

Research on Business Agility --Based on the Exploration of Jingdong's Operations, Supply Chain Management and Customers' Expectations Management

Yuli Fu

Chengdu University of Technology, Chengdu, Sichuan, 610051, China

fylily613@163.com

Abstract

This report focuses on the key ingredients of creating agile businesses that is responsive to disruptive environment, such as supply chain management, lean operations and corporate social responsibility (CSR). By applying agile operating model, demand chase plan, CSR concept, lean operation concept, Just-In-Time and 5S method, it analyzes and explores how JD manages its operations to meet its performance objectives (cost, quality, speed, dependability and flexibility). Furthermore, by evaluating the information flow and material flow of the supply chain of JD, it is concluded that JD has established long-term partnerships with upstream suppliers and set up own logistics system to support agile business.

Keywords

Business Agility; Lean Operation; Supply Chain Management (SCM); Corporate Social Responsibility (CSR); Performance Objectives; Just-In-Time; Critical Success Factors (Csfs).

1. Introduction

According to the organizational agility frameworks (Dülgerler, 2015), enablers, such as process design, lean operation, supply chain management, capacity and inventory management and corporate social responsibility, are the agile practices that can be adopted to change the organizations to make them more agile. This report will analyze the three elements in detail include SCM, lean operations and CSR. Moreover, taking JD as an example and using relevant operations management concepts, theories and models to analyze how JD manages its operations to meet performance objectives, and evaluate how supportive JD's current supply chain is to enhance its agile system as well as how the organization manages its customers' expectations.

2. Key Ingredients of an Agile Business

2.1. Supply Chain Management (SCM)

An effective SCM is a key determinant of competitiveness in today's dynamic and turbulent business environment, which helps cope with changes, ensure quality and deliver on time. For instance, in order to enable the company to respond to changing customers' needs, quickly launch new products and effectively respond to changes in quantity and time delivery requirements, it is vital that the SCM is agile (Christopher, 2000). Taking Zara as an example, its highly responsive SCM allows the company manage design, production, and distribution functions by itself, and makes them available to deliver its products to global branches in 15 days (Ferdows, Lewis, and Machuca, 2004).

Additionally, effective SCM can ensure quality and constantly supply, attracting more customers. Seven-Eleven Japan is praised globally for its outstanding SCM. According to Matsuo and Ogawa (2007), because Seven-Eleven Japan cooperate closely with suppliers in SCM, compared with its rival Lawson, it can create 20% more consumer traffic and 10% more expenditure per visit than Lawson. That means establishing a close relationship in the supply chain can guarantee the quality of the product, so as to continuously supply and respond effectively to the demand

2.2. Lean Operation

Lean operations focus on the respond ability that helps business to react quickly when meet unexpected needs. It stresses business to deliver on time, in exact quantities. In the study of Hofera, Eroglu and Hofer (2012), lean operation uses methods such as total quality management (TQM) and just-in-time (JIT) to improve performance and inventory. Moreover, Villa and Taurino (2013) indicated that JIT is suitable for a fluctuating business environment. It can improve productivity and quality indicators at every stage of the production cycle, which reduces waste and rework, increases flexibility and responsiveness (Alcaraz et al., 2014). Therefore, a successful JIT implementation usually can build critical success factors (CSFs) for a business. For instance, Toyota, the implementer of JIT, provides customers with products of excellent quality, quickly delivery and less cost (Amasaka, 2007). The reason is that its resources and information flow rapidly and smoothly through processes, operations and supply chain in a synchronized manner- JIT. As customers' needs might change at any time, the smaller the delays between activities, the easier it is to match customers' demand instantaneously. In this way, it minimizes the waiting time among stages in the process and reduces queue and throughput times, thereby helping to deal with the disruptive environment.

2.3. Corporate Social Responsibility (CSR)

CSR is regarded as the key to establish a good relationship with employees, suppliers and wider society, which can be used to quickly respond to social development trends. According to Sun et al. (2019), CSR makes mutually benefits, including creating a good corporate reputation and positive externality. For example, IKEA's sustainability culture is internationally recognized because it uses environmentally friendly materials. Similarly, SCA integrates sustainability into product development, and its fully biodegradable products are popular (Alängea, Clancyb and Marmgren, 2016). Both IKEA and SCA emphasize CSR, so they chase the demand of customers and society by looking at things from a long-term perspective and making corresponding changes to the company and product concepts. It is a guarantee of quick respond and long-term success for businesses.

