Disruptive Innovation & Chance for Latecomer Firms in E-Commerce: The Cases of the YES and PINDUODUO

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Abstract

The e-commerce market is considered one of the potential but fully competitive markets. However, it is also clear that gap-filling or market-dominating is a never-ending process in the e-commerce market. For this reason, this is one of the amazing playgrounds attracting many participants. The question is How and by which latecomer firms can enter and succeed in the existing e-commerce market. Therefore, this paper analyses the chances for latecomer enterprises to enter the competitive e-commerce market. To pursue this goal, the paper will analyze the role of the disruptive innovation theory and its e-commerce applications. The results reveal that applying disruptive business-model innovation is a better way for fledgling e-commerce brands to enter the existing market and succeed in competing with incumbents. Furthermore, the case of THE YES – a women's fashion e-commerce platform, and Pinduoduo – a Chinese largest agriculture-focused technology platform, are also analyzed as practical cases to join the research's results.

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Introduction

E-commerce has changed how companies run their businesses over the last decades. According to the e-commerce report 2021, the global e-commerce revenue obtained over 2.8 trillion US Dollars in 2020. Especially the spread of the COVID-19 pandemic since 2020 has created positive leverage for the e-commerce market as a whole. As consumers avoided in-store purchases, e-commerce sales increased by 19% due to the pandemic compared to pre-COVID-19 and Post-COVID 19 periods (Statista, 2021). The non-stop development of e-commerce in every field of the economy has created many opportunities for latecomer firms to enter this market and share the benefit with the incumbent enterprises. However, under the market's competitive background, the challenges appear to be enormous when these newcomers are much later than the incumbent firms in terms of technologies, customer approach, market research, and so forth. According to Clayton M. Christensen, the market-oriented market entry model via disruptive innovation appears more beneficial due to the low-cost input, low technical risk, and immediate effect (Christensen, 2013). The disruptive innovation theory provides latecomer firms with a new direction to enter the mainstream market and obtain success compared to existing firms (Chen et al., 2020).

Therefore, the paper raises some questions about how and by which latecomer firms can utilize disruptive innovation theory to enter and achieve success in the existing e-commerce market. To pursue this goal, we discuss the theory of disruptive innovation and identify which application is suitable for latecomer firms in the e-commerce market. To investigate the practicality of the theoretical results, we also analyze the case of THE YES – an online latecomer firm in the apparel and accessories industry, and the case of Pinduoduo – a Chinese largest agriculture-focused technology platform.

Business model and Business model innovation (BMI)

