CIPS Australasia

Procurement's Evolving Role in Enterprise Supply Chains

This paper is only one contribution to the ongoing debate about procurement's evolution as a subject along a supply chain that now fulfils the marketing concept – from conception to consumption.

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Dr John Gattorna[1] MCIPS became a Foundation Professor for The Chartered Institute of Purchasing and Supply - Australia (CIPSA) in early 2008, to help CIPSA better define procurement's growing role within the supply chain – an issue deeply relevant to this region and its natural geography.

This paper is only one contribution to the ongoing debate about procurement's evolution as a subject along a supply chain that now fulfils the marketing concept – from conception to consumption.

More and more organisations understand that professional procurement can now add value in many ways, that supply chains are risky things to manage and that consumer behaviour increasingly demands greater value from the supply chain.

Hopefully this paper will add to this developing understanding.

Jonathan Dutton FCIPS
Managing Director
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June 2009

[1] Dr John Gattorna is a global supply chain 'Thought Leader', and prolific author. His new book, *Dynamic Supply Chain Alignment* (Gower Publishing, Farnham, UK) published in June 2009.

The whole area of supply-side sourcing is coming back into focus once again as the world reels from the financial services melt-down and its impact on the real economy. Since the turn of the New Millennium, multi-national corporations in particular have been pursuing global sourcing strategies in the relentless search for lower cost inputs to manufacturing. This in turn has had the effect of "…making supply chains longer and more fragmented, and this is exposing firms to greater costs and risks."[2] The same research also found that most firms were still largely basing their procurement decisions on a minimum price approach rather than the more sophisticated 'Total Cost of Ownership'[3] principle. Finally, global trade appears to be significantly contributing to the emission of greenhouse gases because of the added transportation legs involved, and this flies in the face of efforts to reduce CO^2 emissions. Maybe we will see a change back to regional and local sourcing as a result of this new factor that is concerning the community at large.

Indeed, from our own work we see a clear trend towards a sub-segment within the overall 'collaborative' customer segment that appears to be very empathetic towards sustaining the natural environment and corporate social responsibility; this sub-segment will surely penalise parties along the supply chain who do not take sufficient measures to minimise their carbon footprint.

The task ahead of us is to re-connect the supply-side to the demand-side, not that it has ever been connected, and that's part of the problem. It is hard to imagine how an enterprise can successfully procure the raw materials, parts, sub-assemblies, and the other inputs it requires for its business if there is not a live connection with the customer-facing side of the business. But that is what has been going on for generations, and sadly, continues to this day in many enterprises.

[2] Christopher, M., Jia, Fu, Khan, Omera, Mena, Carlos, Palmer, Andrew, & Sandberg, Erik (2007), Global Sourcing and Logistics, Research Report, Cranfield School of management, May 2007, p.3.
[3] Ibid.

Listening to suppliers

Just as we set out in an earlier article[4] to understand customers' dominant buying behaviours, we must do something very similar at the supply end. This means listening to our suppliers and engaging them on their terms, not ours. This may seem strange given that we are arguing the case from the customer's point-of-view, but it is a necessary reversal of convention if we are to achieve genuine dynamic alignment.

Suppliers are the largely ignored component in the human system that propels contemporary supply chains, along with customers at the front end and employees inside the business. According to A.T Kearney[5], "…companies that take the time to listen to their suppliers can eventually realize rewards beyond cost savings. Often, they can generate new ideas and concepts, determine how their performance stacks up against their best-practice competitors, and identify areas and processes on which to focus attention. In short, they are well positioned to embark on major supply chain management initiatives." But how do you categorise your suppliers - that is the key question! We believe there is only one right way.

Supplier segmentation

You rarely hear of this methodology being used these days, and the few attempts at segmenting suppliers have revealed the same flaws as similar attempts at customer segmentation at the consumption end of the chain. Diane Bueler presented a paper on 'segmenting suppliers', but she used the characteristics of the product/service being purchased as the basis of her segmentation framework[6]. The four categories she identified, 'Commodity', 'Strategic', 'Standard', and 'Key', provide useful statistical data, but contribute little or nothing to our understanding of the way suppliers prefer to supply, or their 'selling behaviour' as I call it. See Figure 1 (page 5) for details of the characteristics in each quadrant of Bueler's framework.

Dyer[7] et al. see strategic supplier segmentation as a necessary precursor to achieving best practice in supply chain management, and they are spot on! In their work they identified two very different supplier management models, ie. the traditional *'arm's length'* approach, which deliberately sets out to avoid any kind of commitment or interdependence. This view is consistent with my 'efficient' buying behaviour at the customer end. "In contrast,…the success of Japanese firms has often been attributed to their close supplier relationships, or 'partner model' of supplier management"[8]. Clearly, in order to get close to their suppliers, trust had to be developed over time, and it is very likely suppliers were carefully selected for their collaborative values. This is the equivalent segment to 'collaborative' customers on the demand-side, and we will label this segment on the supply-side, *'Trusted & Reliable Partners'*.

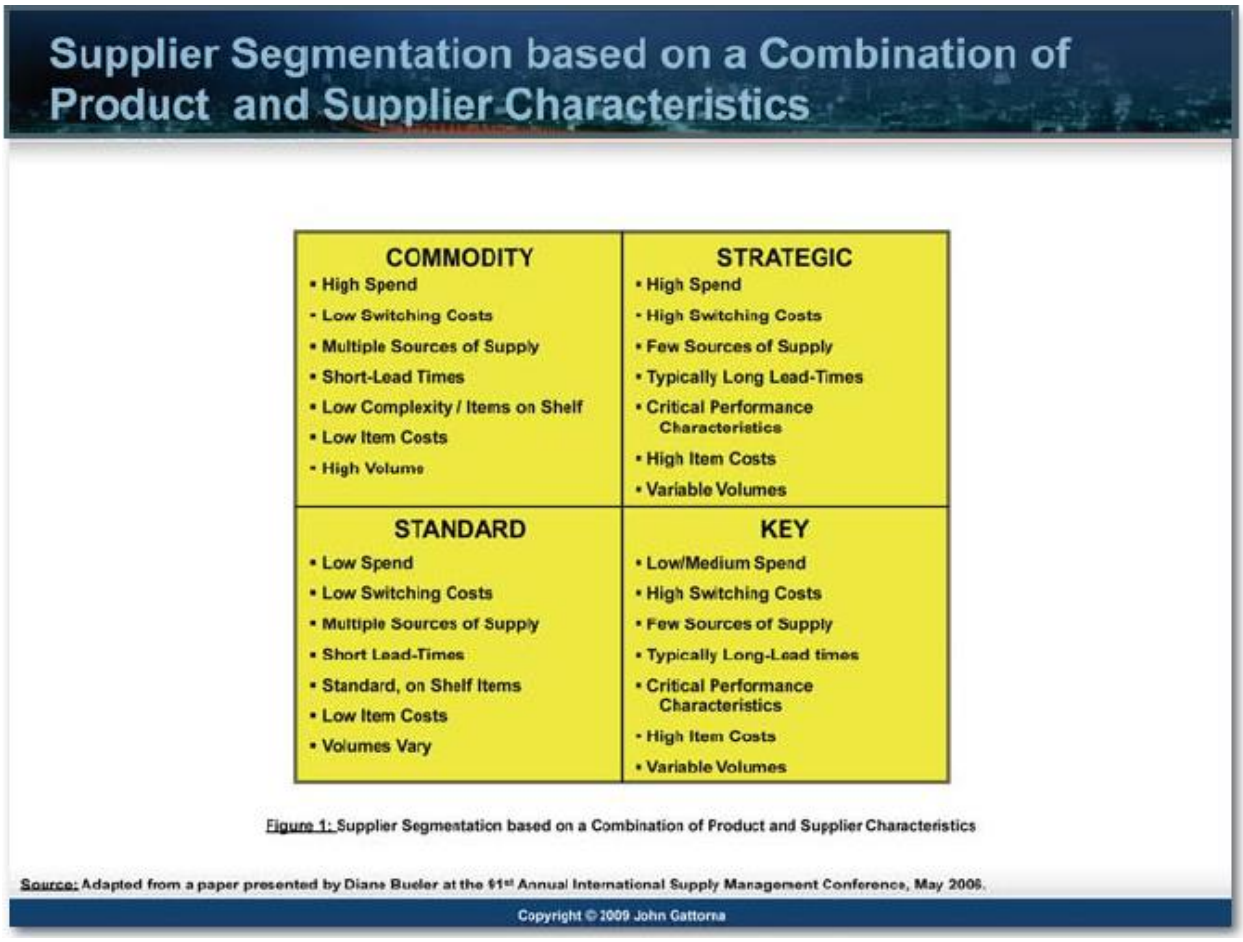
[4] See Gattorna, John, 'Key to success in contemporary supply chains', Procurement Professional, August/September, 2008, pp. 26-27.

