

LAST MILE DELIVERY AS A COMPETITIVE LOGISTICS SERVICE – A CASE STUDY

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ABSTRACT

Last mile delivery logistics (LMD) has become one of the key competitive services of online retailers. LMD is defined as the last stretch of the delivery process to end consumers, playing a critical role in ensuring customer experience. Effective LMD does not only affect customer experience but also make a significant impact in terms of reduced transport cost, fuel emission and increased resource utilization. At the same time, it is also facing challenges including rising fuel prices, failed deliveries and parking issues. This paper describes a review of how DHL eCommerce (Vietnam) employed LMD in its supply chain strategy to provide competitive logistics service for the local online retailers. Initial findings indicate that the current DHL e-Commerce's LMD operation model and service offerings provide delivery tracking, high occurrence cash remittance for sellers, and dense service points network as their competitive offerings.

Keywords: Last mile delivery, DHL Ecommerce Vietnam, DHL, Logistics, Supply Chain Management, Ecommerce, Competitive Logistics Service,

1. INTRODUCTION

E-commerce nowadays is becoming a worldwide trend together with an increase in customer demand for online shopping. Alongside with that, last-mile delivery (LMD) stays at the very end of the online shopping process but plays a critical role in the entire e-commerce logistics chain. LMD accounts for 28% of all movements within the supply chain (Goodman, 2005) while take up 13% to 37% of the total supply chain cost, depending on various regional characteristics (Gevaers et al, 2009). These numbers indicate the fact that LMD activities can negatively affect

logistics service providers if it is not well-managed. Through effective LMD activities, end-users are able to experience ‘the convenience, simplicity, information and time efficiency of online shopping’, which are very important factors to a successful e-commerce service operator (Chen and Dubinsky, 2003).

In Vietnam, the e-commerce logistics market has been rising rapidly as a result of booming e-commerce market. Since delivery service is key to customer experience and purchase decision of online shoppers, e-retailers, there is huge demand for last-mile delivery service. Therefore, some large retailers including Tiki, Lazada, and major electronics retailers such as Thegioididong and FPT Shop have their own fulfilment facilities to assure service quality and lead-time. On the other hand, most retailers resort to third-party logistics providers for more flexible logistic capacity scaling. In addition to traditional firms such as VN Post and Viettel Post backed with existing nationwide network and large capital, more start-ups like GiaoHangNhanh, GiaoHangTietkiem and Ninja Van has joined the appealing market, but they are more technology driven. DHL is one of the logistics entities that has been ambitiously targeting the e-commerce segment in Vietnam, competing against local players (Asia News Monitor, 2017).

This paper presents initial findings of how DHL e-Commerce has employed LMD to compete with other providers in serving Vietnam online shopping consumers. By using case study method, the paper provides insightful review and challenges that pose to LMD providers in such a dynamic and promising market as Vietnam.

2. REVIEW OF LMD

LMD refers to a set of last activities in the delivery cycle, which involves a series of activities and processes conducted for the delivery process from the last transit point to the final drop point of the delivery chain (Lindner, 2011). In other words, it is the final step of transiting orders to the right customers. There are many modes of LMD, direct door-to-door delivery is among the most popular ones (Yuen et al, 2017). Additionally, LMD is mostly applied for B2C deliveries where e-commerce is the biggest inducer (Iwan et al, 2016). For B2B transactions, LMD involves retailers and distributors, suppliers of groceries (Ewedairo et al, 2018). In terms of cost, LMD is reported to account for 13% to 37% of the total supply chain cost, depending on various regional characteristics (Gevaers et al, 2009). These numbers indicate that LMD operation can negatively affect logistics service providers if it is not well-managed.

Together with the growth of e-commerce, effective LMD activities would also contribute to higher customer experience satisfaction. Through effective LMD activities, end-consumers can experience convenience, simplicity, information and time efficiency of online shopping, which are very important factors to a successful e-commerce service operator (Chen and Dubinsky, 2003). Although LMD stays at a very end of the delivery cycle, its effects on both logistics service companies and consumers are significant, especially in the field of e-commerce where a quick and responsive logistics chain is always highly demanded. Therefore, LMD should be considered as one of the priorities in supply chain management, to sustain the business. LMD can affect the supply chain operation on several aspects: environment, cost-effectiveness, safe unattended delivery and traffic congestion.

LMD has been focused as differentiating services to attract more online customers. For example, Walmart had recently acquired Parcel - a same-day last-mile delivery company, to utilize its network as well as methods (routing algorithms and leased vehicles) to establish two-hour shipping (Torres, 2017). As technological innovations are becoming a critical part of LMD, being the pioneer in this field can bring companies enormous strength to be the leader in the competition (Ranieri et al, 2018). Consumers nowadays are extremely cost-sensitive and less willing to pay for

greater convenience (Heid et al, 2018). Therefore, technological advancement not only increases customers' expectations but also widens options on how products can be delivered. An example is Amazon with its drone delivery (Gross, 2013). The model is currently the company's competitive advantage since there are no other competitors offer the same service.