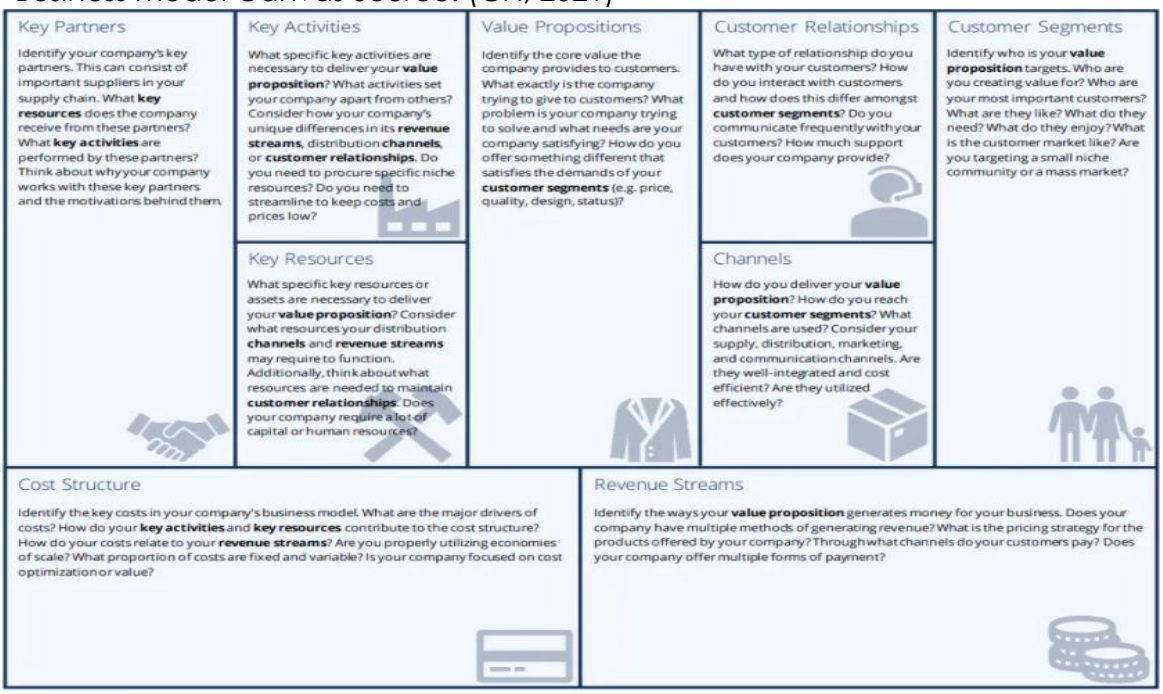
A business model is "a system of interconnected and interdependent activities that determines how the company does business with its customer, partners, and vendors" (Amit et al., 2012). a business model is a way for companies to deliver products or services to customers while obtaining profits (Morris et al., 2005; Shomali et al., 2016). Osterwalder & Pigneur (2010) reveal the main components of the business model in a proposed structure called Business model Canvas (BMC) to describe how a company can make money. Accordingly, the Business model Canvas comprises nine building blocks: customer segments, customer relationships, channels, value proposition, key activities, key resources, key partners, cost structure, and revenue streams (Figure 1).

Business model innovation (BMI) is defined as "the design process for giving birth to a fairly new business model on the market, which is accompanied by an adjustment of the value proposition and/or the value constellation and aims at generating or securing a sustainable competitive advantage" (Wirtz et al., 2016, p. 4). According to Amit & Zott (2012), a business-model innovation tends to be more beneficial for firms for the following reasons. First, it represents an often-underutilized source of future value. Second, it might be difficult for rivals to duplicate and replicate. Third, it can develop and exploit possibilities for new revenue. And finally, it might offer resilience for the company. Therefore, a business-model innovation can take place in three ways such as (1) content – launching innovative activities, (2) structure – connecting activities in new ways, and (3) governance – altering one or more of the parties involved in any of the activities.

Further, compared to process or product innovations that are more expensive and time-consuming and require huge investment, a business-model innovation turns out to be more beneficial. A business-model innovation benefits adopters by facilitating them to stay ahead in product and technological innovation. It means that the success of technological innovation or product innovation is often imbedded in an innovative business model (Amit et al., 2012; Teece, 2010). According to (Richter, 2013), business model innovation is one sort of innovation that has the potential to be

disruptive. However, it has yet to be defined as a concept in past academic literature, particularly concerning its disruptive influence.

Figure 1
Business model Canvas Source: (CFI, 2021)



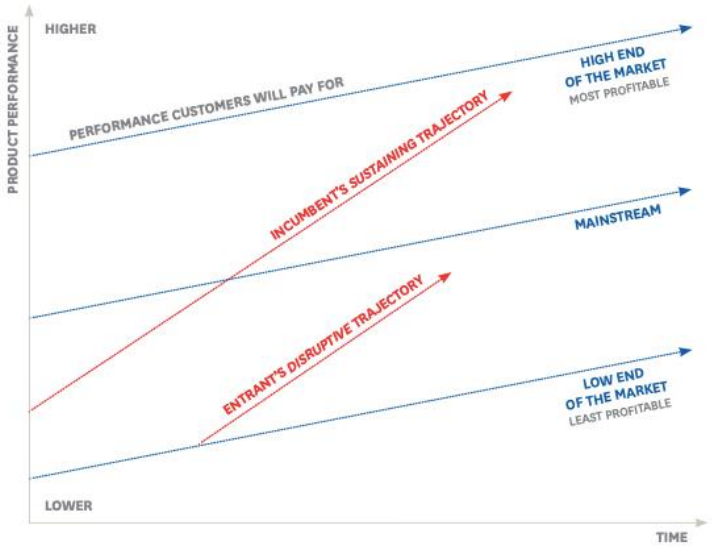
Source: (CFI, 2021)

