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# LAZADA'S LAST MILE: WHERE NO E-COMMERCE COMPANY IN VIETNAM HAD GONE BEFORE [A DISCUSSION CASE]

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### ABSTRACT

Aim/Purpose	This case study examines the last-mile logistics model as implemented by Lazada Vietnam, as well as the logistics challenges in the local business environment that led the e-commerce company to dually employ the inventory/retail model and the marketplace model for delivering orders to online customers in Vietnam in search of the way to perfect their last-mile logistics.
Background	For electronic commerce companies aiming to be successful in customer service, what academics and practitioners refer to as 'last-mile logistics' is the one moment of truth, when deliveries have to be planned tactically and exactly, so that orders are delivered to customers at the right time, right place, right quantity, right quality, and ultimately at the right cost. When deciphering this type of supply chain, i.e., one that is e-commerce- driven, last-mile logistics is the one segment of the product flow that directly interacts with the ultimate customer, but many times is the one segment that is the most problematic and less efficient to implement well. Lazada Group, a German e-commerce company, discovered the serious complications of 'last-mile logistics' when they first entered Vietnam in 2013.
Methodology	This case study used qualitative method through interviews with Lazada Vi- etnam's management.

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## INTRODUCTION

December 25th was almost here, and thousands of American homes waited with anticipation, however tiny, for Christmas, wishing that their most important holiday of the year would not be ruined with missing presents from late deliveries. Meanwhile, somewhere else in the United States, a lastminute effort was being orchestrated by logistics giants UPS and FedEx to get packages delivered to thousands of destinations on time, but this most important of logistics missions each year appeared to be challenged by what looked like a tall mountain of piled-up orders, uncooperative bad weather, and an extremely unyielding order cycle time. This was not another Christmas story but exactly what was happening in the United States during the long-lasting holidays at the end of 2013, which later left thousands of retailers and transportation service providers with a bundle of complaints from upset customers along with some 'fire rescue' apologies from shipping companies. For customers auspicious enough to purchase items from Amazon.com, shipping charges were refunded in the event of a late delivery, and for customers who experienced a missing order, even a \$20 gift card was passed on to them with full compliments of the house. But something had to give. To envision a positive future for their business operations, one free from undesirable logistics issues, Amazon decided to develop its own delivery network despite having to give up quite a bit of its profits, stressing the importance of what was often referred to in industry and academic circles as "last-mile logistics" (Bensinger 2014). And who could fault Amazon for trying to put together and manage a successful online shopping store with a business model that took into consideration a customer's complete shopping experience.

"Last-mile logistics is the last stretch of a business-to-consumer (B2C) parcel, from the order penetration point (i.e., fulfillment center) to the final consignee's preferred destination point (e.g., home or cluster/collection point), for the reception of goods" (Lim, Xin, & Srai 2015). Despite this segment being just a small link in a series of links in the trajectory of the product across various strategic logistics points for the distribution and sale of a product in a global supply chain, the irrefutable importance of last-mile logistics lay in the fact that it was the one and only link interacting directly with the final customer, also referred to as the ultimate customer, or consumer. Paradoxically, it remained many times the most problematic, most costly and least efficient of the links, at least when comparing it to the times in the past when the last-mile delivery of a business dealt principally with the transport of large, heavy high-value items. But that was then, and this was now. With the introduction of new web technologies and the explosion of e-commerce, last-mile logistics drew much attention from not only online sellers but shipping companies, placing them in a position to either exploit a 'cannot-miss' opportunity to gain a tactical, competitive advantage, or else succumb to the dire consequences from missing out on sales and profits at the hands of rival companies who would not skip on the golden prospect to improve their business operations. In this one of the fiercest and most competitive arenas, you either had to be the hunter or be the hunted. Consequently, ecommerce companies had to think, strategize, and invest on their logistics if they wanted to shine and surpass the competition.

There was no other way. To win the trust and sales from customers, e-commerce companies had to emphasize timely, reliable, convenient delivery as an integral element of their business model for creating for customers the most rewarding shopping experience. Accordingly, many of these online stores guaranteed delivery time, similar to Amazon's same-day delivery, as a leading edge practice to win customers over the competition, in particular those with traditional brick-and-mortar retail stores. Nonetheless, for many Amazon wannabes, it became another wishful-thinking story, failing to deliver on their big promises. The truth of the matter is that the complex nature of last-mile logistics in the business operations of e-commerce companies imposed mammoth challenges on requirements for third-party logistics (3PLs) services. Concerns were raised by 3PLs not just in their capabilities to move big-size orders at a minimal cost but in moving a soaring number of frequent, smallsize orders for diverse types of items to a wide range of destinations. These limitations and others factored to performance gaps in shipping and higher-than-intended logistics costs. And if that was not enough, 3PLs became troubled with the high number of failed deliveries due to customers who were not at the door when the order was delivered, on top of the high percentage of product returns (a cost that many times is not considered), the unfavorable traffic congestion in high density urban areas, the long line of enforceable and sometimes unexpected local shipping regulations and fees, plus the often-ignored wider-coverage capability for delivering orders to customer in rural areas (Gevaers, Van de Voorde, & Vanelslander, 2011), not taking into account other factors that service providers needed to consider for planning deliveries (e.g., the size and shape of a country).