[5] A.T. Kearney (2004), "When Your Suppliers Talk…Listen", Executive Agenda, Third Quarter, pp. 29,30.

[6] Diane Bueler, "Supplier Segmentation-the Tool for Differentiation and Results", a Paper presented at the 91st Annual International Supply Management Conference, May 2006

[7] Dyer, Jeffrey H., Dong, Sung Cho, and Chu, Wujin, Strategic Supplier Segmentation: the next 'best practice' in supply chain management", California Management Review, Berkley: Winter 1998, Vol. 40, Issue 2; pp. 57-77.

[8] Ibid, p.58.



Examples of both types of segments are clearly evident in the automotive industry, where General Motors has traditionally applied *'arm's length'* and largely transactional methods in interactions with their suppliers, while Toyota (and more latterly, Chrysler) have employed the partner or *'Trusted & Reliable Partners'* model. I will leave it to the reader to decide which has been the more successful.

Dyer et al. conducted extensive research into supplier-automaker relationships in the US, Japan, and Korea, and their findings suggest that "…firms should not have a 'one-size-fits-all' strategy for supplier management"[9]. Sound familiar? However, it should be said that while Dyer and his colleagues were on the right track (towards multiple supplier segments), they were mainly thinking about how each "… supplier's product might contribute to the core competence and competitive advantage of the buying firm"[10].They were not thinking of behavioural segmentation per se.

So in summary, it appears that most buyers in the market have been focusing on finding suppliers who have the required array of supply capabilities, and then the relationship approach adopted has been one of the two described above. Not very sophisticated, and quite one-dimensional!

However, we have seen enough evidence in our field work to suggest that supply-side alignment is generally the mirror image of the demand-side. This means dealing with at least 16 behavioural segments on the supply side as depicted in Figure 2.

[9] Ibid, p.59
[10] Ibid

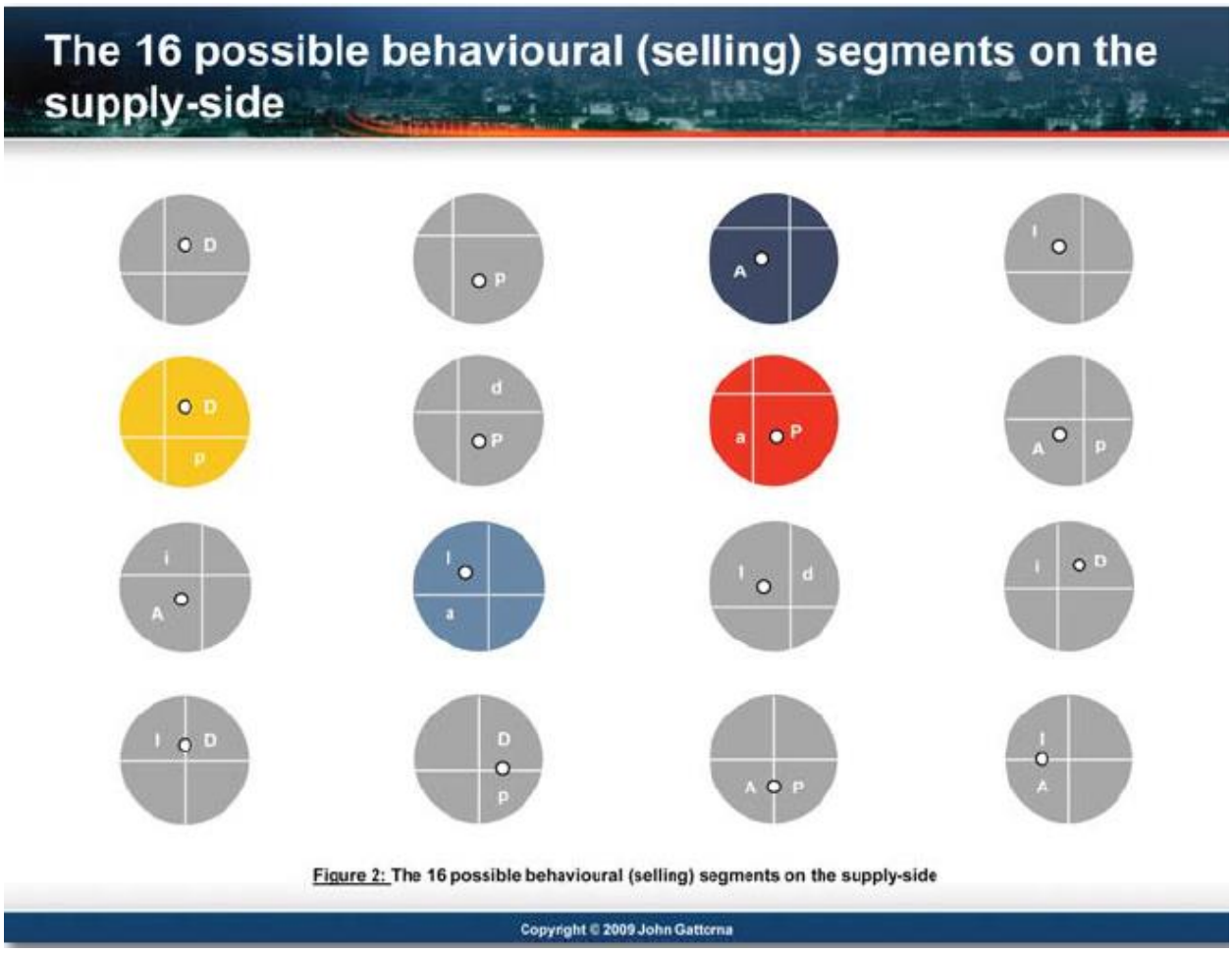


Figure 2: The 16 possible behavioural (selling) segments on the supply-side

Of these we can be confident that the most prevalent segments seen in practice will be similar to the demand-side as depicted in Figure 3 ie., 'Ia', 'A', 'aP', and 'Dp' expressed in terms of our P-A-D-I code[11].