Disruptive innovation and its application aspects for latecomer firms

Clayton M. Christensen first introduced the idea of disruptive innovation and its theory. Over more than 20 years, it still holds a prominent position in the firm's business strategies, according to A. King, (2017) this idea has been so popular that it can be used to explain every existent or threatened disturbance. Christensen and colleagues describe disruptive innovation as "the process whereby a smaller company with fewer resources can successfully challenge established incumbent businesses" (Christensen et al., 2015). These scholars also identify two basic tenets of disruptive innovation, including (1) disruptive innovations come from low-end or new-market footholds, and (2) they do not catch on with mainstream customers till quality catches up to their standards. The clear point is that Christensen's theory focuses on explaining why firms with abundant remaining capabilities might fail in the competition with latecomer firms (King, 2017).

The disruptive innovation theory focuses on the correlation that incumbent businesses outperform entrants in a sustaining innovation context while underperforming in a disruptive innovation context. Accordingly, incumbents often improve products and services to satisfy the most demanding or profitable customers (the high-end market). This leads to sustaining innovation but ignoring other potential segments. Therefore, they leave rooms for newcomers to enter the less-profitable segments (figure 2).

Figure 2
Disruptive Innovation Model by Christensen et al. (2015). Source: HBR



Source: HBR

Accordingly, new entrants target overlooked segments and obtain a foothold by offering more-suitable functionality at a lower price. As a result, when mainstream customers start adopting the new offers, disruption occurs, and leading companies might not maintain their leadership in the market (Christensen et al., 2015). By examining four elements of disruptive innovation, including (1) incumbents were improving along a trajectory of sustaining innovation, (2) sustaining innovation overshoots customer needs, (3) disruptive innovation to which incumbents can respond, and (4) incumbents are disrupted, and flounder, A. A. King & Baatartogtokh, (2015) show that first, not all cases included sustaining innovation. At the same time, some cases were even skeptical of the existence of the trajectory of sustaining innovation. Second, not all incumbent firms overshot customers' demand. Third, many incumbents were unable to respond to the disruption. And finally, not all incumbents were displaced by new technologies. For these reasons, it is not easy for companies, especially latecomer firms, to apply disruptive innovation. They must calculate, find ways to leverage existing capabilities, and collaborate with other companies to enter the specific competitive environment. In other research on the theory behind the disruptive innovation theory, Markides (2006) indicated that it had been a serious problem when lumping all types of disruptive innovations into one category. The truth is that a disruptive technological innovation is probably different from a disruptive business-model innovation or a disruptive product innovation in terms of origins, competitive effects, and responses from incumbents.

Furthermore, the scholar also highlights that two types of innovations tend to be disruptive to incumbents such as (1) the business-model innovation and (2) radical product innovation. And both of those create radically different challenges for established companies (Markides, 2006). Generally, disruptive innovation theories offer directions for latecomer firms to enter an existing market. For instance, regarding market segmentation, latecomer firms can start from low-end or new markets and offer good-enough products & services. Regarding different types of innovation, they can adopt disruptive business-model or product innovation.

E-commerce and features of the e-commerce market

Electronic commerce (or E-commerce) is conceived as the application of technology to business transactions to create the ability to purchase and sell products and services online (Kalakota et al., 1997). In frequent use, E-commerce is mentioned as purchasing, marketing, selling, delivering, and paying for products and services on the internet (OECD, 2013). According to (2001), e-commerce is considered a disruptive innovation because it radically changed the traditional way of doing business. Technically, e-commerce transforms the business process from physical (marketplace) to virtual (marketspace) aspects. Further, it also transforms the rules of the competition and invents new value propositions (Raes, 2019).

