Strategic Move towards Omni-channel Retail Layout: Amazon's Acquisition of Whole Foods

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Abstract. The digital transformation of the global retail industry is accelerating, and the integration of omni-channel has become a core trend. Against the backdrop of digital transformation, Amazon's acquisition of Whole Foods Market in 2017 marked a pivotal move in its strategy to establish an omni-channel retail network. This study examines the strategic logic and implementation effectiveness of Amazon in achieving an omni-channel retail layout following its acquisition. The significantly enhanced revenue scale and operational efficiency of the enterprise reflect that the omni-channel retail layout has become the core path for enterprises to break through growth bottlenecks. In response to the challenges that emerged during the process of achieving an omni-channel retail layout, this study also proposes a "strategy-technology-operation" three-layer collaborative model, providing a full-chain innovation framework for retail enterprises from scene digital mapping, reverse empowerment of the supply chain to touchpoint function reengineering. Furthermore, this model promotes the development of omni-channel retailing from an advocated concept to a quantifiable and replicable scientific stage.

Keywords: Omni-channel Retail, Acquisition, Three - Layer Collaborative Model.

1 Introduction

Under the sweeping tide of digitalization, the global retail industry is undergoing profound changes [1]. The rapid development of Internet technology has led to the rapid rise of the e-commerce industry, which has become an indispensable force in the retail sector. However, the vigorous development of e-commerce has also had a huge impact on traditional brick-and-mortar retail [2]. Physical retail is facing multiple challenges such as decreasing customer traffic, declining sales, and rising rent costs. In this context, omni-channel retailing as a new retail model integrating online and offline channels has emerged. The omni-channel retailing model is centered on consumers and is supported by new technologies such as mobile internet and social media, which innovate and optimize traditional marketing methods. Compared with the traditional sales model, the omni-channel retail model places greater emphasis on consumers' individualized needs and experience [3]. Because through establishing a unified back-end management system and data analysis platform, the omni-channel retail model can precisely

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grasp consumer demands, optimize product allocation, and enhance operational efficiency [4]. Therefore, the in-depth development of the omni-channel retail model will become an important measure for the retail industry to achieve structural upgrading and enhance competitiveness. And the case of Amazon's acquisition of Whole Foods Market holds significant reference value. In 2017, Amazon announced the acquisition of Whole Foods for 13.7 billion US dollars, which marked an important milestone in the development history of the retail industry. By acquiring Whole Foods, Amazon not only obtained its extensive offline physical network, mature supply chain system and loyal customer base, but also was able to quickly establish a presence in the offline retail sector and accelerate the implementation of its omnichannel retail strategy.

Guided by the theoretical framework of the omni-channel retail model, this study deeply analyzes the typical case of Amazon's acquisition of Whole Foods, comprehensively revealing its background, strategic logic, achievements and challenges in the omni-channel retail layout, and providing valuable theoretical references and practical guidance for retail enterprises in the field of omnichannel retail development.

Existing literatures indicate that omni-channel retailing can enhance brand experience satisfaction and help enterprises optimize their operations. They also introduce the main methods of enterprise mergers and acquisitions, and take Amazon's acquisition of Whole Foods Market as an example to illustrate the key role of this vertical acquisition of Whole Foods Market in advancing Amazon's omni-channel retailing strategy.

The current research in the field of omni-channel retailing has some shortcomings, including not clearly defining the data collection strategy for offline scenarios, lacking a practical framework for the transformation of offline supply chains through e-commerce technology, and failing to provide solutions for the disconnection of cross-channel experiences due to the lack of linkage design between offline touchpoints and online algorithms. This study will establish a three-layer collaborative model of 'strategy - technology - operation' for the innovation of omni-channel retail layout. (1) Strategic level: Utilizing Internet of Things technology to digitally map offline scenarios, converting stores into data collection nodes for consumer behaviors. (2) Technical Layer: Leveraging the big data prediction capabilities and intelligent scheduling capabilities of e-commerce platforms, the offline supply chain is transformed into a “predictive distribution” model. (3) Operational Layer: Transform the stores into a three-in-one composite touchpoint of “experience - fulfillment – data”. This model offers a complete chain of innovative solutions for retail enterprises, from the theoretical framework to the implementation path, promoting the industry to undergo a deep transformation from channel addition to ecological integration.

