

PLATFORM PLAN FOR SHARING ECONOMY AND LAST-MILE DELIVERY IN FINLAND

Case Study: Company X

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Abstract

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Platform Plan for Sharing Economy and Last-mile Service in Finland		
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<p>Online sharing platforms are taking off globally. The sharing of information and resources through the network is gradually changing people's consumption patterns and habits. The market strategy of the traditional industry also begins to shift to the online market gradually. As the main carrier of the concept of sharing economy, the online platform of sharing economy is invading people's life and consumption behavior, which also nourishes more opportunities and market space. The main purpose of this article is to find out the impact of sharing economy services and platforms on last-mile delivery. In addition, based on the results of the study, the final goal is to create a plan for a sharing economy platform on last-mile delivery service.</p> <p>Qualitative and quantitative methods are used in the report. The research data is collected through primary data and secondary data. Primary data relies on an interview with a case company and two surveys. Authors' own experiences in Information Technology is also used as internal sources for the plan. The secondary data is based on previous materials, for instance, published books, journals, and online text. In addition, a SWOT analysis is conducted to carry out the evaluation results of the plan.</p> <p>It is concluded that the opinions and aspects of the new platform should consider the fairness of both customers and merchants when designing the platform service. In addition, it is found that the biggest challenge of sharing is the integration of cross-industry operation mode. Enterprises should not only focus on the market share of online-order delivery but also need to realize the diversity of consumption mode to create a greater value of products and services.</p>		
Keywords		
Sharing economy, last-mile delivery, platforms, small products delivery, catering, online, business, plan		

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1 INTRODUCTION

This thesis examines how sharing economy services and platforms affect last-mile delivery in Finland. In addition, based on the research results, the authors explore a new platform plan which is designed for road last-mile delivery service in the Finnish market. The thesis studies on a particular case company, Company X, that operates in the catering industry. The aim is to discover a plan for a new sharing economy platform which mainly used for the last-mile delivery purpose.

1.1 Theoretical Background

Tsui (2016, 79–80) discusses the concepts of sharing economy and common property. Lacking contract selection can lead to costs in unbonded collective goods. Trust is the soul of sharing economy. Even if sharing economy is just consumer's co-operative activity or collectivism, any efficient and cost-friendly transactions within a community are considered as favourable. Tsui states that communalism is not the innate character of successful sharing economy companies such as Airbnb and Uber. Tsui considers it is a valuable topic to investigate how information technology impacts the business trade costs and its sustainability in sharing economy agreement.

Sharing economy is based on technology development, the main carrier of science and technology is information network and electronic equipment. Finland has a high PC individual ownership rate in Europe. Finland Economy (2011) compared the numbers of the personal living standard from Finland to Western European countries between 2010 and 2015. In Finland, the number of personal computers owned per 1,000 residents was 694 in 2010. In 2015, the number had increased to 937. In contrast, during the five-year period, the number of personal computers owned per 1,000 residents in Western-European countries ranged from 151 to 184.

With the development of e-commerce, the influence of last-mile delivery plays a key role in the whole logistics supply chain. Over the next five years, e-commerce volumes are set to exceed \$3.5 trillion in the United States. Amazon has made the market its top priority, including a range of links to retailers and customer services. (Bringg 2018.)

As noted above, the development of modern technologies and platforms has given the sharing economy a very large space for development, and in Finland, the number of personal computers per capita has exceeded Western European countries by more than four times. This gives the technology and sharing economy platform a great opportunity to

spread since network platforms and information technology are disseminated through electronic devices.

This research will focus on the impacts of sharing economy services and platforms on road last-mile delivery services in Finland. Since the case Company X is a catering service firm, the authors will cover the research of Company X's current in-use experiences of sharing economy services and platforms in last-mile delivery. In addition, a new platform plan, based on the concept of sharing economy, will make a basic conceptual statement, functional description, and feasibility analysis. This study takes Company X as the original research model, however, mainly applies to not only food delivery, but also any small product last-mile services.

1.2 Pragmatic Background

The case company has a catering business in Helsinki. Restaurant X is running the core business of Company X for the moment. The restaurant has cooperated with the following third-party delivery service providers: Wolt, Foodora, PIZZAonline, Offerilla, and Let's Deal. There is potential for growth in the take-out food delivery business in the Finnish market. However, due to funding and some other reasons, the case company's existing cooperation platforms have also forced them to seek for other ways to sell and deliver. According the manager of Company X, they had three reasons to search for alternative ways to deliver meals.

First, Finnish labor costs are so high that hiring a full-time delivery employee will account for nearly 30% of the business revenue. Second, the commission fees for third-party platforms are high, approximately 30% of the total sales. Third, service quality varies as third-party platforms may have a limited number of riders available especially at the time of big festivals. Restaurants' rush hours are extended during busy days, similarly, the delivery time, which further affects the quality and freshness of the food.

In addition, sharing economy is an interesting topic to research. The purpose of this paper is not only to study sharing economy and the last-mile, but also to use information technology to create a sharing platform plan that can be applied in the future. Moreover, the practical context of the study applies to local logistics providers, information technology companies, local retailers, and other researchers on the subject.

1.3 Objectives of the Research and Research Questions

Tsui (2016, 87) explains that transaction cost and transportation cost are two different things. In sharing economy, anyone who owns dormant assets can earn extra income via technical devices, online services, and secured payments.

The objective of the study is to find an efficient and economical way for last-mile delivery service. In addition, a more specific plan about the implemented technology is given in the the thesis.

The thesis aims to answer the following five research questions. The first question is the main question of the whole study, the rest of the questions are the subordinate questions.

- 1) How does a sharing economy platform affect last-mile delivery?
- 2) What stimulates the participation of sharing economy?
- 3) What functions should a third-party sharing economy platform have?
- 4) What are the opportunities and risks of the new platform plan?
- 5) What are the marketing spaces in Finland for a sharing economy platform?

1.4 Research Methods

Primary data in the thesis will be collected by a qualitative interview and two seven-question surveys in China and Finland. In addition, a representative of the case company will be interviewed to understand the company's situation. The survey will be collected with random ages and genders in both nations. Moreover, secondary data will be gathered from previous studies, textbooks, materials and online journals.

An interview has two parties: an interviewer and interviewee. Patton (2002, 341–347) states three types of interviews; having an interview through a general conversation, regular leading interview, and orthonormal interview with regular start and ending sections. An interview can, for example, have the following structure: an opening part, a transition, key questions, a conclusion, and possible additional questions. The introduction will be covered in the opening part which allows the participants to introduce themselves and get to know the general topic of the discussion. The transition supports a move forward to the more in-depth questions. The key is to motivate the interviewees to answer the key questions. After this, the interview is concluded. Finally, the interviewees should have an opportunity to give additional opinions not mentioned during the interview.

Case study is used for analyzing Company X's current situation, for instance, its marketing strategy, outsourced cooperations, problems, etc. The two surveys will be conducted in statistical approach, quantitative research method will be mainly used in the numerical analysis.

