

RESEARCH ON COMPLEMENTARITY BUSINESS MODEL OF FRESH E- RETAILER DRIVEN BY CONSUMERS' DEMAND: A CASE STUDY BASED ON THE COOPERATION BETWEEN YIGUO AND XIACHUFANG

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ABSTRACT

Monotonous product providing of fresh e-retailer is difficult to meet consumers' higher demand for fresh agricultural products and related service, which means fresh e-retailer needs to make innovation through cooperation to improve the quality of fresh agricultural products and services. Taking the cooperation between Yiguo(fresh e-retailer) and Xiachufang (online social community platform) as a typical case, we collect multiple sources of related data and use ground theory approach to process it. Through data analysis, we show how fresh e-retailer realizes her business model innovation in a complementary way based on consumers' demand. Moreover, we obtain four elements (value proposition, key resources, key processes, profit model) of fresh e-retailer complementarity business model. The value proposition is realized by providing customized fresh agricultural products and services or carrying out content marketing strategy. Key resources needed by fresh e-retailer and her partners mainly includes fresh supply chain resources and social networking operation resources. Key processes based on key resources consist of consumers' demand expression, consumers' demand acquisition and consumers' demand satisfaction. Profit model, the evidence of value acquisition realization, is optimized by innovating revenue pattern and adjusting cost structure. On this basis, the operation mechanism has been induced by analyzing the interrelationship of the four elements deeply.

Keywords: Fresh agricultural supply chain; business model innovation; e-retailer; case study

1. INTRODUCTION

Consumers' demand for fresh agricultural products and related services gets increasingly higher with the living standard improvement. New demand that includes more individualized set meals customization, more transparent food safety traceability, and more specific recipes guidance

has been put forward to fresh e-retailer. Moreover, due to the perishability of fresh agricultural products and the complexity of fresh agricultural product supply chain, fresh e-retailer is not able to meet consumers' higher demand by herself. In order to provide consumers with what they need, fresh e-retailer needs to look for partners and cooperate with them to build a new business model. On the one hand, fortunately, fresh agricultural products industry business linkages between the upstream, the downstream and fresh e-retailer are strong. On the other hand, the supply chain cooperation has a significant impact on external and internal learning and innovation as well as internal learning of the supply chain is found to have a significant direct impact on firm performance (Khan & Wisner, 2019). On this basis, fresh e-retailer will easily find partners and cooperate with them, through which homologous consumer groups and related resources and capabilities can be utilized to provide better fresh agricultural products and services.

Under cooperation innovation tendency, fresh e-retailer cooperates with different enterprises in the industry, which is good for better utilizing existing resources and integrating external resources to innovate business model and create value. Generally, complementary cooperation is a good and emerging business model for fresh e-retailer looking for innovative development. And we will use case research to study how fresh e-retailer cooperates with others in a complementary way.

2. LITERATURE REVIEW

There are three streams of literature closely related to our research issue. The first stream of literature investigates the fresh e-retailer business model. For example, Dan et al (2017) proposed the presale business model of fresh agricultural products supply chain based on consumers' crowdsourcing. The second stream of literature on cooperation between main bodies of fresh agricultural product supply chain and on fresh e-retailer how to realize business model innovation through cooperation. Cai et al (2013) proposed two coordinating contracts between fresh agricultural product producer and logistics service provider based on the perishability of fresh agricultural products with long-distance transportation; Wu et al (2015) considered logistics service providers' risk preference under channel power structure and set up the corresponding incentive mechanisms. The third stream of literature is about the theoretical results of business model innovation, which is highly related to our research. For example, Liu et al (2016) took Di-Di Taxi as a typical case to explore the business model innovation path and put forward some relevant suggestions. Although Teyarachakul (2018) has considered several different scenarios, such as Ford Motor Company, McDonald, movies, and fashion industries whose products have perishability characteristics to some extent. Obviously, the third stream researches are not suitable for business model innovation of fresh e-retailer.

