

Research on Supply Chain Management of Fresh Produce Under the Blue Ocean Strategy

Rui Wang*

The University of New South Wales, Sydney NSW 2052 Australia

Abstract. As competition among enterprises intensifies, it is imperative for businesses to utilize the Blue Ocean Strategy tools to prepare alternative strategic actions for exploring new market spaces, thereby maintaining long-term competitive advantages. Nueva Pescanova enhances consumer trust and confidence in its products using the tamper-proofing, blockchain-based solutions. It also addresses the Global Dialogue on Seafood Traceability (GDST) standards using the IBM Food Trust platform. This paper employs the Blue Ocean Strategy to analyze Nueva Pescanova's approaches, suggesting that Nueva Pescanova focuses on customer needs and adopts rule redefinition and value innovation to uncover new market opportunities.

Keywords: Blue Ocean Strategy; Supply chain management; Blockchain technology; Supply chain management.

1. Introduction

On June 8, Coin Telegraph reported that the Spanish seafood company, Nueva Pescanova Group, announced a collaboration with IBM to utilize its blockchain platform, Food Trust, designed specifically for supply chain traceability. This initiative will trace the supply chains of Argentine shrimp and Ecuadorian prawns, aiming to meet the Global Dialogue on Seafood Traceability (GDST) standards set by the United Nations. By integrating blockchain technology into the fresh produce supply chain management, Nueva Pescanova Group is pioneering an innovative approach.

This paper incorporates the Blue Ocean Strategy to analyze the strategic choices of Nueva Pescanova Group, exploring the underlying reasons and impacts.

2. Blue Ocean Strategy

The concept of Blue Ocean Strategy was introduced by W. Chan Kim and Renee Mauborgne in their 2005 publication, "Blue Ocean Strategy". They described the market as consisting of two different oceans: the red oceans and the blue oceans. Red oceans represent well-defined industries where competition is intense and profit margins are shrinking. In contrast, blue oceans signify unexplored new market spaces offering opportunities to create new demand and enhance profitability [1]. They argued that while Red Ocean Strategy focuses on exploiting existing demand within limited market space, making it challenging to find new markets, Blue Ocean Strategy breaks through current market boundaries to create and capture new demand, thereby enabling companies to avoid competition and achieve high profitability through value innovation.

Kim W. C. (2005) demonstrated how businesses implementing blue ocean strategies transition from traditional strategic management by innovating management thinking to create uncontested market spaces, thus escaping competition [2]. Bourletidis D. (2014) noted that any type of business aiming for sustainable development must innovate strategic models, such as adopting a Blue Ocean Strategy, and analyzed the feasibility and necessity of constructing such strategies [3]. Leavy B. (2018) emphasized that Blue Ocean Strategy focuses on value innovation by redefining categories to discover new demand aggregations and reestablishing value propositions, pursuing both buyer value and cost reduction to leap beyond existing demands. He also highlighted that value innovation is crucial for creating new blue oceans [4]. Wang Jianjun (2007) argued that the essence of Blue Ocean Strategy is about rule re-creation and value innovation. The secret to value innovation lies in

combining enhanced marginal utility with reduced marginal costs, while the key to rule redesign is to shift from the traditional market logic of "price-demand-supply-price" to "utility-demand-supply-cost" under non-competitive market logic [5]. Dai Liping (2008) believed that the essence of Blue Ocean Strategy lies in value innovation, finding markets where there is little or no competition. Blue Ocean Strategy requires businesses to shift their market focus from competitors to user needs. Other scholars suggest that even in mature markets, managers can use Blue Ocean Strategy to discover or create entrepreneurial opportunities [6]. Kim W. C., Mauborgne R. (2014) explained that the principles of Blue Ocean Strategy involve reconstructing market boundaries, focusing on the big picture rather than the numbers, transcending existing demands, following a strategic sequence, overcoming key organizational hurdles, integrating strategy formulation with execution, and aligning value, profit, and people propositions, thereby renewing blue oceans [1].

This paper sorts out the Blue Ocean Strategy from the following dimensions. 1)Focus. Focus is the process of locating and concentrating on a particular market niche that is either not currently being served by existing competitors or is being underserved [7]. This market area, also referred to as a "blue ocean," offers an untapped chance for a business to generate new demand and attract new clients. 2)Divergence. Divergence is the process of reshaping an existing market by departing from the conventional strategies for rivalry [8]. It is about coming up with fresh approaches to add value for customers by departing from prevailing industry standards and procedures. 3) Tag line. A tagline can be employed to convey the special value proposition of a business or product in a way that sets it apart from rivals [9]. A company's tagline can assist in establishing a memorable and emotional connection with its target market and in effectively communicating its distinctive value proposition.

