



The Triple-A Supply Chain revisited



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Hau Lee's highly acclaimed seminal article² on "The Triple-A Supply Chain" has now been out in the domain for four years, during which time our understanding of how supply chains work has increased exponentially. So high time we re-visited the ideas in that article and added some refinements

Lee gives many interesting examples to support his definitions of each 'A'—Agility, Adaptability, and Alignment, but while quite descriptive, there remain

some lingering questions in readers' mind about exactly what is going on under the surface. Indeed, he admits as much in the last paragraph of the article when he muses

that, "...what they (firms) need is a fresh attitude and a culture to get their supply chains to deliver triple-A performance"³. He is right of course, and in this extension to

Lee’s article I will endeavour to introduce that added ingredient — the cultural perspective. Without it I’m afraid the story remains purely descriptive and lacks explanatory power.

By better understanding what is going on inside the human dimension of supply chains, it becomes possible to move to a more predictive level. In other words, if you know what sub-cultures are in place and underpinning various supply chain strategies, you will be able to predict what the likely outcome is in terms of execution. Unfortunately, in my experience, over 40% of strategies written into business plans fail to be implemented, and it’s all due to a ‘misalignment’ between those strategies and the ‘values’ of the people inside the organisation, and the partner organisations in the chain.

Lee posits⁴ that “... only those companies that build agile, adaptable, and aligned supply chains get ahead of the competition”. I agree with him. But I think we need to explore and refine his definitions of these three ‘As’.

Re-defining the three key properties

Agility is becoming increasingly critical in today’s volatile markets. But you pay a price for it. You can’t be agile and cost-efficient co-incidentally – something has to give. In truth, you will find customers in your markets that want one or the other or at times, both. If the latter, you have to try and understand which they want more. To give an agile response at lowest cost-to-serve is in effect rewarding customers behaving badly.

I developed the concept of ‘supply chain alignment,’ which approaches this problem of supply chain design and operation from the customer’s dominant buying behaviour perspective⁵. By segmenting markets for a wide range of product/service categories I observed patterns which can be used to reverse-engineer the equivalent supply chain configurations.

Specifically, I seldom found more than three or four dominant buying behaviours present in any market, which means that a small number of supply chain types is capable of covering up to 80% of the market, no more, no less. And although customers had a preferred way of working (based on their values), situations sometimes arise that cause them to change this preferred behaviour (but not their values) for short periods, which then require different supply chain solutions. See

my broader concept depicted in Figure 1.

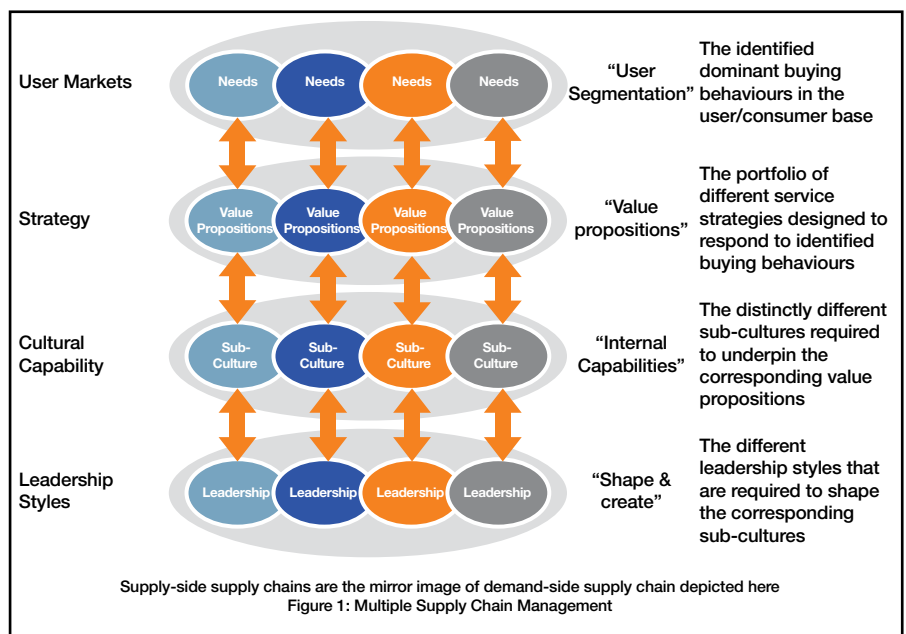
To ‘align’ with the four main behavioural segments there are four types of supply chain configurations: Continuous Replenishment, Lean, Agile, and Fully Flexible.

