

By Dr John Gattorna¹

SUPPLY CHAIN ORGANISATION DESIGN – THE SECRET SAUCE OF PEAK PERFORMANCE

I must be slow, because it has taken me over two decades of study, research, and practice to come to the conclusion that the way we are organising our supply chains is deeply flawed, and indeed we are setting ourselves up to fail from the outset by using conventional silo structures. It's akin to tackling a problem in the electronic age with the tools of a previous era, and no matter how you dress it up and fudge it, the results won't get better. So time to break the old models and try something new, just as some of our global leading companies have, and continue to do.

In the beginning...

Perhaps the best recent historical review I have seen recording the different types of organisational structures deployed in the logistics/supply chain arena is that of Soo Wook Kim². Soo identified the following five types: (see also Figure1)

- a. **Non SCM-oriented organisation**, in which the main activities normally attributed to an SCM function were distributed across all the other functions.
- b. **Functional organisation**, where the supply chain function was just one of the functions, albeit on an equal footing.
- c. **Matrix channel organisation**, where the main SCM activities were distributed across all the other functions, and the SCM function played a strictly co-ordinating role in a matrix style format.
- d. **Process staff organisation**, similar to c. above, but with the SCM function receiving more prominence by reporting direct to the CEO/president.
- e. **Integrated line organisation**, where the SCM function encompassed the other main-line functions and reported to the CEO/president.

It is clear from the above five categories that the customer has not been centre of mind of organisational theorists and practitioners as structures have evolved from distribution management, through logistics management, to supply chain management.

If we search wider into the world of the organisational theorist we find Gareth Morgan's (2006)³ work, which provides a much richer and more eclectic perspective using such metaphors as 'organisations as machines,' 'organisations as (living) organisms,' 'organisations as political systems,' etc. His work, although not specifically directed at supply chains, provides useful insights into

how we might reconceptualise the design of supply chain structures to do the job required of them.

It's a pity that designers of supply chain configurations have not invoked his work more. In any event, we are left with the impression from Morgan that the way organisations should shape their supply chain structures involves integrating more into the overall business designs, and I agree with this position.

Perhaps the other major experiment in how to structure the way people work was started by Ricardo Semler at Semco in Brazil some fifteen years ago and reported in both his books (1993⁴ and 2003⁵). His suggested structure was unorthodox indeed, akin to putting the inmates in charge of the asylum, but as noted author Charles Handy commented once, "...the way Ricardo Semler runs his company is impossible; except it works, and works splendidly for everyone"⁶.

Semler believed in 'participative management' where the workers, rather than management, would work out what should be done, and do it for the company. He was bent on surfacing the creativity in his workers that tends to be lost in the conventional functional model. Interestingly, Semco is still thriving today, but few if any other corporations have followed his suit and run with a similar structure.

Breaking the mould

It may not come as a surprise that the first enterprises to break with convention were in the fashion apparel business, because they had to for survival. They hit the 'unpredictability ceiling' before most other industries. Two names come immediately to mind, and others are beginning to follow. A word about each of these so-called 'pathfinders':

Zara: this Spanish-based company is taking the world by storm, and has done wonders by showing how an enterprise can become more responsive to its customers than any of its competitors, by a country mile. And all this without any secret new technology or hitherto unknown processes. In the end it is all about the way Zara's management mixes the recipe with otherwise known ingredients

What Zara did was come up with the idea of cross-functional teams to manage the design, production, and delivery of the different apparel ranges to their target markets in women's fashion, men's fashion, and children's wear. These teams work closely with the store managers in the Zara retail chain, and are co-located to



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teams to speed up responsiveness to customers, worldwide. In the process, VF Corporation has effectively transformed itself from a manufacturing business (owning machines) to a sourcing business (owning brands), and done so in less than a decade⁷.

Li & Fung: perhaps the consummate example of using organisation design to power growth is this Hong Kong-based company. The Fung brothers coined the phrase “network orchestrator” in their book, *Competing in a Flat World*⁸. The Fungs transformed the original trading business through rapid acquisitions and a new business model, creating 170 customer-oriented multi-disciplinary ‘clusters’ (or *Little John Waynes* as they call them). Each of these clusters of 50-60 personnel focus on one or more customers, and deliver revenue of US\$20m-\$70m.

