

Analysis of the Transformation of the Department Store Industry under the Digital Economy

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Abstract: In the wake of rapid technological advancements, the digital economy has witnessed substantial growth, profoundly impacting the retail sector. Among the key players in the retail industry, department stores have emerged as significant participants in the ongoing process of digital transformation, navigating a landscape rich with both opportunities and challenges. Within digital economy, department stores have faced new challenges and competition, but also found new success in adapting to the technology driven “new retail” model. This study delves into the realm of department stores’ digital transformation, amalgamating insights from literature review and current market analyses. By doing so, the research investigates the present landscape of digital transformation within department stores, dissects the underlying factors propelling this shift, and deliberates potential pathways for future enhancement. This paper finds that department stores confront challenges while actively aligning themselves with the evolution of the digital economy. This necessitates department stores to proactively recalibrate their developmental strategies.

Keywords: digital economy, department store, “new retail”, omnichannel marketing

1. Introduction

In light of the growing digitization of society propelled by the accessibility of affordable technology and the ubiquity of the internet, department stores have undergone substantial alterations. These changes have been imperative to navigate the transition into emerging markets, increasingly shifting toward a digital economy [1]. However, this metamorphosis isn’t a linear and gradual process, much like the broader digitalization of society, which also encounters abrupt and formidable shifts and challenges. A striking instance of this rapid transformation can be observed in China—a nation that has not only rapidly embraced and integrated novel technologies but has also experienced an unparalleled period of social reform catalyzed by the advent of the COVID-19 pandemic. Amidst such circumstances, the department store industry in China has exhibited resilience and harnessed newfound vigor within the contours of the digital economy. This article will explore the contemporary state of digital transformation within department stores through a comprehensive review of existing literature. It aims to comprehend the driving forces behind the evolution and transformation of department stores while presenting strategies for future enhancement.

2. Evolution of Department Stores Within Digital Economy

2.1. Definition of the Digital Economy

Digitalization of the retail industry is a relatively recent development, with the surge of the first online consumer-facing retail platforms dating back to the late 1990s [2]. Such development was not made possible with the development of the online market space alone; the development of secure internet communication technologies such as SSL provided the necessary tools for broader adaptation of internet communications, such as digital payment services. Therefore, the digital economy is a complex system consisting of intricate parts. Therefore, effectively incorporating e-commerce technology into traditional businesses necessitates the acquisition of an entirely new skill set, essential for establishing a fully operational digital enterprise. In the current landscape of the digital economy, the execution of business operations demands the reimagining and reimplementing of numerous facets that were once intrinsic to physical businesses. This adaptation is essential to harness the full spectrum of advantages offered by the digital economy. The tide of market demand has gravitated towards the concept of “new retail,” characterized by the seamless integration and synchronization of online and offline consumer experiences. However, these shifts entail intricate investments of both time and resources that businesses must carefully contemplate as they assess the prospects of venturing into online expansion. Paired with these investments lie promising prospects for sustained expansion. Despite recent economic setbacks stemming from the pandemic, the online retail industry has exhibited a consistent uptick in sales. Notably, in China, the total revenue from online sales experienced a remarkable growth trajectory— increasing 10.9% in 2020, 14.1% in 2021, and 4% in 2022 [3].

2.2. History of Department Stores and New Challenges

China’s department store industry has experienced five stages. The first quick expansion stage spanned from 1978 to 1991, where small shops grew into larger self-operating department stores with the available selection of products becoming more diverse due to the openness in the domestic market. The second stage included different forms of department stores such as general shopping malls and outlets during 1992 to 2000. Afterwards, between 2001 and 2008, the entering of foreign capital opened up the third stage with the emergence of the digital form of department stores. The fourth stage from 2009 to 2017 kept both in-person and online forms, while technology including mobile payment, allowed online retail to develop even more and operate separately from in-person retail. The fifth stage started from 2018 and has lasted till now, where the digital economy has been enhanced by the improved digital infrastructure and pushed by the COVID-19, motivating the merge of in-person and online channels resulting in the popularization of omnichannel marketing [4]. As the digitalization of the department industry picks up momentum during the fifth stage with the growth of modern technology, both businesses and the government began to focus on revolutionizing the online market to be popularized within the general public. In recent times, there has been a notable transition towards the innovative new retail model, characterized by the infusion of novel e-commerce technologies into the conventional retail landscape [5]. This transformation has ushered in an evolution that surpasses the realms of omnichannel marketing. It amalgamates physical and online consumer experiences to introduce an even more seamlessly integrated hybrid model. The surging popularity of online platforms has given rise to a diverse marketplace characterized by escalating levels of supply. This phenomenon grants consumers an expansive array of options to select from, coupled with the assurance of readily available goods. However, this surge in supply concentration challenges the inherent advantages of department stores, which traditionally served as centralized hubs for consumerism.