[11] For more information about this coding regime refer Chapter 1 in Gattorna, John, *Living Supply Chains*, FT Prentice Hall, Harlow, 2006, pps.1-29

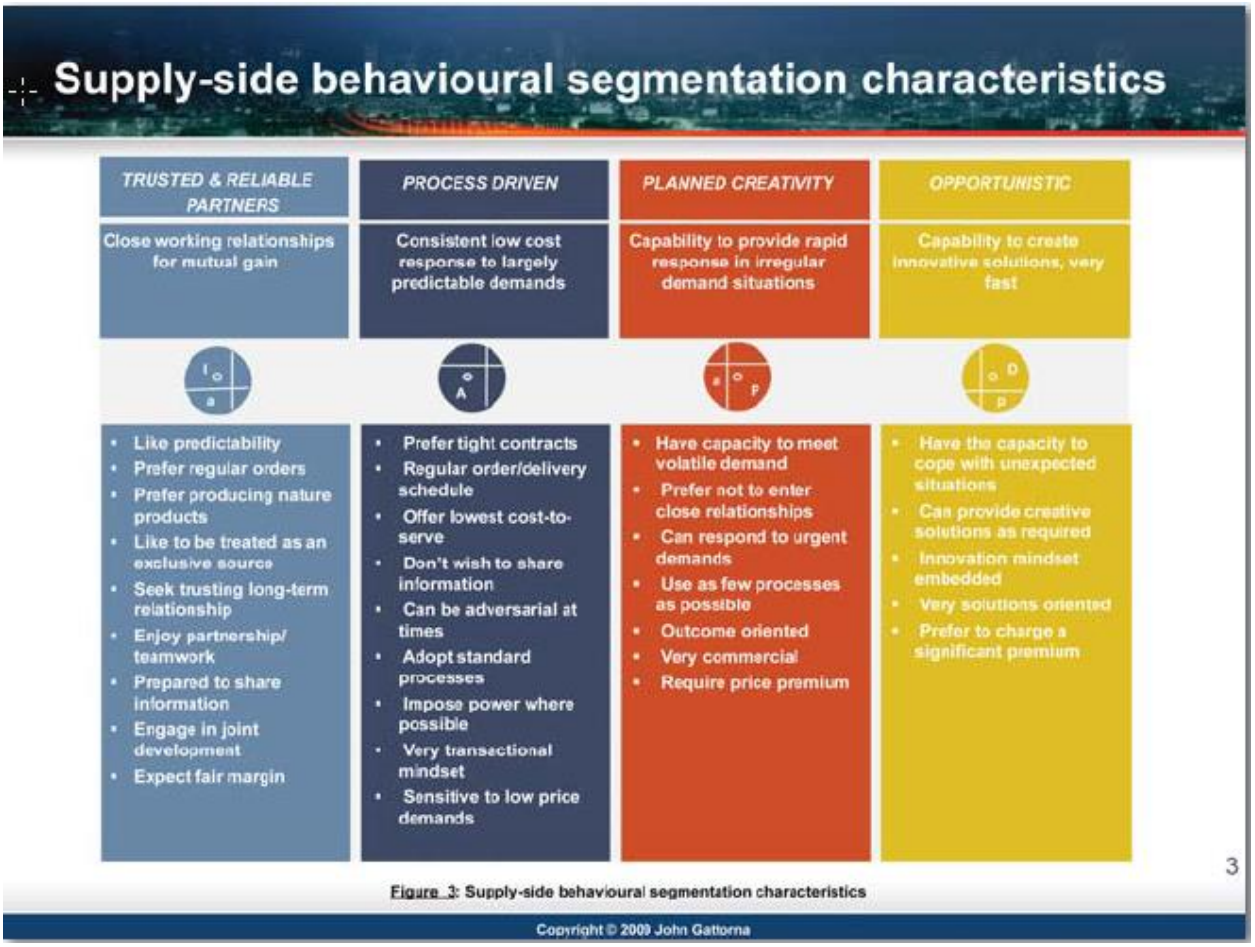


Figure 3: Supply-side behavioural segmentation characteristics

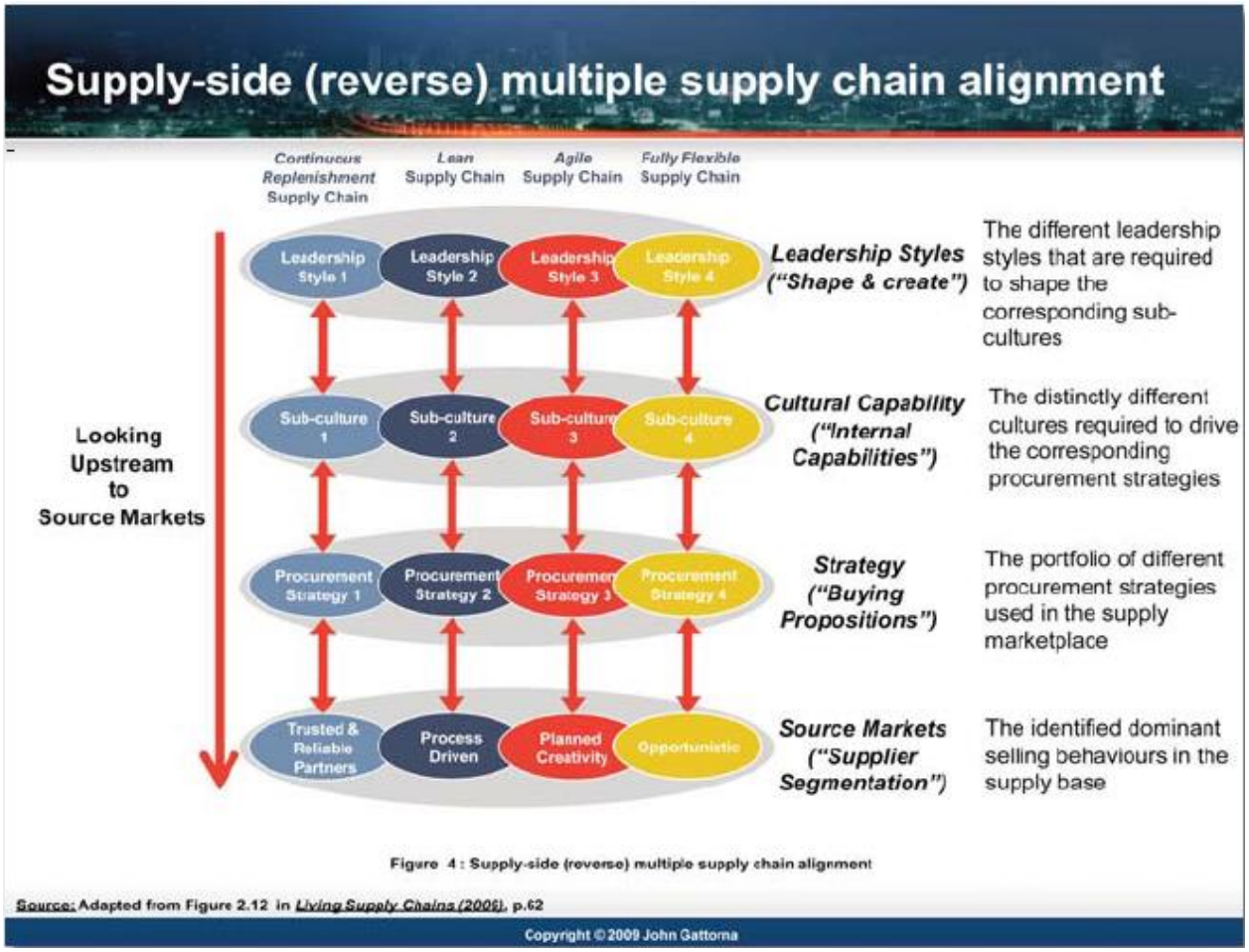
Reverse (supply-side) multiple supply chain alignment

Based on the segmentation of the supply base as depicted in Figure 3 the supply-side (reverse) multiple supply chain alignment will look as depicted in Figure 4 (overleaf). Clearly, up to four different procurement strategy packages will be required to achieve full coverage in support of the equivalent demand-side supply chains.