To counter these types of challenges and optimize a customer's buying experience, a number of ecommerce sites and shipping companies introduced and implemented a variety of novel technology approaches, each tailored to their distinctive situation. On top of the list was the application of trackand-trace technology, so as to increase the visibility of products and orders across a supply chain. Another attractive technology that seemed to catch the eyes of many players in the e-commerce industry consisted of analytics software capable of planning the most efficient of routes for when delivering orders to customers. These two technologies among others were regarded by experts at the time as a 'must-have' means to e-commerce-driven supply chains to deliver superior customer service.

In attempting to evade the shipping concerns of e-commerce companies, 3PLs strategically began to study their customers/partners' requisites for last-mile logistics, including processes and musts and, from data gathered, instituted automatic pick-up/drop-off points at dense and convenient-to-access areas where online shoppers could come in-person and collect their parcels by entering a pin code via SMS message or email provided to them by the shipping companies. While smaller e-commerce retail operations highly valued the idea of outsourcing 3PLs to manage their last-mile logistics and avoid the huge costs for investing and maintaining their own fleets of trucks and warehouses, especially during those business cycles and seasons when sale volumes of products were lower, some retail giants like Amazon, Apple, and Walmart found innovative means to assume responsibility of the last-mile delivery, and in so doing secured a sizably greater control of quality for customer services provided through e-commerce channels. Nevertheless, even with how much control they envisaged having, these retail giants, at least in the short run, relied on parcel delivery partners like FedEx, DHL, and UPS as well as smaller, in-country 3PLs too before their own truck fleets could grow and achieve targeted coverage for product deliveries with the outmost of intended cost efficiency (Cunnane 2015).

### LAZADA VIETNAM: LAST-MILE OVERVIEW

#### STRATEGIC ORGANIZATION AND PLANNING

In order to become more acclimated with the new business environment in Southeast Asia, Lazada built experienced regional strategy teams designed in-mind to study and analyze how to better implement last-mile logistics, specifically the critical functions of their order fulfillment like warehousing, in-house transport, and 3PL-partner relationship management. To acquire this knowledge, benchmark studies were conducted by these teams across the six countries where Lazada operated. From analysis gathered and subsequent discussions and decisions, best practices were rolled out at specific Lazada locations as required. These brainstorm sessions were particularly helpful as a mastermind source of new ideas where members belonging to these teams could learn from each other, and from lessons learnt they could launch strategies for improving customer service, aiming towards making that last mile in delivering orders to customers as successful as possible.

At the regional level, what team members discussed was a strategy for better management of the inventory in order to centralize stocks from different warehouses across countries in the region into fewer locations, so as, for example, not to keep six similar amounts of the same inventory in one country, specifically for slow-selling inventory in long-tail operations. This radical strategy to centralize inventory would have to be started in countries such as Singapore and Malaysia where bordercrossing was easier and then proceed afterwards to Thailand and similar countries in the region where border crossing was not as simple. In view of what would be a very uncooperative business environment with little transparency and huge decoupling challenges for the e-commerce operations of Lazada, the problem became more complicated when looking at the situation in Vietnam where the custom processes were costly and lengthy, one which made it hard to impossible to deliver the orders on time from a centralized warehouse in the region. In addition, the disparity in the naming convention for a stock-keeping unit (SKU) of the same exact product across respective countries was another constraint, requiring from Lazada a thorough, major overhaul for standardizing their product codes if they wanted to successfully fly with the one central warehouse location idea. Much thought was given by the management of Lazada. Would it be feasible for the company to implement the one central location for managing the inventory in a region? After careful consideration, a more practical move was taken by Lazada to lower the high and redundant inventory costs at individual country branches. The online retailer decided to implement a combination marketplace model alongside a retail model in fulfilling customers' orders. Lazada would leave the long-tail products, i.e., those items that were not sold regularly, to local merchants, so that Lazada did not have to keep unnecessary inventory while retaining in stock only those fast-moving, lower holding-cost products, which normally they could purchase in bulk quantities from suppliers and receive higher discounts.