Companies that sell harmful products and services such as alcohol, tobacco, and gambling should pay more attention to CSR. According to Oh, Bae and Kim (2017), sinful firms can increase corporate value through philanthropy, because consumers' perception of CSR is higher than the good attitude of the company itself or its products. Therefore, enterprises should take CSR into account when they implement business strategies. In this way, even when faced with uncertain changes and requirements, they can respond quickly.

According to the operations strategy, it is essential to reconcile market requirements with operations resources. In terms of market requirements, JD should focus on customers' needs and competitors' actions. According to Figure 1, improving performance in an order-winning factor is more likely to attract customers, to increase competitive advantage and gain more benefits. In the study of Kulyk et al. (2017), customers have different preferences and requirements for delivery time and delivery methods. Therefore, JD should provide more flexible choices for delivery than competitors, including limited time delivery, night delivery and next day delivery. Meanwhile, JD should hire more deliverymen to deliver goods to minimize the time in order to give customers a speed advantage.

3. Analyze How JD Manages its Operations to Meet Performance Objectives

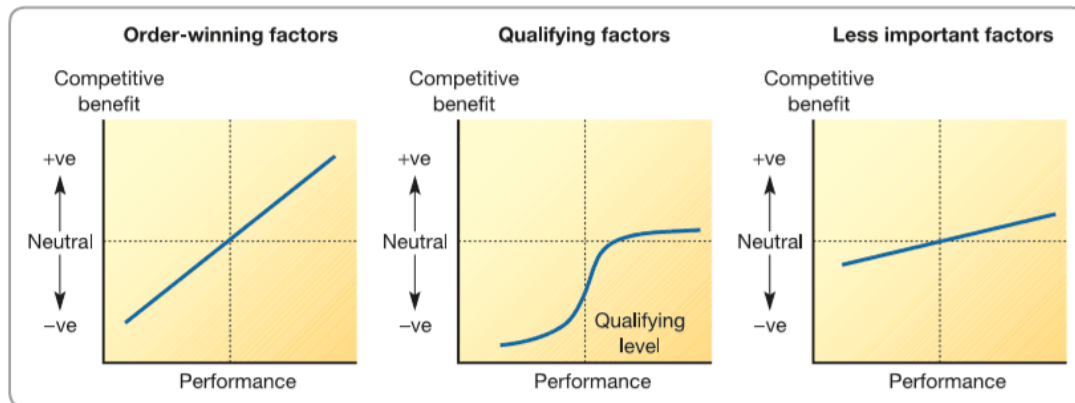


Figure 1. The difference between order-winning, qualifying and less important factors in terms of worth to the competitiveness of the organization (Slack, N. Brandon-Jones, A. and Johnston, R., 2013)

According to the agile operating model, JD should adopt a demand chase plan. Abdi, Edalat and Abumusa (2016) mentioned that it is helpful to increase flexibility and maintain dependability by using demand chase plan to respond fluctuations in demand. For example, it is better to provide more goods during the festival as there may be more customers, and change the inventory when there is some demand seasonality.

Moreover, according to the environmental dimension of CSR, it is expected to promote green logistics to meet the needs of customers and maintain competitiveness. In the study of Pinto (2019), attaching importance to green logistics can not only reduce pollution, but also improve quality, reliability and cut expenses. For example, reduce packaging or use renewable materials, recycle and reuse packaging (Franchetti, Elahi and Ghose, 2016). By designing a packaging processing flowchart (Figure 2), JD is better to follow this process to identify waste minimization in packaging. Therefore, taking CSR into account is beneficial to achieve long-term organizational performance objectives (cost, quality, dependability).

For operations resources, operations should maintain capabilities to satisfy market requirements. According to lean inventory, it is suggested to use JIT method to effectively manage suppliers, warehouses to provide and distribute goods in the right quantities at the right time. Instead of relying on the analysis of past data to maintain inventory, JD should predict and judge accurate demand depend on the information flow feedback to ensure the link with customers and proper supply of products. In the study of García-Alcaraz and Maldonado-Macías (2016), JIT method is beneficial to reduce procurement costs and inventory as well as increase flexibility. Furthermore, 5S management method is helpful:

- Sort:** Eliminate what is not needed and keep what is needed to ensure the circulation of goods
- Straighten:** Position products in a neat way that they can be easily reached
- Shine:** Keep things clean and tidy to reduce fault
- Standardize:** Store products by type and model to prevent overstocking
- Sustain:** Implement frequent auditing procedures in each step to form a continuous improvement habit

By reducing inventory and standardized management, it helps to minimize unnecessary waste, including space cost, service cost (salary of redundant supervisors), inventory risk cost (sunk cost of expired products). Moreover, the inventory turnover rate can be increased, so constantly updated inventory helps ensure product quality.