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More than anything else, the great success they are now experiencing comes from the organisation design, which by its very nature focuses personnel “...on business challenges instead of functional [issues] that dominate in so many large organisations”⁹. Each of these clusters is inter-disciplinary; full of self-starters; and highly incentivised through a remuneration package that is heavily weighted towards results achievement. Each cluster acts like the owner of its respective business, and is held together by a strong set of corporate values and financial disciplines. This is truly a success story quite unlike any other. But even here, improvements and refinements are possible, and we will get to these a little later.

facilitate rapid communication. The result: Zara is able to process a garment from sketch on paper to product in the store in 15 working days. None of Zara’s competitors come anywhere near this. ‘Postponement’ techniques are invoked, coupled with ‘Lean’ supply chains on the in-bound side, but the end result is an ‘Agile’ response to the changing fashion whims of their target customers. A great success story, and one still in the making.

Vanity Fair: VF Corporation is based in Greenboro, NC, and is a leader in branded lifestyle apparel. This company also uses what it calls ‘cross-coalition’

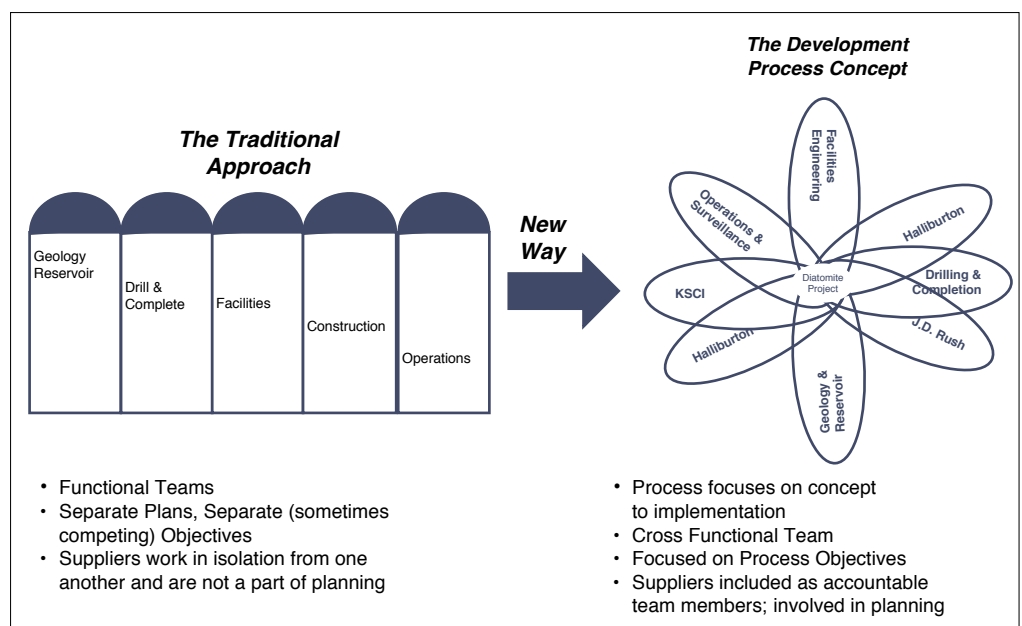


Figure 1 : adoption of the “Daisy” organisation structure at Aera
Source: Aera Energy : the next era in energy



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Adidas: In the run up to the 2006 FIFA World Cup in Germany, management at Adidas decided they had to design and implement a more responsive supply chain in order to capture the value of being one of the major sponsors of the four-yearly event. Traditionally, it had taken Adidas 120 days lead-time to supply replica soccer shirts from a standing start. Management knew that this would not be good enough for the 2006 World Cup.