At national level, Lazada Vietnam recognized that in order to survive in a market with fierce competition and demanding customers like Vietnam, it was imperative to deliver a consistently superior customer experience. For that reason as well as to support the young, enterprising company in its efforts to expand to other regions in the country, the top priority for Lazada Vietnam essentially became one towards investing heavily in infrastructure and facilities, specifically in its own warehouses and fleet of trucks. At the time, according to Mr. Fabian Wandt, Head of Retail Procurement, Marketplace Operations, and Content Production for Lazada Vietnam, "Local 3PLs cannot catch up with the required speed to agilely adjust to Lazada's order fulfillment processes. Hence, the focus for Lazada should be to build its own fleet in parallel with the use of 3PLs. We have already deployed our own drivers in Ho Chi Minh and Hanoi for the last-mile delivery operations and in the long-term, our goal will be to reach customers everywhere, even in the smaller towns". Another reason for Lazada in establishing in-house last-mile logistics was to avoid making easy entrance for competitors by unwisely sharing their inside knowledge to possibly untrustworthy local service providers who would also service the competition. Having warehouses near the customer base was also necessary to facilitate quick and effective last-mile delivery. The big picture strategy for Lazada was to have one major warehouse in Ho Chi Minh City, in a section of town that was considered safe, affordable, and easily accessible from major highways. Subsequently, a network of smaller warehouses would be built up in various cities and remote areas to store fast-moving products. The plan of the company was to have a minimum of three warehouses, one in each of the three major regions of Vietnam by 2015 with a combined storage space of more than 10,000 square meters, split mainly between Ho Chi Minh City and Hanoi. Besides these strategies, Lazada also aimed for expanding their merchant network in Vietnam so that orders to Lazada customers would be flexibly supported by various dependable partner-suppliers offering similar products all across the country, thereby feasibly making possible sameday delivery with no or minimal delivery costs.

#### LAST-MILE CURRENT OPERATIONS

#### 1. Distribution of customers

As was indicated by Lazada's chief operating officer, Mr. Gerald Glauerdt, the percentage of target customers between rural and urban areas for the company was around fifty/fifty. In view of that, the German e-commerce company saw great opportunities in expanding its business to the rural market where the purchase basket size was larger, and customers were relatively more loyal. The chief operating officer went further to give an explanation for Lazada's logic to go after this new market, "since the internet was penetrating in these rural areas, customers were offered a wider range of choices of products to buy, more than what they could find at their local stores." What appeared to be a promising opportunity at first glance, it was not when reflecting on the many obstacles that would stand in Lazada's way to reach out effectively to these customers considering the higher logistics costs invested for fulfilling each order, which, when all was said and done, not only drained all of their profit margin but left it with a loss. To better illustrate this point, the average value for an order at Lazada was around \$30 and given the profit margin of 10%, the company would normally make \$3 profit per order. Regrettably, the shipping costs to rural areas were about \$5 on average, much higher than when making the same type of deliveries to customers in urban areas and much more than was laid in the plan for Lazada to make a fair profit, leaving typically the company with a loss of \$2 per order. Therefore, in order to develop sustainably in the future and effectively reach out to customers in rural areas, Lazada had to find ways to develop more efficient logistics systems and reduce the logistics costs while at the same time improved the last-mile customer service.

#### 2. Facilities and infrastructure

For supporting its last-mile delivery, Lazada at the time operated one large warehouse and two transportation hubs in Ho Chi Minh City along with other seven hubs across in Vietnam in Can Tho, Nha Trang, Bien Hoa, Vung Tau, Danang, Hanoi, and Hai Phong. These hubs were relatively small with no considerable investment on information/computer technology (ICT) and acted initially as a drop-off point for last-mile handling and product returns. However, Lazada began to use these hubs as interacting points where customers could seek advice and guidance on how to use their purchased items properly, to place their complaints, and to receive their cash back immediately if they did not want the product or make an exchange. Another advantage for having these kinds of facilities was to conveniently give customers self-pick-up options, which would save them as well as Lazada the shipping costs. The aim of Lazada Vietnam was to offer customers these offline options as they were transitioning to online shopping.