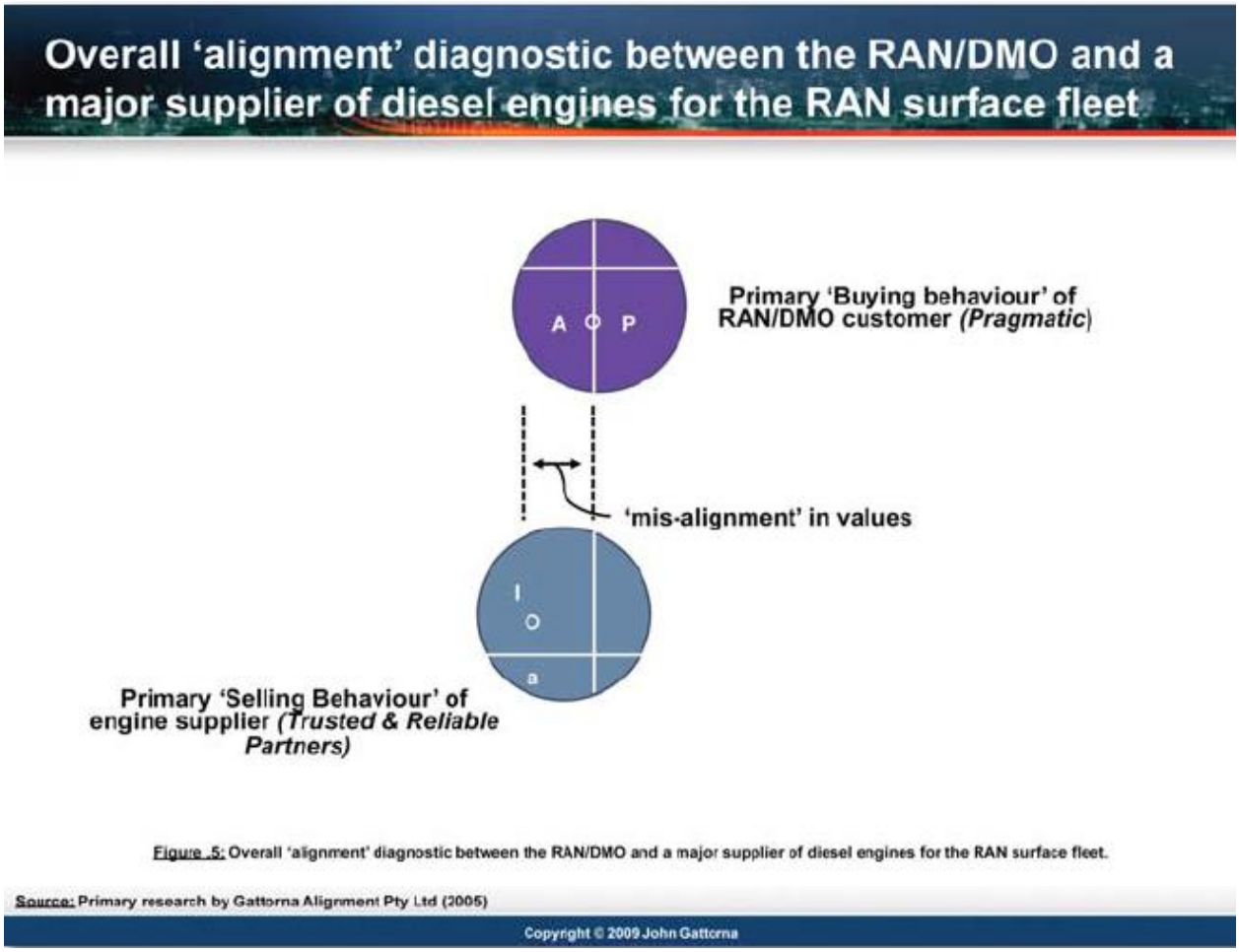
The Royal Australian Navy (RAN) and the Logistics Support Agency-Navy within the Defence Material Organisation (DMO) have been testing the use of 'alignment' principles to guide the procurement of diesel engines (and sub-categories) for a component of its destroyer fleet. A pilot project was undertaken with a major international supplier and produced promising results. Not unexpectedly, the buying behaviours exhibited by the Navy/DMO for main engines/rotatables, component and service spares, and routine maintenance were quite different to the selling behaviours of the supplier, in each of the three sub-categories. This highlighted the need for different procurement strategies, and correspondingly aligned responses from the supplier. So much for the old one-dimensional tender process!

The overall alignment diagnostic we ran between the RAN/DMO as customer, and the major international supplier identified a similar mis-alignment in all of the diesel engine sub-categories tested. This amounted to the supplier endeavouring to sell and service their RAN/DMO client using 'Trusted & Reliable Partners' values, but facing a customer that was

mostly driven by what I would call a "pragmatic" buying behaviour, with little room for relationships.

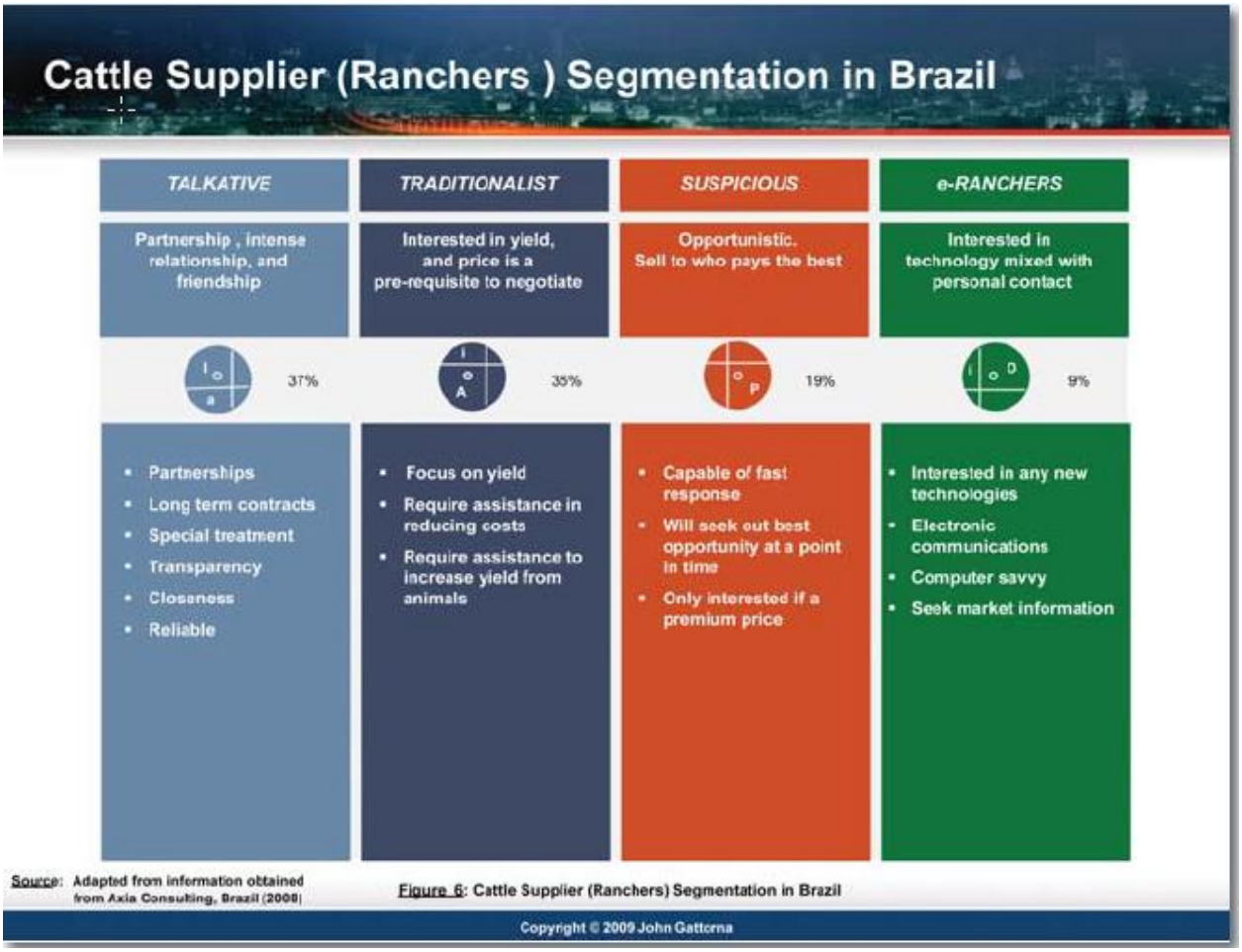


This mis-alignment led to on-going issues between the supplier and the customers as clearly evidenced in Figure 5 (overleaf).