Given that fresh agricultural products have extremely perishability and non-standardization characteristics, carrying out research targeted for fresh agricultural products is so necessary and meaningful. Therefore we carry out an inductive single-case research to study fresh e-retailer complementarity business model driven by consumers' demand.

3. METHODOLOGY

An inductive single-case research is particularly relevant to this study. Our research question is how fresh e-retailer realizes complementary cooperation with other enterprises in fresh agricultural products industry to innovate her business model based on Internet tool. Case research is good at representing rich phenomena and appropriate for researchers building new theories from complex innovation processes, such as complementarity business process. Matching the method with the question well ensures us to get a clear and deep analysis and some new insights. Therefore, we select a typical case that Yiguo (Chinese fresh e-retailer) cooperates with Xiachufang (Chinese

online social community platform) based on Xiachufang recipe-content community and then Yiguo has built a recipe-content centered business model.

Our research data mainly collects three sources: (1) Interviews obtained first-hand data. (2) Observations for some empirical data. (3) Reports for second-hand data. Drawing on ground theory, we analyze collected data by opening coding, axial coding, and selective coding. Finishing open coding, we have gotten 22 initial categories. And we have gotten 9 subcategories after integrating 22 initial categories. To enhance theoretical sensitivity, we have taken some business model theories (Osterwalder & Pigneur, 2010; Zott et al, 2011) for reference. Coming to selective coding, we match 9 subcategories with value proposition, key resources, related process, and profit model. After coding, we have obtained four fundamental categories shown in Table 1.

Table 1. The results of axial coding

Fundamental categories	Subcategories
Value proposition	Providing fresh agricultural products; carrying out content marketing
Key resources	Fresh supply chain resources; social networking operation resources
Key processes	Consumers' demand expression; consumers' demand acquisition; consumers' demand satisfaction
Profit model	Innovating revenue pattern; adjusting cost structure

4. FINDINGS

4.1 The elements of fresh e-retailer complementarity business model driven by consumers' demand

4.1.1 Value proposition

Value proposition of fresh e-retailer complementarity business model and can be realized by the two subcategories (shown in Table 1). The one, “providing fresh agricultural products” includes two initial categories (“providing products targeted for consumers” and “providing customized products”). After building cooperation with Xiachufang, Yiguo utilizes Xiachufang rich social community content such as "user labels" and "users' behavior data" to mine consumers' demand precisely. Then Yiguo enriches fresh agricultural product supply chain to provide products meeting consumers' demand. The other one, “carrying out content marketing” includes two initial categories (“content providing” and “content dissemination”). Based on user-generated content, Yiguo carries out marketing to improve purchase frequency. Furthermore, based on Xiachufang social community content, Yiguo provides consumers with food matches and cooking guidance.

4.1.2 Key resources

The fundamental category “key resources” includes the two subcategories (shown in Table 1). The one “fresh supply chain resources” includes two initial categories (“full-category fresh agricultural products mix” and “fresh agricultural products circulation control system”). Especially, Yiguo enriches fresh agricultural product categories constantly. Meanwhile, Yiguo utilizes ExFresh (Yiguo subsidiary logistics company) to do product distribution. As for product-related services, Yiguo has customized product processing and packaging. The other one, “social networking operation resources” includes four initial categories (“high spending power consumers,” “vibrant social community atmosphere,” “abundant social community content,” and “strict access mechanism for fresh agricultural products”). Based on the cooperation, Yiguo utilizes Xiachufang active community users to carry out content dissemination. And also, Yiguo utilizes social

community relationship network and vibrant social community atmosphere to generate high-quality content. The user-generated content and product-generated content enhances consumers' word-of-mouth and brand awareness of Yiguo effectively. Most importantly, Yiguo has accessed Xiachufang buyer auditing mechanism and entered Xiachufang platform successfully to realize consumers' migration under cooperation effect.

