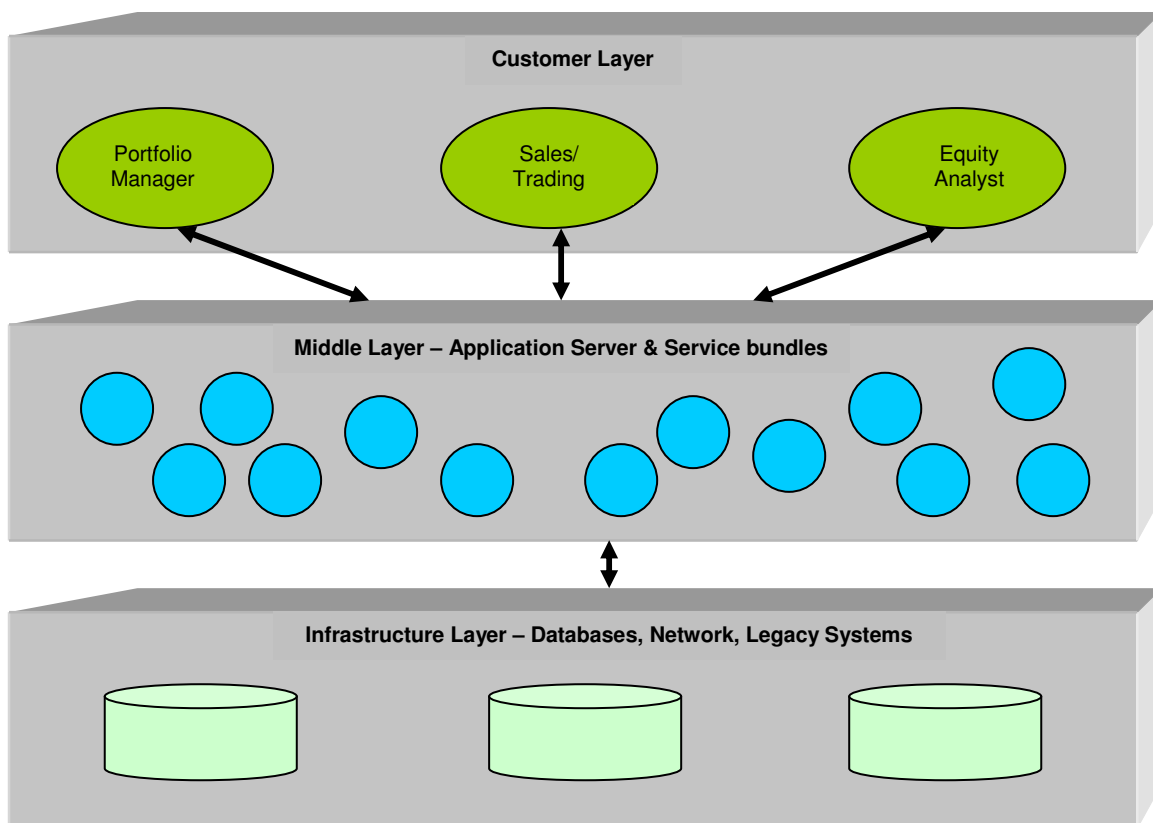


Figure 4: Example of aggregating technology architecture of a financial service provider

Organisation Aggregation

Today’s ever changeable markets require companies to value agility over efficiency and speed over scale^[1]. Hence, an organisational decoupling needs to take place. In a service oriented organisation, control over product development and manufacturing is separated from control over customers. While individual product development business units can continue to have responsibility for product development and production, they need to cede control over customer relationships to sales organisation aligned along particular market segments. This involves the product groups to alter their mind-sets. They sell their goods to customer facing organisations, which have authority over all aspects of customer relationships. Both the product business units and the customer teams are served by a set of centralised shared services organisations, such as supply-chain, finance, human resources, and IT (see [Designing shared services for profit](#) by Pal and Hammond). Senior executive management forms the corporate core, coordinating both shared services and the product business units (see Figure 5).