Since its first introduction, the e-commerce market has seen rapid growth in recent decades. Many e-commerce firms are springing up around the globe. According to Bergendahl (2003), e-commerce firms can be divided into two general categorizations, including (1) Move to the net (MTN) and (2) Born to the Net (BON). MTN firms are described as firms having an existing customer base offline. However, they continue to expand their market share by selling their products and services on the internet. Typical examples of these firms include Nike, Adidas, Interflora, Zara, H&M, etc. At the same time, BON firms are formed to market and sell commodities over the internet only. Amazon, Alibaba, Flipkart, E-bay, and so forth are examples of BON firms. The e-commerce market has seen many players in several sections, such as Amazon, Alibaba, and Taobao in online marketplaces; Walmart, Argos, Costco, and Tesco in online retailers; Zara, H&M, Dell, Apple, Nike, Adidas, etc. in direct online sellers. Further, coupled with the customer segmentation from low-end to high-end market, the e-commerce market also comprises many segments such as fashion, electronics & media, toy, hobby & DIY, furniture & appliances, food & personal care (Statista, 2021).

The e-commerce market is generally considered one of the potential but fully competitive markets. According to Yadav & Sharma (2014), the e-commerce market comprises such strengths as boundaryless access, time-saving, cost-effective, and flexible target market segmentation. However, this market also has many weaknesses, such as a lack of security and personal services, fewer discounts and bargaining, and high demand for customer satisfaction. The opportunities of the market include an increasing number of digital users, wide business growth, changing trends, and high availability. And the threats for the participants involve huge and fierce competition, changes in innovation, technology, and environment, and high risk. As a result, gap-filling or market-dominating is a never-ending process in the e-commerce market. From another perspective, Phan (2021) highlights the importance of the technological factor in the e-commerce industry since all activities of e-commerce highly depend on technology. As a result, technology has become a big factor in the competitive race between e-commerce firms, and seeking solutions from the technology's point of view is crucial to maintain a foothold in the playground. The e-commerce market is regarded as one of the amazing playgrounds attracting many participants due to numerous specific features. However, two main aspects comprise (1) the diversity in the types of firms and (2) the critical role of innovation and technology in competition and business operations. Therefore, seeking the right ways to enter this market is also a great challenge for latecomer firms.

Disruptive business-model innovation (DBMI) and latecomer firms in e-commerce

Different from disruptive technological innovations that are grown to dominate the market, disruptive business-model innovation (DBMI) is not necessarily superior to the existing ones. Therefore, it is not necessarily an optimal strategy for the incumbents to adopt due to their cost structure and other factors. As a result, established firms are easy to neglect and leave chances for latecomer firms (Markides, 2006). According to other scholars, DBMI focuses on identifying how new goods or services deliver value inside a firm's value network and how infrastructure matches new value distribution. Further, it re-engineers the process and relationships with clients and customers

(Chesbrough, 2007; Christensen, 2006). Another feature is that DBMI creates a new cost structure to support the new value capture configuration, which the incumbents overlook (Christensen and Raynor, 2003).

Regarding the e-commerce market, it is notable that the evolution of this market is in line with the development of technology (Phan, 2021). Therefore, the recognized shifts in technology, such as internet computing, wireless technology, Artificial intelligence (AI), Internet-of-things (IoT), and so forth, have caused a significant wave of e-commerce innovations (Wu et al., 2008). The transformation from I-commerce – focusing on websites and shopping carts – to other models, such as M-commerce – focusing on wireless technology such as smartphones; or S-commerce – orienting to social interactions in social networking sites, are significant innovations (Robles, 2015; Wu and Hisa, 2008). The research of (Chen et al., 2020) reveals that adopting disruptive business-model innovation is one of the best ways for newcomers to enter the e-commerce market. Or the research of Abbafati (2018) also agrees that DBMI adoption is the right path for newcomers to the market. The case of Farfetch is mentioned as an example of DBMI in luxury e-commerce. Therefore, the paper proposes the hypothesis that

Latecomer firms can adopt disruptive business model innovation (DBMI) to enter the e-commerce market and become leading firms in this market