Overall, LMD is among one of the most important components of a supply chain in which the process can generate many benefits from the system if it is well-managed. At the same time, companies especially e-commerce companies can focus on leveraging LMD to be their competitive advantages.

3. THE CASE: DHL ECOMMERCE (VIETNAM)

DHL eCommerce, part of the €61.6-billion Deutsche Post DHL Group, is one of the world's leading eCommerce logistics service providers (DHL 2018). DPDHL Group's Strategy 2020: Focus - Connect - Grow was introduced in 2014, aiming to enhance the company's position as German Post Service and a global logistics provider. An overview of the company's strategy is shown in Figure 1.

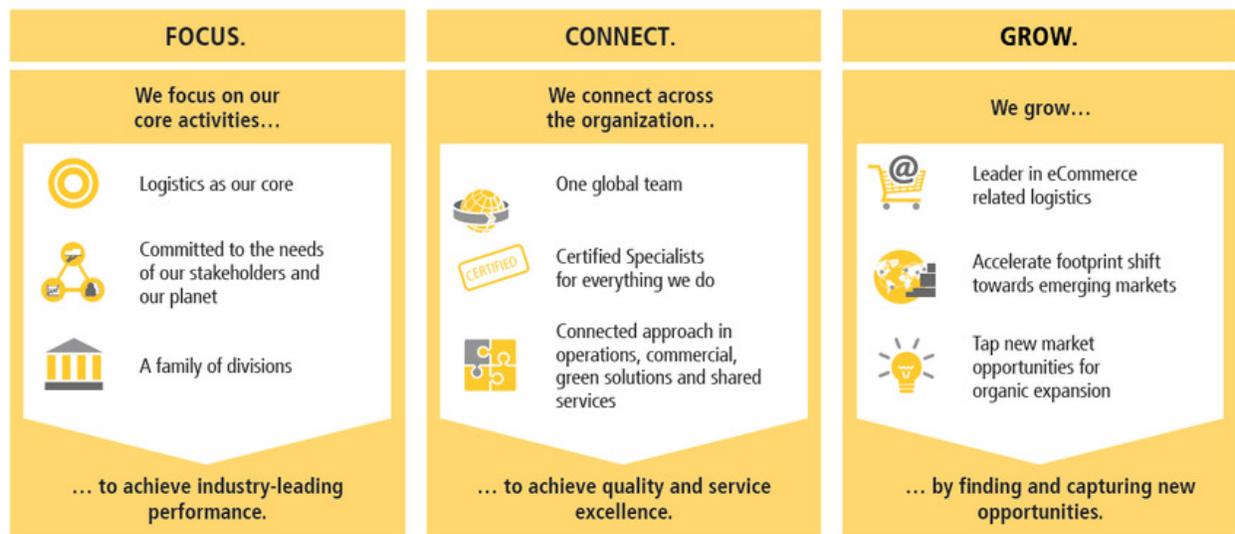


Figure 1. DPDHL Strategy 2020 (DHL 2017)

Since DHL eCommerce was launched, there had been more companies entering the Vietnam logistics market, making the competition fiercer than ever. Grab, a ride-hailing firm invested in express delivery in addition to ride-hailing and food delivery services (Le, 2019). Be Group, another ride-hailing firm, has also launched its beExpress and beDelivery. beExpress target enterprise clients with well trained staff working full time. beExpress has acquired the partnership with Lazada, a major e-commerce platform. beDelivery, in contrast, target SMEs and personal clients and serviced by the existing beBike drivers (PYMNTS, 2019). MrSpeedy, owned by a Russian startup Dostavista, is another newcomer to the market with crowd-sourced same-day delivery service.

As the market becomes more crowded with the presence of many large players, current players are constantly looking for ways to be more competitive. Giaohangnhanh, a local startup has announced to invest to automate sorting operations in a fulfillment warehouse in Hanoi and about to do so for one in Ho Chi Minh City (Vietnam Investment Review, 2019). This investment is expected to help Giaohangnhanh improve service time and serve the lead-time battle among e-

commerce sites. Tiki introduced Tiki Now service, which guaranteed to deliver to inner city within 2 hours for over 100,000 products (Le, 2019). Not long later, Shopee introduced Shopee 4H for certain products. Regarding electronics sector, Mobile World also guarantees to fulfil online orders within 30 minutes in order to compete against other electronics retailing rivals such as FPT Shop (Le, 2019).

