

Outcome / Performance Based Services and Contracting: A Briefing for Managers

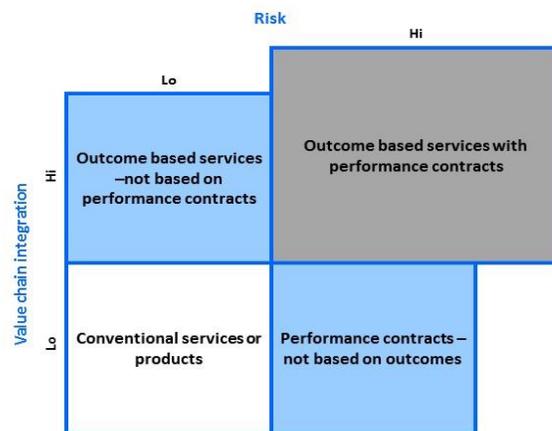
Outcome based services and performance contracting are increasingly gaining traction, though the practice in some industries goes back a really long time. The concept can have significant benefits for customers, even an entire industry or the economy by aligning incentives and creating “win / wins”, however things are less clear for suppliers. In order to be successful a company must change its business model and operating system and therefore must undertake substantial initial investment and, probably, accept permanently higher overhead. To be justified the model needs to scale. Customers however require choice -an adequate number of suppliers providing services under the new model- before they change what and how they buy. A “chicken-and-egg” problem ensues. So in industries without “facilitators” (organizations with oversized influence), suppliers need to proceed carefully so that on the one hand they don’t overextend and on the other they don’t fall behind when their industry transitions. To achieve that they must prioritize systematically and target their efforts initially at those markets, industries and customers that offer the best chance for quickly reaching critical mass. But a correct strategy is a necessary but not sufficient condition for success. Suppliers must get other things right as well, including how to design offerings and contracts, engage and influence customers, achieve buy-in from personnel, manage risks and determine pricing and revenue patterns.

Concept

One of the tenets of servitization is a move towards outcome and/or performance based services and contracts (OBS/PBC), in essence business transactions where the buyer acquires outcomes (results of the use of a product or service) and/or compensation of the supplier is linked to how well the outcome fulfills the need (performance or value created and delivered). While the two concepts OBS and PBC are closely related and have been used interchangeably, they are not identical. It is possible to deliver the former without the latter –an outcome can be defined with or without performance elements. Car sharing systems, for example, may provide short term access to vehicles or “mobility” (outcome), however they may or may not (usually not) make claims as to vehicle availability, reliability or distance from the customer (performance). Often, both terms have been linked specifically to servitization of *products*, the case where the use of a product is offered as a service. However both terms have also been used to denote performance based transactions in services in many industries, for example in telecommunications, IT services and business process outsourcing, healthcare or industrial B2B services. Performance elements are often captured in contracts as “Service Levels” –hence “Service Level Agreements (SLAs)”: Commitments that a supplier makes to a customer-, however Service Levels need

not necessarily denote outcomes, but inputs or some intermediate stage. For example in after sales services, a provider might commit to having an appropriate number of specialist employees standing by or parts inventories available to support a customer (input); to responding to a customer problem within a specified time frame (intermediate I); to rectifying a customer problem within a specified time frame (intermediate II); to a certain level of availability of equipment (outcome I) or to a certain production capability (outcome II). It should therefore be evident, that both outcomes and performance are actually matters of degree and that outcome based services and performance contracting actually overlap. It is possible to have one without the other or both. It should also be clear that as a provider moves towards performance contracts it increases its level of risk exposure, while a move towards outcome based services requires a higher degree of value chain integration with customers, i.e. the provider's value chain is extended.

Outcome based services and performance contracts



For purposes of this article we are primarily interested in the broad area of outcome based services which are in turn based on performance contracts. Risk exposure is highest as the provider assumes responsibility of turning inputs into outputs. Value chain integration is also highest, as the provider assumes responsibility for executing parts of the customer's operations.

