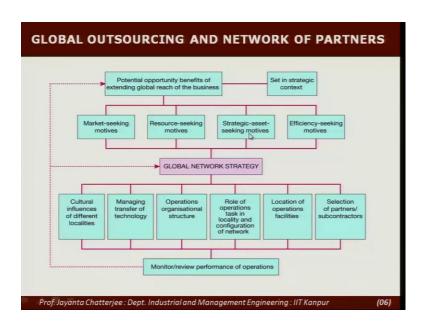
## Managing Services Prof. Jayanta Chatterjee Department of Industrial Management and Engineering Indian Institute of Technology, Kanpur

### Lecture - 46 Global Service Ecosystem-Contemporary Issues

We are continuing our discussion on this Global Service Ecosystem and the emerging Contemporary Issues. The key, one of the key points that we discussed in the last session was that new services earlier were created by service providers on the basis of their perception of what the customers wanted or what the customers would like or what the customers were feeling the need for.

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But, then we saw based on some of the issues, I can go back to the previous setting and may be it will be good to do a quick recap of that particular slide is, where we looked at that this is the global outsourcing and networking partners. And one of the reasons why this outsourcing and networking grew so rapidly from the end of 90's till today for the last almost 20 years, the global outsourcing of services and global networking of services have both seen phenomenal growth.

No doubt it has been driven by rapid growth of information and communication technology. But, it has also grown rapidly due to a continuous relentless pressure on

almost all companies to reduce costs. As the world has become one market and the non tariff barriers or even tariff barriers have continuously come down, competition in every market place has intensified and as a result there is a continuous pressure on prices, continuous pressure on customers expectation and as a result the organizations are under relentless pressure to reduce their costs.

Because, only with costs low costs as we have discussed a long time back during this session, I think in the 4th week, 5th week we discussed, that the strategy based on lowest cost is appearing to be the most dominant strategy in service industries, because of this continuous pressure on price. Because, it is only when you have the lowest costs, you have the best maneuverability or the best flexibility to play with pricing and respond to different types of price demands.

So, as a result this network that you see in front of you was driven mostly, all these connectivity's are the so called global networking of services happened following in almost waterfalls strategy. That means, the lower expertise, lower knowledge intense services to the extent they could be taken out of the closer connection with the value stream migrated to lower cost areas.

So, complex services started getting geographically distributed, the core expertise oriented services say for an insurance company remained in US. The core actions or the core offerings like customer servicing remained saying that quarter's area at US. But, many of the other parts of what we call auxiliary services or supplementary services moved out of the higher cost zones and moved to lower cost areas like India, Philippines, Taiwan, China, Hong Kong, Singapore and so on. And of course, as we discussed there were this fragmentation or decentralization or networking of services were also driven by new market seeking motives or resource complementariness or strategic asset complementariness.

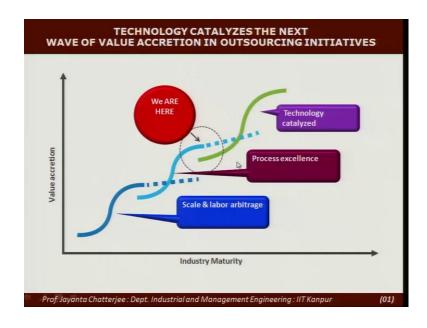
So, if certain types of testing pharmaceutical testing could be done better with complimentary assets in India, then that part of the service moved from may be a western country to India. And they as far as the customer was concerned, all these were seamlessly connected and the customer never felt, where the service element was coming from, because they were all assembled almost on time on demand in front of the, when the customer was in contact with the service stream.

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Element or Link	Before	After		
Service Recipient	Passive	Active as a co-producer		
Flow of Service	Available waiting for demand	Activated upon demand		
Flow of Information (upstream)	Pull: manual reporting of demand data results in delayed management response.	Push: high level of connectivity and transparency with fast or instantaneous access to most recent demand data.		
Flow of Information (downstream)	Little or no knowledge of resource deployment	Real-time tracking and dispatching		
Demand Management	Limited to use of appointments and reservations.	Proactive involving customer in scheduling to achieve bi-directional optimization		
Capacity Management	Limited to use of part-time employees	Creative use of cross-trained employees, outsourcing, and customer self-service.		
Service Delivery	Inflexible; standardized and impersonal	Flexible; personable with customization possible.		
Routing and Scheduling	Static; fixed daily schedules	Dynamic; based on system connectivity and process visibility		
New Service Design	Marketing initiatives based on firm's perception of customer needs	Virtual value chain design with customer data base information driving new services		
Pricing	Fixed	Variable; yield management promotes off-peak demand and avoid idle capacity		

So, new service design in this chart as we discussed in the previous class were based on not so much on marketing initiatives or marketing insights of the service provider, but very often driven by the customer. Because, customer was very much part of the value chain often and the customer played a much more proactive role and co creation, coproduction role in this new dispensation. So, now let us go back to the core session of today, which is dealing with some examples of large companies taking advantage of this evolving service networking and service ecosystem.