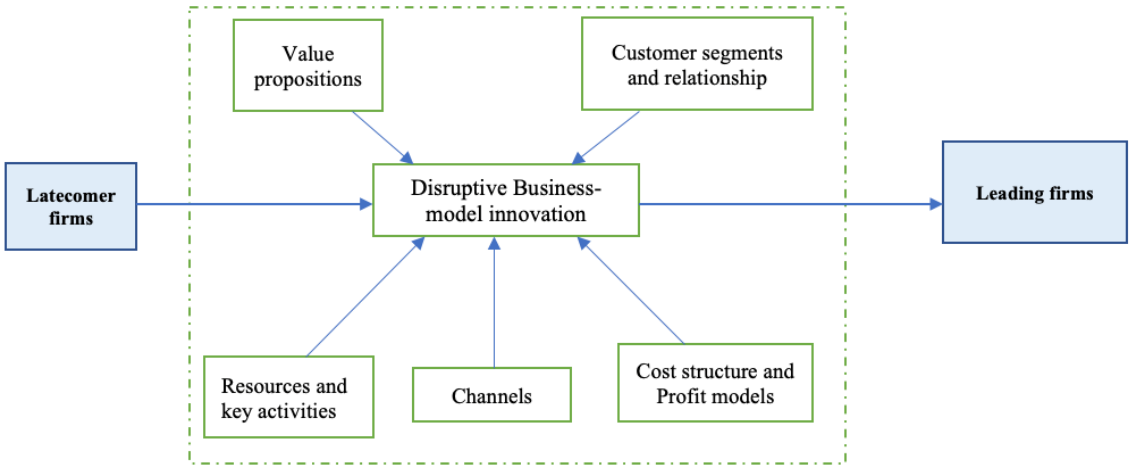
Methodology

The paper adopts the explanatory case study method to offer hands-on experience and examine the proposed theoretical issue. This is the suitable method to describe, understand and control how to change and why it is like that (Woodside and Wilson, 2003). The case study method is designed in three stages: prepare, collect, and analyze. Research questions are identified at the preparation stage, and theories and hypotheses are developed. Accordingly, the paper focuses on identifying ways latecomer firms can join and compete with incumbent firms in the e-commerce market. The relevant concepts and theories, such as MBI, and disruptive innovation, are constructed. The paper raises the hypothesis that disruptive business model innovation (DBMI) is the way to help latecomer firms in e-commerce join and compete in the existing market.

The second stage is the collection. We select two case studies, including THE YES – a women's fashion e-commerce platform, and Pinduoduo – a Chinese largest agriculture-focused technology platform, for the following reasons: First, Pinduoduo and THE YES are typical examples of latecomer firms in e-commerce. Pinduoduo joined the Chinese e-commerce market in 2015, while THE YES launched in the US e-commerce market in 2020. Second, although being latecomer firms, Pinduoduo and THE YES have significant success in their market. For instance, Pinduoduo has become China's biggest online agricultural product market. This platform works with over 16 million growers, and its revenue for the quarter ending 9/2021 was over 3.3 billion USD (Macrotrends, 2022; Pinduoduo, 2020). By contrast, THE YES has received more than 70 press features and more than 500 million earned media impressions with 62000 Instagram followers within the first few months. Forbes also evaluates THE YES as "poised to dramatically change how consumer shop" (Avery et al., 2021).

In the analyzing stage, the paper mainly focuses on analyzing these two firms' business models based on the CANVAS business model to identify how they adopt disruptive innovation for their business models. Accordingly, a conceptual model is proposed (figure 3).

Figure 3
Conceptual model



Source: Author´s work

Case studies analysis

Business models of Pinduoduo and THE YES are presented in Tables 1 and 2.

Table 1
PINDUODUO's Business Model Canvas

Key Partners: **-Strategic cooperation partner (Tencent with Wechat platform)** **-Partner with Chinese farmers**	**Key activities:** **Spread web links, including setting up inductive sharing mechanisms, advertising intriguing verbal slogans, and launching the game to encourage the consumers to share** **Key resource:** -HR -The distributed AI technology -Capital	**Value Proposition:** **"Together, more saving, more fun."**	**Customer Relationships:** **Interest group, Community** **Channels:** mobile app	**Customer segments:** **Price-sensitive buyers from lower-tier cities and rural towns**
Cost structure: **Pin factory mode**		**Revenue streams:** Marketing services, transaction services, merchandise sales.		