1.5 Research Limitations

The thesis focuses on the Finnish industry, especially last-mile delivery services based on sharing economy platforms. Last-mile delivery can be either air or road delivery in Finland. Many express companies outsourced last-mile delivery to other parties. Posti, the Finnish postal service, has been using the SMARTPOST box for last-mile delivery since 2010 (Cleveron 2017). This thesis will only focus on sharing economy concepts and platforms which are offered for road last-mile delivery services.

The study focuses on Finland, therefore, due to geographical and cultural factors, the results might not be applicable elsewhere. In addition, researching the third-party platform is limited to introducing the basic functions of the platform and its operation logic. The thesis only provides a plan of the platform and does not aim to create such an actual platform in this paper.

1.6 Preliminary Theoretical Framework

The theory resources in this article come from two sides: internal sources and external sources. The internal sources are primarily from interviews and surveys, in addition, the internal sources also includes authors' own study and experiences on Information Technology, which will be mainly applied in chapter four. The external sources depend on online-books, journals, published informations.

The theoretical structure of this article is divided into eight parts: the first part is the background statement of the study, which includes the development of sharing economy in recent years and its impact on the local people and traditional businesses in Finland. Combined with the case Company X's actual investigation background, the investigation of the problems are discussed. The second part describes the process of development, that is, the case analysis of sharing economy and last-mile and the analysis of local reality in Finland. In this part, the author describes the theoretical knowledge with the practical cases and results of sharing economy and last-mile. The third part continues with the current platforms analysis in the Finnish market and planning cooperation parties with the platform

plan. The fourth part describes the core content of the research purpose, that is, to build a plan of the new sharing economy platform based on theoretical knowledge. In chapter four, where the theoretical operations will be covered with authors' own study and experiences in Information Technology area, the contents rely on figures, tables, and text. The followed part explains the market analysis and the analysis of the previous materials, including the case Company X interview analysis, the results of two surveys. The sixth part also carries on a SWOT analysis around the new platform construction. Induction and summary follow as the last two sections respectively. Among them, the inductive part answers the research questions, analyses the validity and reliability, and gives some suggestions for the future.

2 SHARING ECONOMY AND LAST-MILE DELIVERY

This section interprets the sharing economy and last-mile delivery. Three parts are listed to discuss sharing economy, which are defining the concept of sharing economy, example companies, and sharing economy in Finland. The rest parts gives a discussion about last-mile and last-mile in Finland.

2.1 Defining Sharing Economy

The European Commission has considered “sharing economy” and “collaborative economy” as two counter changeable terms (EU Commission 2016). Bostman (2013) pointed out that “collaborative consumption” is an analogical term as “sharing economy”, the activities include exchange tangible goods, assets by renting, sharing, lending, and interchanging, etc.

The concept of sharing economy leaves a debate among the contenders. Among some disputants, especially the National labor unions, the significance of sharing is vital to the system. (Dølvik & Jesnes, 37) The definition of sharing economy is differentiated from groups to groups. Several Nordic labor unions, for instance the Swedish Trade Union has defined the notion of “platform economy” as sharing economy. (Söderqvist 2016)

Sharing economy is not going to be known widely without technology. With the improvement of digital services, technological innovation has brought a plenty of convenience, however, neither the operation mode nor the technology applied in sharing economy are completely fresh. The idea of technology used in sharing economy was historically emerged in the early 1990s which built platform technology for dispensing assignments and analyzing data via a “virtual cloud” (Ljungberg 2000, 213-214).

Andreassen (2016, cited in Nordic Council of Ministers by Dølvik & Jesnes) explicated that although sharing economy has been defined by many scholars, there are still some misunderstandings about the phenomenon. For instance, the huge differences between sharing economy platforms also add to the confusion about what the phenomenon is. These platforms serve different targeted customers according to the companies’ industries and main business line. The accommodations intermediary form could be entirely diverse from car renting. One way to make a distinction between such platforms is examining the providers and users, another distinction is to understand whether the platform is profitable or not.

2.2 Example Companies

Governments support the conception of sharing economy for its positive influence. However, the tremendous multiformity of different firms are designated as sharing platforms, and a number of arguments show that it is not sharing at all to some extends. (Dølvik & Jesnes 2018, 41.) The following cases gather some basic concepts of sharing mode and how it works in reality.

2.2.1 Uber

Among the many ride-hailing apps, Uber is a good example of the sharing economy. By downloading “Uber” app, registration, and adding payment methods, users can easily get a preferential ride within a certain waiting time. Uber is often carrying passengers within the same city and short distances by using drivers’ own cars. (Uber 2016.)

Uber does not own any single car by itself but connect riders and travellers online through a smart phone. In Finland, being a Uber driver requires only the following six steps in Table 1 (Uber 2018):

Table 1 Become an Uber driver in six steps (Uber 2018)

Step One	Sign up online with a brief self-introduction and a smart electronic device.
Step Two	Make an appointment for personal visit to Helsinki office to get to know more.
Step Three	Be prepared for Taxi Drivers License and Taxi Operating License.
Step Four	In this step, there are some paper documents needed to be checked. First, all drivers need to get a valid B Driving License for at least one year without any offences. Second, authoritative licenses information must be proved, including Driver License, Taxi Driver License, and Taxi Operating License. Third, business registration extract, vehicle registration extract, and a clear profile picture of driver should be provided.

Step Five	Make sure your car is up to Finnish standards, for example, the car should not be used for over ten years, four doors and four passengers, not an assembly car. In addition, the car is registered as a professional vehicle.
Step Six	The driver's account can be activated after all the above five steps have been completed.

2.2.2 Munchery

Munchery was founded by two Vietnamese in the United States in 2010. Figure 1 (Munchery 2018) gives a flow chart for the idea of Munchery by launching the local raw food materials from local suppliers to the chef's table. Munchery is mainly organizing the dinner delivery services from chef's kitchen to dinner hunters through a pick-up window and be delivered by Munchery fleet riders. The ordering time is up to 18 o'clock. In addition, Munchery provides continuous changing menu by chefs, and customers can rate their favourite ones. Diners are also encouraged to send any feedback and extra information directly to food maker in Munchery platform. (Munchery 2018.)