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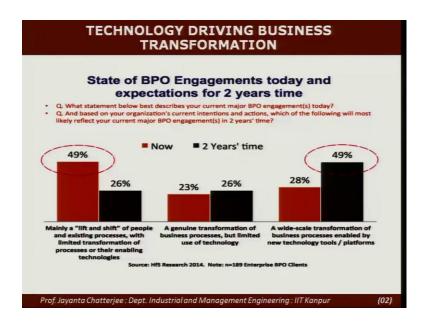
So, if you study the companies like Infosys or TCS or Wipro or Mind tree or IBM or all the big information technology based service companies around the world, various kind of technology intensive, knowledge intensive service providers around the world and if you observe the research publications and analyst publications, those are coming out with respect to this huge and rapidly growing industry around the world, this ICT enabled service networking industry, then we appear to have reach another inflection point.

There was an inflection point, which perhaps occur towards the end of 90's and we had seen rapid growth, which was mainly based on the drive to reduce cost, absolve different centres of efficiency into a value delivery network. So, it was all basically efficiency driven, cost driven following a sort of a waterfall model, that lower the complexity lower it went into the value waterfall and it moved to lower cost zones.

But, today I think this is the inflection point, where from scale and labor arbitrage, which drove the previous 15 years of service networking. We are moving to the third level after crossing the level of process excellence, which has driven most of these large companies for the last 7, 10 years. You know their process maturity, their service excellence, implementation of 6 sigma and so on, but today I think we are moving somewhere here, where technology itself can actually create another stream of new value creation.

So, the industry is moving on this maturity scale, but from process excellence we are driven to the next dimension. So, from pure cost reduction or labor arbitrage to process excellence to we are going to the next level, where technology will play a new part in creating some new dimension services.

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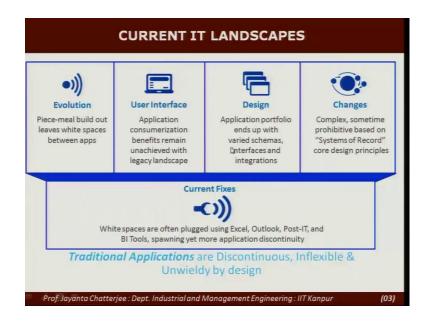


This is an interesting extraction from the research, which was published last year and it shows that in the initial period as you can see here in this block, what they call lift and shift of people and existing processes with limited transformation of processes or they are enabling technologies. So, fundamentally those parts of services of a total composite service those parts, which could be moved to a low cost region without coming in the way of the main service.

So, if there was a company providing insurance service, their payroll which was needed processing of the payroll of that company could shift to a location in Philippines or India or some of their customer record archiving could be moved to their lower cost area. Because, the actual process of delivering service to the current customers was not entirely dependent on these auxiliary services, these are facilitating on necessary services, but they were not forming the part of the main value stream.

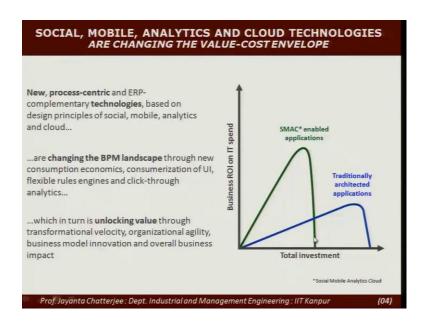
So, a lot of that was actually this research paper has called lift and shift, but what we are now seeing; that means, this particular composition will perhaps totally change in 2 years time. By 2019, 2020 we will see a wide scale transformation of business processes, which are enabled by new technology and new platform.

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So, fundamentally that, where the focus earlier was on current fixes and there as a result there were many different gaps in the evolution of the service, user interface, changes, design, etcetera.