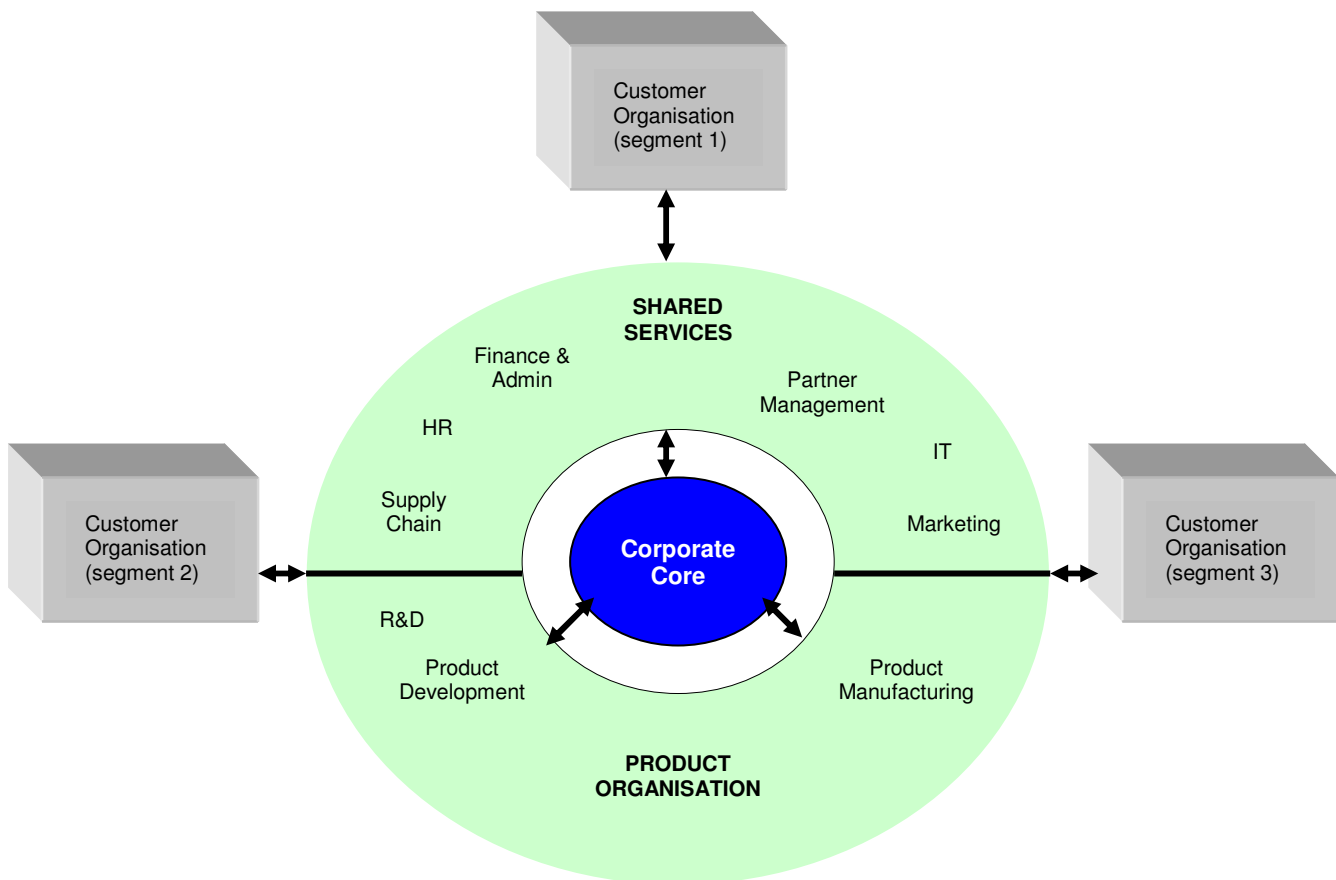


Figure 5: Example of organisation aggregation of a financial service provider

Making the transition from a product-centric sales organisation to a service orientated organisation will require the development of new skills in customer relationship management and new measure for customer potential and profitability. If a company cannot measure revenue and profit by customer, it won't be able to reward employees for focusing on growing customers instead of just pushing products. This will send mixed signals within the employees, undermining the new structure.