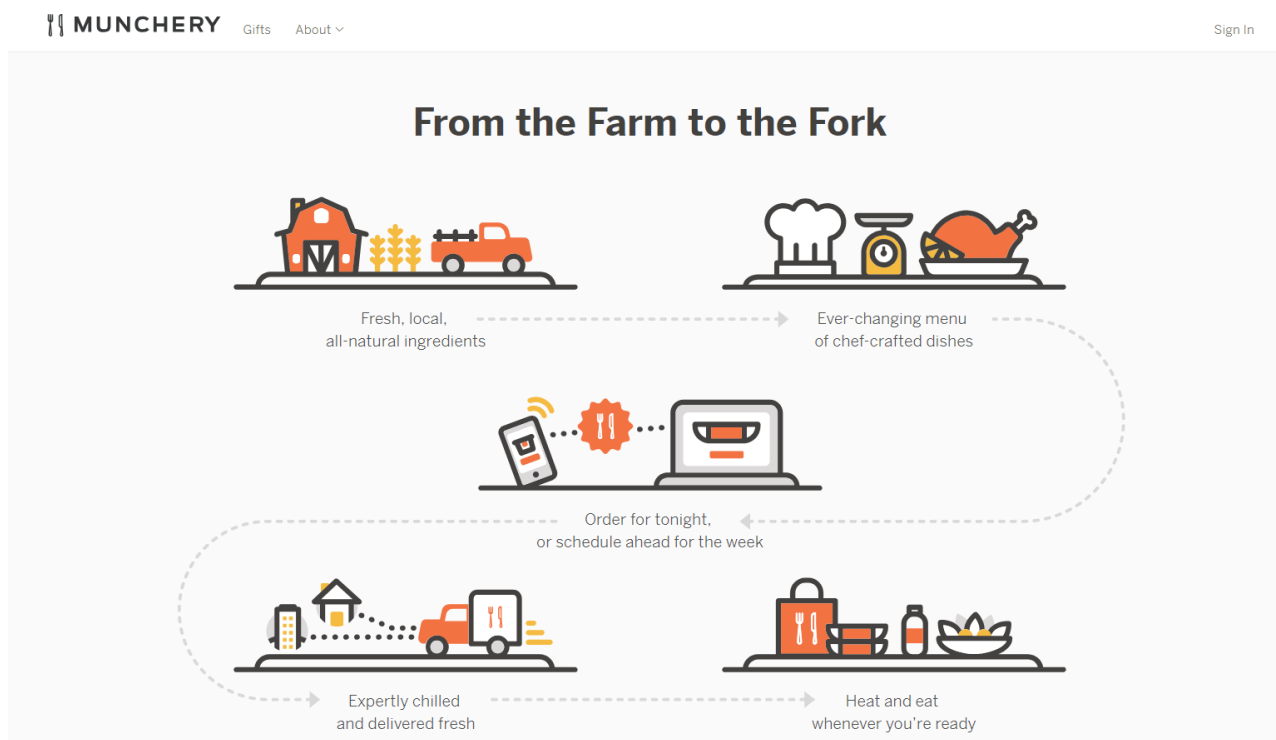


Figure 1 Home Page of Munchery (Munchery 2018)

It is worth to mention that Munchery has become the operation mode of membership system. By joining Munchery membership plan with \$6.95 per month, users get fifteen percentage off from the original menu cost. In addition, diners are able to beneficial from Munchery's all marketplace items with up to sixty percent off discount. (Munchery 2018.)

The screenshot shows a 'Plans' section with the heading 'Choose between enrolling in our optional membership or ordering as a guest.' There are two main cards. The left card is titled 'GUEST ORDERING' and shows a price of '\$0.00/mo' with an orange button labeled 'Order as a Guest'. Below it, a checkmark indicates 'No commitment - Regular pricing on all menu items'. The right card is titled 'MEMBERSHIP' and is marked as 'BEST VALUE' with a yellow banner. It shows a price of '\$6.95/mo' with a sub-note 'Billed Annually (\$83.40)' and an orange button labeled 'Order as a Member'. Below it, two checkmarks indicate '15% discount on all menu items' and 'Perks including special discounts and exclusive offers'.

Figure 2 Munchery Membership Plan (Munchery 2018)

Munchery has become a \$300 million firm during the past several years. The founder of Munchery, Tri Tran, tells that more than ninety percent orders are from regular customer. Among those orders, more than a half come through mobile applications. Thus, the mobile adoption of Munchery has climbed more than tenfold over the last year. (Kosoff 2016.)

2.2.3 Postmates

Postmates (2018) is a city logistics and distribution platform which professes that they deliver anything in the same city on the same day. Postmates builds connections between local stores and customers by encouraging individuals to become a poster.

"Focus on building amazing products and leave the last mile to Postmates" .(Postmates 2018)

Signing up as a post mate is free of charge. In addition, Postmates promises that their delivers get full paid once the mission was completed. The following three steps in Table 2 show how to become a post mate (Postmates 2018):

Table 2 Become a post mate in three steps (Postmates 2018)

Step One	Register a personal account by providing identification proof, profile photo, and your self-introduction.
Step Two	Once the identification has been confirmed, Postmates will send their registers a free delivery bag and prepaid card.
Step Three	-Interlinkage the prepaid card -Install Postmates application -Start accepting delivery missions and making bonus

2.3 Sharing Economy in Finland

Sharing economy in Finland is not a brand new idea. In other words, Finland already operated some sharing economy activities in many different industries. This chapter gives some examples of sharing economy in Finland.

2.3.1 Slow Fashion

“Slow Fashion” (VisitFinland 2018) has become a trend in recent years in Finland. As it is known to all, Finnish design has a remarkable influence which aims at producing natural and simple design products but also are able to stand the test of time. Globe Hope is a pioneer brand of “Slow Fashion” which was established by Seija Lukkala in 2001. Globe Hope produces all new garments without new materials which are made entirely of recycled materials and scrap materials.

In Finland, a fashion revolution has begun to emerge in the street corners. The upgrade cycle is a new form of recycling to ensure that no more landfill waste is generated. Nostalgic and secondary markets thrive, providing an affordable and imaginative alternative to buying new models. At the same time, the sharing economy reinforces community cohesion, clothing swaps, clothing rental websites and flash-fix cafes. (VisitFinland 2018.)

2.3.2 Restaurant Day

The idea of the Restaurant Day was born in Helsinki in 2011. It originally spread mostly on social media, until a wave of "food for all" that swept the world. Restaurant Day has become a successful event for sharing economy example in canteen industry. Over the past two years, small restaurants have been springing up from residents' homes, backyards and sidewalks, and restaurant day has become popular, spreading to large areas as far north as Iceland and south to Colombia. The day has developed into food festivals in Ivalo, Finland, Singapore, Jerusalem, Poland, Santiago, Russia, Yekaterinburg, Lisbon, Australia, Victoria, Japan, etc. Between the start and the fifth year, Restaurant Day has achieved remarkable results. In less than 1/4 food carnivals around the world, Restaurant Days created 27,000 restaurants by 100, 000 restaurant owners and served 3 million customers in 75 countries. (VisitFinland 2018.)



Figure 3 Restaurant Day Event on Facebook (Restaurant Day 2018)

Restaurant day is celebrated four times a year in February, May, August, and November. Restaurant Day is about fun, creativity, inspiration, and communal spirit. From the "fun and delicious with family and friends" style of entertainment, Restaurant Day has now developed into a global movement that has influenced the future development of the edibles culture. In 2011, the Restaurant Day got a nomination for the Culture Art of the year in Helsinki. Moreover, this event was also nominated the Food Event in 2013 in Copenhagen, Denmark. The influence of Restaurant Day is continuously growing worldwide. (VisitFinland 2018.)

2.3.3 City Bike

Helsinki City Transport agency (2015) and Helsinki Region Transport agency signed a ten-year agreement of Helsinki City Bike system construction implementation in 2015 with a

budget of 12,950,000 euro. The first batch of urban bikes went into use in 2016, with five hundred shared bikes first available at fifty bicycle parking stations. Riders are able to choose a pass above three options: day, week, or season. Figure 4 shows the seasonal fee for a city bike with unlimited thirty minute rides is thirty euro, the weekly rent for one bike is ten euro, and the daily ride with up to four bikes, five euro for a single bike will be charged. The transaction is calculated every half hour, and the maximum usage time is five hours. Eighty euro delay fee will be deducted from customer's account. (HSL 2017.)