Evolution

The idea of OBS/PBC is not new and in academia was probably first articulated in 1972, when Theodore Levitt postulated that "customers don't want to buy drills, they want holes in the wall". In business practice, antecedents can be found much earlier: Already in 1937 Compagnie Générale de Chauffage (now Dalkia, a French energy services provider and EDF subsidiary) signed a contract with Villiers-Saint-Denis hospital in northern France to provide operation and maintenance services for the hospital's heating systems that stipulated a guaranteed temperature. In the 1960's Bristol Siddeley a British aircraft engine manufacturer (now absorbed into Rolls Royce), coined the term "power-by-the-hour" to describe a

maintenance service for engines for a fixed sum per flying hour, allowing operators to forecast these costs with accuracy and relieving the customer of the need to purchase stocks of replacement engines and parts. In the 1980s Rolls Royce revived and evolved the program. In infrastructure (energy, transport infrastructure, facilities etc.) concession business which relies on build, own, operate, maintain (BOOM) contracts or variations thereof, some form of performance elements has been the norm for many decades, even centuries. For example, in 1854, Compagnie Générale des Eaux (now part of Veolia Environnement) signed a contract with the city of Lyon to build and manage a water network to provide potable water and sewage services to inhabitants at what today would be called defined service levels, including stipulations about availability. Today services traditionally provided by the state (hospitals, schools, prisons) have been privatized under Public Private Partnerships (PPP) or Private Finance Initiatives (PFI) which almost always include performance elements. In the power industry Transmission System Operators (TSOs), the companies owning/operating the HV Grid, must perform to standards specified by the grid regulator and providers of power capacity to support the grid in times of stress (balancing energy, spinning reserve, demand response) must provide availability and reaction time guarantees –failure to respond as agreed incurs risks to the grid - and significant penalties.

Nevertheless, the concept of OBS/PBC has been gaining ground at an accelerating rate over the past years in many areas and industries, as enabling technology has improved and, importantly, budget constraints in both public and private sectors have forced buyers to look for ways to improve “bang for the buck” and/or reduce investment outlays and risks. In parts of the energy services industry, outcome based performance contracting became the standard of practice by the mid ‘90s –as a way to overcome customer constraints and reluctance to invest in energy efficiency: Vendors contract with customers to reduce energy consumption of processes (defined outcome) -usually by implementing investments in energy efficient equipment and process changes- and get paid by the savings generated. In 2003 the US Department of Defense (DoD) issued a directive *requiring* program managers to “use performance-based strategies for acquiring and sustaining products and services whenever feasible”. In 2013, a study by McKinsey, a management consultancy, on the US health sector estimated savings of up to US \$ 1 trillion over the next decade by using outcome based contracting and there have even been recent reports of paying for new expensive drugs based on avoidance of disease or reduction in disease incidence. Many private sector customers today require performance based elements in procurement contracts for both products and services.

At the same time “demand pull” is complemented by “supply push”: Increasing numbers of vendors, both manufacturers and pure play service providers, are *considering* outcome/performance based business models and strategies as a means for

- sustained competitive differentiation and avoidance of product commoditization
- acquiring higher quality, less volatile (counter-cyclical) revenue streams
- internalizing all after sales revenues and profits
- locking in customers and locking out competitors for the long term, and
- securing higher margins

For the “supplier-customer system” in total (and indeed for the industry/economy overall), OBS/PBC can be beneficial if it produces the required outcome at a lower cost -for example by increasing productivity, spurring innovation and best practice, reducing system risks (improving reliability) or decreasing “deadweight costs”, i.e. used resources that create no value (e.g. excessive transaction costs or equipment downtimes and associated repairs). In after sales and other services such as healthcare, a

fundamental idea behind OBS/PBC has been that the shift from conflicting to *aligned* incentives between supplier and customer (i.e. from “pay me when it breaks” to “pay me when it works” in after sales service and from “fee for service” to “outcome based payment” in healthcare) can significantly reduce moral hazard, uncertainty in transactions and improve both effectiveness and efficiency.

Strategic considerations for service providers

Over time, studies have shown that the concept has been broadly beneficial for customers. For suppliers however, the benefits have been less clear. In the case of the US energy service industry for example, it turned out that many contractors went bankrupt –mostly because intense competition induced them to overestimate potential energy savings, underestimate risk and, as a consequence, provide overgenerous performance guarantees. They then suffered long-drawn out deaths, because the wrong effective pricing became evident only over longer periods of time.

Perceived uncertainties and risks in execution and pricing and general lack of knowledge and experience in executing OBS/PBC models have made suppliers cautious in spite of the trend: When in 2007 the DoD solicited 128 suppliers for bids on OBS/PBC basis for a particular equipment platform contract only five responded positively and the rest declined. Many contractors, particularly OEM contractors, who perceive their companies as traditional product market leaders, react in a similar way – thinking they are protecting their company from risk or that change is not necessary. But the risk of no change is seldom evaluated and can be far higher. The reality of course is that OPS/PBC models deeply disrupt the way a company does business and the benefits are not always clear in advance. As one executive noted: *“We don’t know what to do. We know how conventional contracts operate and we can estimate our potential profit, but we have no idea what to charge for performance based contracts or how risky they are or how to manage our relationships with our suppliers”*.