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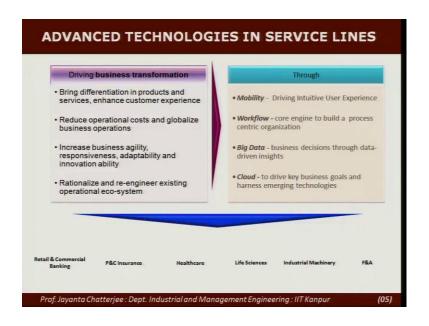
We are moving to this particular new technology enabled dimension, which is often called SMAC it is the acronym for social, mobile, analytics and cloud technologies. These are four technologies, which are changing the service industries landscape. So, new process centric and ERP complimentary technologies, so within the organization

there is enterprise resource, planning integration with IT, but these four technologies social, mobile, analytics and cloud technologies they are changing what is known as the value cost envelop.

So, normally earlier what was happening was that you invested in new technologies for improving the service level. It took some time for that to result into business ROI, if the rise was little slow in those days. So, say for example, customer analytics or knowing developing customer insight from the interaction pattern of the past and the particular technology that extracted such data from the ERP and then analyzed, this kind of fixes, this kind of purpose fixes that actually what fragmentation, fragmented way on different problems are now changing.

They are saying that this is the new envelop which will operate; that means very rapidly we will see the advantage coming from the service business process management by use of these technologies. So, let us I think at a conceptual level, these are just some models and graphs, it will be easier for us to understand it in depth, if we look at some actual service and the examples.

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So, the key areas where we are getting advantage of business agility, responsiveness, adaptability and the ability of the business to innovate, to and all these are driven by more real time impact of customer feedback, customer articulation of needs, customer articulation of dissatisfaction or customer articulation about some service deficiency.

Today, all these can, we have discussed when we discussed service recovery, how social media makes the recovery problem so immediate, makes the customer dissatisfaction known widely and creates the necessary pressure on the organization.

But, the social media, the mobile platform, the cloud and rapid analytics allow us to sense customer dissatisfaction and as we discussed earlier, customer dissatisfaction is an opportunity for creating new service value and customer relationship. So, now, that response, that need is felt in real time and response can be generated in real time.

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This in short is actually the impact of this SMAC and how it will operate, let us take an example of a company. We are not naming the company here, because of various legal reasons. But, let us say this company D is a global supplier of electronics and technologies for automotive, commercial vehicles and other market segments and they provide various types of services to the automotive industry.

So, they operate in 32 countries, they have number of different technical centers, manufacturing sites as well as different kinds of services, because they participate in the design service as well as different kinds of process set up services of their customers. Now, their products are and the services are supposed to make the cars of today and of tomorrow smarter and safer.

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Now, but the companies footprint for both manufacturing and service, services are spread over the whole map as you see in front of you. So, they have customers in all these countries, they have service production centres, product production centres in all these countries or in most of these countries, but interestingly not everything is produced in every location. And; however, they are able to serve all these locations, all these customers with the variety of services; even though the service blocks or service elements might be produced in different...

So, this company D, which is having this kind of global footprint giving delivering manufactured products as well as different kinds of technological services to automobile manufacturing companies around the world, will as is the normal practice today, outsource their non core activities. For example, their account receivable management or their payroll management and such services to this, what we call business process outsourcing, service providers, BPO service providers.

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## Outsourced: Most of Europe & China A/R Transactional Work to BPO Global Business Services Order to Cash Purchase to Pay General Ledger & Fixed Assets Payroll Travel & Expense Focus is beyond Labor Arbitrage to improved Business Outcome Metrics Prof. Jayanta Chatterjee: Dept. Industrial and Management Engineering: IIT Kanpur (08)

And we must recall the previous sessions that discussion that is BPO company or entity, that is doing their account receivable work therefore, is not a sort of stand alone or across the wall a service provider. The accounts receivable is such an important part or the customer service log or is such an important part of the overall value delivery of D company. Because, unless the money is collected from the customer you would often not know, what is compelling the customer to hold on to the payment, whether there is some kind of dissatisfaction or lack in deliveries made, which is provoking the customer to retain payment.

So, account receivable is therefore, not only required for working capital management reduction in of account receivable is very important of not only for finance reasons, but it is very much needed for business excellence for improving the service level of D company's service to it is customers. So, the kind of business process outsourcing service providers their services will be measured on the basis of reduction of order to cash cycle or purchase to pay cycle and so on. But, what is now happening is earlier such service as I was discussing were outsourced on the basis of labor arbitrage and lower cost.

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But, today it is happening due to various other reasons. So, these services, which are now, delivered by certain BPO companies are also not located everywhere they are also located at certain places like China, India, Poland, Romania, Mexico, USA on the basis of the expertise certain kind of expertise. So, on the basis of knowledge centers this work is distributed by the BPO companies among their own different centers of operation.