Another very interesting case arose in the bovine meat industry in Brazil. One of the major processors in the market wanted to obtain a greater share of the available live cattle for slaughter, and set out to understand what needed to be done to more closely align with ranchers' selling expectations and corresponding supply behaviours. The conventional wisdom espoused by the procurement dept. in the particular processor was simply to pay more for live cattle and in that way secure additional head.

The subsequent selling behaviour research conducted among a large sample of ranchers in a region of Brazil delivered a completely different answer as depicted in Figure 6 (overleaf). In fact, 81 percent of the sample was found to have a 'relationship' (or 'I') element in their selling logics, and only the residual 19 percent were straight out driven by yield and price. This finding allowed the processor to fine-tune its offerings to the various rancher segments, and include significant non-price relationship components, which had the effect of simultaneously satisfying the ranchers, and delivering more head of live cattle at cost-effective market prices to the processor.



Adidas is another great example of a company that changed its business model and profited from closer alignment between its global procurement and logistics operations during the 2004 FIFA European Cup in Greece, and the 2006 FIFA World Cup in Germany.

"By synchronizing orders through scores of contract manufacturers, sub-contractors, and suppliers in more than a dozen countries around the world, Adidas managed to get the top team's gear on retailers' shelves - duplicating those sales triumphs in every other country as their national teams advanced through the series. What's more, Adidas' flexible supply chains (I would call them agile), delivered these sales without pre-investment in materials or finished product."[12]

[12] Puryear, Rudy, Singh, Bhanu, & Phillips, Stephen (2007), "How to be everywhere at once", *Supply Chain Management Review,* May/June 2007, p.10.

The four (4) generic supply-side supply chains

The four generic supply side supply chains are depicted in Figure 7. We will now turn our attention to each of these in turn and describe their characteristics in more detail.