As a part of this realignment, companies will need to consider consolidating support functions and activities that have traditionally been distributed among the product development groups, creating a set of shared services, such as finance, supply-chain/procurement, and human resources that support both the customer facing teams and the product development teams. The centralisation of functions creates economies of scale and builds a critical mass of expertise in core support skills. The activities of all the product and shared services groups can be coordinated by a corporate core of executives who are responsible for strategy, leadership and resource allocation.

Putting it all together

The decoupling of product control from customer control in a service oriented organisation reflects a fundamental fact about today's business. Product and customer information are not the only things that tend to be locked up in various silos. Employee knowledge also tends to be fragmented, with one business unit's experience and know-how inaccessible to other business units. As a result, employees are regularly reinventing the wheel, at a very high cost. IT can be used to aggregate knowledge across the largest and most dispersed companies.

Companies need to put together various support functions with flexible and loosely coupled service chains that aggregate offerings, which are meaningfully different to customers. This will help companies to build a strong bond of trust that create compelling brands. Figure 6 shows a pictorial representation of

service aggregation framework where a number of service bundles are aggregated in a loosely coupled manner to satisfy a customer's demand.

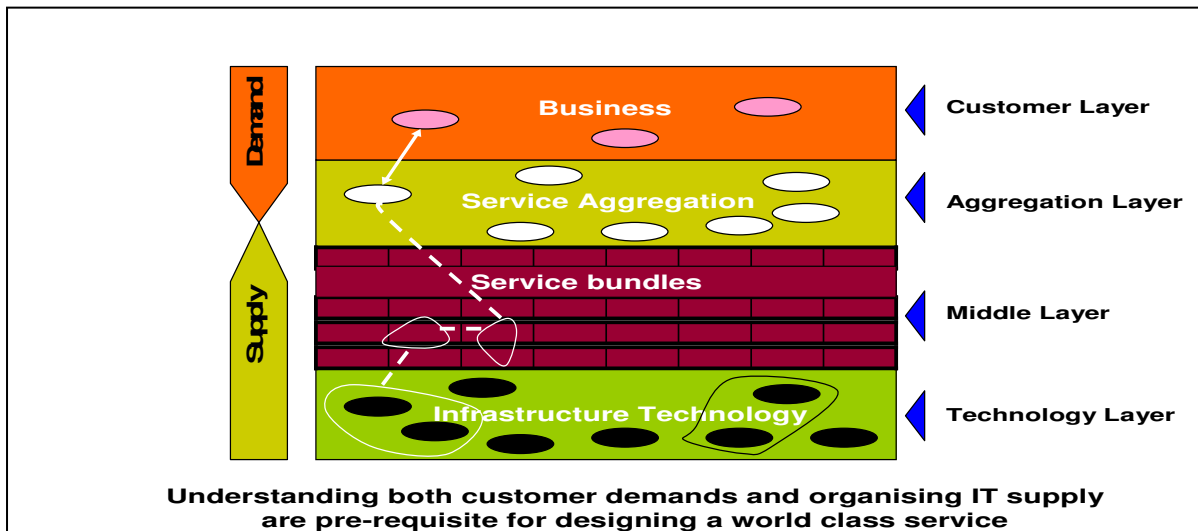


Figure 6: An example of Service Aggregation Framework

Service aggregation enables companies to get closer to customers, increase sales, sustain product and service innovation and improve operational efficiencies – four objectives that have traditionally been extraordinarily difficult to achieve simultaneously.

What does all this mean?

Silos in organisations are not new. Turf wars and internecine rivalries have been around since our ancestors first tried to work in teams. But silos thrive in large companies, public sector bureaucracies. Most of the time, silos are just another obstacle to be overcome or, more often, to be circumvented. Occasionally, however, silos become so powerful that an organisation is rendered dysfunctional.

The irony is that silos arise from the quest for efficiency. As Adam Smith pointed out many years ago, work gets done more quickly when it is divided into chunks and done by specialists. Today, in a typical company, confident, outgoing types handle sales. Number crunchers look after finance. Engineers are drawn to product development, manufacturing, and IT. But, while division of labour is good for productivity, it also breeds a complex sociology. Senior executives are worried about silos because the costs of non-cooperation are rising. In an increasingly competitive global economy, companies across all industries are under pressure to increase sales and improve efficiency. The easy cost cuts have already been made. Further progress requires redesigning service bundles with people, processes and technology from various silos and link them in service chains to meet and where possible, exceed customers' demands. The public sector is not immune from these pressures either. Governments are reluctant to raise taxes. Voters are demanding higher level of services from public services. The only answer is more efficient delivery of services, achieved by getting government departments to work together more effectively.