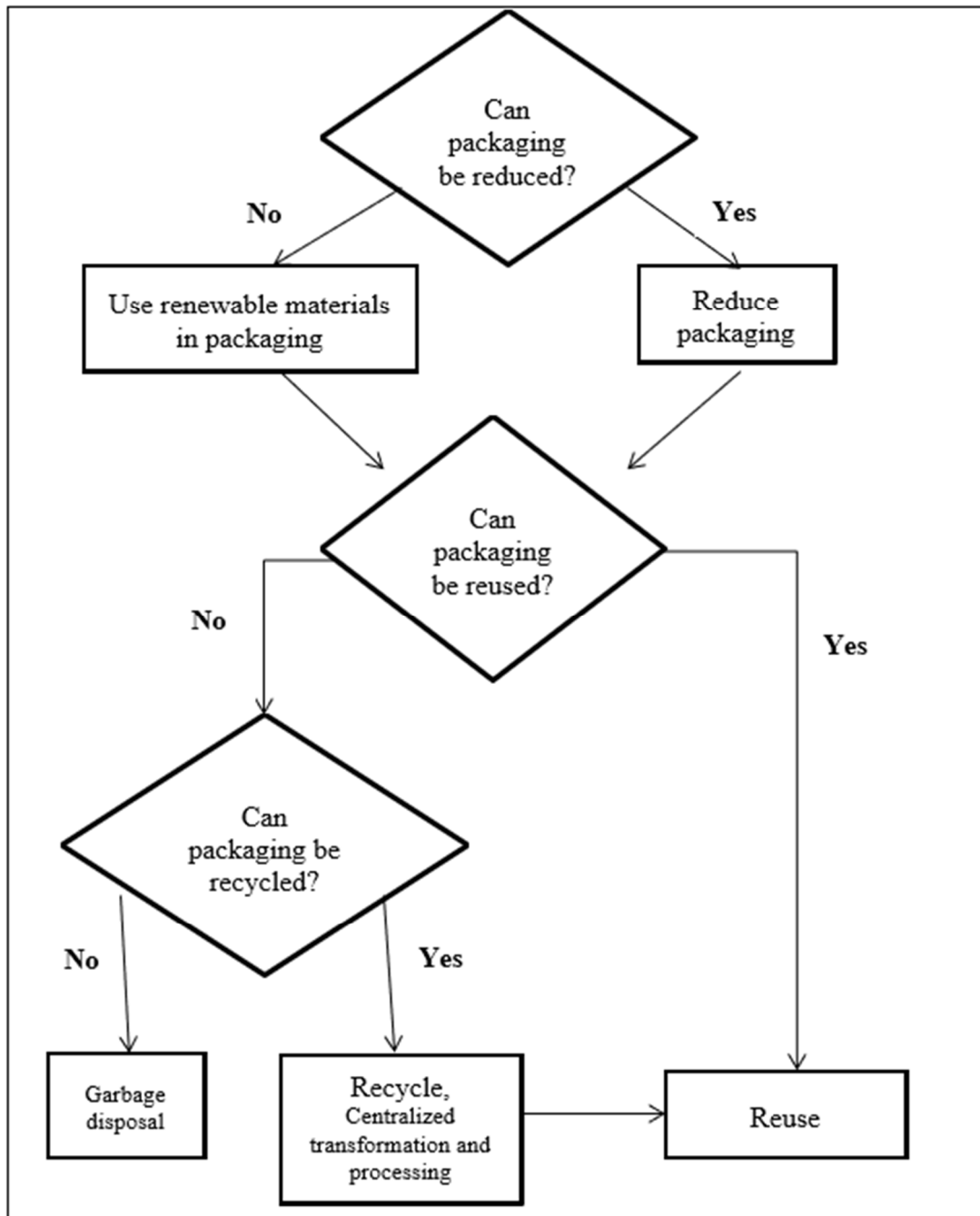


Figure 2. Packaging processing flowchart

4. Evaluate How Supportive the Supply Chain is to Enhance JD’s Agile System

According to the SCM, an effective supply chain is likely to enhance an organization’s agile system by emphasizing on the management of both the information flow and the material flow. For the information flow from customers, JD has established an information system among customers, sellers and transportation provider, which helps collect information correctly and

timely. It is efficient to ensure that logistics can be accurately planned and controlled. According to JD.com Announces Quarter Results (2019), JD has partnered with TCL and Nestlé to launch Consumer to Manufacturer (C2M) projects to support customers’ various needs. It reflects JD’s ability to use big data from information flow to collect demand information as well as link the relationship between consumers and manufacturers. In this way, JD is more agile to support customers with tailor-made products.

