



Supply chain INNOVATIONS

CILT's Outsourcing and Procurement Forum updates Focus on the results of the committee's meetings throughout 2017. →

→ **F**or the last eight years, the Forum has conducted an annual survey of logisticians and then commissioned and supported MSc Supply Chain students to complete dissertations in this field. One interesting avenue of our research has been to look into the area of supply chain innovation and the varied interpretations of this topic. In 2016, the respondent group were asked how important a role they felt innovation played in outsourced relationships. The majority felt it was important and hopefully this will come as no surprise to the reader. Each group of responders were then asked to give examples of innovative practices in their operation and the value they felt had been generated. This article summarises this survey and our recent studies on logistics and supply chain innovations.

Innovation

The term innovation is a much used, abused and misunderstood term. To many it is just good day-to-day business practice; others view it as what they buy from service providers and/or consultants. *The New Oxford Dictionary* defines innovation as: *making changes to something established by introducing something new*; but one definition of many that satisfies most in business applications is: *the process of translating an idea or invention into a good or service that creates value or for which customers will pay*.¹

To be called an innovation, an idea must be replicable at an economical cost and must satisfy a specific need. Innovation involves the deliberate application of information, imagination and initiative in deriving greater or different values from resources, and includes all processes by which new ideas are generated and converted into useful products.

Supply chain innovation

Ask any group of supply chain practitioners and most will have a differing view on what innovation means. However, this is not surprising given the history of this activity and its scope.

This topic extends beyond our technical supply chain space into organisational awareness and purpose. Fast innovators like to get products to market swiftly; a responsive fashion supply chain might innovate by near-shoring, pre-purchasing partially made products and using late-stage differentiation in the manufacturing process. These are business-led innovative approaches the supply chain must support. High-quality and efficient innovators have similar organisation-wide challenges supported through metamorphosing their

Administrative Innovation involves organisational structure and administrative processes	VS	Technical Innovation pertains to products, services, and production process technology
Radical Innovation represented by the fundamental reconceptualisation of products or processes	VS	Incremental Innovation improves products, services and the existing processes
Creative Innovation refers to the ability of the firm to carry out technological innovation through its internal system, usually materialising in new products or services	VS	Adoptive Innovation refers to the ability to come up with new ideas from outside the firm and adapt those ideas into the management system or into the relationship between the system's components
Hard Innovation innovating new products, machines, tools and the process of making them	VS	Soft Innovation relates to ideas, concepts or practices, such as public policies, that would be adopted by decision-makers to improve the business performance of the company to improve customers' needs

Innovation typologies

Table 1

supply chain. In the former a supply chain might innovate to manage risk and the latter may be very much focused on minimising cost.²

Overall, supply chain innovation could be seen as a certain set of tools to improve enterprise processes that are directed for efficient and effective supply chain management through perfect integration with suppliers and customers. Arlbjørn et al³ divided innovation into three categories in the supply chain field:

- New technology, such as energy-efficiency trucks
- Network optimisation
- Process optimisation, such as just-in-time methods

Innovative supply chain solutions can be traced back to the 1800s when the originator of the term Taylorism introduced the notion of standard times for getting specific tasks done. Fast-forward to the post-war years and initiatives (not inventions) like the 3M load control centre, material and distribution requirements planning (MRP and DRP), the advances in inventory planning, P&G's continuous replenishment programme and the Amazon phenomenon all represent ideas that are replicable and satisfy a specific need, principally improvements in cost and service.^{4, 5}

These approaches to innovation may give rise to significant positive change and become critical to business success. However, buyers often do not take this seriously enough. Outsourcing users and service providers need to take a lead role and appoint someone to sponsor or lead innovation in their area of focus. If we

adopt a 'what gets measured, gets done' philosophy with innovation, we need to implement innovation support mechanisms that are managed collaboratively by other users and service providers.⁶

Our research

Our extensive study on innovation in theory and practice indicates various typologies of innovations – see Table 1.

If we consider the outsourcing life cycle from the innovation perspective, it becomes apparent that innovation may impact each area at different times and with different intensity. If the outsourcing life cycle mimics the generally accepted product life cycle of launch, growth, maturity and market decline phases, then we can design the life cycle to incorporate innovation along the way, just as you would with the design of a consumer product through the manufacture, assembly, service and environmental impact stages.





The outsourcing life cycle

Figure 1

Innovation ceases to be something you might put on the agenda during the operational management phase and instead becomes one of the aspects, like quality standards, which can underpin the entire outsourcing cycle – see Figure 1.

Our research shows that innovativeness may help logistics service providers (LSPs) differentiate themselves from their competitors and improve customer service levels. Participants in our research also underlined various types or forms of innovations expected from LSPs these days, such as big data and analytics, track-and-trace, e-commerce, warehouse management system, resource sharing, network optimisation, robotic and automation and vehicle improvement.

Customers and LSPs who were interviewed in our study believed that both parties should be responsible for logistics outsourcing innovation. In their opinions, LSPs play an essential role in innovation implementation towards logistics outsourcing. They should bring in new technology or new solutions helping to solve customers' problems with their specific expertise. However, customers should also tell LSPs what they actually need and what internal targets they want to achieve.

Our responder group of retailers and manufacturers expressed the opinion that innovative practices would likely be collaborative working arrangements, would have benefits in corporate social responsibility and deliver cost reductions. The LSPs saw innovation as continuous improvement schemes, the introduction of automation, optimising lead-times, improving services and cost reduction.



Conclusion

There is documented history of supply chain innovation stretching back to the 1800s and many initiatives working in the three Ps of product, process and position. There are many differing views of what innovation means among supply chain practitioners. However, the topic of innovation extends far beyond the supply chain into organisation-wide operations and activities.

Our research from within the outsourcing and procurement life cycle used survey data and the output from MSc supply chain students. The surveys suggest that successful innovation is dependent upon, among other things, collaborative working, continuous improvement and waste reduction.

The MSc work endorses the view that collaboration is the platform for success and for optimal results should be defined and agreed upon during the outsourcing process. Innovation never stops and needs to be actively championed, promoted and challenged to ensure value creation for all parties.

For the last three years, the CILT special interest group has supported students from the Cranfield University MSc in Logistics & Supply Chain programme in researching and completing dissertations focused on the outsourcing and procurement arena.

In 2016, students Ling Zhang and Tianqi Ma prepared dissertations looking at innovation from different angles, incorporating feedback from the annual survey, as well as feedback from interviewing logistics professionals.



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