1. Agile and Lean

For those customers who genuinely seek lowest cost product (and fulfillment), *Lean* is the solution for them. By definition we are generally dealing with a relatively predictable market environment; a risk-averse customer with a transactional mindset, so there is a

lot of emphasis on making and fulfilling to forecast; creating scale; and using process improvement techniques such as Six Sigma to lower cost.

Cost-efficiency is the dominant value shared by both customers and the supplying organisation in this environment. More importantly, the underpinning sub-culture essential to successfully execute a low-cost solution for the customer is one which demands removal of all waste; involves routine processes, backed up by a ‘cost-controller’ leadership mentality. But the more



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you cut cost, the more brittle the supply chain becomes, and the less its ability to respond rapidly to sudden changes in demand. Fortunately, there is likely to always be a sizable segment of customer-markets that demand a consistent low-cost response.

On the other hand, for those customers (it can be the same cost-driven customers in a different situation) with values that are dominated by a requirement for speed; taking risk; who place low importance on relationships, and are time-sensitive, we need something very different — an ‘Agile’ response. I largely agree with Lee’s definition⁶ of ‘Agile’ and the six rules of thumb to develop this property, although it is difficult to see how collaborative relationships can be developed with this category of customer, as they come and go on an ad hoc basis and there is no loyalty. However, there is a better chance of collaborating with suppliers because in that particular situation, you are the customer!



Lee also provides examples⁷ of major unpredictable and unplannable disruptions that have occurred — 9/11; SARS; and natural disasters in general. Here I think we are dealing with a special case of ‘Super-agility’ which requires an additional category of market segment and corresponding supply chain configuration. In my work in this area, I have discovered what I have described as the Fully Flexible supply chain. It has two variants: ‘Business Event’, and ‘Emergency Response/Humanitarian’ supply chains. There is not enough space to go into the detail of these two variants, so I refer the reader to my book for further information on this topic⁸.

2. Adaptability (or is it Flexibility)

This is the term I am having difficulty with in Lee’s nomenclature. If there are structural shifts in a marketplace, which in turn are likely to drive the re-shaping of the behavioural segment mix for a particular product/service category, then you simply engage a different supply chain configuration.

For example, if a loyal customer is being served by the Continuous Replenishment supply chain, and that customer, for whatever reason, shifts across to say the low-cost/efficiency segment, you simply recognise that fact and ‘engage’ the Lean supply chain lever.

Or if a customer in the low-cost/efficiency segment has a major disruption occur (as in the case of Nokia and Ericsson quoted by Lee⁹) then the customer effectively moves to the Innovative Solutions type of behavioural segment and we engage the Fully Flexible supply chain configuration. Indeed, whether you call it ‘Adaptability’ or ‘Flexibility’, what in essence you have to do is shift gears from one type of supply chain configuration to another, fast. This requires some smart organisation design, but it’s already being done by some smart organisations.

This is a key discussion point because the word ‘Flexibility’ gets bandied around a lot in the supply chain vernacular, and you have to ask yourself what it really mean in practice. In my view, what it does not mean is to bend and squeeze your current ‘One-size-fits-all’ supply chain configuration to fit

every customer demand coming your way, that creates hundreds, perhaps thousands, of exceptions, which in turn drive costs up, just when you are trying to get your cost-to-serve down.