Due to fierce competition, the company needs a distinctive strategy to compete and win online retailers (e-tailers) from other service providers. As a leading global logistics provider, DHL strives for customer-centric experience and best service quality on a consistent fashion (Close-Up Media, 2018). The company emphasized the intention of DHL to deliver good quality, diversified service packages, and customer-centricity at a reasonable price by leveraging their strengths, namely international expertise, innovation, and technology capability (Quynh, 2018).

In the commitment to deliver high-quality services, DHL, as well as other delivery service providers in Vietnam, encounters several challenges. Key hindrances of LMD in the country are low-quality infrastructure and low rate of online payments (roughly 15% of total transactions). LMD companies in Vietnam have to battle unpredictable traffic, high logistic costs stemmed from remote areas, and unsuccessful delivery attempts (Vietnam Net, 2018). In order to fulfill the purpose of enabling online retailers to grow, the mission of DHL e-Commerce is to overcome them and breakdown the barriers to online shopping.

4. KEY CHALLENGES OF DHL'S LMD IN VIETNAM

4.1 Costly reattempted delivery

In recent years, couriers providing LMD services have been focused by e-commerce retailers in order to fulfill the demand of US\$6.2 billion market in the domestic market (Hai Yen, 2019). However, the final leg's activity in LMD is considered as a key challenge towards any e-commerce firms and carrier service providers (Punakivi et al, 2001). Due to the nature of e-commerce delivery, couriers operate their operation to deliver different sizes from bulky to small parcels to a various range of endpoints (Calbeto et al, 2017). The challenges have been raised since high proportion of customers are not available to receive their goods. Consequently, dissatisfaction and higher operational costs are the main consequences that most B2C e-commerce must encounter (Park & Regan, 2004).

In terms of the customer's perspective, the degree of inconvenience towards online shopping delivery experienced by the end-user is significantly high (Xu et al, 2008). When customers are not available for deliveries for various reasons at the first delivery attempt, it causes inconvenience for them to reschedule for later receive and led to lower satisfaction (Park and Regan, 2004).

In terms of increasing operating cost, when a delivery fails, items will be returned to the arrival-terminal and wait for the next delivery in the following day or at a chosen time requested by an end-user (see Figure 2). This process repeats at a maximum of 4 times until the item is received successfully by the end-user, or the item will be sent back to its shipper after 4 times (Weltevreden, 2008). The costs associated with repeating the process of return to the terminal, and re-deliver at the next attempt, are obviously taken into account in every repeat. Adding to this, smaller shipment in the direct home delivery sector led to significant impacts on freight transportation since it causes higher complexity in distributing, and higher costs in fleet operation. In related to DHL LMD delivery practice, reattempted delivery also poses a big challenge for the LMD practice of DHL in Vietnam.



Figure 2. Framework of Parcel delivery process (Gevaers et al, 2009)

4.2 Customers are unable to pick up at workplaces

In Vietnam, COD to office is also very common (Figure 3). However, in the near future, e-commerce industry in Vietnam would face such an issue since receiving online deliveries at workplace would have been restricted.

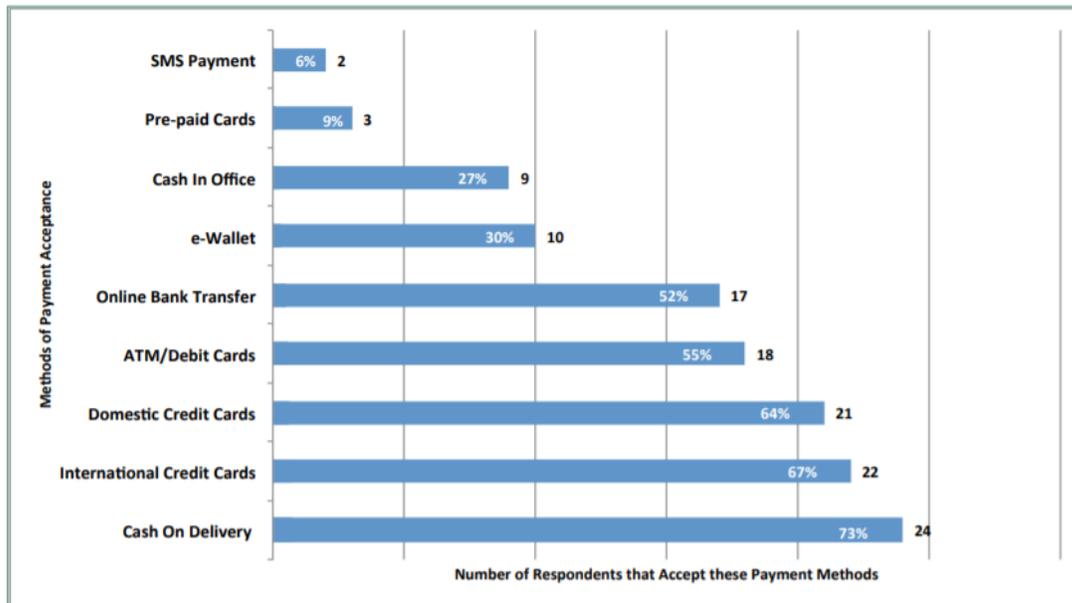


Figure 3. Methods of payment acceptance (Freeman et al, 2014)