OBS / PBC is definitely no panacea –at least for suppliers, as it requires the supplier to assume the risk of input to outcome transformation, while the organizational boundaries between customer and supplier become less sharp as the supplier takes on part of the customer’s value chain. It has therefore significant implications for how a company operates. It also has implications for the industry as a whole -in terms of economics, allocation of profit pools and competitive dynamics once the model has gained traction, as successful providers build up long-term relationships with customers (locking others out) and have the opportunity to reduce unit costs through scale, possibly leading to higher industry concentration. This is therefore a key problem: For a company to be successful in OBS/PBC it requires significant changes to business model, strategy, organization, competencies, resource deployment and delivery system and, often, overhead level and balance sheet management. To justify the necessary effort and investment the new model needs to scale substantially, i.e. suppliers need to be able to generate a significant portion of revenue through this model, in the order of 30-50% with appropriate margins. At the same time customers need to have choice -an adequate number of suppliers providing services under the new model- in order to justify changing their own procurement model. A “chicken-and-egg” problem ensues. So the strategic approach, process and speed of a transition towards outcome/performance based models is critically important for suppliers. In industries where very large players can shape the business framework and act as facilitators for industry transformation, such as healthcare, aerospace and defense, transport systems or public services (governments), these transitions can be smoother and the model can be scaled and reach critical mass quickly. For example in Britain, both Labour and

Conservative governments strongly pushed for the privatization of execution of public services, which gave rise to a large industry and even companies focused almost entirely on providing these (diverse) services, such as Serco Group plc. In the same vein, the privatization of the railways and the resulting disaggregation and unbundling of railway operations created a new industry structure with companies operating train systems focusing on integrated logistics, marketing and customer service and others providing the technical infrastructure –effectively as a bundled outcome/performance based service, with train manufacturers, such as Alstom, Siemens or Bombardier taking the lead as Tier 1 suppliers. OBS/PBC is now the standard business model in the railway industry in Britain.

In other industries transitions can be more volatile and slower. Suppliers therefore need to proceed carefully so that on the one hand they don't overextend – make the investment, design the offerings but find no buyers-, and on the other they don't fall behind when their industry does transition. To achieve this they must prioritize systematically and target their efforts initially at those markets, industries and customers that offer the best chance for quickly reaching critical mass. In contrast, an opportunistic approach can quickly lead to high costs with little result, a trap that many seem to fall into. For example, it could make sense to look at some criteria that may indicate how accepting markets or industries are for outcome based performance contracts –indicatively:

- Significant levels of trust between suppliers and customers –often developed through long term successful business association and good mutual understanding –e.g. usually found in Nordic countries (homogeneous culture, size)
- Ability to accurately define and precisely limit risks (including consequential damages) contractually –often on the basis of English law and robust enforcement of contracts –usually found in the US, UK or Australia
- Markets open to business model innovation, even experimentation, allowing fairly flexible resource allocation (labor laws), financing (e.g. non-recourse project financing, off balance sheet financing) and/or favored by financial investors (ubiquitous commodities) e.g. US, UK, power generation, in particular renewables
- Industries used to buying “solutions” while shifting more value chain responsibilities /risks to suppliers –typically due to intense competition and a need for very efficient supply chains – usually found in the automotive, airline, oil and gas or other industries with similar cost structures or volatile market prices
- Markets and industries with a high level of “maturity” in terms of services, where the expectation is that equipment will function to high standard – typically “developed” markets with high degree of division of labor (limited vertical integration)

While this list is by no means exhaustive or even necessarily representative, it does show that suppliers, when deciding to pursue this business model, can apply and combine rational criteria to strategically segment and prioritize target markets and industries rather than going about it in an opportunistic or “one size fits all” way -which necessarily and arbitrarily limits focus and resources that can be invested to make the new model succeed. It also helps to explain why a concurrent deployment in many different markets often fails: Conditions in markets are not the same.