Source: Author's work

Accordingly, based on the business model CANVAS, we reveal nine major factors (e.g., value propositions, customer relationships and segments, channels, key partners, key activities, key resources, cost structure, and revenue stream) for the business models of these companies. Then, we conclude nine factors into five main variables about business model innovation that these firms have adopted, including (1) Value propositions, (2) customers segments and relationships, (3) Resource and key activities, (4) channels, and (5) cost structure and profit models (figure 3).

Table 2
THE YES's Business Model Canvas

Key Partners: **Partnerships with brands ranging from low-end to high-end segmentations**	**Key activities:** **Development of the platform and customer acquisition** **Key resource:** -The algorithm of AI and Machine learning (ML) -Customer database -HR -Capital	**Value Proposition:** **combine the best-in-class algorithm + new approach to user experience + the broadest fashion**	**Customer Relationships:** **Personalized for preferences and size** **Channels:** mobile app	**Customer segments:** **Regarding personas: (1) Fashionista, and (2) Fashion Follower**
Cost structure: **Drop-ship model** **The low proposition of fixed costs**		**Revenue streams:** Revenue-share model: 25% on a completed transaction		

Source: Author's work

Analysis of business model innovation of Pinduoduo

- Value propositions

The name Pinduoduo means "together – more saving – more funds". Pinduoduo is described as the combination of Costco (value-for-money) and Disneyland (entertainment). Accordingly, the value of Pinduoduo is based on three factors: recommendation, entertainment, and community to create the interactive e-commerce model. Relying on the Group-buying model, Pinduoduo provides consumers with low-price products. The C2M model also benefits consumers and manufacturers by establishing a short link between customers and factories. Further, Pinduoduo also offers a happy experience for consumers by setting up a gamification feature. This business model is good enough for the community by offering value to low-income consumers and agricultural partners while being kind enough for Pinduoduo itself to compete with other rivals in the Chinese e-commerce market (Pinduoduo, 2020).

- Customer segments and relationships

Pinduoduo mainly targets China's forgotten customers. Particularly, they are price-sensitive customers from lower-tie cities or rural. However, they want to enter the e-commerce sector without a proper platform to satisfy their demands. According to WeChat (2018) distribution of Pinduoduo users mainly comes from tier 4, 3, and 2 cities, where female users account for the majority. They are extremely price-sensitive. However, they make the frequent purchase for their families.

Further, Pinduoduo also targets to construct a community relationship with its customers. Two words to describe Pinduoduo is "addictive" and "viral". Two functions, including Group-buying and free-product of Pinduoduo, focus on the sharing ability of consumers in their communities (Wechat, 2018).

- Resource and key activities

Pinduoduo has sufficient human capital when owning a strong founding team. They are educational backgrounds in computer science and big data mining. Further, managers of Pinduoduo also have good working experience in robots and digital platforms. This is an opportunity for Pinduoduo to develop and apply distributed-AI technology and differentiate from other rivals. In terms of technology, Pinduoduo adopts a distributed-AI approach, which is probably different from other e-commerce platforms. Pinduoduo reveals that a centralized-AI approach often poses the risks of information leakage, making them prime targets for cybersecurity attacks. Therefore, a distributed-AI technology is expected to optimize user experience by providing them with more comfort and safety when shopping on this online marketplace.

Because only with users' specific authorization will certain data be uploaded onto larger platforms (Pinduoduo, 2020).

Key activities of Pinduoduo mainly focus on spreading web links, including: (1) setting up inductive sharing mechanisms, (2) advertising intriguing verbal slogans, and (3) launching the game to encourage the consumers' sharing. The core of the Pinduoduo experience is team purchase, in which consumers can form a group to collect discounts from suppliers. Therefore, a consumer can use the social platform such as Wechat to encourage other friends to join his/her team purchase. Further, to encourage the consumer to interact and share while shopping, Pinduoduo applies gamification – Duo Duo Orchard to create a new buying experience. Accordingly, consumers can grow virtual fruit trees for a free box of fruit (Pinduoduo, 2020).

