

Supply Chain Strategies and Emerging Trends in the Retail and Logistics Industry

EXECUTIVE SUMMARY

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1. Project Objective: Globalization and the advent of the internet have given rise to several giants in logistics and retail such as Amazon and Walmart. These companies have generated a substantial competitive advantage, particularly through innovations in their supply chain strategy. The objective of this paper is to analyze the supply chain practices and innovations at these companies and develop a scorecard for logistics and retail companies to use in evaluating and improving their own supply chain strategies.

2. Background: This paper relies on supply chain theory developed over several decades and summarized in papers and textbooks from Dittman, Brown and Chopra. In this section, we cover the factors that influence supply chain strategy and the key elements of a supply chain strategy. For example, an organization's internal capabilities and the environment they are competing in are key factors that will affect their strategy. In particular, this will affect key elements such as whether they perform a supply chain function or outsource it, and whether they use more expensive but faster modes of transportation or instead choose slower but cheaper modes.

3. Methodology: Using the supply chain theory outlined in section 2, we developed a supply chain process flow chart that is sufficiently general that it can be applied to any of the leading logistics and retail companies as well as the companies this paper is intended to help. Next, we conducted a qualitative survey of literature relating to supply chain innovations at these leading companies such as FedEx, Alibaba, Amazon and IKEA. The most interesting findings were detailed and then organized into their respective process group. Finally, a scorecard was developed based on the innovations for each process group.

4. Findings: The result of the literature survey was more than a dozen practices and innovations that were applicable to the four supply chain process groups: sourcing, warehousing, distribution and retail/ecommerce. For sourcing, the leading companies use a combination of supplier relationships and mergers and acquisitions to vertically integrate to give them their advantage. Their warehousing strategy makes use of modern theory on locations and layouts, as well as cutting edge technology such as robot automation and software to assist with inventory handling, management and forecasting. Further, RFIDs and autonomous delivery robots are key elements of the distribution strategy of leading firms. Finally, most of the leading firms use cloud computing, ecommerce platforms and machine learning to maximize sales to the customer.

5. Conclusion: In order to develop a scorecard, the findings for each process group were categorized into three levels, which correspond to the level of efficiency and competitiveness of a company that uses that technique. Level 1 companies are stagnating companies with poor technology usage, while level 2 companies are doing well using industry standard practices. Level 3 companies are innovating beyond the standard and are well situated for the evolving marketplace.

6. Recommendations & Action: This section contains the scorecard and also outlines how a company should evaluate themselves against it. Level 2 is the minimum a company must achieve but level 3 initiatives must be carefully implemented based on the company's self assessment.