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And based on this, it has been shown in this particular case study that the D company's nimbleness, their order to cash cycle has accelerated quite significantly. And now, they

are now having much better execution of rule based customer collection, because even though this BPO company is part of their outsourcing network. But, they are a solid partner in the value generating constellation of the business eco system and so on, one hand they can be dispassionate they can be much more process focused they can be much more rule focused.

But, on the other hand they can be made to feel or their design to feel the pressure of the original business. So, predictive metrics of credit risk scores are rule based customer collection or on demand reports and alerts this can be, now generated much better with the combination of this four technology platforms, that we discussed.

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# ➤ Proposal development ➤ Proposal development ➤ Problem analysis ➤ Design, develop, and test alternative solutions ➤ Develop systematic performance measures ➤ Present final report ➤ Implement changes as agreed upon ➤ Assure client satisfaction ➤ Compile lessons from the study

From, this we will also look at another aspect of the service consulting, how higher end service sharing across an eco system network is done. So, today is as you see proposal development problem analysis design develop and test alternative solutions develop systematic performance measures these are all part of say a large service consulting company engaged in improving the service level of say a hotel network globally.

That work will be divided usually in these different steps proposal problem analysis design and develop and test alternative solution, then develop systematic performance measures, then deploy the new methods through a final report as the implementations are done of the changes assure client satisfaction and then, compile the lessons from the study. Now, these sort of array of services earlier from a service consulting company to

say a hotel chain across the world would have been delivered by sort of a one organization.

Today, this is the McKenzie model such services are provided by a constellation of service providers. So, there will be a leader, but that lead service provider will be working together with number of experts may be some experts in the area of supply chain management may be some expert service provider in the of hotel energy management or it could be another expert, who is looking at the working capital management at different hotels.

So, there will be service providers whose core competence is in the finance area service providers whose competence core competence will be in energy management of a large establishment of a large building there will be service providers whose expertise will be in organic waste disposal.

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## MCKINSEY'S MODEL FOR SERVICE CONSULTING

- Under-promise and over-deliver
- The 80-20 rule
- "Don't boil the ocean"
- Use the "elevator rule"
- Pluck the low-hanging fruits
- Hit singles, instead of home runs
- Make a chart every day
- Engage your client

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And all these service providers will be working together they will follow the original you know rules like 80, 20 rules focusing on those 20 percent problems, which will provide the 80 percent improvement. And but, they will deliver the service as a network and they will follow still the old principles of good consulting, which you saw in see in front of you, but the key point I am trying to make is that today such packages of values are not delivered by one organization, but very often by a group of organizations working as a network.

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Profit-per-Partner

Profit- per-Partner = 
$$\left(\frac{\text{Profit}}{Fees}\right)\left(\frac{\text{Staff}}{Partners}\right)$$

Productivity =  $\left(\frac{\text{Marg in}}{Fees}\right)\left(\frac{\text{Hours}}{Partners}\right)$ 

Productivity =  $\frac{Fees}{Staff}$  =  $\left(\frac{Fees}{Hours}\right)\left(\frac{Hours}{Staff}\right)$ 
=  $\left(\frac{Value}{Utilization}\right)$ 

This is a different set of discussion, but I need to mention it at this stage, that when we take this kind of services from a network of service providers there will be different partners the same formula earlier applied to a large consulting company and they would have calculated the profit per partner using these three multiples; that is profit divided by fees, fees divided by staff and staff divided by number of partners as you see each element is a element of organizational productivity.

So, productivity was finally, seen that fees per staff that could be collected, so which could be then a fees per hours into hours per staff and that was the measure of productivity. But you are also now, looking at this profit partner and in this the same formula can be used if there are number of organizations involved together in delivering a composite service to a D company, which we were discussing and each partner, what role they are playing, what kind of value they are bringing to the table can be calculated by using this kind of chart.

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Tactic	Category	
Lower Fixed (Overhead) Costs	Margin	
Improve cash cycle		
Reduce office space and equipment		
Reduce administrative and support staff		
Raise Prices and Differentiate	Productivity	
Specialize, innovate, add more value		
Target higher value work		
Invest in training		
Invest in higher value services		
Address Underperforming Projects	Productivity	
Drop unprofitable services		
Drop unprofitable customers		
Increase Volume	Productivity	
Increase utilization		
Lower Variable Costs	Leverage	
Improve engagement management		
Increase leverage of professionals		
Increase the use of paraprofessionals		

So, I will end today's discussion by with this kind of chart in front of you, that these are traditional, what we have followed, that how to lower fixed costs or sunk overhead raise price differentiation etcetera, these are the standard profitability tactics of any service business.