3. Innovation and Development of China's Retail Industry

Confronted with emerging competition within the retail industry, it becomes an inevitable outcome for department stores to experience a decline in sales. Illustrating this with the renowned Wang Fu Jing consumer hub in Beijing, the department stores within this prominent tourist destination have witnessed a consistent decline in overall profits over the years. In 2014 alone, the revenue plummeted by 7.64%, while net profits experienced a substantial drop of 8.36% [2]. Among the diverse categories of department stores, those specializing in luxury brands and fashion encountered the most pronounced drop in sales. This downward trend subsequently led to a reduction in the establishment of new physical stores [5]. Previously, these businesses heavily relied on in-person visitors who predominantly engaged in the consumption of such products through immersive in-person experiences. In order to flourish within the realm of online platforms, such establishments must innovate to cultivate digital demand for their offerings, which were formerly bolstered by captivating display shelves.

3.1. Innovation and Expansion of Online Platforms

The tangible allure of in-person shopping remains an aspect that eludes replication by online department stores. To preserve their distinct advantages in the e-commerce arena, department stores have undertaken innovative measures to enhance the convenience of the online shopping experience through novel software and services. In China's context, the department store sector has showcased the successful integration of new business models. Live stream e-commerce and mini program or Weixin official accounts platform marketing have emerged as noteworthy strategies. Live stream e-commerce, facilitated by platforms like TikTok, empowers influencers to endorse products in real time, enabling consumers to purchase directly from social media. Impressively, a significant 84% of digitally transitioning businesses have embraced live stream marketing strategies (Figure 1), harnessing the momentum of this swiftly growing industry to effectively promote their offerings and streamline the consumption process [6]. Mini programs and Weixin official accounts platform are both unique software built into WeChat, which help make the consumer experience even more effortless. By implementing their e-commerce platforms directly into WeChat, department store businesses are able to utilize resources such as WeChat pay, consequently making online transactions more easy and secure. By the year 2022, a staggering 96.7% of online department stores have seamlessly integrated their business operations within their mini program or Weixin official accounts platform (Figure 2) [6].

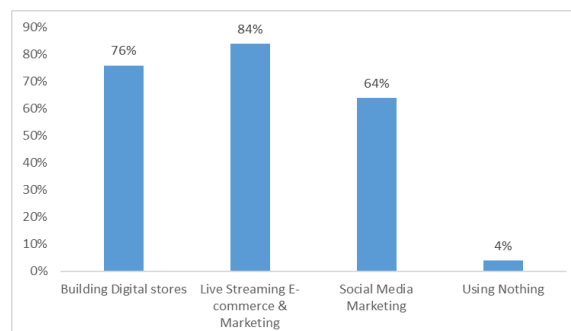


Figure 1: Methods Used by Department Store Adapting Digital Strategies [6].

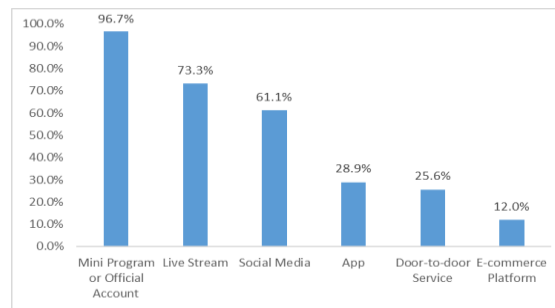


Figure 2: Main Online Service Provided by Department Stores [6].