Season	Week	Day
30 euro	10 euro	5 euro
Unlimited 30 minute rides, 1 bike	Unlimited 30-minute rides, 1 bike	Unlimited 30-minute bike rides, 1–4 bikes, 5€ each

Figure 4 Helsinki City Bike fee (HSL 2018)

Local residents in captical areas of Finland can easily get access to how to use a city bike by the following four steps in Table 3 (HSL 2017):

Table 3 Use a HSL city bike in four steps (HSL 2017)

Step One	Register a personal HSL ID for receiving PIN code for unlocking a bike.
Step Two	Collect the nearest bike station on map.
Step Three	Start your journey with up to thirty minutes ride each.

Step Four	Return the city bike to any near by parking point, the user's liability is terminated when a successful return is confirmed by saying "OK" on bike screen.
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The capital area in Finland is the target sharing bike firstly testing zone. Now, Helsinki has one hundred and fifty city bike stations, Espoo owns seventy parking points. In addition, thirty-five more stations will be updated. In total, 2,550 city bikes will come into sharing service. (HSL 2017.)

2.4 Last-mile Delivery and Last-mile Delivery in Finland

This part introduces last-mile delivery and last-mile delivery in Finland. In the first section of this part, last-mile delivery is explained by previous materials, such as the influence of last-mile delivery in logistics, how does online business affect last-mile delivery, what kind of last-mile delivery approaches are used, and what kind of last-mile delivery solutions are provided, etc. The second part of this chapter dicusses last-mile delivery in Finland. This part explains last-mile delivery from two Finnish companies, Posti and Gigantti.

2.4.1 Last-mile Delivery

One of the main factors which causes great impact on mass transportation of mercantile cars in the whole urban area is last-mile delivery. With the development of the Internet and the popularity of electronic commerce, the final delivery mode is not limited to one way, that is, delivery confirmation between the courier and the receiver. The diversification of delivery modes for the last kilometre greatly reduces the cost and operational rationality of the transport system, including the reduction in the scope of using vehicle cargo loading tanks. As online shopping and distance trading increase, so does the importance of this delivery. (Iwan, Kijewska & Lemke 2016, 645.)

Global B2C E-commerce Report (2014) gave a data which explained that B2C business sales have been climbing up stably since 2010. The authors of the E-commerce report vividly elaborated that the increasing rate during the last several years has been consecutive with the mean value of 23.6%. In addition, such steady growth was undoubtedly an amazing result during the global financial crisis (Nagelvoort, Welie, Brink, Weening, Abraham 20).

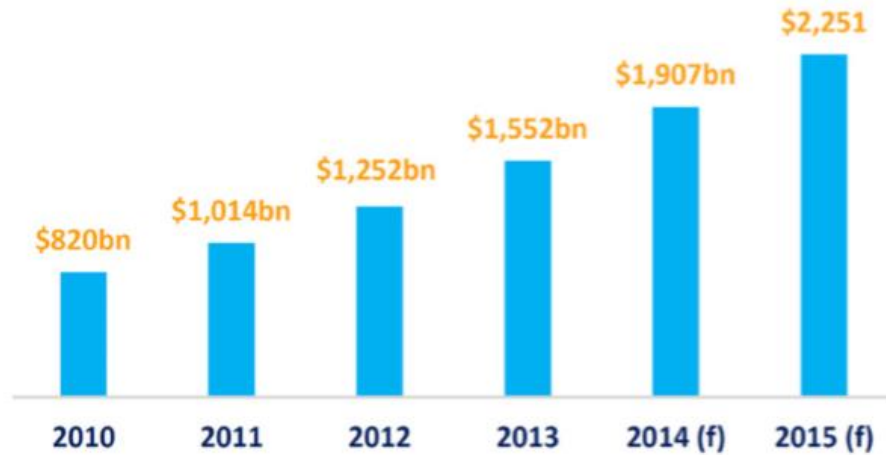


Figure 5 B2C e-commerce sales increase since 2010 (Nagelvoort et al 2014, 20)

Durand and Gonzalez-Feliu (2012, 512) have concluded that the particularity of electronic commerce is different from traditional shopping mode. So, most of B2C market operation is personal or family shopping behavior. Based on this phenomenon, home delivery can be classified into three categories: delivery from supermarket to home, door-to-door delivery from designated warehouse, and delivery from outdoors.

Table 4 Home delivery categories and description (Durand & Gonzalez-Feliu 2012, 512)

Home Delivery Category	Description	Location	Transportation Tools
Delivery from supermarket to home	Orders are often placed either delivered directly to home or picked up by consumers themselves.	Urban area, shopping center, outskirts	Mainly by car or other tools.
Door-to-door delivery from designated warehouse	Orders are basically prepared in a warehouse which managed via supply chain.	Suburban district, outskirts	Light goods vehicles, small city freighters
Delivery from outdoors	Orders are picked up by end consumers through the nearest point.	Residence area	Walk, bike, car, or other tools.

Due to the warehouses locations vary from different delivery contents, it is very vital to select the best pick-up point where the order can be prepared for updating to supply chain. In addition, use light goods vehicle for transportation by choosing an optimized route to the final destination saves a lot of expenses. Traditional e-commerce with certain limitations is suggested to combine with small city freighter to reach the termini. (Durand & Gonzalez-Feliu 2012, 513.)

An order is mostly expected to be delivered directly to house which is often organized by external express delivery firms. However, one of the hardest challenge is the online orders are typically very decentralized. In addition, the demand from buyer is always purchasing small amount but awaiting for fast delivery speed. So, this stimulates and promotes the intense competition of express service industry. Express companies make effort to satisfy customers need by increasing transportation costs, for instance, unfilled commercial vehicles offer delivery transportation service normally. The negative impact of e-commerce demand does not make advantage for those express industries, and this is of great significance to the development of the whole logistics industry. (Iwan, Kijewska & Lemke 2016, 645.)

Therefore, a series of last-mile delivery solutions have been researched and appeared in the market finally to respond the continuing growing demand of express delivery need. Most popular last-mile delivery solutions have been tested and applied in nowadays urban cargo system. The main solutions (Table 5) included (Allen, Thorne & Browne 2007, 41-49):

Table 5 Last-mile delivery solution in current urban freighter system (Allen et al. 2007, 41-49)

Solutions	Description
Reception boxes	The location of the boxes have permanent fixation to outside door of the receipts. Ideally on the wall, to which the entrance permission with a key or digital code. The message is sent by mobile phone or email. Applied mainly for parcels, however, if the temperature can be adjusted, can also be used for food;