- Channels

The Channel of Pinduoduo is highly dependent on strategic cooperation partner – Tencent with the Wechat platform; the network has a billion users in China. Further, Pinduoduo also partners with over 16 million growers and their communities, which other rivals neglect (Pinduoduo, 2020).

The online channel is the main touchpoint between Pinduoduo and its customers. However, this company highly focuses on mobile app interaction to take advantage of WeChat networking in China.

- Cost structure and profit models

In general, the cost structure of Pinduoduo origin from such major activities as logistics, sale-marketing, and research-development. Instead of constructing a warehouse, transportation, and distribution, Pinduoduo focuses on constructing a "new logistic" technology platform to establish a logistic data network among logistic parties, lowering storage, transportation, and procurement cost. Further, the unique feature of Pinduoduo is to adopt the "Pin factory" mode – C2M (customer-to-manufacture model) to establish a very short link between customers and factories. The cost of acquiring a consumer of Pinduoduo is around 16$, which is also lower than other competitors such as Taobao (44$) or JD (53$) (Guihang et al., 2021).

Pinduoduo has diversified revenue streams such as online marketing services, transaction services, and merchandise sales. Especially, Pinduoduo online charges merchants a commission fee of 0.6% per completed transaction. This commission fee is lower than other rivals like JD.com or Taobao. The reason is the group-buying model, which sometimes obtains thousands of individual buyers, and the gamification strategy – allowing consumers to collect discounts by engaging with the app (Productmint, 2021).

Analysis of business model innovation of THE YES

- Value propositions

THE YES's customer value proposition is to "combine the best-in-class algorithm + new approach to user experience + the broadest fashion" (Avery et al., 2021). Accordingly, the value proposition of THE YES is combined by three factors such as (1) Machine-leaning-driven technology, (2) product design & functionality, and (3) the best & broadest assortment. Particularly, THE YES focuses on combining using fashion experts and adopting Machine Learning (ML) engineers to develop the most extensive taxonomy in fashion. Furthermore, it marries user data with product data to create a deep-learning model for each customer. The user interface is built around AI, continuously capturing data and improving user experience. THE YES aims to offer customers "the feeling of being understood". "It is all about understanding customers, getting customers, and giving customers suggestions" (Avery et al., 2021). It means that THE YES aims at satisfying the personalized need for a better customer experience. For the assortment, THE YES identified and signed up a broad range of fashion brands through trust and a compelling vision.

- Customer segments and relationships

THE YES serves mainly online shoppers. Accordingly, this company identifies its customers into two personas such as (1) Fashionista and (2) Fashion Followers. Fashionistas are people who have the willingness to try new things. Their key

considerations comprise freshness, interactive experience, and no redundancy. These customers focus on THE YES's brand assortments and capabilities to return the items they want. Whereas, Fashion Followers are people who consider shopping as a social experience. Their considerations include price, ease of discovery, product, and brand mix. Therefore, they use THE YES for inspiration and recommendations (Avery et al., 2021).

Regarding Customer relationships, most e-retailers establish relationships with their customers through automated services, including conversational assistants. Others adopt collaborative filtering or an intelligent taxonomy, considering variables such as geographical position, language, currency, etc. However, THE YES approaches customers differently. By adding an onboarding quiz to capture general preferences and sizing and other periodic pop quizzes to refine customers' intentions, THE YES has established relationships with its customers at a personalized level. As a result, each customer constructed their store with relevant brands (Avery et al., 2021).

- Resources and key activities

In the case of THE YES, the first and foremost resource that should be mentioned is Intellectual resources that differentiate THE YES from its rivals. The algorithm of AI and Machine learning (ML) are key platform technologies. Accordingly, new technology is adopted in four areas, including (1) brand integrations to build a seamless shopping experience for the users, (2) an adaptive, user-centric e-commerce platform that is AI-enabled to meet all customers' requirements, (3) fashion algorithm which creates the most extensive taxonomy and the most extensive understanding of customers individually. THE YES management team should be the second key resource, with human resources having a good background in the e-commerce business, especially in e-retail; AI; and fashion and technology (Avery et al., 2021).