2 Case Analysis

2.1 Case Background

The competition between e-commerce and physical retail is becoming increasingly fierce. The online traffic advantage is gradually fading, physical retail is under pressure for digital transformation, and consumers' demands have shifted from simple shopping

to diversified and personalized experiences [5]. Although Amazon holds a dominant position in the e-commerce and online retail sectors, its offline business is relatively weak. Whole Foods opened in Austin, Texas in 1980 and achieved global success rapidly by developing a brand based on the concept of providing products that are beneficial to you, the environment, and society [6]. However, as the retail market developed, large chain retailers such as Walmart, Costco, Target, and Kroger have launched similar products and services at more competitive prices to attract consumers, and fierce competition has led to a decline in Whole Foods' performance [7]. In June 2017, the American e-commerce giant Amazon announced a full-cash acquisition of Whole Foods Market, known for its natural and organic food business, at $42 per share, with a total price of nearly $137 million [8].

When studying the development of enterprises' omni-channel retail models, the case of Amazon's acquisition of Whole Foods is particularly representative. This case occurred at a crucial juncture of the deep competition between online and offline retail. As a global e-commerce giant, Amazon urgently needed to obtain new user touchpoints and consumption scenarios through physical channels. Whole Foods, as a benchmark for offline organic food retail, also needed to embrace the digital transformation of e-commerce. The combination of the two directly reflects the trend of industry integration. This case also fully demonstrates the core driving role of technology in omni-channel retailing. The technological innovations promoted by retailers, such as Amazon's Alexa, Amazon Go, and big data analysis systems, have created an omni-channel journey and reshaped the shopping experience [9]. Meanwhile, the relevant data of this case is disclosed in large quantities in the company's financial reports, industry reports, and market research. The richness and openness of the data facilitate researchers to conduct quantitative analysis and verification of the effect of the omni-channel retail layout from multiple dimensions such as financial indicators, user behavior, and operational efficiency.

2.2 Amazon's Strategic Logic of Omni-channel Retail Layout

Expand Market Channel. Amazon's acquisition of Whole Foods is a significant strategic move for it in expanding its market channels. This move marks Amazon's official entry into the physical retail market and promotes integration of online and offline channels. Amazon's acquisition of Whole Foods has accelerated its offline expansion, enabling it to achieve a larger-scale physical store layout in terms of geographical regions and market segments [10]. In the online channel, Amazon possesses advanced e-commerce platforms, strong technical capabilities and rich online operation experience. By introducing the products and services of Whole Foods Market onto the online platform, Amazon has provided consumers with a wider range of choices. In the offline channel, the stores of Whole Foods Market have offered Amazon a physical display and sales venue. Amazon has utilized the stores of Whole Foods Market to carry out a series of innovative offline businesses. In the stores of Whole Foods Market, an area for showcasing Amazon's intelligent devices has been set up, where Amazon's smart speakers Echo, tablet computers Fire Tablet, and other products are displayed and sold.

This indicates that Amazon intends to integrate such voice-controlled devices into consumers' purchasing behavior [11]. In some stores, Amazon's parcel storage cabinets have been installed to facilitate consumers' self-pickup of purchased products or returns, further enhancing the convenience and service quality of offline shopping [12].

Meet Consumers' Demands. In its omnichannel retail layout, Amazon always takes meeting consumers' demands as its core goal. Through a series of measures, it provides personalized services and convenient shopping experiences for consumers. The realization of personalized services cannot do without the support of big data analysis technology. Relying on its strong technical strength, Amazon collects and analyzes consumers' shopping data in various channels, including browsing records, purchase history, search keywords. Through in-depth mining of these data, Amazon can accurately understand consumers' preferences, demands and purchasing habits. The creation of a convenient shopping experience is reflected in many aspects, and the seamless integration of online and offline is one of the key links. More than 800 Whole Foods Market products are available on the Amazon Fresh page, and these products can either be delivered by Amazon Fresh or picked up at Amazon Fresh Pickup stores. The omnichannel membership service is also an important measure to meet consumers' needs. Amazon has integrated the Prime membership service with the membership benefits of Whole Foods, providing members with more discounts and privileges. Besides, Amazon Prime members get the exclusive benefits of free and fast shipping which enables them to expedite the delivery of products they ordered on Amazon. The free and fast shipping and delivery save both time and money [13]. This omni-channel membership service not only enhances consumers' loyalty but also improves their shopping satisfaction.