Delivery boxes	Owned by the retailer or express firms, filled with commodity at the distribution station, then transitorily connect to the locking device on customer's wall via a secured point to house; after that, delivery company collect empty boxes or those with returned ones as separate collection or a part of next delivery;
Controlled Access Systems	Offer tools for the post man who can enter the locked zone to leave the goods inside; keys can be located in a unit, which needs a code to release the key;
Collection points	On the basis of the applying locations rather than recipient's home, items are transported to the nearest post office, convenient store or fuel station which have longer opening hours. Goods are delivered by retailer or courier to the receiving point and customer is noticed to pick up the product. Customer is liable to discuss with the collection point if they expect home delivery. Those collection points reduce the delivery destinations and ameliorate the drop density.
Locker-banks are groups of reception box units (lockers)	<p>Similar with the collection stations, but they are not allocated at customer's premises, however, locker-banks are placed at apartment, working area, parking ground, train station, etc. Clients are not often to be distributed their individual locker since the locker has a changeable key code for the access possibility, in which are also used for other shoppers. Locker-banks are not probably served for only one express or many. Recipients might be informed the detailed time, box number, private code when it is available to pick up. The last-mile delivery via lockers needs the cooperation with clients. In addition, the selection of the lockers locations is always updated with the nearest distance from customers.</p> <p>Example: PackStation by InPost.</p>

2.4.2 Posti in Finland

As a main national delivery service provider, Posti has given a great contribution in domestic market. Posti (2018) offers customers ten types of products which are postal parcel, Posti

Express Parcel, postal parcel plus fast track additional service, small parcel or letter, Posti Home Parcel plus fast track additional service, Posti Home Parcel plus Express Freight for the evening or home delivery, freight plus delivery to private persons, priority parcel, EMS, and Parcel Connect. Among those services, postal parcel, Posti Express Parcel, and postal parcel plus fast track additional service can be picked up at Posti smart box point with a verified notification message when the items are available to be collected. Posti Express Parcel, for example, from warehouse to a shop, is an option for online shopping customer to pick up products at a local store. It is worth to highlight that Posti might not feel guilty for any late online delivery since the delivery process shall be completed only when the online store's own process is terminated and transferred to Posti transportation responsibility.

Last-mile means to transport the goods from the last point to the destination. The destination could be the receiver's home, workplace, or a touch point, e.g. Posti smart pick-up box terminal. Posti occupies a large market share of Finnish last-mile delivery service. *"Around 70% of our customers tell us they prefer parcel terminals to home delivery and pick-up/drop-off points"* (Cleveron 2017).

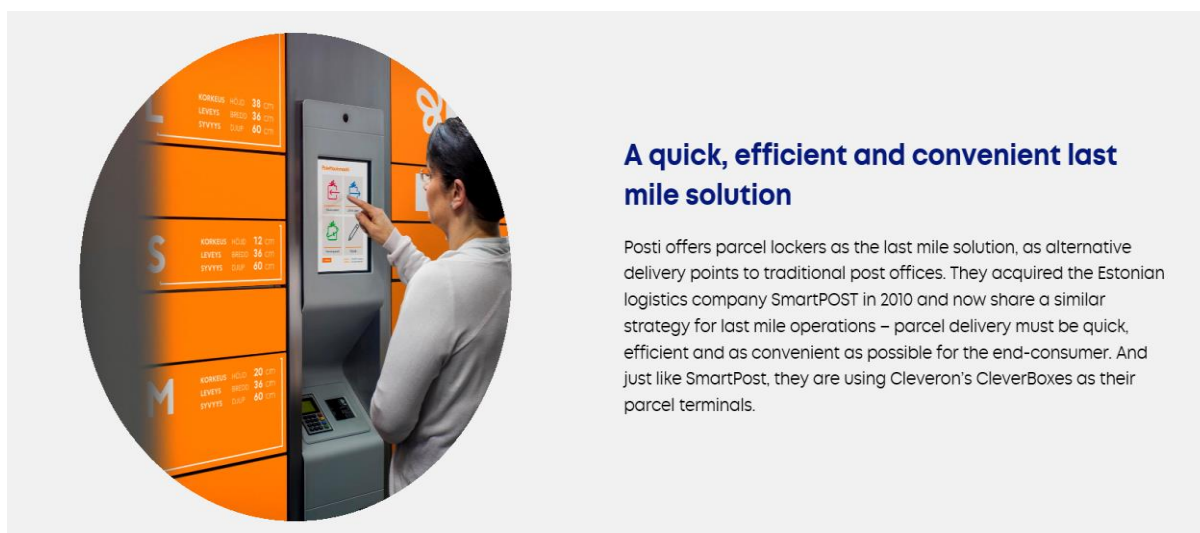


Figure 6 Cleveron's CleverBoxes (Cleveron 2017)

In addition, last-mile delivery with clever box has succeeded in Finland with an increase of 39% in the total annual parcel volumes. Last-mile delivery has a large opportunity to be updated with the support of technology and cooperation of supply chain. Parcel lockers are basically situated long-working hours buildings, such as shopping center, which has facilitated transport connection. In addition, the designers considered the routine of the boxes along with users' general traffic destinations. Posti uses in-door terminal for the convenience of the customer to prevent possible damages and offers a handy way at pick-

up service point. Posti purchased a logistic company named SmartPost in Estonia, currently this solution, as an alternative for last-mile delivery in Finland has won excellent feedbacks from customers. Meanwhile, showing the efficiency, speed-up, and easiness to Finnish locals by SmartBox have added a plenty of confidence to expand similar self service facilities. (Cleveron 2017.)

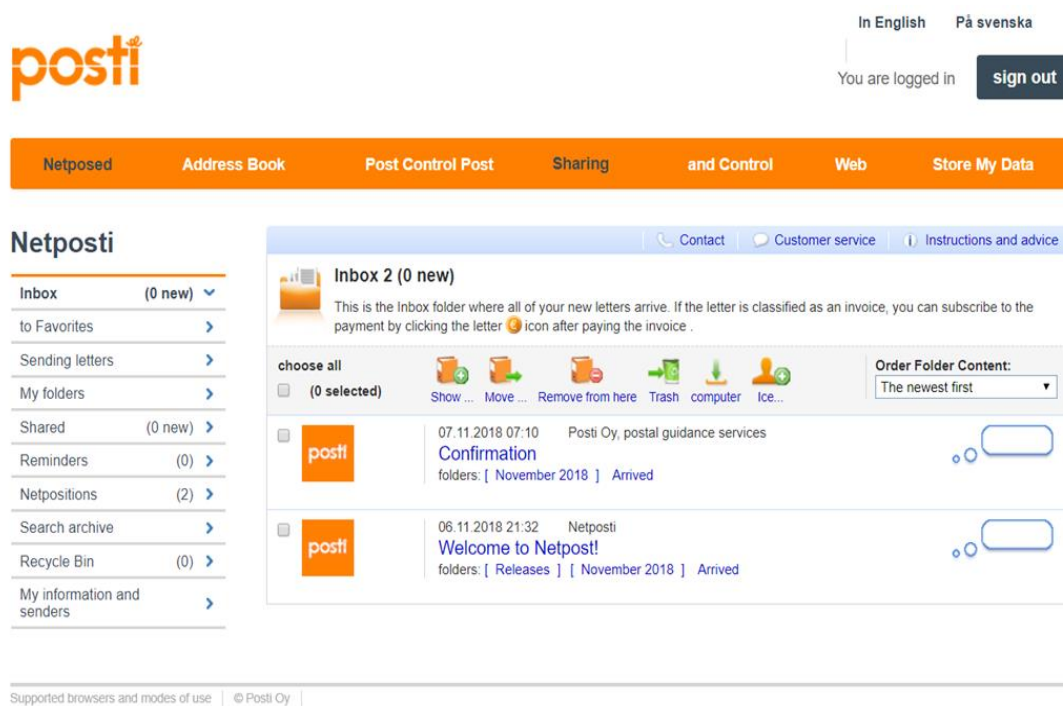


Figure 7 Netposti Loggin Page (Posti 2018)

Moreover, Posti interacts with its customers with the development of internet and technology continuously. Netposti is one of its free service for all residents in Finland with valid social identity numbers. By signing up to Netposti, every individual is able to read, pay, and check any letters from different associations, such as payroll count and invoice payment whenever and wherever. It is recommended to mention that with Netposti, users are no longer dealing with waste papers, additionally, the messages received in Netposti can be remained up to seven years as long as the customer information is valid. (Posti 2018.)