What it means in an operational sense is to have your business ‘hard-wired’ with three, perhaps four, different supply chain

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configurations as depicted in Figure 1, and simply engage the customers with the particular configuration most appropriate to their buying behaviour (or mindset) at that time. This is the very essence of ‘dynamic Alignment’¹⁰, something we have been seeking to understand and explain in the marketing arena for a long time.

To be fair, Lee gets close when he remarks that “...smart companies tailor supply chains to the nature of markets and products¹¹”. However I disagree with his observation that “They usually end up with more than one supply chain, which can be expensive¹²...”.

Indeed, quite to the contrary. If we are able to eliminate over-servicing in Lean and Agile type supply chains, and recognise under-servicing in Continuous Replenishment supply chains, and be paid the appropriate prices in each case, margins overall will improve significantly. We found as much at DHL Taiwan¹³.

The examples that Lee mentions, where companies develop different supply chain strategies around their different brands, is valid, and quite consistent with my view that you use only the appropriate supply chain configuration in each market/customer situation.

In the end, it’s all about keeping your eye on the marketplace and the customers within. Amazingly, and contrary to popular opinion, if you do that, things seem to move slowly and you rarely get caught out. Try watching grass grow — it’s quite slow. But take your eye off the back lawn and go away

for the weekend, and look at the grass when you return!

3. Alignment:

In my vernacular, this is the over-arching organising principle that needs to be used to drive business success, i.e., to align your strategies, internal sub-cultures, and leadership styles, with the customers and suppliers in the marketplace. It is the only way to achieve sustained operational and therefore bottom-line performance.

Under this broader definition of ‘Alignment’, indeed, ‘dynamic Alignment’, ‘Agility’ and ‘Adaptability’ as used by Lee in his article are constituent components, and at a different level in the hierarchy. This differentiation is depicted in Figure 2. Indeed, taken together, the latter two properties provide the dynamism in ‘dynamic’ Alignment, which explains a lot in the context of how supply chains must actually work in the real world.



My concept of ‘dynamic Alignment’ therefore goes well beyond the narrower interpretation by Lee where he focuses mainly on aligning the ‘interests’ of all firms in their supply chain. I agree with that, but first we have to align the internal resources of the firm to have any chance of delivering high-performance

present there. For best results the internal structure has to be a mirror image of the external structure. That is what ‘alignment’ is ultimately all about!

The eleven levers are as follows: organisation design; positioning of individual people within the structure; processes; IT;

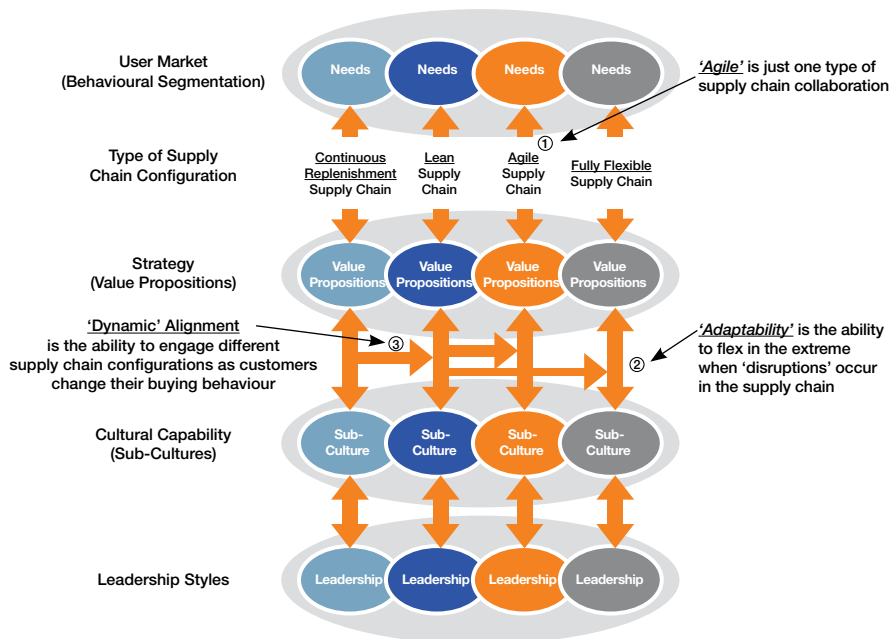


Figure 2: Revised definitions for ‘Agility’, ‘Adaptability’ and ‘Dynamic Alignment’

on a consistent basis. And when it comes to aligning with customers downstream in the chain, we need different value propositions to address the range of buying behaviours evident in the target market.