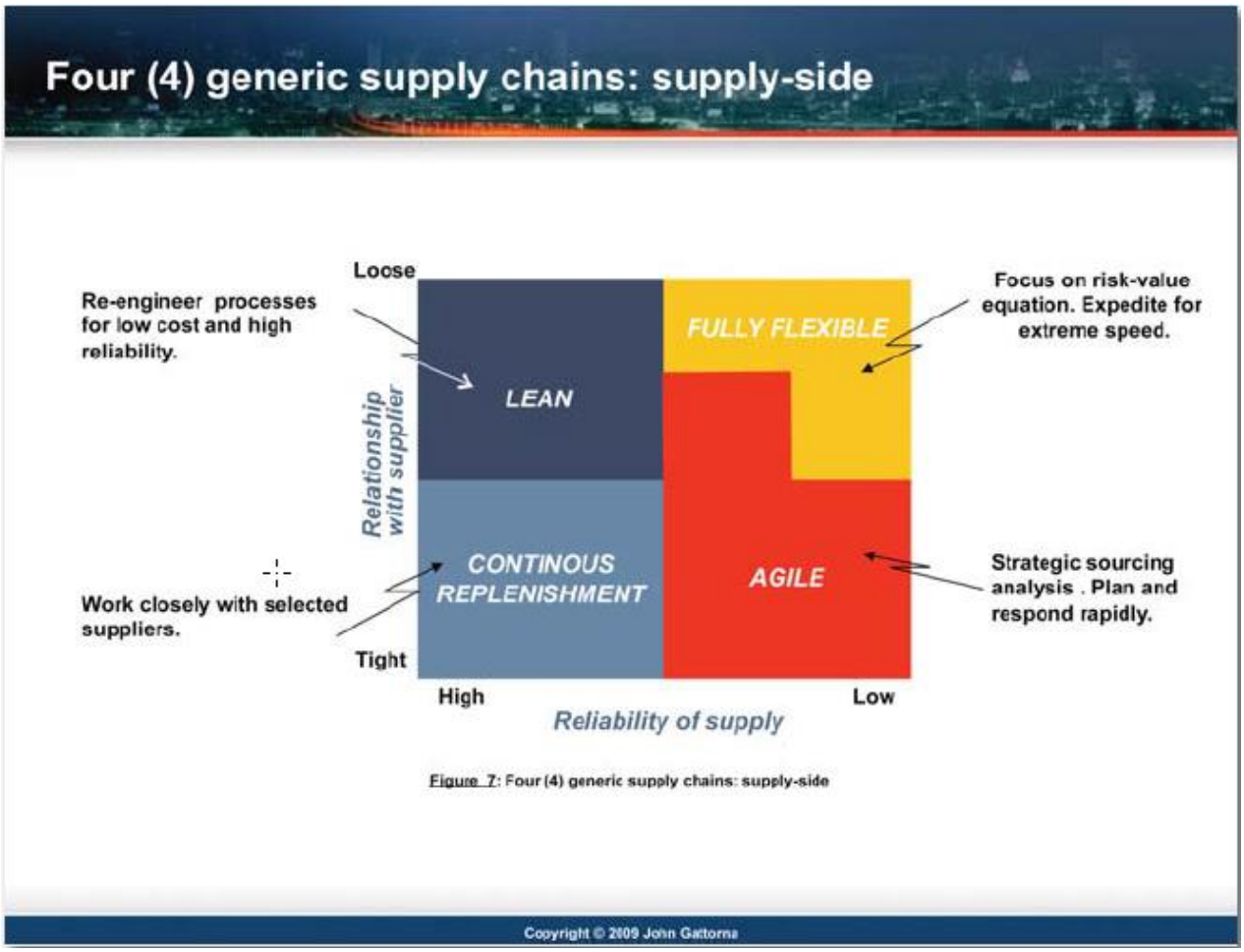


Figure 7: Four (4) generic supply chains: supply-side

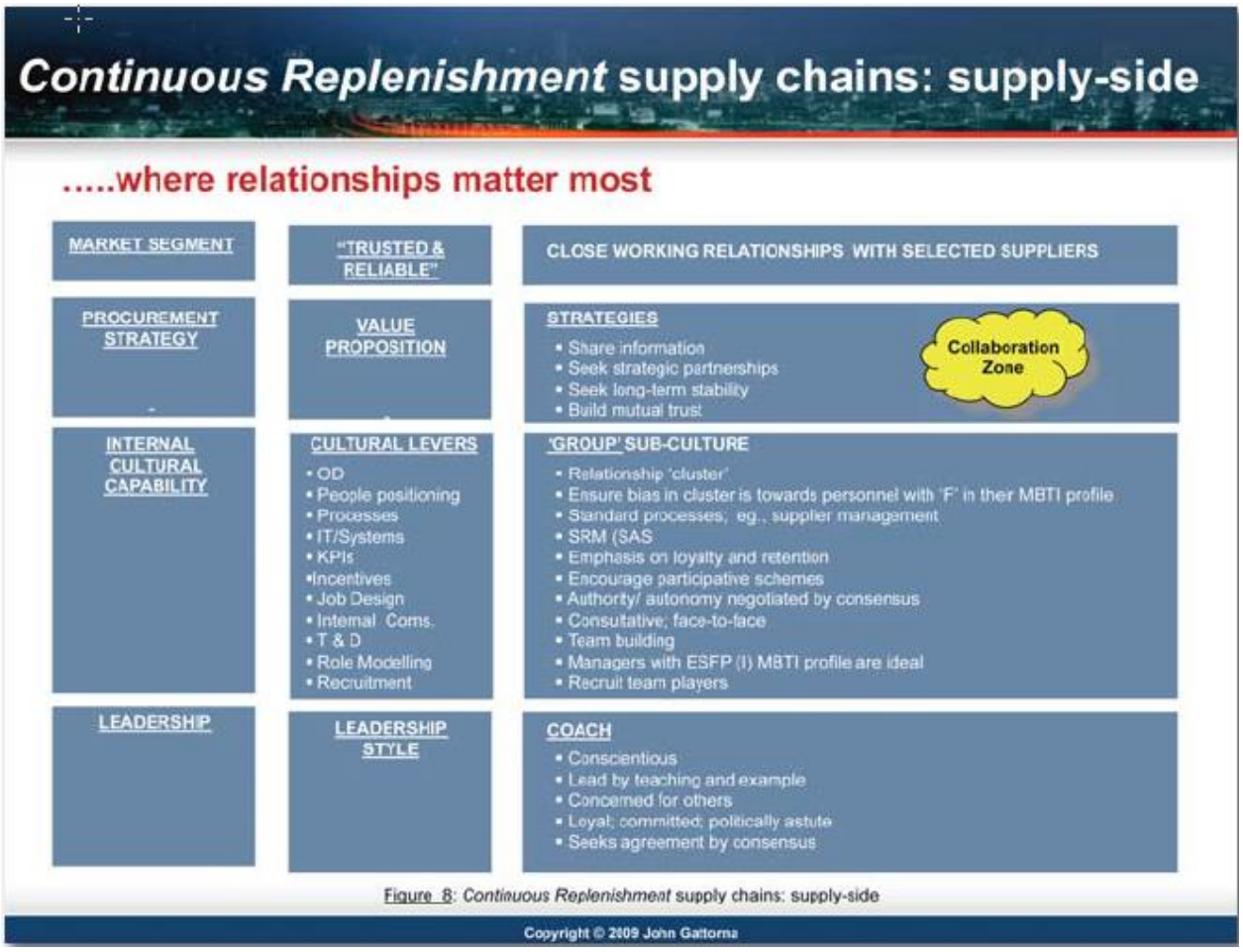


Figure 8: *Continuous Replenishment* supply chains: supply-side

1. Continuous replenishment supply chains: supply-side:

The abbreviated details of this type of supply chain are depicted in Figure 8. As in the case of the equivalent, demand-side supply chains, we will mainly focus our discussion and comments on the cultural levers that determine if the intended procurement strategies are to be fully implemented or not. The key, as before, is in getting the right sub-culture in place.

Organisation design: Procurement specialists will be part of the continuous replenishment 'cluster' depicted in Figure 12, where both demand-side and supply-side components are shown.

People positioning: As with all clusters, while not every member will have the same preferred operating style, it is important to engineer the selection of personnel so that the bias is appropriate, in this case a 'relationship' bias, or 'f' in terms of the ESFP MBTI, and 'I' in P-A-D-I code.

Processes: Stable processes are important where you want to faithfully replicate the same behaviour each time, every time. And everyone should know what these are. In this case we expect that 'supplier management' will be one of the key processes deployed.

IT/Systems: The automatic choice here is the SAS Supplier Management System (SRM), with its different modules. The key is to choose who you want to be your 'strategic' suppliers, and then manage them on a sensitive, systematic basis.

KPIs: As we have said before, forget about measuring a long list of performance attributes, and select 1 or 2 that are the 'deal-breakers', those that 'move the needle' and are what we call 'biased' in the right direction. In the case of procuring from loyal suppliers, we might choose to measure retention time as a de facto measure of loyalty, as well as monitor the percent of the supplier's business that our spend in particular categories represents.

Incentives: Once the KPIs are clear to members of this cluster, everyone will tend to work together to achieve them, encouraged by schemes which share the rewards fairly among the team.

Job design: For this cluster the name of the game is 'consensus'. No one goes out on a limb and takes risks with strategic suppliers. Everything is fully discussed and agreed, with little individual autonomy allowed.

Internal communications: Everything is discussed face-to-face, and the meetings are frequent and sometimes long.

Training & Development: No rash brainstorming required with this group - it's all well planned team-building exercises that develop trust between the individuals in the cluster.

Role modelling: If there is a particular profile of behaviour to be admired and replicated by individuals in this particular cluster it is the ESFP MBTI profile, or 'I' in our P-A-D-I code.

Recruitment: If you want certain behaviour, a sure way of getting it is to recruit personnel with both the appropriate mindset and the technical competence. This is a refinement on what companies such as Li & Fung have been doing, and represents a logical progression as they search for even higher levels of performance from their people.

Leadership style: The natural leaders that emerge from the multidisciplinary clusters will be very much the 'coach' type in this environment, where day-to-day dealings are with loyal suppliers and loyal customers. It is reassuring when team members see the values they themselves hold, also evident among their leadership on the inside as well as key external stakeholders.

2. Lean supply chains: supply-side:

Organisation design: The cluster in this case is designed around core processes to achieve high reliability at lowest possible cost.

People positioning: It is important to engineer the selection of personnel so that the bias is appropriate, which in this case a 'cost' bias or 'S' in ESFP MBTI terms, and 'I' in our P-A-D-I code.

Processes: This particular supply chain places a lot of emphasis on re-engineered processes, so Six-Sigma techniques will be very applicable.

IT/Systems: For best results in this supply chain type it is essential to have an ERP system installed and functioning well. The alternative is a combination of legacy systems held together with middleware, but this arrangement is usually not as good as having the one unified system, fully engineered with matching processes.

KPIs: For this configuration, the emphasis moves away from 'relationships', to pure 'cost control' and reliability, hence measurement of 'unit cost', DIFOTEF; and a particular focus on forecast accuracy.

Incentives: For members of this cluster, conformance is mandatory, and no member of the teams tries to do his/her own thing. Individualism does not exist!

Job design: In this supply chain, nothing is left to chance in the desire for consistency and reliability. The specific duties of every member of the cluster is spelled-out in detail, and is known and understood by all other members.

Internal communications: communications are very formal and structured, albeit quite detailed. This is a fact-based sub-culture, and because of the sheer volume of data floating around, personnel are often included on a 'need-to-know' basis only.

Training & development: This cluster thrives on analysis and measurement of supplier performance, in an objective non-emotional way. Relationships with suppliers are not encouraged in any way. Business is business.

Role modelling: The ideal role model is the detailed conscious 'cost-controller' type, and this is reflected in an ISTJ MBTI profile, or 'A' in terms of our P-A-D-I coding system.

Recruitment: Clearly, team members with highly tuned analytical capabilities are most valued, although not every member of the cluster has to be equally hot on the numbers.

Leadership style: The natural leader to emerge in this cluster will be the hard-nosed fact-based 'cost-controller' type, who uses information cunningly, and above all avoids any form of risk in transactions with suppliers or indeed customers.