2.3 The Effect of Omni-channel Retail Layout

Revenue directly reflects the impact of the omnichannel strategy on the business scale. Net income is the core indicator for measuring the level of profitability, and it can verify the profitability of the business model. Inventory turnover ratio focuses on improving operational efficiency. Therefore, by using these three financial indicators, can explore the effectiveness of Amazon's implementation of the omnichannel retail strategy after the acquisition.

In terms of revenue shown in Figure 1, the integration of Whole Foods Market has provided Amazon with new revenue growth points. According to Amazon's revenue data, the total revenue in 2017 was $177,866 million, and in 2018, this figure increased to $232,887 million, with a growth rate of 30.93%. In 2019, it further increased to $280,522 million, with a growth rate of 20.45%. Whole Foods Market not only expanded Amazon's business scope but also, to a certain extent, promoted the growth of Amazon's total revenue.

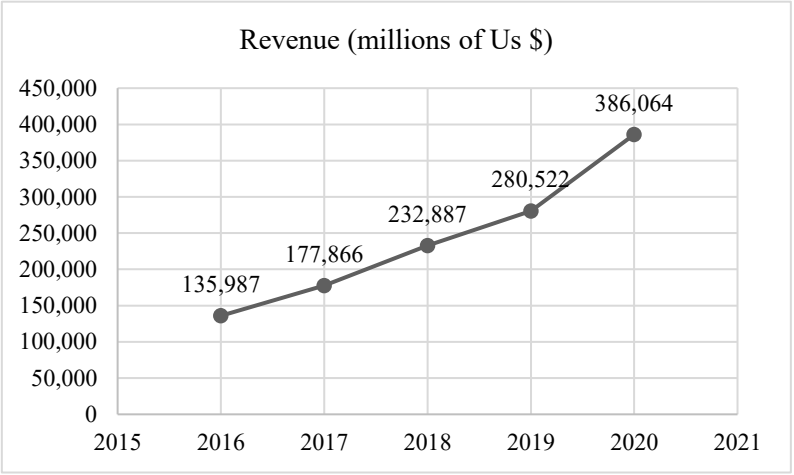

Fig. 1. Revenue (millions of US $)

The net income indicators shown in Figure 2 also reflect the positive impact of the acquisition. In 2017, Amazon's net income was $3,033 million. In 2018, it increased significantly to $10,073 million, with a growth rate of 232.11%. In 2019, the net income further increased to $115.88 million, with a growth rate of 15.04%. The achievements of Whole Foods in cost control and operational efficiency improvement have played a driving role in the profit growth of Amazon. Through Amazon's advanced supply chain management and cost control strategies, the operating costs of Whole Foods have been effectively reduced, thereby improving the overall profit level.

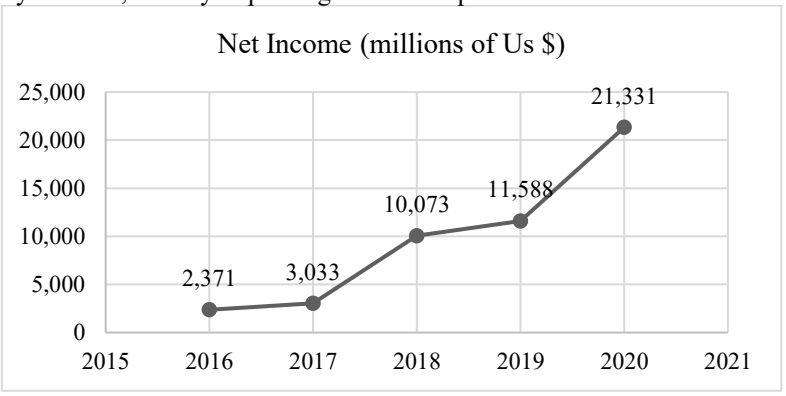

Fig. 2. Net Income (millions of US $)