Managerial Considerations and Challenges

Though necessary, having a systematic approach and a correct strategy is nonetheless not sufficient for success in outcome based services and performance contracting. A number of critical factors need to be understood and addressed, some of which we will consider here -others in subsequent articles:

Offerings, roles and contract design

OBS/PBC offerings and contracts need to be highly integrated and customized. However standardized approaches and processes do need to emerge and be implemented in order to induce scale effects without which a supplier cannot be competitive. In any case the business model forces companies to rethink core approaches and critical success factors: It requires them to focus effort and investment on coordination and cooperation rather than (just) being good in functional or technical areas.

The first step in designing customized offerings is to determine exactly what the deliverables should be and this requires defining what to measure and metrics to be used. For a contract to make business and competitive sense for customers, deliverables *must* be based on operational *targets* and not business as usual or past performance. Customers and suppliers *must* share an understanding of what it takes to be competitive or leading in terms of performance –whether this is defined in operational, financial or competitive (relative) terms – and the broad actions required to achieve the objectives. It is therefore essential that contracts not only include general, top-level measurement criteria, e.g. things like top level operational availability, without specifying or sustaining lower level performance metrics. Lacking this information customer uncertainty increases and trust reduces. Performance becomes more difficult to assess and manage and offerings and contracts more difficult to sell. Because while it is clear that in OBS/PBC models the supplier’s role changes –the service provider becomes empowered (assumes responsibility and risk) to deliver outcomes and is held accountable to performance objectives-, it should also be no less clear that the customer’s role also changes –from a manager of operations and processes to a manager of performance. As such the customer must understand and, in the end, agree to how this performance is to be achieved and sustained. Developing a common “performance” language and culture between customer and supplier(s) is therefore crucial but also complex. Establishing tools that help the tracking, monitoring and interpretation of contract relevant data is an important first step in this direction and there needs to be clear alignment (coherent cause and effect understanding) between needs, objectives, actions and competencies. It is not helpful if the customer requests for things that the supplier cannot provide. On the contrary the customer *must* help build an efficient and effective delivery system, including by integrating other providers into the system. The then Tier 1 supplier must find or accept business partners, which must also have a vested interest in the end result -cascading the alignment of interests. For example in the 1990’s automobile manufacturers started a process of outsourcing significant elements of their value chain -from maintenance to logistics to various production stages as well as buying complete systems (outcomes) rather than components from Tier 1 suppliers. In the process they reduced numbers of direct suppliers and forced competitors to co-operate to achieve required objectives. This was primarily a customer driven and facilitated process to re-design and increase the efficiency of the value chain by large scale implementation of OBS/PBC. It succeeded and in the process restructured the industry.

OBS/PBC compels the service provider to co-create value with the customer. Customers participate in value creation either by co-producing services with suppliers (for example a supplier may use a customer's own personnel to execute the services) or, mainly, by utilizing the supplier's deliverable to execute their own process –creating a feedback loop. Customer management in this context (and the risks involved) is one of the most challenging aspects of OBS/PBC. The supplier should realize that the customer's ability to access and utilize (as intended) the supplier's deliverable is crucial to the supplier's ability to deliver the outcomes and the required performance. It is therefore necessary for the supplier to understand the how and why of customer usage subject to diverse variables, e.g. production plan, sales requirements, external conditions, special occasions or circumstances, people, shifts, season, input variability etc. Even well designed offerings may fail to achieve objectives if they don't take account of the customer's specific interaction with the deliverable. The focus must be on how *both* organizations working together can co-create value. This occurs at many levels through multiple interactions without real organizational boundaries. Customer usage of deliverables changes benefits of service, the way the service itself should be delivered and costs of service delivery, therefore influencing customer behavior must be part of any OBS/PBC implementation.

It follows that in OBS/PBC the service provider's capability to deliver value is to a large extent contingent on its relationship with the customer and therefore the provider should think of its own capability as including customer capabilities, processes and resources. This is also necessary in order to avert moral hazard –the risk of the customer behaving differently (taking more risk) if he is no longer responsible for the performance of a process or the assets underlying the process. On the other hand the role change required from the customer can cause concerns about a perceived loss of control. Individuals in the customer's organization may question their role and value. With the service provider and customer working together to co-create the outcome boundaries become blurred with both fluidity and rigidity possible as a result. Fluidity occurs when out of contract requests are accommodated with the aim of building better relationships. In other cases rigidity arises from a "this is their problem attitude" as a result of not fully understanding the roles each party must play. Therefore priority must be given to dealing with these issues.