Parcels can be collected at a pick-up points, for instance at K-Citymarkets, R-Kioski kiosks, Posti's post offices, and K-Market grocery stores in Finland. The item package is selected according to recipient's home address and transported to the nearest collection reception. A personal identity check is needed for verifying the taker. Those collection points, for instance, K-Market, is not only served for one express company. DB Schenker (2017) signed a contract with K-Group to extend its goods pick-up service to K-food stores. Matkahuolto (2018) corporated with K-Market for assigning the items with maximum weight

of ten kilograms. The parcels from PostNord (2018) can also be collected by shoppers by the nearest K-Market.

2.4.3 Gigantti in Finland

Gigantti (2018) is one of the best-known home electronic chain brand in Finland. It is part of the biggest Nordic electronics retailer Norway's Elkjøp Nordic AS group. The central warehouse in Jönköping, Sweden provides the products through Nordic countries. Gigantti founded the first store in Vantaa, Finland in 1999. Today, Gigantti has thirty-nine stores in Finland, hiring more than one thousand employees. Customers receive online order directly from its original warehouse in Jönköping, Sweden. Gigantti's central warehouse serves approximately 1,500 orders every single hour. In 2017, the CEO of Gigantti Irmeli Rytönen (2017) announced to focus on mobile phone market in Finland, launching a new chain of local stores in city center or shopping center.

Gigantti delivers products and provides installation service if required. In addition, an old home device can be recycled with a certain recycling fee. Gigantti promises fifty days return and exchange policy. It is worth to mention that Gigantti supplies customers last-mile delivery not only with home delivery, but also with self-pick-up service. Consumers can return their unwanted products to any nearest Gigantti stores and get the refund back. In addition, there is no need to cancel reservation online since the collect at store service will be automatically removed if the order was not made successfully within forty-eight hours. (Gigantti 2018.)

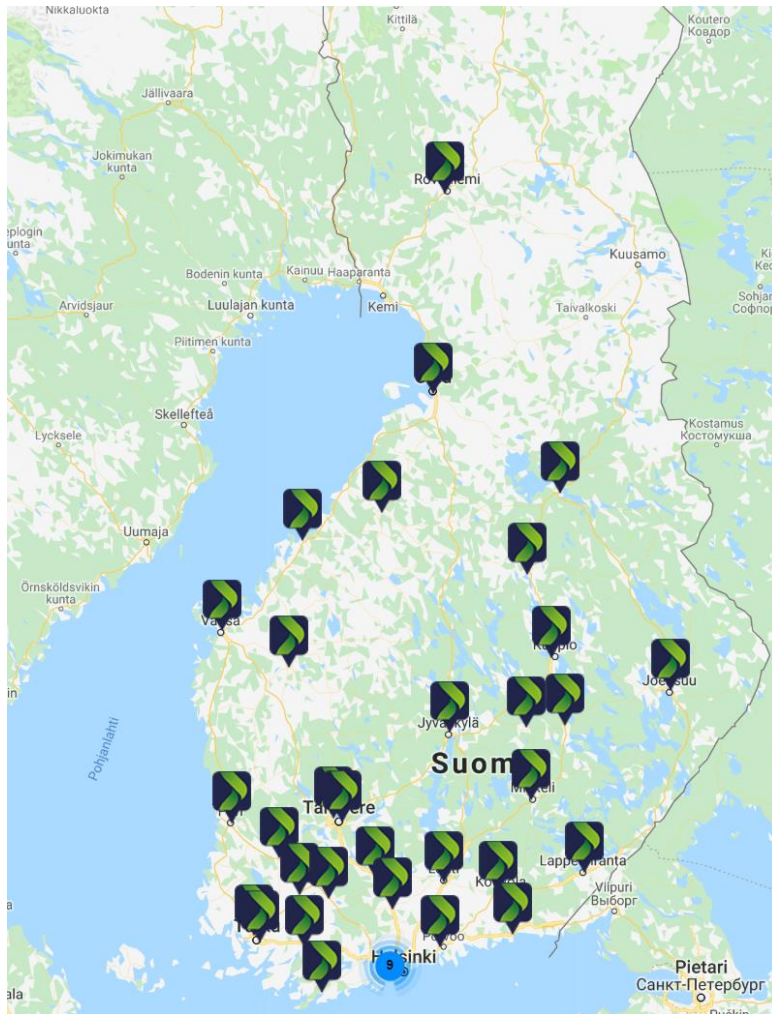


Figure 8 Gigantti Local Shops in the Finnish Market (Gigantti 2018)

Customers can reserve an item online and pick it up at a nominated Gigantti local store or other collection points. The product is available for collecting after an hour with a confirmed reservation online. Follow the below flow chart (Figure 9), it is simple to understand Gigantti's pick-up service.



Figure 9 Gigantti Pick-up at store flow chart (Gigantti 2018)

3 PLATFORMS AND COOPERATORS

This chapter discusses the two existing platforms in Finland: Wolt and Foodora. They are both providing a platform for online food ordering and delivery services. The following content talks the enterprise information, application function, merchant views, and customers reviews.

The sources of the merchant views in this part are collected from the interview with the case Company X, as one of the Wolt and Foodora's merchants has benefited an improvement of online-sales from the platforms. However, there are also some problems and opinions towards the online-food sales services. In the third sub-chapter of each section, authors explain the merchant opinions and analyze the advantages and disadvantages according to the interview. The other sources in this chapter rely on previous data and materials.

3.1 Wolt

Wolt is a Finnish enterprise, started in 2014 by six co-founders Miki Kuusi, Lauri Andler, Elias Pietilä, Oskari Petas, Juhani Mykkänen and Mika Matikainen. One of them was the former Slush CEO, Miki Kuusi quickly seized the opportunity to switch to e-commerce in the physical sector, including moving from the traditional catering industry and retail to a digital online sales model, based on people's daily eating habits of two to three times. (O'Sullivan 2015.)

"It's really simple to use and inexpensive for the restaurant. Every order that comes through Wolt is already paid for, so it saves a lot of time. If you receive bigger orders you don't have to take the risk that someone is not going to show up or not be able to pay." (Miki Kuusi 2015, cited in Business Finland by O'Sullivan.)