The question remains: if silos are such a liability, why do they persist? It is because, like viruses, they occur naturally. Ask any large group of normally defensive, insecure people to work together on a project. Then stand back and watch the silos emerge. Our society of large, complex organisations is a perfect breeding ground. Like so much of what goes on within organisations, however, the kind of defensive, political behaviour that encourages silos is a function of corporate culture. A quick flirtation with Six Sigma or any other management technique is unlikely to change the tacit way companies do things.

Large companies were built in an era of slower change where tight integration of sales, product development, and IT functions, and efficiency of processes provided competitive advantage. The power-base rested with the large companies and customers bought from household names. Trust came from scale of operations. That thinking also encouraged companies to operate in terms of "supply push" to

move products to customers. The question then was not one of: 'Does the customer demand the product?' but 'Can the company sell the product?'

Today, market dynamics and customers preference have changed (see Figure 7). The market model in today's service industrialised age, customers demand personalised service and they expect to spend their money with organisations that value and understand them.

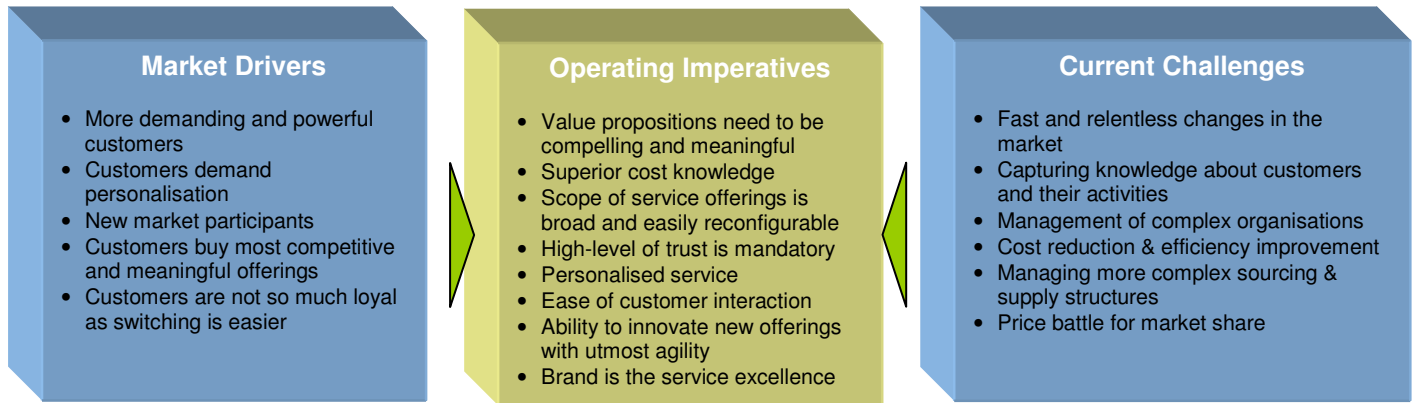


Figure 7: Today's market dynamics

Customers buy from those companies that make it easy for them to do business with. Today, customers are impatient and expect service excellence at the most competitive price. While companies have to focus on creating great products, customers think in terms of the activities they perform and the benefits they seek. For companies, products are ends, but for customers, products are means. The disjunction between how customers think and how companies organise themselves is what leads to inefficiencies and missed opportunities. And that is precisely the problem that service aggregation solves.

Therefore, an important question is: where does a service chain begin and where does it end? It is the market place where demand is created and markets drive service chains to fulfill the customer promise by delivering their requirements.