Jay Pollard, Lars Sorensen, and their teams set about to break old business practices and produce a much faster and more responsive model.¹⁰ They did this by:

- setting about to instill a mindset change;
- developing cross-functional, fully integrated teams, with representatives from all disciplines;
- locating these newly formed teams all in the same building, called The World of Football (this was done three years before the event in 2006); and
- organising sourcing offices around the world into clusters.

The new regime was road-tested at the 2004 European Cup, with incredible results. For example, 35,000 Greece replica shirts were produced in the 20 days following Greece’s unexpected win in the Cup final. This was an 80% improvement over previous lead times. Adidas found the new organisation design allowed it to scale up and down faster, providing much greater flexibility than hitherto possible.

Overall, the learnings from this experiment were that by forming an end-to-end integrated supply chain with multi-disciplinary clusters of personnel, from design to shelf and into the consumers’ hands, and throwing out the old ‘silo’ system, the operational and

financial benefits were immense. Adidas now plans to replicate this method at future major sporting events.

Aera Energy LLC: this is a self-sufficient full-service oil and gas company based in California. The company was only formed in 1997 using assets jointly owned by Shell and Exxon Mobil.

The company was formed explicitly to extract oil from “Brownfields”, old fields that were being re-charged, and to do so safely and at a low cost. To achieve this objective, Aera adopted a radically different approach to project management, and a similarly different attitude towards its suppliers¹¹. In particular, Aera adopted a variant of the cluster organisation design, one they called the ‘Daisy’ organisation structure (depicted in Figure 1 below).

The Daisy organisation structure focused and brought together all the processes in a particular project, from concept to implementation.

Features of the Daisy were:

- cross-functional teams;
- all team members focused on particular process outcomes;
- suppliers included as accountable team members.

The results have been nothing short of startling. The Belridge extraction project produced a 47% reduction in drilling and completion costs, while achieving a similar reduction in Health, Safety, and Environment (HSE) costs. Relentless execution led to these outstanding results, and the organisation design was a prime reason for the success achieved in an otherwise difficult industrial operating environment.

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Guidewire: this company is written up as a case study to demonstrate how a software company focussing on the global insurance industry managed to gain a dominant position through development of a new project management process called ‘Scrum’¹².

At the core of the Scrum methodology is the so-called Sprint team. Each team is small, nimble, and has no more than nine members.

Every Scrum project starts with an understanding of the customer’s vision: what outcome does he/she want? The customer and development team then defines the requirements to deliver this vision. The development team would then work for 30 days (the Sprint) to meet as many of the above stated requirements as possible. Meanwhile, the customer continues to refine his/her vision to deliver the required business result.

At the end of the first and every succeeding Sprint, customer and development teams review progress to check if expected business value is being delivered.

Finally, at some point the customer will stop the development process and the software product will be refined and released for wider use in the business. In this way, the customer is able to steer cost, date, and business value on a continuous basis.

Did you spot the common thread in these success stories?

All the above described successful cases of fast, responsive “systems” that have a common thread running through them: they all involved some type of “team” design, composed of inter-disciplinary personnel, all focused on a particular objective, and incentivised by joint KPIs.

What has become clear is that (vertical) functional silos don’t work because they are at least 90 degrees out of phase with the way customers buy (horizontally, across functions).

We became apathetic in the 70s and 80s thinking we had the answers, and when organisations began to see functional silos were not the panacea, we looked to weak matrix structures to compensate. However, while account managers working in matrix structures were well-meaning in their inscrutable focus on the customer, the rest of the organisation did not share their enthusiasm.

Perhaps the only enterprises that did get it were management consulting companies like Andersen Consulting (subsequently Accenture), who understood that you need both the vertical specialties to build capabilities and competences, and the horizontal teams of mixed specialisms to go to market and solve individual client problems. From their successes we can conclude that you need *both* vertical silos of specialists *and* horizontal teams of mixed disciplines, depending



on the exact nature of the customer’s requirement. And this brings us full circle back to the business of enterprise supply chains.

New supply chain organisation designs

What we need now are new supply chain organisation designs for the new breed of supply chains as described in my book *Living Supply Chains* and previous issues of this publication.