The inventory turnover rate shown in Figure 3 is one of the important indicators for measuring the operational efficiency of an enterprise. After acquiring Whole Foods Market, Amazon achieved the optimization of inventory allocation and efficient turnover by integrating the supply chain and inventory management systems of both parties. In 2017, Amazon's inventory turnover rate was 8.1x, which increased to 8.4x in 2018

and further rose to 8.8x in 2019. The improvement of inventory turnover rate means that Amazon can convert inventory into sales revenue more quickly, reduce inventory backlog, and enhance the efficiency of capital utilization, thereby strengthening the operational efficiency and profitability of the enterprise.

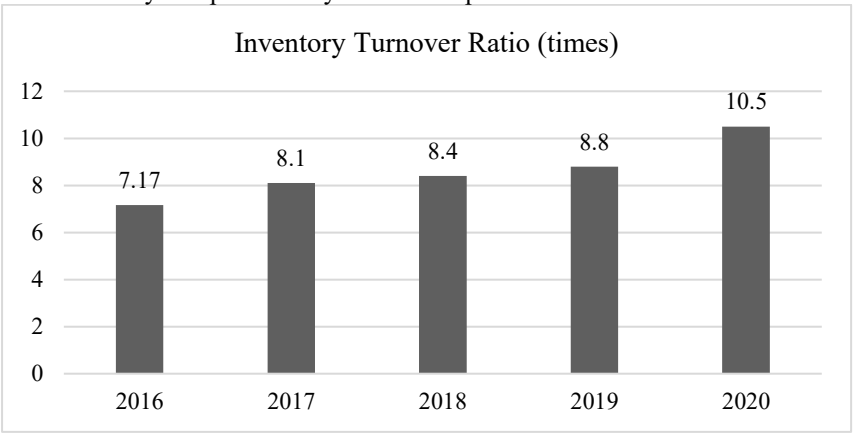

Fig. 3. Inventory Turnover Ratio (times)

In the long run, these changes in financial indicators reflect the strategic value of Amazon's omni-channel retail strategy. As the integration of online and offline continues to deepen, Amazon can better meet consumers' needs, enhance its market competitiveness, and achieve sustained growth in revenue and profits. Through its offline stores in Whole Foods Market, Amazon can improve the delivery efficiency of fresh food and other goods, meet consumers' demand for immediate shopping, attract more consumers to choose Amazon's services, and thereby promote the long-term stable development of the business.

3 Discussion

3.1 Challenges in Achieving Omni-channel Retail Model

The practice of acquiring Whole Foods from Amazon has revealed that an omni-channel retail layout has become a crucial factor for the retail industry to break through development bottlenecks and enhance competitiveness. However, expand the perspective to whole entire retail industry , enterprises still encounter many common challenges during their efforts to transform into an omni-channel model.

Currently, there is a problem of the separation between online and offline channels in the retail industry. Over 60% of retail enterprises still have separate online and offline operation teams, lacking a unified management structure, which makes it difficult to unify sales strategies and service standards. This may result in having different product ranges, offers and price levels across the various channels, which may be frustrating for

omni-channel customers [14]. Additionally, the footfall data of offline stores is disconnected from the online recommendation algorithm, making it impossible to achieve a closed loop where offline behaviors can feed back to the online strategy. This may also make it difficult to support real-time inventory synchronization. Furthermore, the current application of existing technologies is still at the initial stage of transferring online tools to offline operations, and there is a lack of reverse transformation of e-commerce technologies to the offline supply chain. For instance, most traditional retail enterprises merely utilize big data for sales statistics purposes, without implementing the prediction and distribution of goods based on demand. At present, the majority of retail enterprises still have their offline stores focusing solely on 'goods sales', lacking the integrated design of "experience-fulfillment-data". This monotonous functionality directly leads to the fragmentation of the omni-channel experience.

