



# Lego Case Study

## Situation

Following years of declining sales and bad financial returns, Lego carried out a Shared Vision plan: after stabilising the company's finances through the sale of some assets to clear its debt, it would have to grow from inside. The supply chain seemed like a good place to start. Indeed, following years of innovative and creative production, the supply chain had become too complex to manage and was now the bottleneck of Lego's operations. In fact, the supply chain was no longer serving real customer needs, it was **underutilised and underdelivering**. Following this motivation, executives decided to undertake a major restructuring of Lego's European supply chain, as drawn out in Exhibits 2 and 3 [1].

The current state of the supply chain was set up so that Lego could provide nearly next day deliveries for its toys, which at first glance seems unnecessary (probably an idea coming from a **convincing marketing push to deliver toys the day before Christmas to forgetful parents**). Of course, this required a decentralised network of storage facilities, transport routes and massive inventory spread all over Europe. Added to that the complexity and variety of Lego's product offerings, and one can see how such a supply chain would drive up cost, unnecessarily. Indeed, Møller Nielsen's main finding was that **this structure added little value to the end customer and he had data to support his claim**. The 20 companies, representing 70% of Lego's business at the time, did not require next day delivery. In fact, they were perfectly happy placing their orders months in advance, as they did with other toys.

Therefore, **the general idea of the plan was to simplify, centralise and outsource all European operations to Czechia, for which the country was geographically well suited. The hope being this would trade-off complexity and responsiveness of the supply chain for efficiency and lower costs.**

So far, the implementation of the plan has proved more challenging than expected. The partnership with DHL to operate the distribution center in Jirny (CZ) turned out dramatically wrong. Demand forecasts were nowhere near reality. **Skilled seasonal workforce was hard to come by**. Nobody knew how to run such a gigantic facility. A **lack of communication** within Lego caused unanticipated storage problems. The contract with DHL no longer reflected what was initially agreed upon and mistrust was building up. Constant firefighting and long working hours were required to keep operations running at an acceptable rate. This was clearly not sustainable.

People within Lego were starting to push back on the restructuring initiative. Numbers were at their highest in a decade. **The seasonal rush was over and management was willing to put a break on the project or leave the system in its current state.** What should Møller Nielsen recommend?

## Suggestion

The primary goal of a supply chain being to serve its customers needs in a timely manner and the secondary cost constraint pursued by Lego, **their current distributed network does not align with their goals**. Møller Nielsen backs this up with numbers gathered from his survey. I would therefore recommend he pursues with the plan to centralise operations. However, I think it needs to be tweaked a little.

The advantages he can expect from his **shift to a centralised network are lower costs, reduced managerial complexity (fewer contractors, legal issues, culture shifts,..), easier inventory tracking, easier route planning, easier expansion plans and a central decision making body would be created**. All of which benefit or could benefit Lego in the future. In addition, **the shift to a 'cost per**

order' metric as the main driver for logistics will shift the behaviour of the sales offices in favour of the centralisation plan focusing them on bulk orders rather than individual sales. To paraphrase, 'the company becomes what the CEO measures' and here it was particularly the case.

The disadvantages linked to responsiveness are negligible since their customers do not require nor desire better delivery delays, it's an efficient standard in the toy market to accept delays of several weeks or months. However, as cited above, shifting operations to a large distribution center with inexperienced partners is no easy feat. Although it is usually easier to expand a single operations center, this hasn't been easy at the chosen location in Jirny (CZ), yet **Lego expects to expand by a lot more in the near future**. Furthermore, **a centralised supply chain is not risk averse, any single point of failure could, potentially, bring down all of Lego's operations for undetermined periods of time**. No matter how the management plans to mitigate risks, it would be better to dilute them.

Therefore, in hindsight to what happened during the transition so far as described in the case study, I propose the following changes to Møller Nielsen's plan:

1. **Rewrite parts of the DHL contract** (especially if point 5 is deemed relevant), get them in line with Lego's vision and agree on the performance metrics. This way both parties will get a fair share of the business they are trying to build.
2. **Let DHL handle the transport and storage logistics, which is their business, but have Lego people manage the orders**. This will not only give Lego more control over its products but also force cooperation between the DHL and Lego teams on site with each focusing on what it does best. Indeed, outsourcing all the work to another company, albeit at a lower cost, doesn't seem like a good idea for Lego who is in the toy business. Outsourced work is not always performed with the same care and enforced by contract rather than good will — back to the point above. For a toy business it seems important to care about its products and customers to the very end. **I would suggest anything up to the storage and delivery to be handled by Lego people, even if following instructions coming from DHL.**
3. **Change expectations of forecasts and reduce reliance on seasonal workers**. Since it's been years that Lego hadn't received orders months in advance, it is understandable that they got surprised by the turn of events the first time around, especially since they were restructuring. However, this should be corrected for the next year, **maybe they could calibrate demand forecasts with frequent customers' estimates before the orders start coming in and then adjust over time**. This could reduce their need for seasonal workers or create opportunities to train these workers in other areas, so they can be reassigned to different missions throughout the year (maybe partner up with DHL for this too).
4. **Review communications structure within Lego**. Decisions that affect different departments, such as the packaging change, should be discussed and agreed upon collectively. There is certainly a way that these packages could be redesigned to benefit logistics and marketing sales, instead of one being burdened by the decision of the other. This particular point made by the case study underlines a cooperation issue at the higher level within Lego.
5. **Split operations into one or two more locations, relatively close by**. This would effectively create a distribution hub that would be more costly but would ultimately provide Lego with **several advantages: risk dilution** (if one center burns down, for example, the others can compensate), **expansion options, specialisation of the workforce, possibility to run continuous improvement experiments in one of them and easily transfer positive results to the others**. This would retain the advantages of centralising the supply chain.

In conclusion, Møller Nielsen should not succumb to the outside pressure resisting change. His initiative makes sense, is backed by data and aligned with Lego's vision for the future.

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## Sources

[1] IMD Lego Case Study (IMD548)