3. Agile supply chains: supply-side:

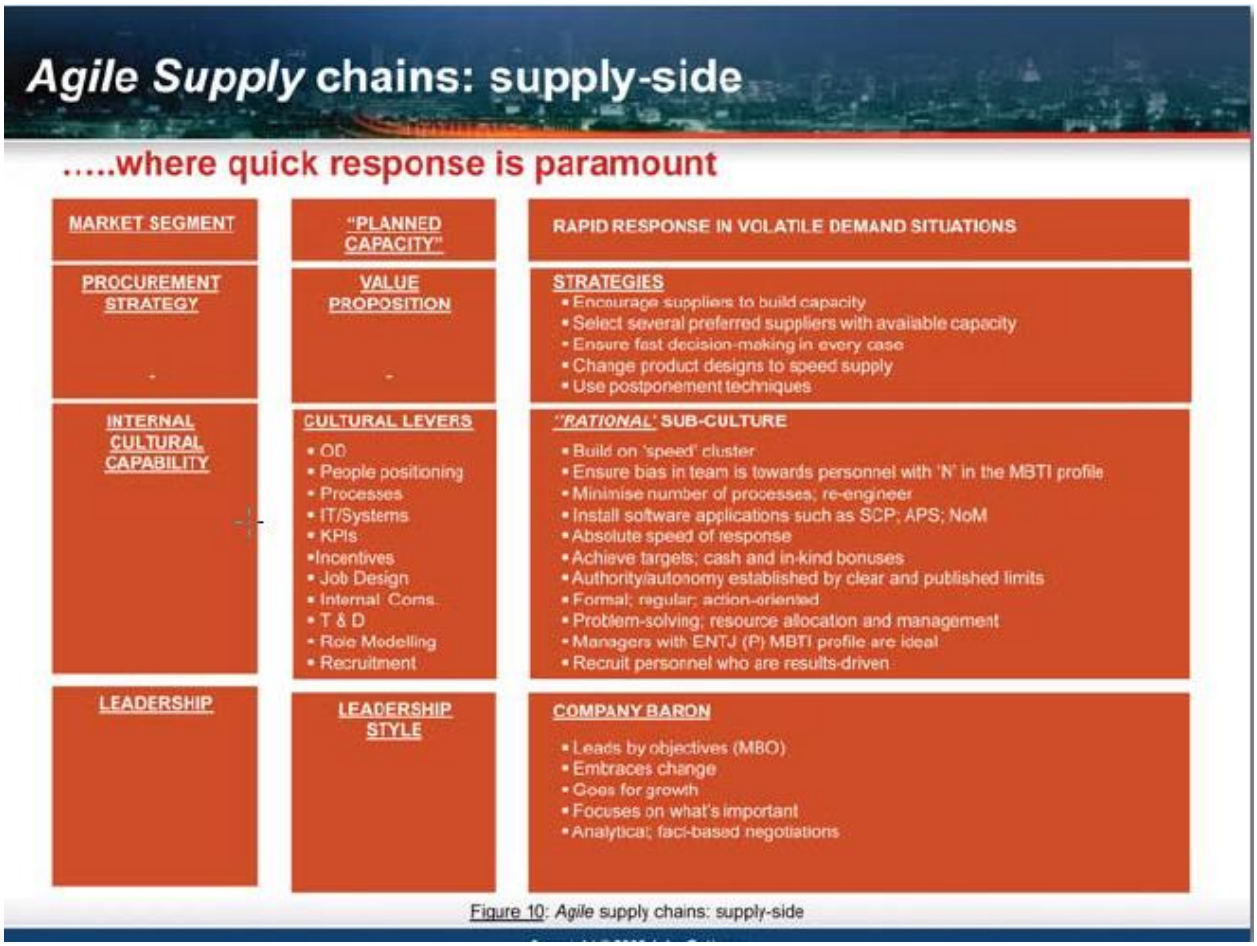


Figure 10: *Agile* supply chains: supply-side

Organisation design: the cluster in this case is designed around satisfying demanding customers who come and go from our customer list. We therefore need to encourage suppliers to build 'capacity' to help us satisfy sudden changes in demand.

People positioning: it is important to engineer the selection of personnel so that the bias is in the appropriate place; in this case a 'speed' bias or 'n' in MBTI terms, 'P' in our P-A-D-I code.

Processes: here the emphasis is on re-engineering processes to reduce their number and complexity.

IT/Systems: for best results we should install software applications that help us test various supply scenarios, and what cost. A Network Optimisation Model is ideal for this purpose.

KPIs: for this configuration, the emphasis moves away from relationships and cost, to pure speed of fulfilment.

Incentives: for members of this cluster, being able to meet customer uncertain demand, irrespective of a scarcity of information, is the key performance indicator. Each member of the team works in an individual albeit complementary fashion to achieve set targets, and rewards are often in the form of bonuses. 'Collaborative Individualism' is the name of the game.

Job design: job descriptions are clear and boundaries known and understood by all team members.

Internal communications: communications are very formal, regular, and action-oriented. No long meetings for this cluster, just quick advices and then get on with it.

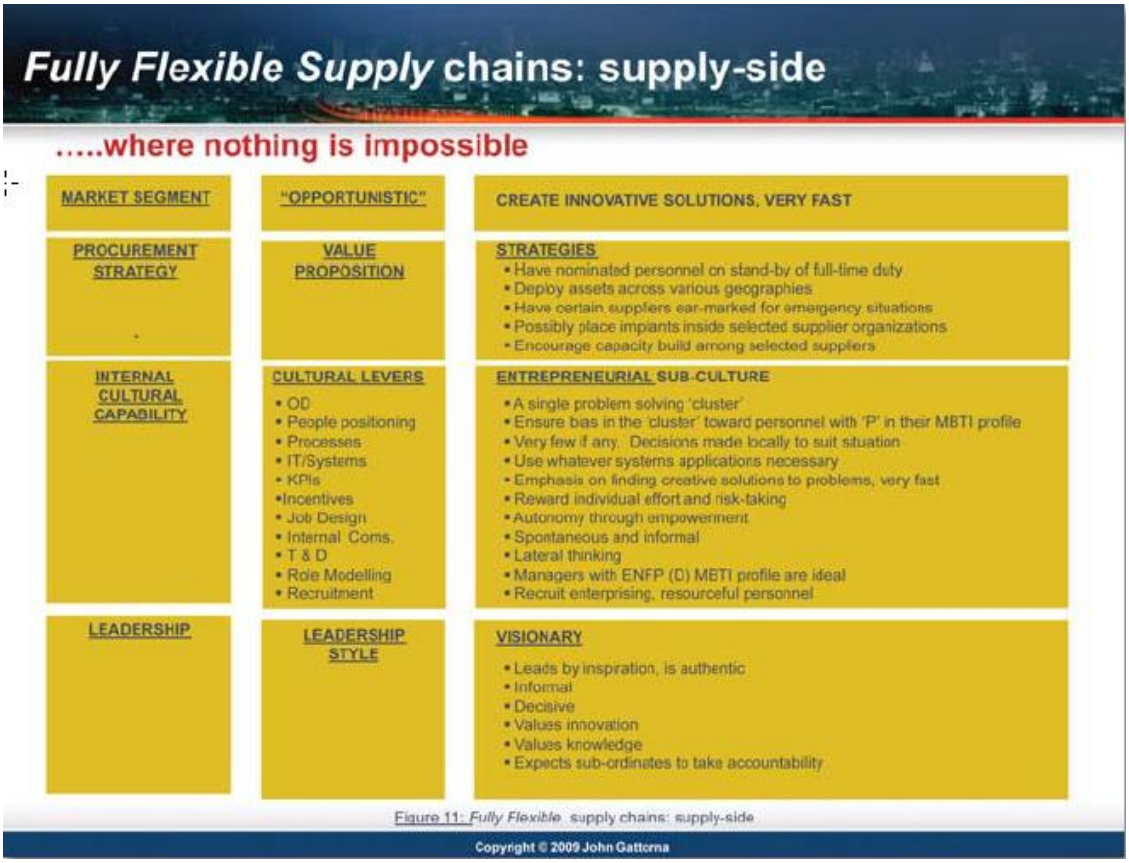
Training & development: This cluster thrives on problem-solving exercises. The task is to make all team members fully familiar with best-practice resource allocation and trade-off techniques - because that is what they do most of the time.

Role modelling: The ideal role model is the detailed conscious 'company baron' type, who is driven to achieve agreed objectives, and will stop at nothing to get there. This style is reflected in the ENTJ/ESTP MBTI profiles, which translates into 'P' or 'Pa' in our P-A-D-I coding system.

Recruitment: clearly, team members with finely tuned analytical and judgment skills are highly valued, although not every member of the cluster has to be equally driven.