If it is true, as we propose, that there are a limited number of variants in customer buying behaviour patterns, and indeed that we mostly see the same three or four types irrespective of product/service category, then the way forward becomes clear. Now we can have the best of both worlds: strong functional specialisms where specific capabilities are developed and reside, and customer-centric teams composed of representatives of all the appropriate functions necessary to fully ‘align’ with customer expectations.

So, for those relatively few customers who we have identified as genuinely ‘collaborative’, we will engage the Continuous Replenishment supply chain, driven by ‘clusters’ of personnel

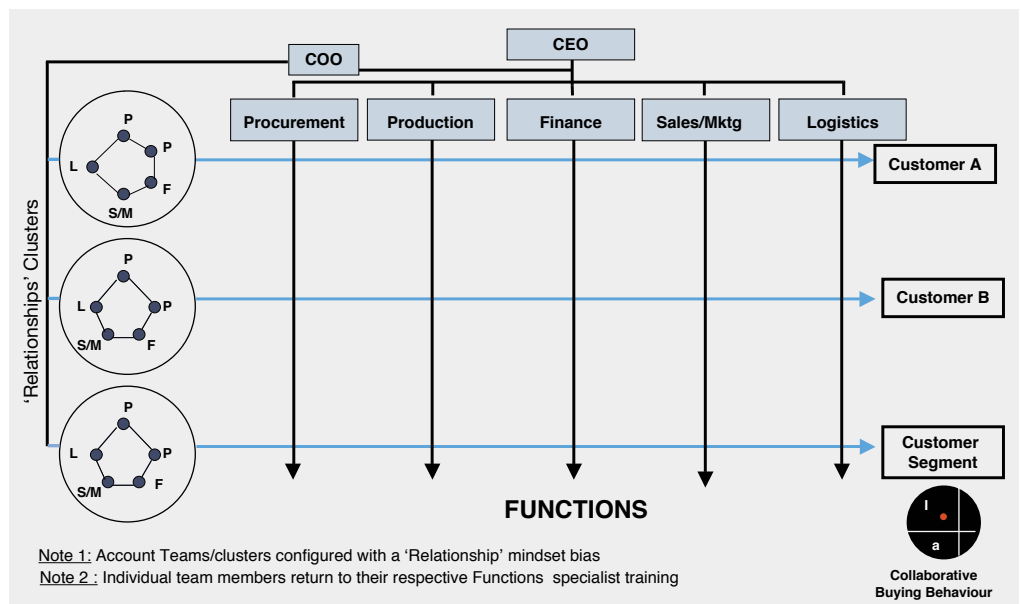


Figure 2 : continuous replenishment supply chain clusters

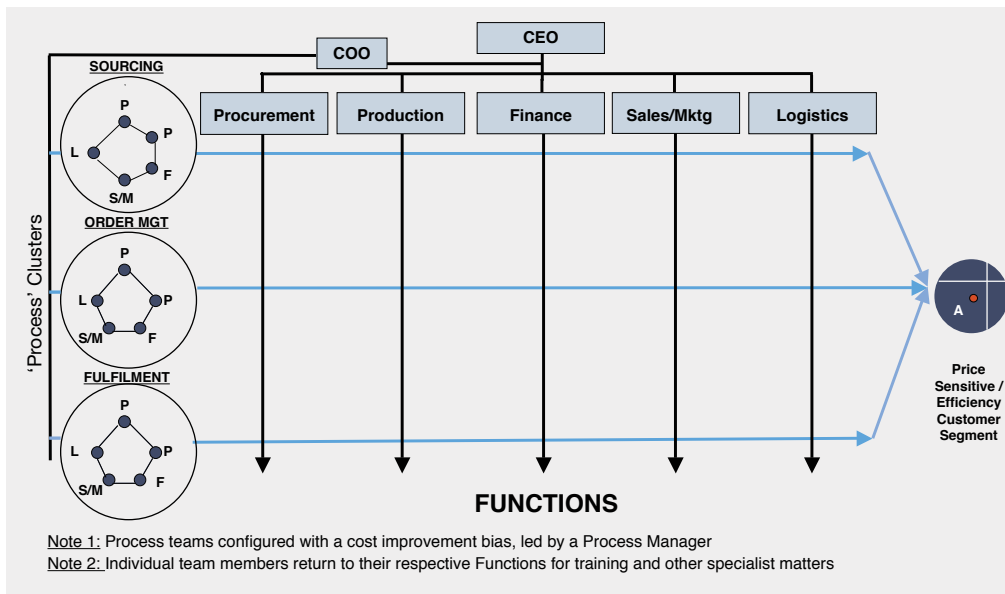


Figure 3: lean supply chain clusters

“Some 35,000 Greece replica shirts were produced in 20 days following Greece’s unexpected win in the European Cup final. This was an 80% improvement over previous lead times.”

seconded from the vertical functions. And here’s the twist. Not only will all the functions be represented in these clusters (or teams), but we have the opportunity to genetically engineer the mindset of these clusters by taking into account the ‘values’ of each team member.

It is not simply a matter of having all the technical skills covered — the right embedded-bias in the team is just as important. This refinement goes beyond what Li & Fung are doing with their so-called ‘Little John Waynes’, but it is a necessary refinement to get maximum alignment with the customer’s mindset, in this case driven by ‘Relationship’ values (see Figure 2).

Notice the solid line drawn connecting the customer-centric ‘Relationship’ clusters; they are accountable for meeting customer expectations, and the Functions are there to support as required.

The customer-centric clusters, however many there are, all report to a line executive, probably the COO or global customer solution director. No more dotted lines for the customer-facing teams.

To service those customers in the Price sensitive/Efficiency segment we need something very different. Here the emphasis is on refining the various processes involved to deliver the lowest possible cost-to-serve via the ‘Lean’ supply chain configuration (see Figure 3).

As in the case of the Continuous Replenishment supply chain configuration, multi-disciplinary clusters are formed. However, this time each cluster focuses on a particular process rather than a customer, and the various processes come together to deliver the lowest cost and most consistent service possible for that particular segment.

In order to satisfy those customers who demand a quick

response in an otherwise unpredictable market place, we need something different again. In this situation, the multi-disciplinary clusters are designed for speed, and the bias embedded in the ‘Agile’ supply chains serving these demanding customers is just that - speed. Very much like Zara have done so successfully (see Figure 4).

It is possible that there will be sub-sets of the Demanding/Speed segment as depicted in Figure 4. For example Zara has to service the demand for fashion in three different sub-segments: women, men, and children.