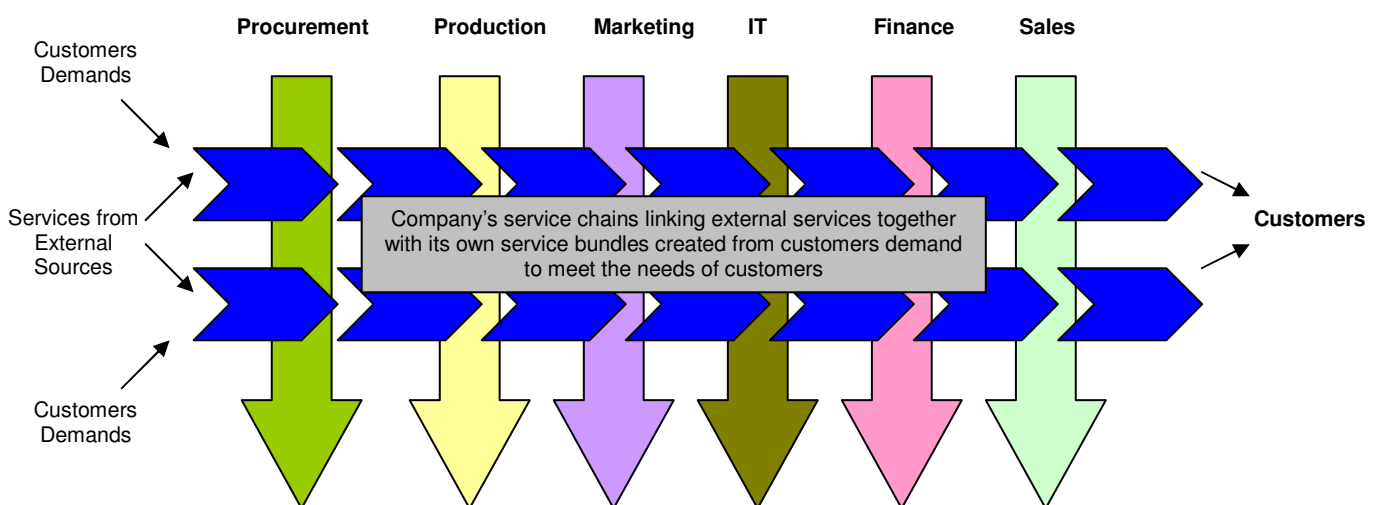


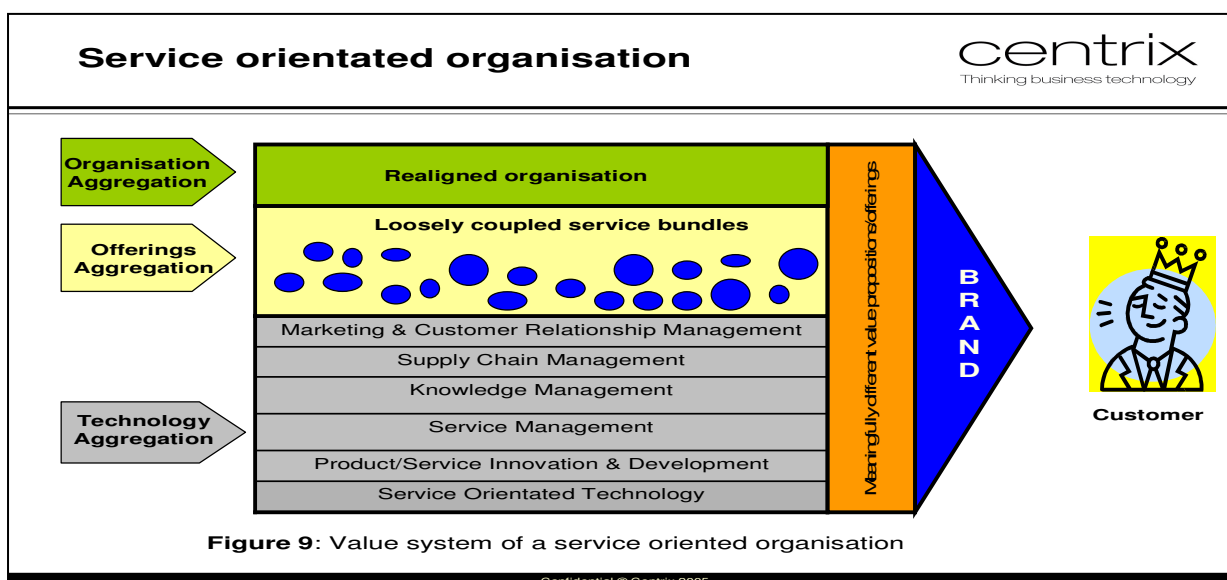
Figure 8: Service chains cut across functional and organisational silos

Companies, therefore, need to create value through their service chains by way of service aggregation that cut across organisational and internal silos to deliver services to customers (see Figure 8). In today's customer driven market, a service chain begins with customers signaling demand for specific services, and it ends with satisfied customers receiving the services they demanded.