4.1.3 Key processes

The fundamental category “key processes” includes the three subcategories (shown in Table 1). “Consumers' demand expression” includes three initial categories (“social community content acquisition,” “social community activities participation,” and “individualized demand expression”). Yiguo and Xiachufang attract consumers to participate in offline social community activities and online discussion activities to share product selection skills and cooking experience. After social community activities, consumers have generated some behavior data. “Consumers' demand acquisition” includes two initial categories (“social community content classification” and “consumers' demand mining”). According to food ingredients and user scenarios, Yiguo and Xiachufang classify the obtained social community content into specific ones. Through the classification, they establish portraits of consumer behavior. Using the portraits, they integrate purchasing demand generated in the process of social sharing and comments making. And then they obtain consumers' demand. “Consumers' demand satisfaction” includes two initial categories (“fresh agricultural products supplier matching” and “product-related services and product distribution”). Cooperating with Yiguo, Xiachufang can also provide consumers with product-related services such as processing, packaging, food matches, and cooking guidance. Additionally, ExFresh can ensure product logistics distribution.

4.1.4 Profit model

Profit model is evidence of value acquisition realization for fresh e-retailer and her partners, which usually includes revenue pattern and cost structure (shown in Table 1). “Innovating revenue pattern” includes two initial categories (“revenue from product customization” and “sales income from meeting the demand for the minority”). By taking complementary cooperation in the industry, fresh e-retailer has further obtains the demand of the minority, which has increased her market share effectively. Based on partners' resources, especially the content resources, fresh e-retailer has enhanced her brand recognition effectively. “Adjusting cost structure” includes the initial category “procurement cost.” Knowing sales volume in advance by taking complementary cooperation, fresh e-retailer has reduced the cost of unsalable products and the cost of products shortage generated by miss match with supplying and selling.

4.2 The operation mechanism of fresh e-retailer complementarity business model

Fresh e-retailer business model innovation starts from value proposition innovation. Fresh e-retailer cooperates with others in looking for high-quality fresh agricultural products' origins and in expanding the market channel. Then taking strategic alliance fresh e-retailer realizes the complementarity effect of integrated resources. In reengineering key processes, fresh e-retailer takes consumers' demand as the orientation and centers on consumers' demand. By launching social community activities, fresh e-retailer stimulates consumers' demand expression and then obtains consumers' behavior data. Fresh e-retailer not only collects consumers' behavior data but also analyzes it. In order to meet consumers' demand, fresh e-retailer chooses main supply chain bodies as her partners together to provide consumers with high-quality fresh agricultural products and related services after consumers' behavior data analyzing. By utilizing consumers' stickiness for the

social community, fresh e-retailer reduces the cost of consumers maintaining. Consumer management cost reduction benefits fresh e-retailer to realize the profit model innovation and the cost structure optimization.

Fresh e-retailer has built partnership networks to integrate resources and reengineer business processes, which further reduces operation cost and improve operation efficiency. As for her partners, cooperative benefits are the enhancement of brand recognition, the value realization of products and services, and the operation efficiency improvement. Driven by cooperative benefits, fresh e-retailer can further reconsider and re-explore the original supply of products and services. By the retrospective action, fresh e-retailer seeks a new strategic position that centers on new demand, through which the supply of innovative products and services are followed. Consequently, fresh e-retailer has deepened her value proposition innovation.

5. CONCLUSIONS

Taking the inductive single-case research, we have explored fresh e-retailer complementarity business model driven by consumers' demand. And also, we have identified four composing elements of the business model are value proposition, key resources, key processes, and profit model. Furthermore, by deeply analyzing the relationship among those four elements we have induced an innovative operation mechanism of the complementarity business model, that is 'Fresh e-retailer starts complementarity business model innovation from value proposition innovation; in order to realize value proposition innovation, fresh e-retailer needs to carry out key resources integration; the integrated key resources support fresh e-retailer to reengineer key processes to meet consumers' demand; having reengineered key processes means fresh e-retailer realizes her profit model optimization; furtherly, based on the profit model optimization, fresh e-retailer has much ability to deepen value proposition innovation.' Interestingly, we have found a cycle of business model innovation that is from value proposition innovation to key resources integration to key processes reengineering to profit model optimization and then back to value proposition innovation.

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