#### 3. Lazada Vietnam's "Last-mile" model

The focus for Lazada was to first enter the region of South Vietnam and then expand later to other regions with a nationwide delivery service. At that time, the average number of daily orders at Lazada ranged from 2,000 - 6,000, which was roughly a gross of 15-30% of the available market. In other words, there was a huge potential for many more customers, and as such many more orders would have to be fulfilled by the company's fleet and shipping partners each day. Consequently, for ease of delivery scheduling and shipping fee calculation, the company divided the geographic territory of Vietnam into six destination zones, assigning a different payment fee for each zone. However, according to a new shipping fee policy that would take effect starting on April 2015, shipping for orders with total payment of 150,000 VND or more would be free of charge, except for bulky/special items which were subject to surcharges. Besides, to improve customer experiences, Lazada also provided an estimate of delivery time specific to each province in Vietnam and tried its best to fulfill the

orders within that target. As such, the expected lead time for normal delivery would vary from same day shipping (if in HCMC or Hanoi) to approximately eight days depending on where the customer was located, while the maximum time that a customer could expect receiving an order was 14 days. Notwithstanding, given the current capacity and facilities of the company, for delivering consistently a positive customer experience across locations in the country was extremely costly for Lazada, chiefly because everything that went to the north region had to be shipped by air. Elaborating on Lazada's predicament to on-time delivery to every customer in Vietnam, Mr. Fabian indicated "Vietnamese people are quite sensitive to lead time, especially in metro areas, and we want people in Hanoi to have the same experience". He also referred to the competition as another reason for incurring more shipping costs by citing the case of Thegioididong, a brick-and click electronic store with more than 250 stores in Vietnam offering an amazing lead time of 3 hours for online purchases. Soon after, Lazada was planning to solve this problem by opening a warehouse in Hanoi.

The method and speed at which orders at Lazada were processed also differed among the two operation models, inventory/retail and marketplace. For the former, inventory/retail model, everything had to go via the company's warehouse. If the product being ordered was cross-stocked with the supplier, Lazada would send a driver to the supplier's' site to pick it up, pack it, prepare an invoice, and ship it to the customer at once. In case the product was in stock at the warehouse, the process was even quicker with less than 20 minutes to fulfill the order. For the marketplace model, the lead time was longer than with the retail/inventory model as more steps were needed to be performed to deliver an order to customer. Nonetheless, with day-to-day interaction along with training of the merchants/suppliers, Lazada Vietnam was able to decrease end-to-end lead time via the marketplace model. The company had a daily delivery schedule for its merchants, i.e., instructions on what to do and by which time, so that when the 3PL express carriers came, the products were available for pick up and shipping to Lazada customers. For instance, the merchants had to look at Lazada's order system between 11 AM-12 PM each day to confirm all the orders placed during the previous hours, pack products, and make sure they were ready for pick up before 3 PM. If the schedule was not met by a merchant, the customer service team at Lazada would call the merchant and check whether anything went wrong. In the event that something went wrong, then Lazada would assist the merchant so that it could meet the cut-off time.

#### 4. The use of an in-house transportation fleet versus transportation partners

At the beginning, 3PL companies played a dominant role in the delivery of last-mile logistics for Lazada. While the e-commerce company's own fleet was used predominantly for the retail/inventory model in areas where the transportation hubs were located, and this handling about 55-60% of the orders, 3PLs partners undertook the delivery of orders for both models on a broader nationwide scale. However, the problem with an express carrier was that money-wise a single 3PL partner did not have the best rates for all destinations and for all items. Therefore, Lazada had to contract with many shippers and from those contracted choose the best of the bunch fulfilling specific orders. Selecting the best carrier was always a bit tricky and time consuming. Looking ahead, the company foresaw a roll out of its own fleet of trucks to do pickups from all the merchants and bring them to strategically-located central sorting hubs where they could scan the order to determine the most cost-efficient means to deliver. When all was said and done, the long-term goal of Lazada was to ensure using only the most capable last mile service providers which could match Lazada's requirements to enable the best-in-class customer service, take advantage of promotions, and potentially reduce the overall shipping costs.

In addition, the decision to invest in its own fleet of trucks was partly because other existing 3PL partners failed in one way or another:

• Vietnam Post (VN Post): VN Post was the biggest local mail/package delivery company and the only service provider able to service all areas in Vietnam, including rural locations where most of the potential customers in Vietnam were located. Despite VN Post's advantageous competitive position, the level of IT implementation was extremely low, processing most of the information for orders manually. As a consequence of this shortcoming, it was very difficult for the company to plan for hundreds of pick-ups a day, even when it had good equipment in terms of trucks. All processes of VN Post were carried out manually, and therefore, it could take from one to two weeks to just receive a notification that the order was delivered and received by the customer.