The Blue Ocean Strategy represents a novel strategic concept, inherently equipped with analytical tools including the strategy canvas and the Four Actions Framework [10]. The Four Actions Framework is designed to reconstruct buyer value factors, break the trade-off between differentiation and low cost, and reshape a new value curve. Companies employ the four steps of eliminate, reduce, raise, and create to reconfigure competitive factors, as illustrated in Figure 1. The first step is elimination: removing competition factors that no longer offer value but have been long assumed as essential due to industry competition. The second step is reduction: considering whether products or services are overdesigned, which increases costs and decreases profit margins, and reducing those factors that exceed customer needs. The third step is to raise: identifying and enhancing those competitive factors that are unique to the company and are key factors in competing with rivals, potentially raising these above industry standards. The fourth step is creation: through industry analysis, discovering competitive factors that can highlight new buyer values and create new demands, thus transcending existing market competition and establishing new market boundaries, ultimately changing industry standards.

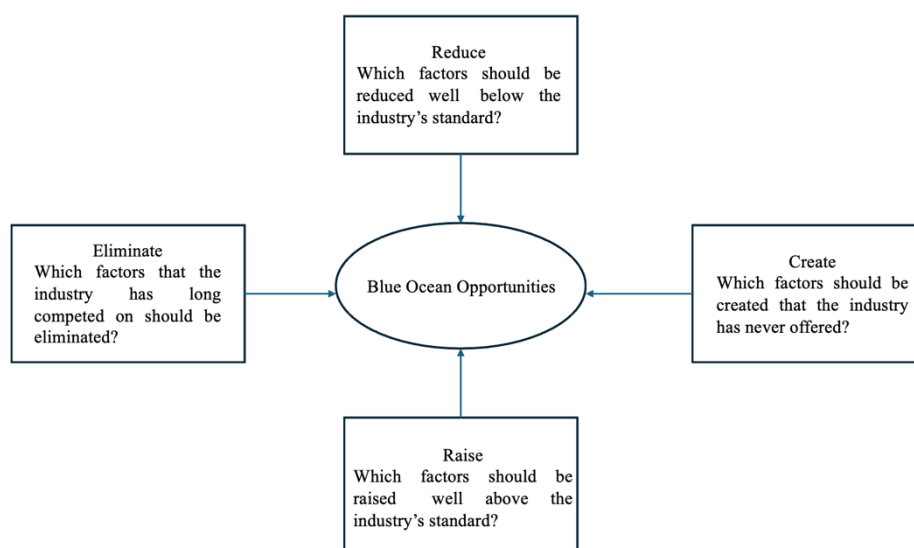


Fig.1 The Four Actions Framework of Blue Ocean Strategy

3. Introduction and strategic analysis of Nueva Pescanova Group, a Spanish seafood company

As material standards improve, consumers demand higher freshness and faster logistics for perishable products, necessitating frequent information exchange among various stakeholders in the fresh produce supply chain. Consequently, optimizing supply chain management has become an inevitable trend for perishable goods enterprises.

Nueva Pescanova Group is a seafood company dealing with products that have an inherently short shelf life. The characteristics of its supply chain in production, transportation, and storage include: (1) High perishability. Seafood products are highly perishable and have a short shelf life. As the circulation time of seafood products increases, their quality and freshness progressively decrease, diminishing their value and quality. (2) Dependence on logistics, requiring stringent storage and transportation conditions. The high perishability of seafood demands a short shelf life, and improper storage and transport conditions can degrade the freshness and quality of the products. (3) The seafood supply chain involves multiple stages and frequent information exchange. An ideal seafood supply chain would deliver products to consumers while ensuring quality and freshness. However, since the seafood process from cultivation to sale involves many individuals and entities with relatively independent operations, achieving information sharing is challenging. It is difficult for businesses to grasp precise changes in market demand, complicating operators' ability to accurately assess the demand for seafood products at different times and places. Additionally, operators cannot promptly be informed about changes in the supply chain, leading to quality loss and increased overall costs. This means operators face asymmetries in demand information, cost information, and freshness, leading to high circulation costs and a complex supply chain.

Therefore, the Blue Ocean Strategy focuses on Nueva firm that adopts the emerging blockchain technology in creating a transparent and secure supply chain management system as this allows real-time tracking of material and goods in the firm, improves accountability and transparency, and reduces the potential for errors and fraud. Blockchain is a digital ledger that is decentralized and tracks transactions among a number of machines. All transactions are recorded in a public ledger that is accessible to everyone on the network and employs cryptography to safeguard the integrity of the data stored on it, it is both secure and transparent. Blockchain, as a shared, immutable database, ensures the authenticity and shareability of data, providing technical support to enhance trust among

supply chain members and the credibility of logistic information [11]. Particularly, the integration of blockchain with big data enables consumers to access authentic information about perishable products and logistics, achieving traceability of product information and real-time tracking of logistic data.

The Blue Ocean Strategy focuses on creating new market spaces by identifying untapped opportunities and creating new demand. In this instance, a new market space is being created as a result of the Nueva company adopting the use of blockchain technology to develop a transparent and secure supply chain management system. The company gain a durable competitive edge over conventional supply chain management systems and attract new clients by implementing this innovative technology. Customers will find this new market area more appealing due to the real-time tracking of materials and goods, enhanced accountability and transparency, and less risk of fraud.