In truth, the missing link in Lee’s article is a comprehensive explanation of how the internal culture of the firm plays such a pivotal role in executing these value propositions. That’s really why so many of the firms he quotes in his article have been successful — cultural considerations are at the root of their success, but we only see the tangible results that emerge as the end result. Financial success is only a lagging indicator after all.

So let’s step into where all these ‘forces of darkness’ live and operate. My research and experience indicates there are at least eleven levers to pull in order to shape a particular sub-culture, all of which are well known in their own right — no mysteries there.

However, the ‘secret sauce’ is in knowing which ones to pull, and in what sequence. And of course you need some point-of-reference to guide you in this process — the structure of the marketplace, and the mix of the dominant buying behaviours

internal communication styles; KPIs and corresponding incentives; training and development; role modelling; recruitment, and the influence of leadership style¹⁴.

All of these components are well known in their own right, but the potentially different recipes seem to be understood by very few. That is why we have seen very few successful business transformations over the last few decades.

The problem is that re-configuring the prevailing corporate culture in an organisation into say three, possibly four sub-cultures so as to underpin the newly configured supply chains, takes time. To give you some idea, it took three years to achieve full alignment in an organisation of 10,000 people. You can change the strategies on a

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Saturday afternoon, but it takes much longer to get the required sub-cultures in place and in a fit state to propel these strategies into your target market.

Indeed, it is no coincidence that the best performing enterprise supply chains in the last decade have come from firms which did not exist a generation ago. Hence, they were able to start with a clean sheet and design their supply chains from a zero-base, without legacy cultures to hinder progress. The old ‘bricks and mortar’ companies have mostly struggled because of this very reason, and this reason alone.

Clearly, based on their respective records, companies like Zara (Spain), Li & Fung (Hong Kong), Adidas (Germany), JBS (Brazil), Dell (US), and 7-11 (Japan) have discovered how to mix the secret sauce of culture. They know that in the end it is people and their leadership that matters most if the enterprise is to deliver ever-increasing operational and financial performance. ■

1 Dr John Gattorna is an acknowledged ‘Thought Leader’ in the global supply chain space, author, and strategic advisor to major multi-national corporations.
 2 Hau L. Lee, “The Triple-A Supply Chain”, *Harvard Business Review*, October 2004, pps.102-112.
 3 *ibid.*, p.112.
 4 *ibid.*, p.105.
 5 Details of this emerging concept were first published in: Gattorna, J.L. & Walters, D.W (1996), *Managing the Supply Chain: a Strategic Perspective*, MacMillan Press, London; and Gattorna, J.L (1998), *Strategic Supply Chain Alignment*, Gower Publishing, Aldershot.
 6 Lee (2004), p.105.
 7 *ibid.*, p.106.
 8 See Ch. 8, *Living Supply Chains* (2006).
 9 Lee (2004), p.106.
 10 I coined the term ‘dynamic Alignment’ (previously Strategic Alignment), in 2005, and published details of how it works in Gattorna (2006).
 11 Lee (2004), p.108.
 12 *ibid.*
 13 DHL Taiwan was providing a largely fast express service to all customers. However, we discovered in field work that this type of singular focus was over-servicing some customers, and disaffecting other customers who simply wanted a reliable relationship-driven service.
 14 See Ch. 3 in Gattorna (2006) for detailed descriptions of each of these cultural characteristics.