

Dell case study case study examples

[Countries](#), [China](#)



Q1. Why does L5 incur higher manufacturing and logistics costs than L6? Identify costs incurred by L5 and not by L6. Identify any costs incurred to only L6 and not L5.

Level 5 manufacturing (L5) implies assembling desktop PC chassis, a fan and floppy disk drive. In some cases, it can also include power supply depending on the chassis configuration. In essence, Dell air freights the motherboard, and ships the chassis to the 3PIs (third party integrators). The third party integrators are managed by the contract manufacturers. They integrate the components at their factories, they are then sent back to Dell factories where customized parts are integrated to make them level 10 products for onward distribution to the customers.

In Level 6 manufacturing, the motherboard is installed into the chassis by the supplier; the L6 chassis is then shipped from China to Dell's factories in America and customized by Dell factory associates to become level 10 units. Level 5 manufacturing incur higher manufacturing and logistics costs more than the level 6 manufacturing because of its heavy reliance on the 3rd party integrators, Dell is unable to provide motherboards on time to contract manufacturers. The more the increase in L5 manufacturing, the more the involvement of the 3PIs, the more the cost of manufacturing and logistics. Also, the complexity involved in the manufacturing process drives the production costs up.

The L5 manufacturing level incurs logistics, air freight, shipping, third party integrators cost and the contract manufacturers cost, while the L6 manufacturing level incurs costs related to the shipping from China, the contract manufacturers cost and logistics cost.

Q2. Which of the six proposed manufacturing solutions should Dell implement based on survey results (Fig. 6-1)? Why? What are the pros and cons of this recommendation?

Based on the survey result, Dell should adopt option 3.

Option 3; Offline integration at the supplier logistics centre (SLC). Maintains the current level six to level ten manufacturing process, handling the motherboard-chassis integration at a supplier logistics centre.

This option has the lowest complexity score because Dell believes if her factory associates assemble motherboards into level 5 chassis in a supplier logistics centre, all Dell needs do is to install new equipment at the supplier logistics centre. This reduces the capital expenditure and will not disrupt the existing manufacturing process in Dell factories.

Q3. What would you do if the chipset supply shortage further deteriorated?

The chipsets are an integral part of the motherboard. A further deterioration in the supply of chipsets means a reduction in number of available motherboards. Dell should hand over the entire production to contract manufacturers.

Q4. How good is the methodology employed by the Business Process Improvement (BPI) team to determine the optimum manufacturing option for Dell? Are there more effective approaches?

The methodology adopted by Dells BPI team is a good one. It focuses on the complex management of the procedure leading to the eventual products.

The team involved various employees from different departments in Dell in

the brainstorming session. The different departments were analysed and X-rayed to quantify the cost and complexity of managing each manufacturing option.

What changes need to be made in the supply chain for Dell to effectively address the root causes contributing to the increase of L5 manufacturing? What would be the effect of these changes?

Production should be better managed and coordinated, complexities and ambiguities in the production process should be minimised. Also, costs have to be reduced.

These changes would bring about an effective production process, increased customer satisfaction and eventually increased profits.

What have you learned from this case study that you would be able to apply in an organization where you have previously worked or currently work?

Overdependence on a particular set of people in the production process could be detrimental to the success of the organization. Also, complexities and ambiguities should be counterproductive. Keeping the process simple and straight forward is always better.

References

David, Simchi-Levi, Philip Kaminsky & Edith Simchi-Levi (2008). Designing and Managing the Supply Chain. Concepts, Strategies, and Case Studies, Third Edition. McGraw-Hill