In respect to the Blue Ocean Strategy of employing blockchain technology to replace conventional supply chain techniques, the 3 critical success factors are chosen from Perspective D (Eliminate) as follows:

Inefficiency: Traditional supply chain management methods can be inefficient and prone to mistakes, which can cause delays and higher expenses [12]. Nueva can enhance the efficiency of supply chain operations and save costs for its clients by getting rid of this inefficiency and substituting it with a safe and open blockchain-based solution.

Lack of transparency: Because traditional supply chain management systems tend to be opaque, it can be challenging for businesses to monitor products and materials in real-time and to spot and resolve problems as they develop. By doing away with this lack of openness and installing a blockchain-based system in its place, Nueva can give clients real-time supply chain visibility, increase accountability and transparency.

High costs: Setting up and maintaining traditional supply chain management systems can be expensive. Nueva can provide consumers with a cost-effective solution that assist them in lowering their own costs and enhancing their bottom line by doing away with these expensive prices and replacing them with a blockchain-based system.

From the perspective of enhancement, supply chain management systems based on blockchain technology can effectively ensure the freshness of seafood products. The application of blockchain technology can accelerate transaction speeds, thereby reducing the loss of seafood products during transit. When enterprises implement blockchain technology, the level of preservation efforts reaches its peak, allowing consumers to purchase higher-quality fresh agricultural products and optimizing profits for supply chain businesses.

From the perspective of creation, operators have innovatively proposed solutions to the traceability issues of seafood products. Utilizing the decentralization features of blockchain technology [13], exclusive tags are created for each product, enabling real-time recording and tracking of detailed information about the product. Consumers who purchase products supported by blockchain technology can quickly trace the origin of the products. By providing trustworthy and accessible records for all stages of the product, food safety issues are addressed, and the construction of global traceability standards for the seafood industry is advanced. Thus, the enterprise has innovatively established new industry standards and rules.

4. Conclusion

The Blue Ocean Strategy, as applied to Nueva company, is competing at a higher level than the Red Ocean Strategy because it aims to create a new market space and new demand in the field of supply chain management. Nueva is addressing the demands of small and medium-sized enterprises that are searching for a more effective and secure way to manage their supply chain by utilizing blockchain technology to develop a secure and transparent supply chain management system. With this strategy, Nueva may set itself apart from conventional supply chain management programs and establish a long-lasting competitive edge. Compared to typical businesses that are vying for a piece of the existing market, Nueva has a better chance of success and long-term growth and profitability

by focusing on a new market sector and developing new value for its consumers. Additionally, Nueva might be launching a brand-new sector where competitors would have to adjust to a different method of supply chain management, giving the company a first-mover advantage and a larger market share. Contrast this with red ocean businesses, which are engaged in fierce competition for a small market share while attempting to minimize their expenses.

References

- [1] Kim W C, Mauborgne R. Blue Ocean Strategy, expanded edition: How to create uncontested market space and make the competition irrelevant. Brighton: Harvard business review Press, 2014.
- [2] Kim W C. Blue Ocean Strategy: From Theory to Practice. California Management Review, 2005, 47(3): 105-121
- [3] Bourletidis D. The strategic model of innovation clusters: Implementation of blue ocean strategy in a typical Greek region. Procedia-Social and Behavioral Sciences, 2014, 148: 645-652
- [4] Leavy B. Value innovation and how to successfully incubate “blue ocean” initiatives. strategy & leadership, 2018, 46(3): 10-20.
- [5] Wang. J, Wu. H. "Economic Interpretation of Blue Ocean Strategy." China Industrial Economics, 2007 (05): 88-95.
- [6] Dai. L. "Analysis of Value Innovation Based on Blue Ocean Strategy." Economic Research Guide, 2008 (12): 15-17.
- [7] Hossain, M. S. Practices of Blue Ocean strategy in mobile financial sector of Bangladesh–A study of bKash, Doctoral dissertation, University of Dhaka.2020
- [8] Lumenkoski, H.Design thinking tools in creating business growth: Case Canon Oy, printing service for micro companies. 2020
- [9] Itam, U., Misra, S., & Anjum, H.HRD indicators and branding practices: A viewpoint on the employer brand building process. European Journal of Training and Development, 44(6/7), 675-694.
- [10] Kim W C, Mauborgne R. Blue, Blue Ocean Shift, Zhejiang, Zhejiang University press, 2018
- [11] Kim H M.Laskowski M.Blockchain: promise of economy, sustainability, and transparency for global food production.Social Science Electronic Publishing, 2017, 13(9): 729-743
- [12] Shemov, G., Garcia de Soto, B., & Alkhzaimi, H. (2020). Blockchain applied to the construction supply chain: A case study with a threat model. Frontiers of Engineering Management, 7(4), 564-577.
- [13] Chod J, Trichakis N, Tsoukalas G, et al. On the financing benefits of supply chain transparency and blockchain adoption.Management Science,2020,66(10): 4378-4396.