Finally, in cases of

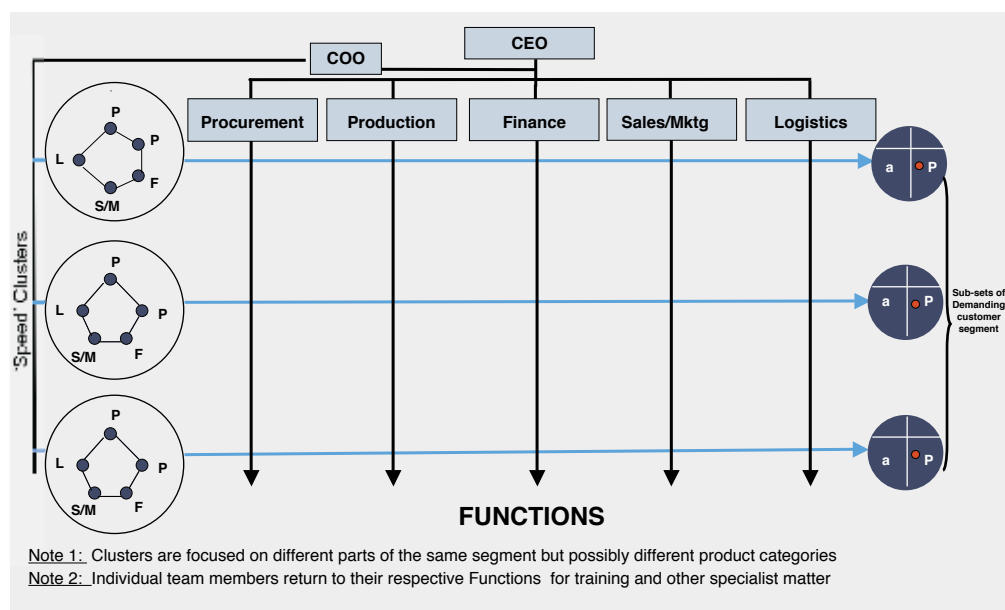


Figure 4 : agile supply chain clusters



unexpected events or crises, the Fully Flexible supply chain configuration is required to deliver innovative solutions, super fast (see Figure 5).

There may only be one cluster to service the 'Innovative Solutions' segment and this could well be composed of part-time members, who only come together in times of an emergency. The individuals in this cluster are likely to be highly trained multi-talented personnel, capable of quick thinking and quick action. There are plenty of examples of this type of structure in aid and military organisations the world over

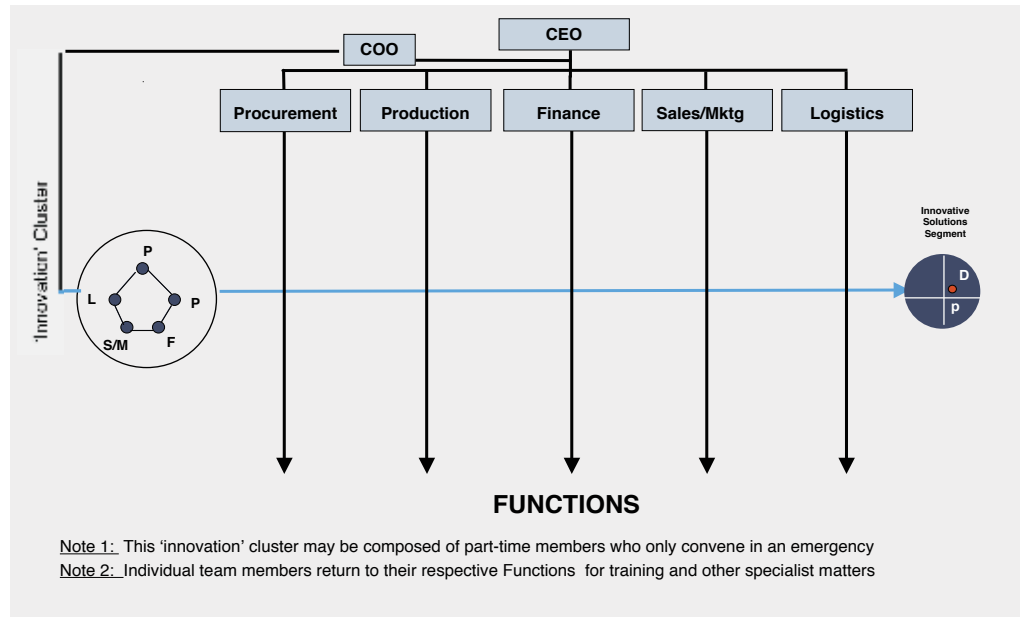


Figure 5: fully flexible supply chain cluster

Bringing it all together

As discussed in other articles written for *Supply Chain Asia Magazine*, any given supply chain has an upstream supply-side component, and a downstream demand-side component, much as depicted in Figure 6 below. The key is to have organisational 'clusters' in place that power the different types of supply chain configurations based on customer demand patterns, and have mechanisms in place to link the various clusters in situations where supply chains are 'hybrid' in nature, ie., different on the supply-side and the demand-side, which is quite normal. This situation is depicted schematically in Figure 6.

Alignment insights

1. Current organisation designs for enterprise supply chains are

fundamentally flawed because they assume a 'one-size-fits-all' world.