3.2 The Implementation Path of the "strategy-technology-operation" Three-layer Collaborative Model

The "strategy-technology-operation" three-layer collaborative model innovatively developed in this study provides a complete solution from strategic positioning to technology implementation and operational optimization for the omni-channel layout of the entire retail industry. It promotes the development of omni-channel retail from the concept of advocacy to a quantifiable and replicable scientific stage.

At the strategic level, adopt the strategy of mapping offline scenarios onto the online platform. Retail enterprises deploy IoT sensors (such as shelf pressure sensors and motion line cameras) to collect consumer behavior data in offline stores (such as the duration of stay and the purchasing path), and then synchronize the data in real time to the cloud data platform through edge computing. This strategy can provide offline data support for the personalized recommendation algorithm of online shopping malls.

At the technical level, the reverse transformation of the offline supply chain is promoted through e-commerce technologies (such as big data prediction and intelligent scheduling), achieving an industry-wide upgrade from reactive operations to predictive operations. Retail enterprises, based on the consumption data accumulated through e-commerce platforms (such as regional consumption preferences and seasonal fluctuation patterns), use machine learning algorithms to predict the demand for goods at each store, upgrading the traditional "restocking after sales" model to a "stocking in advance of demand" model. Furthermore, the minute-level distribution algorithm for e-commerce logistics is applied to offline stores to achieve intelligent scheduling optimization. Through the reinforcement learning algorithm, it plans the "picking-packaging-delivery" route, significantly reducing the delivery time of goods.

At the operational level, it overturns the traditional positioning of 'single sales function' for offline stores, and urges retail enterprises to restructure their stores into a three-in-one composite touchpoint of "experience-fulfillment-data". Retail enterprises set up intelligent equipment experience areas in their stores. Consumers can inquire the information of products or directly place orders for exclusive products online, achieving "offline experience + online conversion". Transform the store into a "pre-order center

+ pickup point", allowing consumers to choose either in-store pickup or immediate delivery after placing an order online, thereby expanding the fulfillment function. Finally, through the integration of electronic price tags and mobile payment, consumers can scan the code to view data such as online reviews and sales volume of the products. After making the payment, the shopping records will be automatically synchronized to the brand account, forming a closed loop of "offline transactions - online data accumulation".

4 Conclusion

Under the background of the growing trend of omni-channel retailing, the case of Amazon's acquisition of Whole Foods holds significant benchmarking value for the transformation of global retail enterprises. After analyzing the cases, this study reaches the following conclusions. The omni-channel retail model, by integrating online and offline resources, has become a key measure for the retail industry to break through growth bottlenecks. From case studies, it not only significantly enhances the revenue and operational efficiency of enterprises, but also fundamentally restructures the "consumers, goods, and stores" relationship, verifying the decisive role of this model in improving industry competitiveness. Secondly, Amazon's practice of achieving an omni-channel layout through the acquisition of Whole Foods indicates that retail enterprises need to break through the traditional channel segmentation and promote transformation with resource integration and technology empowerment as the core. Finally, based on case analysis and the challenges of the retail industry, this study proposes a "strategy-technology-operation" three-layer collaborative model to achieve full-chain collaboration from strategic positioning to technology implementation.

The future omni-channel retail model will evolve towards a more intelligent, more collaborative and more sustainable direction. Enterprises need to further enhance their capabilities in technological integration and data-driven approaches. By leveraging cutting-edge technologies such as artificial intelligence and the Internet of Things, they can achieve intelligent forecasting and dynamic allocation of the entire channel supply chain, thereby improving operational efficiency. At the same time, will deepen the collaboration between online and offline teams, establish a unified service standard centered on consumers, and solve the problem of fragmented user experience. Furthermore, the industry should accelerate the formulation of unified standards for omni-channel retail, promote the construction of green supply chains and the popularization of services, jointly address challenges related to data security and cost control, and ultimately achieve innovative breakthroughs and sustainable development of the omni-channel retail model in the global retail market.

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