In just four years, wolt has been developing at an alarming pace, mainly in countries and cities in the EU area. Thirteen regions, including Helsinki, are already ready to start wolt's online meal ordering and delivery service. (Wolt 2019.)

3.1.1 Wolt Application

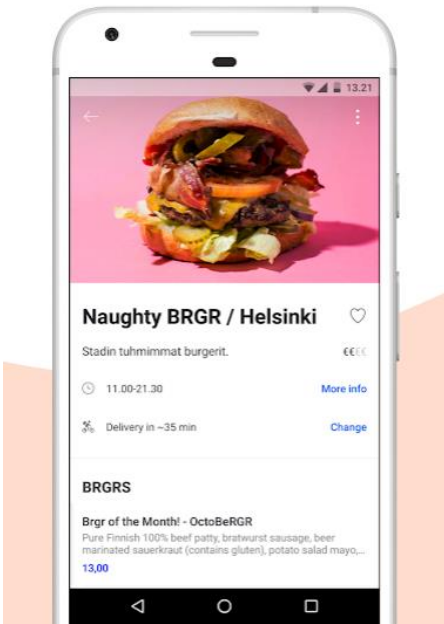
Wolt uses a mobile application to connect merchants, customers, and riders. In 2014, the application was only available for download on iPhone, which means Android apps had not yet been developed. But now, whether it is a tablet or an Android can download and use

Wolt from app stores. The following four steps (Table 6) and pictures (Figure 19) briefly explain how to place an order through Wolt. (Wolt 2019.)

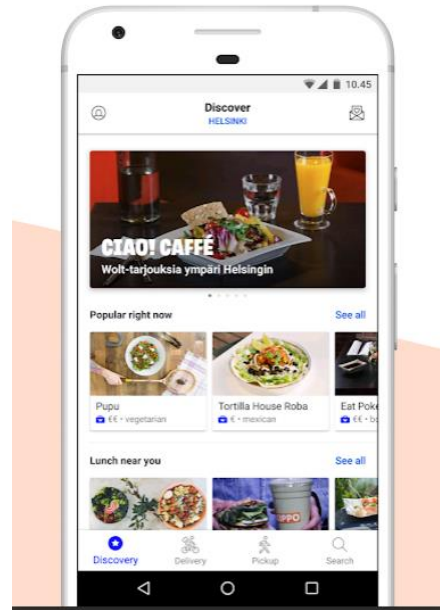
Table 6 Place an order in four steps through Wolt (Wolt 2019)

Step One	Build your delivery and payment information
Step Two	Choose your meal plan
Step Three	Select Delivery, Pick-up, or Eat at table
Step Four	Warning when food is ready

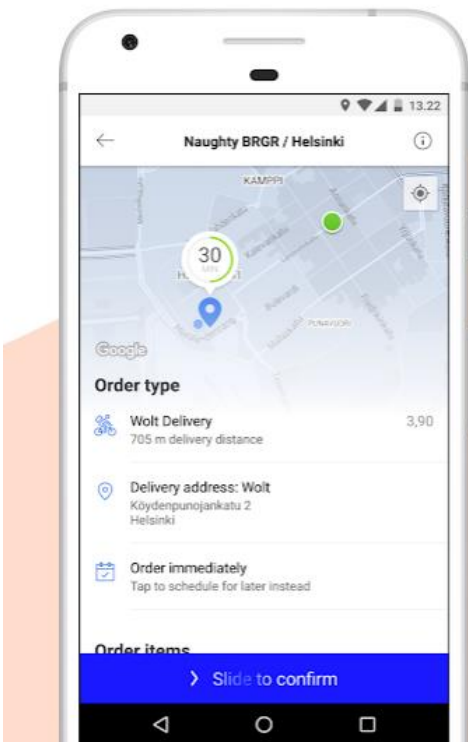
CHOOSE
**Build your order with
 a couple taps only**



DISCOVER
**First, choose your favourite
 restaurant from the list**



ORDER
**If you'd like to have it delivered,
 let us know when and where**



ENJOY
**We'll let you know how
 your order is doing**

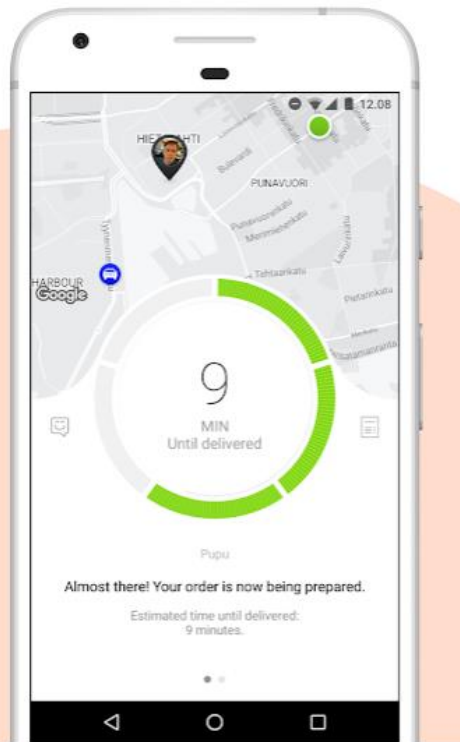


Figure 10 Four Steps to Order Through Wolt (Google Play 2019)

3.1.2 Wolt Merchant

Wolt charges a certain delivery fee from customers instead of business owners. The normal delivery fee is 3,90 euro, approximately three euro more will be charged if the delivery distance is more than two kilometers. In addition, Wolt cuts nearly 30 percent business sales from sellers. Moreover, Wolt sells an ipad to sellers for the the management of the online orders through the tablet. Wolt provides online support for its merchants, such as online menu editing, special weekly offers. Wolt gives a free choice of preparation time for the retailer owners, up from one minute to 90 minutes. (Interviewee 2018.)

According to the interview with Company X, several advantages and disadvantages (Figure 18) have been conducted to analyze the Wolt platform. From the collected information, using wolt helps to grow the revenue for business, and it is very handy to control the system. In addition, the employer no need to consider any other employment contract with delivery riders for take-away orders. However, the disadvantages are less harmony in rush hours, wolt give customers the best trust rather than restaurants. For instance, if a customer reported to Wolt support that there are some missing items or bad food in the order, Wolt immediately compensates, usually by refunding customers directly without coordination with the restaurant, which will be deducted directly from the restaurant's turnover. In other words, even when some customers lie and deliberately picky, the business does not have any right to speak and interpret. (Interviewee 2018.)

“Even though sometimes we all pack our food carefully, some customers call to say that our food packaging is faulty and that our food is not fresh and ask for a refund. It might be the wolt staff on the road that caused the problems, but it was us who took the loss.”
(Interviewee 2018.)