For the material flow, it is beneficial that JD signed supply contracts and established long-term partnerships with upstream suppliers, which can minimize time and ensure continuous supply. Nevertheless, sometimes there may be supply risks from bad suppliers. When the supply sources are interrupted by unplanned operations, the long-term partnership may not give JD the flexibility to change suppliers in a limited time. Therefore, this might be a risk of failing to provide goods on time. Moreover, one of JD’s great advantages is that it has established its own logistics system, including the establishment of commodity warehouses and distribution centers nationwide. According to JD.com, Inc. (2017), about 90% of orders placed on JD can be delivered directly to customers during 2 days, while its competitors cannot achieve. It shows that its self-built logistics make SCM more flexible as the distribution center can be seamlessly connected to the warehouse operations. So it improves delivery speed, and can effectively control delivery cycle, quality and cost.

5. Assess How JD Manages its Customers’ Expectations

According to Figure 3, factors that affect customers’ expectations include: price, alternatives available, marketing, word of mouth, previous experience, customers mood and confidence. Therefore, JD could manage customers’ expectations in account of these factors.

Above all, it is important to ensure that the marketing and strategic functions within the organization are closely linked to the capabilities of operations so that it can provide proper information. For example, when implementing hierarchical services (SVIP, VIP and general), different types of advertisements should correspond to different services. This prevents deviations in customer expectations due to improper marketing.

Additionally, commitment to customers should be proper so that customers could have an appropriate anticipation. The reason is that if unrealistic commitments are provided to cater to customers, the organization may not be able to respond. When problems occur that affects customers’ expectations, effective communication with customers is necessary. For instance, if products are damaged during the logistics, organizations should actively listen to customers and taking compensation methods, such as providing free returns.

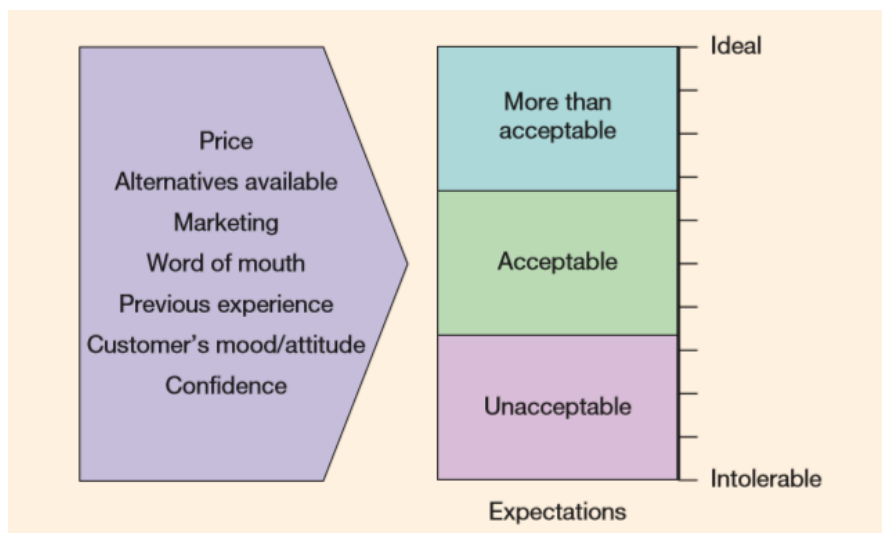


Figure 3. Expectations- key influences (Johnston, Clark and Shulver, 2012)

6. Conclusion and Recommendation

In conclusion, the key ingredients for business agility include SCM, Lean operation, CSR, process design and capacity and inventory management. Based on the research on JD, companies can manage their operations, establish supply chain partnerships and manage customer expectations to make them become order-winning competitive factors. However, sometimes companies might face with the supply risks from bad suppliers. It is recommended that establish contractual relationships with multiple suppliers, so as to better control the supply risk caused by poor suppliers (Sarker, 2018). In this way, if one supplier fails to deliver on time, JD is flexible to take goods from other suppliers to adjust. Additionally, the conclusion of this report seems to be biased, because it only focuses on some limited factors. For example, apart from information flow and material flow, SCM also includes financial flow. Therefore, there is a suggestion for taking more factors into account to draw a more accurate and comprehensive conclusion.