Receiving personal parcels at workplace which have negative impacts on work performance and security management. Some firms have taken actions to mitigate the effects of parcel delivery at offices. HSBC, JP Morgan and Citi firms have banned personal delivery to their London offices (Linning, 2015). In Vietnam, increasing numbers of delivery drivers park outside the office buildings in metro cities follows the global trend. The similar restriction in receiving parcels is anticipated in the future. As a result, it would become a challenge for most logistics firms in Vietnam to come up with a proper strategy to both fulfill customer demand and run efferently in LMD operations. Due to COD issue, “not-at-home” and the restriction of receiving deliveries at workplace, delivery window would be squeezed significantly. This even put more pressure on delivery service providers to fulfill customer demand since routing optimization and increasing

number of shippers would be challenged for the firms' operation and profitability. Furthermore, the failed delivery rate could be up to 30% towards delivery service providers, the following deliver attempts with extra costs are already mentioned above.

4.3 Drop-box Implementation

One of the most common solutions suggested to solve 'not-at-home' issue is dropbox. However, the solution may not be applied in Vietnam due to cash on delivery (COD), one of the common payments is implemented by most e-commerce firms and its partners including DHL Vietnam. Dropbox requires end user to pay in advance before receiving items, while COD require end-users pay at the final stage of physically receiving their orders (Young, 2019). In Vietnam, 88% transactions through e-commerce payment is COD due to since the country is considered as a society rooted in cash with significant proportion of transactions are made in cash (VNCR, 2018). According to IFC research, 75% of firms pointed out that convincing end-user to adopt new payment method is one of the biggest challenges towards e-commerce enterprises (Freeman et al 2014). According to Le Duc Anh, from VECITA, one of the key factors attributed is lack of trust between sellers and buyers through online transaction (Vietnamnews, 2017). He continued to explain that most Vietnamese concern about the quality of online products, thus making consumers hesitate to make online purchases. Furthermore, Vietnam has inadequate system to monitor the quality of goods offered in e-commerce platforms, resulting in mistrust of online sellers.

5. CONCLUSION

Through the case of DHL's Ecommerce Vietnam, LMD has demonstrated a very important roles in the supply chain network. Not only stopping at improving the overall efficiency and responsiveness, the activities are able to represent DHL's key competitive advantages. In general, Parcel Metro Service is the key competitive advantage of DHL Ecommerce while good compensation policies for insurance package can be considered as short-term competitive advantage. As such, insurance package may potentially become a critical aspect for the company to develop strategic plans in order to make it become a unique sustainable strength soon. Additionally, Tracking System, Next-day Cash Remittance and Service Point are features that define the foundation of any e-commerce service providers nowadays in Vietnam. In this case, DHL E-commerce has well-established a foundation that is as good as their competitors. Open Box service does not generate good returns for the company, however, DHL's LMD practices will level down without this feature.

DHL Ecommerce (Vietnam) under LMD aspect also demonstrates a good alignment with the whole supply chain strategy. High order visibility, high reliability, medium lead time, higher returnability, more convenience and suitable for high customer geographical density are the criteria that DHL's LMD has been able to live up to, ensuring good services and efficiency. Similarly, LSQ evaluation framework also proves that DHL's LMD quality service achieves certain criteria to be considered as competitive in the market. However, e-commerce market in Vietnam is highly volatile, therefore, DHL and other last-mile delivery vendors should prioritize responsiveness, specifically in lead time. In order to do so, distribution should be localized and should have more distribution points placed near to consumers to reduce transportation time and thus be more responsive at the cost of asset utilization or efficiency. As a result, the company should make additional technology investment to enable the current Service Points to become local fulfillment locations.

At last, costly reattempted delivery has always been a critical issue for any logistics service providers. Therefore, DHL should also consider this problem seriously in order to optimize delivery

process. One of the possible solutions is to establish drop-box system. However, Vietnam's online consumers mostly prefer COD payment method which also creates another obstacle for any service providers to try to implement this model in Vietnam. In the near future, it is potential that customers will be unable to pick up items at workplaces which increases returned products. As a result, the whole situation seems to force logistics firms like DHL Ecommerce to keep updating their strategic plans in order to keep track with changes in the market. Overall, LMD creates many challenges for logistics service providers but also generates even more opportunities for them to be different from others.

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