3.2. Changes in Department Store Operations and Target Demographics

Beyond the evolution of service models to suit the digital economy, there has been a consequential shift in the operational priorities of department stores, particularly within the realm of high-end luxury establishments. This transformation is notably prominent due to the transition from an in-person consumer base to a digital one, prompting a strategic emphasis on membership. Within this framework, department stores have directed their focus towards a membership-centric approach. Among businesses with membership systems, an intriguing pattern emerges: the contributions to total profits from members vary across membership tiers. Approximately 85% of normal members (V1) contribute up to around 12.1% of total profits from members, whereas for mid-tier members that consist of about 15% of the members base, they contribute up to 88% of all membership sales. For the top-tier members (V6) that make up only 0.1% of the member base, they contribute a surprising 13% of all member sales [7]. These statistics underscore the heavy incentive for online businesses to concentrate on nurturing member loyalty, given that sustained consumption from this segment offers a steadfast and dependable source of revenue for online department stores. Furthermore, most physical locations have implemented omnichannel retailing, connecting their existing physical business with online platforms, effectively providing new services such as in-store pickup and online purchase of in-person merchandise. Through these services, physical stores are optimized to serve as distributed storage hubs. Simultaneously, online platforms continue to reap the benefits of advertising effects stemming from the experiential consumer encounters within physical stores.

3.3. Challenges in Digital Transformation of Department Stores

While the department store industry has indeed discovered new avenues of success through innovative strategies, it is crucial to acknowledge that this evolution has unfolded as a time-intensive endeavor. The journey demands the involvement of highly skilled professionals adept at crafting and implementing sophisticated software solutions to facilitate seamless online business operations. In the year 2020, a significant 53% of businesses that hesitated to embrace a digital operating model cited a dearth of human resources as a barrier to effecting such a transformation. Among the companies seeking to transition to the digital realm, 32% opted to engage external resources, while the remaining portion chose to pursue internal avenues by upskilling and training their existing employees (as depicted in Figure 3) [7].

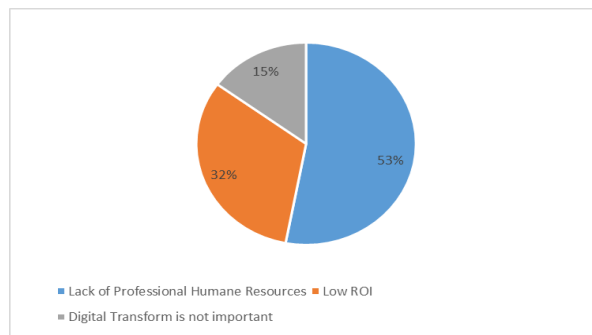


Figure 3: Difficulties of Digital Transform for Department Stores [7].

These trends encompass the broader landscape within middle to large-scale department store corporations. However, the scenario for smaller businesses introduces a distinct challenge: the potential for unsuccessful transitioning to the online market. This transition necessitates a considerable level of investment. Succeeding in the already bustling and fiercely competitive e-commerce sphere mandates strategic marketing initiatives and substantial investments in advertising. Consequently, smaller businesses often grapple with diminished motivation to undertake such endeavors. Meanwhile, larger establishments encounter their own set of challenges in navigating the complexities of transitioning to the online domain.

4. Analysis of Market Transformation Drivers

4.1. Competitive Pressure

Before the COVID-19 pandemic, rapid development of e-commerce has already occupied a significant portion of the retail market demand. From 2012 to 2015, 138 department stores, 262 supermarkets, and 6209 branded sports good stores closed due to a decline in profitability from the competition of online platforms [8]. Large department store establishments are encountering a parallel trajectory, as evidenced by the closure of 23 branded department stores in 2014. This number escalated to 45 closures in 2017, notably including the prominent Wan Da corporation, which shuttered 48 locations in 2015. These closures can be attributed to a range of pressures, notably the shift in cash flow dynamics and evolving market dynamics [9]. When presented with the choice between visiting a physical store or an online shop, the inherent advantages of online shopping exert significant pressure on department store businesses.

4.2. Government and Policy Influence

With the e-commerce sector assuming a pivotal role in the revenue streams of numerous businesses, the Chinese government proactively intervened by enacting laws and policies to bolster and regulate online business operations. By 2016, a range of laws and policies were already established to delineate the operational framework of e-commerce and to oversee business conduct. The government further solidified its commitment to this realm by passing additional legislation that elucidated regulations governing e-commerce behavior, services, and established benchmarks for ensuring online transaction security [9]. These laws and regulations have defined a well supported system that encourages and protects the e-commerce business. The implementation of these policies has created a safeguarded environment for department stores to conduct and expand their business operations online.

Anti-monopoly policies has been another impact factor in the online industry. In 2021, popular online shopping platform Taobao was fined 18.2 billion yuan for operating with intentions of

becoming a market monopoly [10]. In the same year, an official governmental agency dedicated to prevent monopolies was formed, effectively controlling monopolistic practices among large businesses. These policies have facilitated the continued emergence of new online store fronts as well as platforms that provide more options for sellers and consumers alike.