2. The only successful way to design supply chain organisations for the new world is to map the marketplace and the customer buying behaviours found there, and then try to reflect these with a corresponding structure on the inside of the organisation.
3. In the end it is necessary for the two structures (external and internal) to co-exist and support each other to properly service a disparate market, ie., the vertical functions that train personnel in particular fields and build capabilities.
4. The customer-centric clusters are multi-disciplinary by nature, where personnel are seconded from time to time to suit the particular customer type being served.

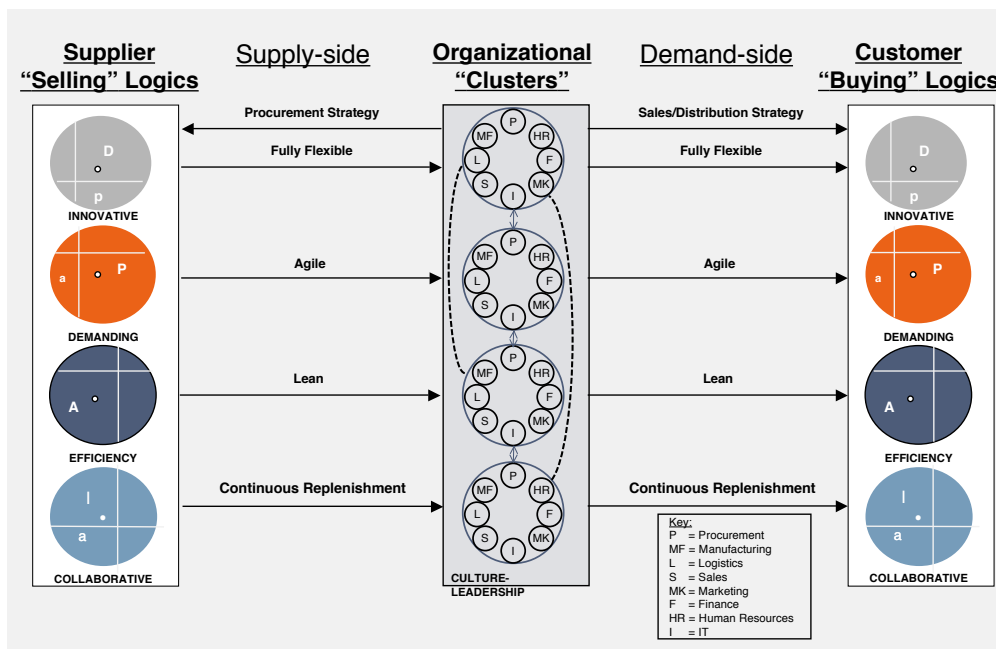


Figure 6: a new & dynamic business model for supply chains of the future

Footnotes:

- ¹Supply chain 'Thought Leader', and author of *Living Supply Chain* (FT Prentice Hall, Harlow, 2006)
- ²Kim, Soo Wook, "Organizational structures and the performance of supply chain management" *Internal Journal of Production Economics* 106 (2007), pps. 323-345
- ³Morgan, Gareth (2006), *Images of Organization*, Sage Publications, London
- ⁴Semler, Ricardo, *Maverick*, Warner Books, 1993.
- ⁵Semler, Ricardo, *The Seven-Day Weekend*, Random House, London, 2003
- ⁶Commendation by Charles Handy, commenting on Ricardo Semler's first book, *Maverick*
- ⁷One of the 'customers' for VF brands is Icon Clothing in Australia, a business unit of the Pacific Brands Group. This company, under visionary leadership has done something similar — organising and co-locating cross-functional teams around each individual brand. The result has been a significant improvement in operational and financial performance
- ⁸Fung, Victor K., Fung, William K., & Wind, Yoram (2008), *Competing in a Flat World*, Wharton School Publishing, Upper Saddle River, NJ.
- ⁹ibid., p.86.
- ¹⁰What they did is record in a 7-mins. CD called: *The FIFA World Cup 2006- the ultimate supply chain event*. Produced by Adidas and Deloitte, 2007.
- ¹¹See <http://www.aeraenergy.com/> website for more information
- ¹²Guidewire (A): *Sprinting to success*, a case developed by IMD, Lausanne, Switzerland, 2007, 12pps.