Leadership style: The natural leader to emerge in this cluster will be the hard-nosed 'company baron' who lives by the MBO creed, 'Management by Objectives'. They are happy to lead from the front and take calculated risks as required.

4. Fully Flexible supply chains: supply-side:



Organisation design: the cluster in this case is designed around 'hedge and deploy' principles. There is usually a single cluster to handle unplannable and unexpected situations, and all members of the cluster are selected for their ability to operate in unfamiliar situations outside their 'comfort zone'. This cluster may be comprised of full-time or part-time (volunteers) staff.

People positioning: it is important to engineer the selection of personnel so that the bias is appropriate, in this case a 'creativity' bias or 'P' in MBTI terms; and 'D' in our P-A-D-I code.

Processes: processes are almost non-existent as personnel react real-time on the ground to an evolving emergency.

IT/Systems: while human intervention is at a high level in this type of supply chain, any and all IT/Systems will be invoked if they can assist in producing a solution, fast.

KPIs: for this configuration, the emphasis moves away from relationships, cost, and speed, to finding creative solutions to the problem in hand, very fast. Cost and to some extent relationships matter naught.

Incentives: for members of this cluster, risk-taking is highly rewarded, because a solution must be found. Mistakes occur in this environment but are not penalized.

Job design: job descriptions are non-existent as most team members multi-task.

Internal communications: communications are usually spontaneous and very informal, as the action is taking place. This is all about acting first and asking forgiveness later.

Training & development: this cluster thrives on developing lateral thinking to meet unexpected problems, eg, the 'scenario dreaming' used by the SAS military units.

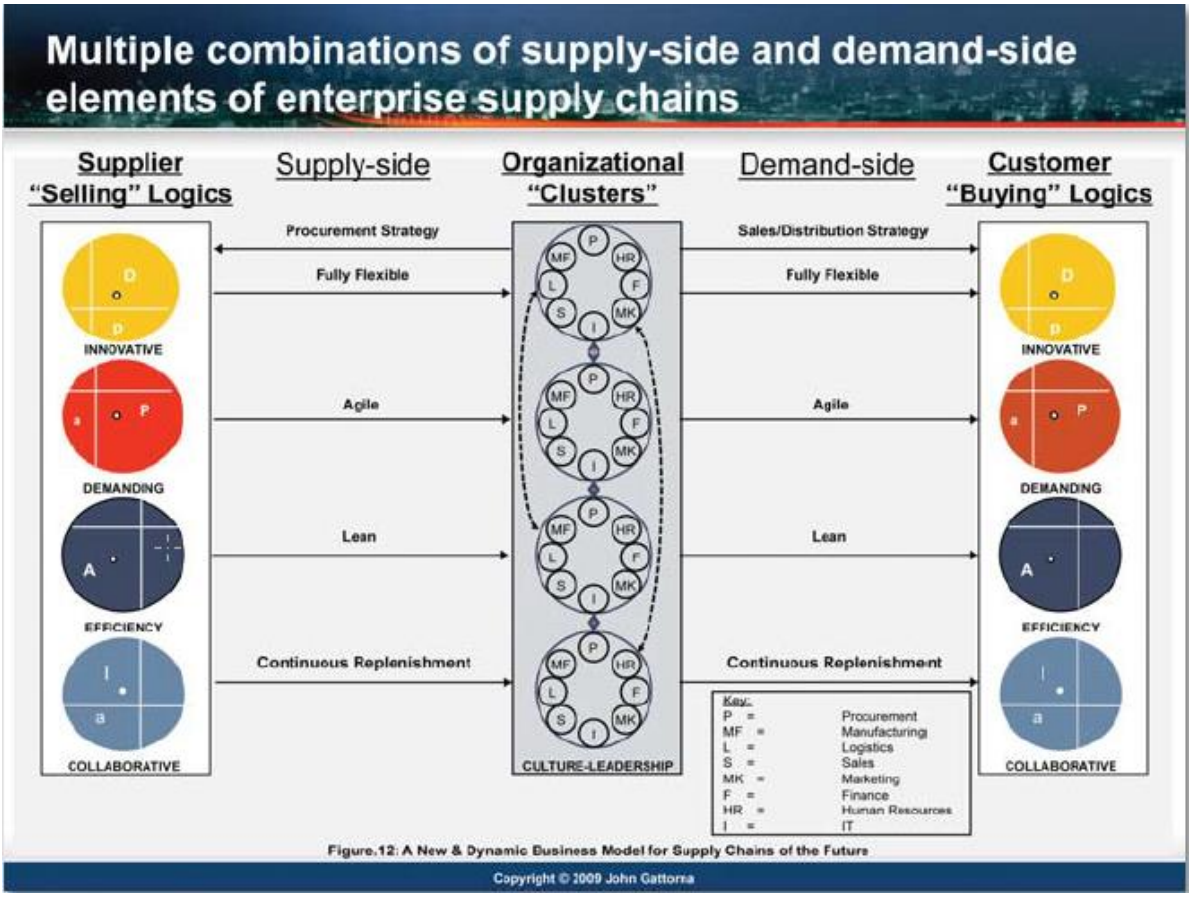
Role modelling: the ideal role model is the ENFP/ENTP MBTI styles, or 'D', 'DP' respectively in our P-A-D-I code.

Recruitment: this type of supply chain demands very enterprising resourceful personnel, and a lot of testing is involved in finding this relatively rare leadership quality.

Leadership style: The natural leader to emerge in this cluster will be the hard-nosed 'visionary' who is authentic and much respected by other team members.

Hybrid Supply Chains in action

Ultimately, all enterprise supply chains are comprised of two components, the demand-side, and the supply-side. Given that there are up to four generic configurations in each component,



it is possible to have in play, any combination of 4 X 4 as depicted in Figure 12[13]. It is now possible to see why it is so important that procurement moves in under the supply chain fold.

The Sustainability dimension and Corporate Social Responsibility

Sustainability has swept onto the scene in the last decade as consumer consciousness for the environment has grown. National governments have ignored this new movement at their peril, and some indeed have fallen because they did not take sustainability seriously.

Guide[14] noted the annual generation of waste in Western Europe is 550kgs per person, exceeding the current target by 83 percent, and trending toward doubling by 2020. This problem is not going away soon! It has to be addressed. Whether it be straight out disposal, remanufacturing or refurbishment, all these options require cost-effective reverse logistics solutions, while at the same time complying with the new emerging battery of regulations from concerned governments. It appears that the only sensible way forward is to design (or re-design) demand-side, supply-side and reverse logistics elements of an enterprise supply chain co-incidentally because of their intense interdependency. This is the task for corporate

[13] This diagram also appeared in my article, "Fully integrating the Procurement function into the supply chain- the next big opportunity", Supply Chain Asia, March/April, 2009, pp 37-39.

[14] Guide, V.D.R., Harrison, T.P., (2003), The Challenge of Closed loop Supply Chains", Interfaces, Vol.33 N0.6, Nov-Dec, pp.3-6.

managements and governments in the next decade or so. Solutions must be found as time begins to run out[15].

About the Author

Dr John Gattorna MCIPS is a Foundation Professor with CIPS Australia. Over the last 25 years, John Gattorna has earned an international reputation in the supply chain management field. He is a renowned lecturer and task force leader, and has a strong conceptual capacity, combined with a pragmatic approach to solving complex business problems.

Despite a demanding work schedule in industry and commerce John has been, and still is, a prolific writer, having published 10 books and numerous articles in his areas of interest. Many of his books have been translated into Chinese, Japanese, Russian and Italian language editions; the Portuguese & Spanish language editions are due.

www.johngattorna.com

15 Refer to Thomas Friedman's new book, 'Hot, Flat and Crowded' (Allen Lane, an imprint of Penguin Books, 2008), where he sends strong messages in this regard.

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