Service aggregation capability is the hallmark of a service-oriented organisation and complex IT infrastructure is not the biggest hurdle to service aggregation. Much difficult hurdle to overcome is the product-centric mind-set of most senior executives – because their compensation is based on the P&L structure that perpetuates that approach. Product manufacturing remains the basic building blocks of the P&L for most companies – from banking to insurance, from pharmaceuticals to retailers, from utilities to mobile operators, from software vendors to hardware vendors – and the cost structure of a product business raises all kinds of barriers to service-oriented investments. Companies struggle to offer customers new products and services at speed and prices with features they want. And the "customer experience" is frustrating and often on an unstoppable downward trend. The problem is old thinking of mass production, carried out by product-centric companies. For all the talk of focusing on the customer, the total experience of the consumer is ignored. Customers have to find, obtain, install, maintain, upgrade and dispose of products, all in their own time and put up with all the hassle that arises. Do companies have to be so wasteful, time-consuming and inefficient?

In today's customer driven world, value flows horizontally through a company in the form of service chains pulled through by the customer. This is the reverse of companies trying to deliver add-on product related services by way of integration via vertically organised departmental functions or silos. Service aggregation drives out waste of the companies, reduces manufacturing and delivery times and minimises the hassle and waste of time involved in being a customer. The quick fix of outsourcing and off-shoring options is often the wrong answer – instead a company with service aggregation capability eliminates waste, maximises value-added activity. Today, products do not bring prizes. Instead, services that retain customers' loyalty allow companies to win the heart, mind and majority-share of customers' wallets. Service chains based on aggregation capability respond instinctively to the needs of customers, reacting to the demand pull of a single customer or purchase in a reflexive rather than mechanical way. But many of today's over-engineered customer services activities are far too complex and lengthy, with demands built up on a "just-in-case" basis and services are delivered on "just-too-late" basis.

The choice for companies is simple: either a company continues to flog products in the traditional way and gradually experience loss of market-share, or aggregates services from multiple sources, including its own, to meet the needs of ever demanding customers and dominates its chosen markets and keeps the competitions locked-out. Figure 9 shows the service aggregation value system where a number of value chains are locked together to satisfy the customers.



Delivering superior services to customers will be a challenging task for most large to medium-sized companies without the service aggregation capabilities, since their operations are siloed. Instead of providing just products to customers, they have to become *service makers*. In this culture, customers describe what they want and how they want them, and companies deliver the desired service without compromise or delay. The role of the customer in this market model shifts from passive recipient of products to active service maker. The dominance of customer choice of services they want to buy means realignment of product development, back-office functions, IT applications and infrastructures and

customer relationship organisations. Once a company controls the relationship with its customer, it can use its store of customer information to expand into other adjacent markets.

It is worth noting that organisations achieve their ultimate goals when specialists share knowledge and work together. Work mostly gets done in functional departments, but value is delivered to customers via service chains that cut across the functional areas or departments. It is clear that victors will be those companies with the best designed service aggregation capabilities, the most responsive partners' network in their service chains, and the closest customer relationships.

About the authors

Lisa Hammond is the CEO and Sukhendu Pal is a consultant.

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What Centrix Brings

Centrix helps companies grow their business through formulating service aggregation strategy; improve operational efficiency by prudent and integrated cost reduction programmes; strategic offshoring and outsourcing; reconfiguring end-to-end processes, systems, and services; design and build shared services organisations. Centrix's approach is set apart by capabilities that help companies tie operating and technology decisions to what customers value most. When companies align their business to what really matters to the customer, they achieve performance breakthroughs.

NOTES

1. Mohanbir S. Sawhney, "Don't Homogenize, Synchronize". Harvard Business Review, July/August 2001.