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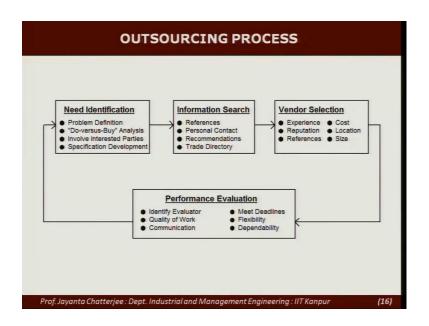


But, in that the advantages that are coming from outsourcing services are these benefits and these risks the benefits are allows the firm to focus on it is core competence and service is cheaper to outsource than perform in house, because that raises your sunk cost

and outsourcing services fundamentally allows you to convert fixed cost to variable cost. And of course, as each company or each part of the network each service provider focuses on his own technology; because they are want to be the best in their field, because this entire networking is based on core competency principle.

So, your efficiency and technology usage also gets intensified and better and better and so you are able to leverage on the whole a better economy of scale, there are some cave yards and there are some cautions here with respect to that there will be a loss of direct control. So, there has to be much better coordination much better adherence to certain rules of the game and that of course, as I discussed a little while back is now, becoming more economic to do and more real time to do, because of these four technology platforms, that we talked about social media cloud and analytics. Of course, there will be certain data security privacy issues all those will have to be sorted.

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So, I will this is the last slide for today's session this is what as driven the outsourcing process the need identification the information search the vendor selection and the performance evaluation, this chart is the same as what we had seen much earlier in the buyer behavior or the buying process of a service the same thing applies to outsourcing, outsourcing is purchased as a service element by service aggregators or service networkers. So, the eco system leader will acquire service on the basis of these elements and the, but it will be delivered to the ultimately to the service consumer.

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		Importance of Service		
		Low	High	
		Facility Support:	Equipment Support:	
	Property	-Laundry	-Repairs	
		-Janitorial	-Maintenance	
Focus		-Waste disposal	-Product testing	
		Employee Support:	Employee Development:	
of	People	-Food service	-Training	
		-Plant security	-Education	
		-Temporary personnel	-Medical care	
Service		Facilitator:	Professional:	
	Process	-Bookkeeping	-Advertising	
		-Travel booking	-Public relations	
		-Packaged software	-Legal	

So, as we discussed in case of D company the D company provides large number of electronic parts and associated technical design services to automotive companies. So, to the automotive companies the D company's delivery is seamless, but the D company at its back end or around the world will be delivering the value by leveraging the services coming from number of service providers. Some of those services are part of the main value stream some of the services are sort of background or auxiliary tasks like payroll management or account ageing analysis and so on.

But, many of them are as we saw working capital management for example, can be provided by a outsourced specialist company, who has the technology expertise to manage that most efficiently. So, we were discussing about this large hotel and the service it provides to it is customers, but at the backend the same large hotel is today even though to the customer it is appearing to be one hotel chain spread across the world, but a hotel today a large hotel today represents a constellation of service rather than a monolithic service provider.

So, in the 80's actually a network or eco system of service, where according to competence core competence according to the best level of expertise best use of technology the all these services, that you see in front of you. So, laundry service or janitorial service or waste disposal service all these can be outsourced, food service plant security temporary personnel could be partly outsourced partly shared there can be

different blending depending on different regions and different levels of legal and other complexities, book keeping travel booking all these can be again process related, but low importance, which can be outsourced even high end services like advertising public related legal these can be outsourced.

But, there are various other services, where it is possible to outsource it is possible to in source and a combination will be decided by each company each service company as the occasions demand and as kind of suppliers available partners available. But, the key point that one should note today, that more and more we will see this molecularization of services I would not call it fragmentation I would not call it distribution, but I am calling it molecularization, because just as different molecules can be independent yet integrated into an organism.

Similarly, today a very large service organization can be internally a constellation of value providers using a service business eco system, which is quite different from the yesteryears very large organization employing 1000 of people. So, the 1000 of people are still working these 1000 of computers or machines are still working. But, they are today centered around expertise centered around knowledge and the network with each other.

This we believe will lead to a situation, where we will see that the next inflection point will occur, that we will actually go from this level of process excellence, which we have reached now, after the scale and labor arbitrage level we will now, see the next inflection coming through technology categorization. Because, today the services are molecularised across an eco system based on technical expertise knowledge excellence and capability. So, you will see therefore, the best combination being put forward will create a much higher level of service excellence using this technology leverage.

Thank you.