The major activities of THE YES mainly focus on developing the platform and acquiring customers, which differentiates THE YES from its rivals. THE YES aims to offer customers the broadest selection but easy-to-find right item. Therefore, developing the platform and interface is paramount (Avery et al., 2021).

- Channels

THE YES tends to partner with many brands ranging from low-end to high-end segmentations (over 145 brands). THE YES identifies them as not intermediaries but customer acquisition partners or matchmakers. For instance, THE YES does not interfere with the brand's relationship with a customer. Instead, they connect customers to relevant brands to increase conversion rate and incremental sales for the brands.

The online channel is the main touchpoint between THE YES and its customers; however, other firms try to cover all channels, including the company website and app. In the beginning, THE YES only developed a mobile app. According to its management team, focusing on the mobile app would support building a clearer UX and experienced customers who are used to scrolling and swiping to indicate interest.

- Cost structure and profit models

The cost structure of THE YES is simpler than other e-retailers. Due to removing inventory, the company can be more agile and suffers less risk. THE YES utilizes a drop-ship model when all products are shipped directly from the brands, which solves the problems of fixed cost. Furthermore, other costs remain low, such as cost-per-install and cost-per-acquired customers for completed transactions.

THE YES has a revenue-share model. THE YES does not charge its partners a fixed fee or for listing brands' catalogs on the app. Instead, it charges 25 % of the retail price commission upon a completed transaction between the consumer and the platform.

Conclusion

We drive some of the following conclusions by analyzing two case studies, including Pinduoduo and THE YES. First, Regarding Pinduoduo, Pinduoduo differentiates from other incumbent firms in the Chinese e-commerce market by the following factors. First, Pinduoduo targets different markets and different customer segments. Pinduoduo focuses on the agricultural product market – an important market in China,

but no dominant e-commerce firms exist. Customers of Pinduoduo are low-tier and low-income buyers who other incumbent firms ignore.
Further, the technology approach and key functions of Pinduoduo also make this latecomer firm different from others. Pinduoduo adopts a distributed-AI approach to mitigate risks and a Group-purchase function to acquire customers. The Gamification feature is also unique for Pinduoduo to interact with customers and encourage customer-sharing.

By contrast, THE YES can also be considered a disruptive innovation that changes the thinking of online shopping in the future. Based on Christensen's theory, it is clear that THE YES targets an overlooked segmentation, including those looking for inspiration and recommendations in fashion. Other e-retailers neglect this segmentation due to their lack of individual customer interaction. Initially, THE YES only focuses on the app's platform to maximize customer interaction. THE YES is also in the process of improving the quality of the platform through continuous learning before expanding.
Further, THE YES added more activities in the form of interviewing YES or NO questions in their customer approach so that it could generate a new customer segment. Furthermore, THE YES also customizes customer relationships based on customer preferences. In their activities, THE YES removes the shipping and delivery activities so that it can highly concentrate on interacting with customers and brands.

In general, this research supports revealing how important disruptive innovation is, especially disruptive business-model innovation, for latecomer firms to enter the e-commerce market. The results show that although the e-commerce market is highly competitive, the chances for latecomer firms to enter the market are still available. However, latecomer firms must identify an appropriate way to get in and maintain this market. Regarding the e-commerce market –focusing on exchanging activities, disruptive business-model innovation might fit newcomers due to being less costly and time-saving. The case studies of Pinduoduo and THE YES are typical examples of disruptive business model innovation, which supports these latecomer firms joining the e-commerce market and even achieving an industry-leading position in the market. The paper also suggests a conceptual model (figure 3), revealing five dimensions associated with the business model for applying disruptive innovation. This model is expected to enrich the existing literature on disruptive innovation as well as disruptive business-model innovation. Further, it also offers directions for latecomers in the e-commerce market.

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