Other governmental influences on the department store business include COVID-19-induced. During the pandemic, China was quick to adapt quarantine policies that heavily restricted business activities, especially in-person consumerism. Despite a decline in the rate of revenue growth within the department store industry, a noteworthy trend is observed in the overall market share of department store revenue. This share has surged from 20.7% in 2019 to a substantial 24.9% in 2020 [5]. This significant increase is a clear indication that the societal shifts catalyzed by government quarantine policies have spurred heightened demand, thereby compelling businesses to seize these emerging opportunities.

4.3. Advantages of Online Business CapEx or OpEx

Compared to the large upfront cost of establishing a physical storefront, establishing a digital storefront requires considerably fewer capital expenditures. This phenomenon can be attributed to the fact that setting up a digital storefront demands significantly lower upfront investments compared to the procurement of physical retail spaces [5]. Additionally, the employment and training process is simplified. This shift redefines the conventional fixed employee size and training duration associated with physical department stores, transitioning it into a flexible and adaptable employee structure characteristic of digital stores, as geographical proximity is no longer a prerequisite. Therefore, the online store model is more favorable in the context of the unpredictable market of modern digital economy. The physical storefront may face underutilization when demand doesn't meet predictions, as well as difficulties when expansion is necessary.

In the context of an online store, there is no wastage or necessity of physical retail space even when the demand experiences fluctuations, either an increase or decrease. Online service providers can also easily allocate more resources for hosting digital services by purchasing more servers on the cloud. Consequently, the consumers of online business platforms (i.e., online store owners) are empowered with the flexibility to acquire and release resources according to their needs. This confers greater control over operational expenses, particularly in response to market demand fluctuations. As a result, the digital store model enables business owners to not only reduce the required capital expenditures for establishing their business, but also control their operational expenditures to maximize their revenue and profit.

5. Suggestions

5.1. Department Stores Expand Their Group Buying Services

Aside from live stream marketing and WeChat integration, there are numerous untapped platforms that department stores can leverage. An illustrative instance is the utilization of group orders. Given the substantial size of the online consumer base, the concept of group orders allows consumers to amalgamate their purchasing potential and procure items in bulk, frequently leading to significantly reduced prices. This model is great for efficiency, as well as making business more convenient for consumers and suppliers alike; however, group orders as a service has yet to be officially adopted by most department stores, leaving it to be mostly operated by individual organizers or specialized ordering applications. By incorporating a group ordering function into their proprietary online platforms, department stores can secure ownership of such a service and consequently amplify its advantages. In 2021, community order group order businesses achieved a transaction size of 120 billion yuan, with a yoy growth of 62% [11]. The group order consumer base size has also reached

646 million by 2021, with a yoy growth of 37.44%. The data underscores the substantial impact of the group buying market. In light of this expansive market, department stores stand to gain significantly from the implementation and growth of self-operated group buying services.

5.2. Implementation of Self-checkout Systems in Department Store

Similarly, unattended self-checkout stores are another great operating model for department stores to utilize. With the rapid advancements in video surveillance and identification services in China, unattended self-checkout stores have emerged as a means to optimize operational costs by reducing the necessity for extensive in-person staffing. This mirrors the innovative options offered by online businesses to consumers, prompting physical locations to foster innovation to maintain competitiveness. Self-checkout establishments lead to decreased operational expenditures, enabling in-person businesses to offer more adaptable operating hours while simultaneously capitalizing on benefits akin to online enterprises, such as curtailed in-person interactions. Hence, within the journey of transformation and advancement, department stores can proactively adopt models such as self-checkout. This not only streamlines operations but also contributes to the progress of the digital economy within the department store sector.

6. Conclusion

This study utilizes a Chinese department store as a case study to illustrate its distinctive trajectory in adopting emerging technologies. Through an exploration of the market dynamics within the department store industry, this research identifies the obstacles faced by these establishments during their technological transformation. It also underscores the constructive influence of online e-commerce on the progression of department stores. Additionally, the paper offers pertinent recommendations for department stores' future strategies. However, it is important to acknowledge that this study primarily centers on the Chinese department store case, which might constrain its applicability to other geographical areas and markets. Subsequent research endeavors could encompass more comprehensive cross-sectional analyses, encompassing diverse global contexts.

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