• Giaohangnhanh (GHN): GHN was a new start-up 3PL company founded by a former IT employee of Thegioididong. With a fountain of knowledge from this expert, the company had quite an insightful analysis view into the needs for companies in the e-commerce industry and a practical understanding of common issues for local 3PLs. The best aspect of this carrier was that it had a well-developed and easy-to-connect IT system that was compatible with the one being implemented by Lazada and as such offering real-time synchronization for better delivery coordination and order tracking. However, the problem of GHN after its rapid expansion from 10 to 50 areas in only one year of operation was that the shipping company decided to slow down with its plan to build up its volume capacity and coverage outside big cities mainly to make sure the business ran profitably. At its current pace, it could take GHN at least 2 to 3 years to develop the infrastructure to reach destinations all over Vietnam.

• Smaller carriers: these companies were small scale, family operations and used mostly motorbikes for delivering small-sized items in the cities. Although many of them had their own IT systems, these 3PL operations invested more towards their own planning when it came to the delivery schedules and route planning and not volume capacity. Lazada still contracted with a number of these dime-by-the-dozen players to deliver orders for small merchantspartners and for pick-up points that only had one or two items.

### LAZADA VIETNAM: LOOKING AHEAD AT IMPROVING THE LAST-MILE

Thinking through the logistics complexity for delivering packages in the e-commerce market of Vietnam, intensified by the big opportunities and open doors available to new domestic and international e-commerce companies looking for abundant and promising markets like Vietnam where they could step in and dominate, Lazada understood that it needed to take action as soon as possible in building customers' trust and loyalty through superior last-mile service. As such, the top priority of Lazada was to get the lead time down to a competitive minimum, one acceptable by local customers, and according to Mr. Fabian, the company was employing various methods for achieving this objective.

Internally, Lazada would accelerate its investments in warehouse infrastructure and in the rollouts of new hubs, which were done only conservatively in areas where they saw distinctly sustainable order volumes. By the end of 2014, the company would bring into operations a new warehouse in Hanoi, which would help them serve customers in the north more effectively and save potential shipping costs. By having stock close to this customer base, Lazada would be able to offer same day delivery in Hanoi, similarly to what they were doing in Ho Chi Minh City. Furthermore, the company would focus on investing in information technology, equipping its drivers with hand-held devices to update the delivery status of orders in real time. This would help Lazada keep track of shipments, which could be used as evidence for resolving disputes with customers when complaints arose. Furthermore, IT would be used to handle operations in the marketplace model, including managing order pick-ups at the suppliers' sites, deliveries to sorting hubs, and the dispatching of the order to the final

destination, either by 3PL or by their own fleet. Lastly, and most significant, customer service training had to be provided to drivers in how to conduct themselves properly when interacting with customers and partners, not an easy task to do.

Reflecting on how to better integrate transportation and merchant partners together with how to support Lazada in implementing a more effective last-mile strategy, Mr. Fabian pointed out that it was very tricky and costly for them to equip thousands of their drivers with electronic devices to track the shipping process. Lazada had discussed with their partners about a way to improve the visibility of the delivery process, but still this step required a huge investment from all parties. The partners of Lazada Vietnam knew this new German company in the e-commerce scene in Vietnam was quickly expanding, becoming a more significant player, one with grander popularity for attracting local customers to purchase products time and time again, and one with many potential business opportunities ahead. As such, the concerns and interests of Lazada Vietnam had to be taken more seriously by 3PL companies. At first, this would require for Lazada and its partners to better integrate, to connect their information systems with an Application Programming Interface (API), which allowed for automatic updates across systems whenever a party made a change in its own system and thus, provided real-time visibility across collaborating companies.

With respect to its merchants and its marketplace model, Lazada was working hard to make improvements on a new mobile operating system called Seller Center as well as keeping up with some of the latest customer-focused Smartphone trends. Lazada had formerly launched Android-based Seller Center applications to help merchants manage their shops everywhere and in the future would be introducing similar applications for IOS systems. This technology would offer many valuable uses. For example, when a merchant accepted an order, an automatic message would be sent to the 3PLs informing them about a pending order ready for pick-up. It would take the company some time to make the communications between their systems and partners' systems fully integrated. Moreover, the company was developing a feature which would recognize the online shopper's location and referred them to the closest merchant.

Finding that one right strategy or set of strategies to help successfully transform the last-mile logistics of Lazada Vietnam and guarantee complete customer satisfaction in the demanding eyes of the Vietnamese online shoppers appeared so close, but in reality it was a thousand miles away. Valuable direction would be called for from an expert team like yours to help Lazada Vietnam successfully move forward.

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#### Lazada's Last Mile



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