However, many don't delve in or engage debate on the facilitating management organization nor do they specify sufficiently tasks, lines, levels of authority or behavioral norms. Others rely too much on processes and structures while neglecting the importance of actual people in value delivery, failing to achieve buy-in, negatively impacting outcomes. In many cases providers and customers sign a contract and then lacking guidance to the contrary, return to business as usual and revert to traditional methods, roles and responsibilities. In other cases both parties adopt new methods they hope will bring advantage but without coordination. These situations often leave participants, including both customer and supplier personnel, operating in a vacuum of assumptions and create barriers that impedes success. Relationships between individuals from both sides are key to success and longevity of contracts and a solid foundation and facilitating framework for these relationships need therefore to be developed.

[We will not address here the topic of organized labor, which can be particularly complex, at least in some markets. But it is clear that labor laws and rules can impede OBS/PBC or significantly influence the design of offerings and contracts].

Pricing and risk

The level of risk exposure of suppliers transitioning to OBS/PBC business models rises considerably as suppliers extend value chains and assume input to outcome transformation responsibility. Such risks include also moral hazard as customers may feel less constrained in their (operating) behavior if they are no longer fully responsible for the potential (negative) consequences of that behavior. Suppliers can and must try to contractually mitigate these risks, however not all risks can be a-priori identified or managed through contracts.

Pricing and “pattern” of revenue generation are therefore an important tool for risk management with required (ex-ante) margin increasing as risks increase. Nevertheless in practice this is not always easy to implement. Contracts are usually awarded under competitive conditions, customers push for simultaneous cost reductions and better outcomes and not all suppliers (competitors or partners) have either the same risk attitude or appraise activities for risk in the same way.

To define required margins it is necessary to understand cost *variability*, for given performance objectives, i.e. what, why and how causes costs to change (cost drivers, cost dynamics) and segment according to impact and probability. However assessing probabilities becomes more difficult with increasing complexity. For example in diverse support contracts it is fairly easy to assess costs and cost variability (risk) in service products such as extended warranties purchased by consumers to cover repairs to standard products like cars or appliances –and therefore fairly easy to price with the required margin. This becomes more difficult when dealing with complex systems found in large machinery, industrial plant, aerospace or defense applications, which are characterized by far higher uncertainty as to operating behavior, conditions, usage and reliability as well as “inherent complexity”, thus resulting in large risks to both customer and service provider. Concepts such as Reliability Centered Maintenance (RCM) can help alleviate the problem and understand what is possible: How reliable is the equipment? How often does it break down? What are the causes of failure? Given the operational performance requirements at what level will maintenance be required? Which equipment are integrated and how are they interrelated? How can they be addressed and understood in such a way that they can be treated as a system? However they cannot resolve all the uncertainties nor fully solve the problem.

In addition (absolute) cost *levels* also need to be understood, as often contract cost base lines are set at the level of costs or budgets that were required to execute an activity before it was awarded to the supplier. This is not a trivial undertaking as in many cases they include overhead or shared fixed costs and the application of bottom-up methods such as activity based costing (e.g. during due diligence) often show up significant differences to what is required by a third party.

Inherent uncertainty and high risks in complex OBS/PBC programs can therefore be major barriers to successful contracting and implementation and require resolution. The concept strongly favors shared rewards (profits) to complement shared risks and in order to provide incentives for the supplier to meet and exceed objectives. This implies *value based pricing*, at least to some degree. Notwithstanding individual risk attitudes (willingness to accept risk given expected return of both customers and suppliers) and perceptions which can only be resolved through negotiations and defining limits to “value-at-risk”, the principle should be that where risk can be *clearly defined* it makes more sense for the supplier to assume the risk, while in cases where this is more difficult or even possible it makes more sense for the risk to be shared. In practice therefore, while contracts can be drawn in a number of ways,

it seems reasonable to define three elements: a fixed payment (mainly to cover fixed costs), a variable payment to cover variable costs generated by the service provision and a bonus (or penalty) element linked to (additional) value received by the customer. In the initial more risky phase of the contract emphasis should be placed on cost recovery by the supplier (i.e. limiting the risk), while more emphasis on bonus / penalty (higher risk for higher return) should be placed as the contract matures and uncertainties decrease. This solution seems to provide best results relative to alternatives.

There are numerous other issues in OBS/PBC that managers have to deal with, e.g.:

- Who and why is the best owner of underlying assets?
- How best to plan, deploy and optimize required resources?
- What are the implications for product design?
- What are best practices (answers) to a number of the questions raised earlier?

Some of these issues will be dealt with in subsequent articles