References

- [1] Abdi, M. R., Edalat, F. D. & Abumusa, S. (2016) 'Lean and Agile Supply Chain Management: A Case of IT Distribution Industry in the Middle East', *Management and Industrial Engineering*, pp. 37-69.
- [2] Alängea, K., Clancyb, G. and Marmgren, M. (2016) 'Naturalizing sustainability in product development: A comparative analysis of IKEA and SCA', *Journal of Cleaner Production*, 135 (1), pp. 1009-1022.
- [3] Alcaraz, J. L. G. et al. (2014) 'A systematic review/survey for JIT implementation: Mexican maquiladoras as case study', *Computers in Industry*, 65 (4), pp. 761-773.
- [4] Amasaka, K. (2007) 'Applying New JIT--Toyota's global production strategy: Epoch-making innovation of the work environment', *Robotics and Computer-Integrated Manufacturing*, 23 (3), pp. 285-293.
- [5] Christopher, M. (2000) 'The Agile Supply Chain: Competing in Volatile Markets', *Industrial Marketing Management*, 29 (1), pp. 37-44.
- [6] Dülgerler, M. (2015) 'Making better, more responsive organizations'. Paper presented at PMI@ Global Congress 2015--EMEA, London, England. Newtown Square, PA: Project Management Institute.
- [7] Ferdows, K., Lewis, M. A. and Machuca, J. A. D. (2004) "Rapid-fire Fulfillment." *Harvard Business Review*, 82 (11), pp. 104-117.
- [8] Franchetti, M. J., Elahi, B. and Ghose, S. (2016) 'Green Supply Chain, Logistics, and Transportation', *Management and Industrial Engineering*, pp. 1-16.
- [9] García-Alcaraz J.L., Maldonado-Macías A.A. (2015) 'Concepts of Just-in-Time (JIT)', *Management and Industrial Engineering*, pp. 3-20.
- [10] Hofera, C., Eroglub, H. and Hofer, A.R. (2012) 'The effect of lean production on financial performance: The mediating role of inventory leanness', *International Journal of Production Economics*, 138 (2), pp. 242-253.
- [11] JD.com, Inc. (2017) OUR BUSINESS. Available at: <https://corporate.JD.com/ourBusiness>.
- [12] JD.com (2019) JD.com Announces Second Quarter 2019 Results. Available at: <https://ir.JD.Com/static-files/9bf69785-7108-42d5-a6a7-7adba9c2fa5f>.
- [13] Johnston, R. Clark, G. and Shulver, M. (2012) *Service Operations Management-Improving Service Delivery*. 4th edn. [Online]. Italy: Rotolito Lombarda.
- [14] Kułyk, P. et al. (2017) Assessment of customer satisfaction with logistics service in the light of the results of the research, *Management*, 21 (1), pp. 205-222.
- [15] Matsuo, H and Ogawa, S. (2007) 'Innovating innovation: The case of Seven-Eleven Japan', *International Commerce Review -- ECR Journal*, 7 (2), pp. 104-114.

- [16] Oh H., Bae, J. and Kim, S. (2017) 'Can Sinful Firms Benefit from Advertising Their CSR Efforts? Adverse Effect of Advertising Sinful Firms' CSR Engagements on Firm Performance', *Journal of Business Ethics: JBE*; Dordrecht, 143 (4), pp. 643-663.
- [17] Pito, R. M. (2019) *Green Logistics: A Tertiary Study and a Research Agenda*, Springer Proceedings in Business and Economics, pp. 1055-1063.
- [18] Saker, S. (2018) 'Differentiating Between Supply and Supplier Risk for Better Supply Chain Risk Management', *Springer Series in Supply Chain Management*, 7, pp. 315-328.
- [19] Slack, N. Brandon-Jones, A. and Johnston, R. (2013) *Operations Management*. 8th edn.
- [20] Sun, Y. L. et al. (2019) What Makes CSR Communication Lead to CSR Participation? Testing the Mediating Effects of CSR Associations, CSR Credibility, and Organization–Public Relationships, *Journal of Business Ethics: JBE*; Dordrecht, 157 (2), pp. 413-429.
- [21] Villa, A. and Taurino, T. (2013) 'From JIT to Seru, for a Production as Lean as Possible', *Procedia Engineering*, 63, pp. 956-965.