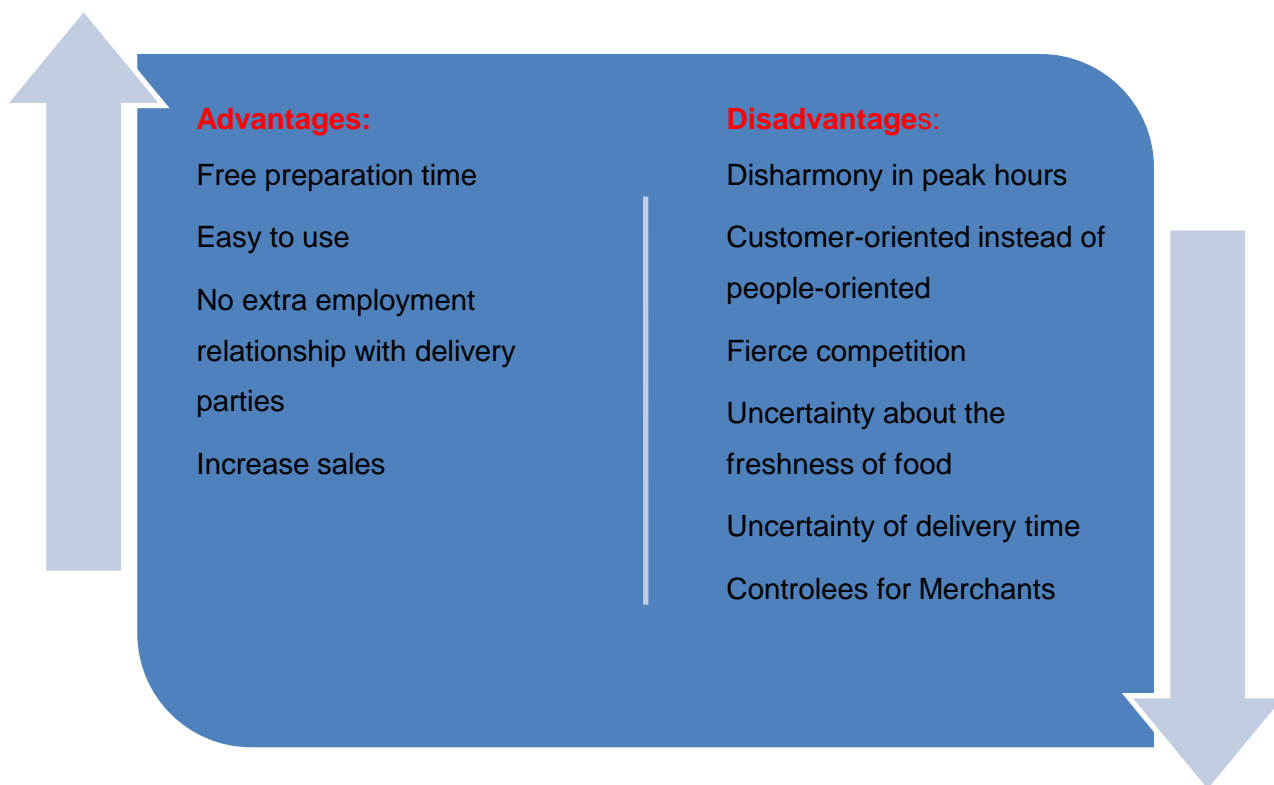


Figure 11 Advantages and Disadvantages in delivering food using Wolt (Interviewee 2018)

3.1.3 Wolt Reviews

Figure 19 gives some reviews of Wolt application from Google Play. The average rate score for Wolt is 4.6 stars among 8,463 users. Two of the users gave one and two stars for the first unsatisfied experience due to no delivery service available and less freshness of the food during rush hours. However, one of the reviews is five stars for a satisfying user experience. (Google Play 2019.)



Figure 12 Wolt application reviews on Google Play (Google 2019)

3.2 Foodora

Foodora is an online food ordering and delivery service company founded in Berlin, Germany, in 2015. In 2019, Foodora (Figure 22-23) has launched 22 countries with more than 36,000 business owners in over 260 cities worldwide. Among the branches, Foodora has over 9,000 popular merchants in 60 cities in European and American countries. In addition, Foodora not only targety its market in western countries, but also in Asian cities countries with "A dash of pink" . (Foodora 2019.)



Figure 13 Foodora Market Area in European and the United States Countries (Foodora 2019)



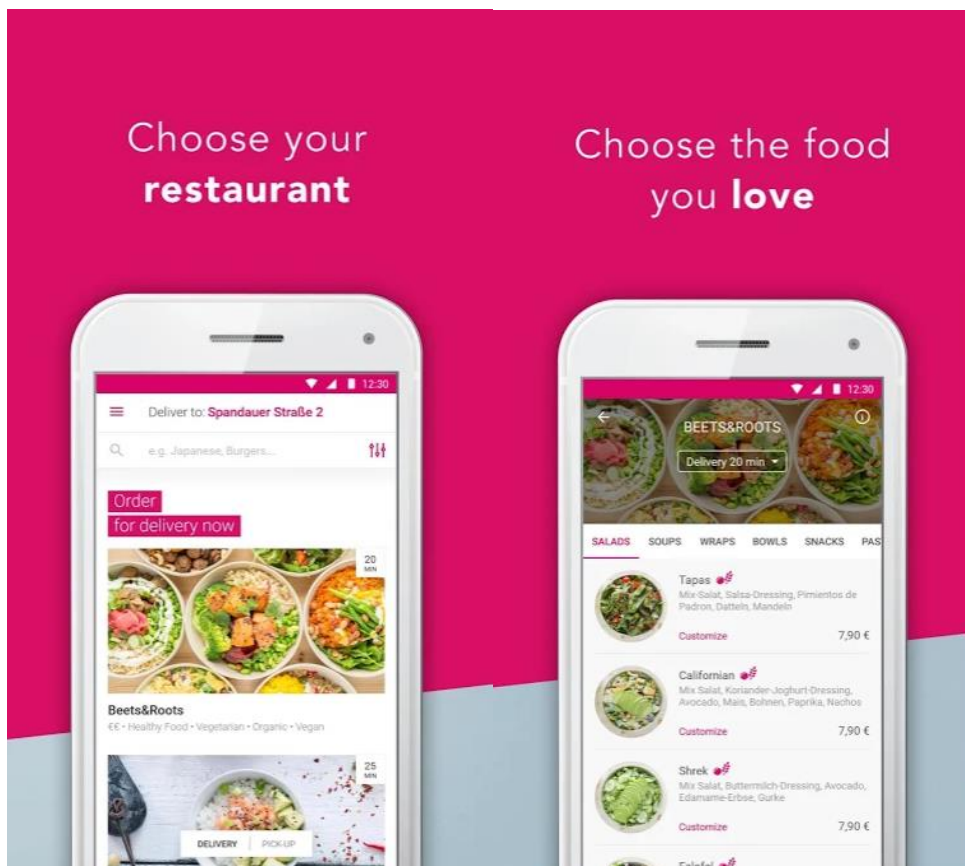
Figure 14 Foodora Market Area in Central Europe and Asia (Foodora 2019)

3.2.1 Foodora Application

Foodora application is designed with pink color as its slogan “A dash of pink”. Foodora provides two options for food hunters, order to be delivered or to be picked-up. The following steps (Table 7) and pictures (Figure 24) interpret how the ordering process goes.

Table 7 Place an order in four steps through Foodora (Foodora 2019)

Step One	Fill the delivery address
Step Two	Choose your meal plan
Step Three	Confirm the order by completing the online payment
Step Four	Track the food rider in real-time



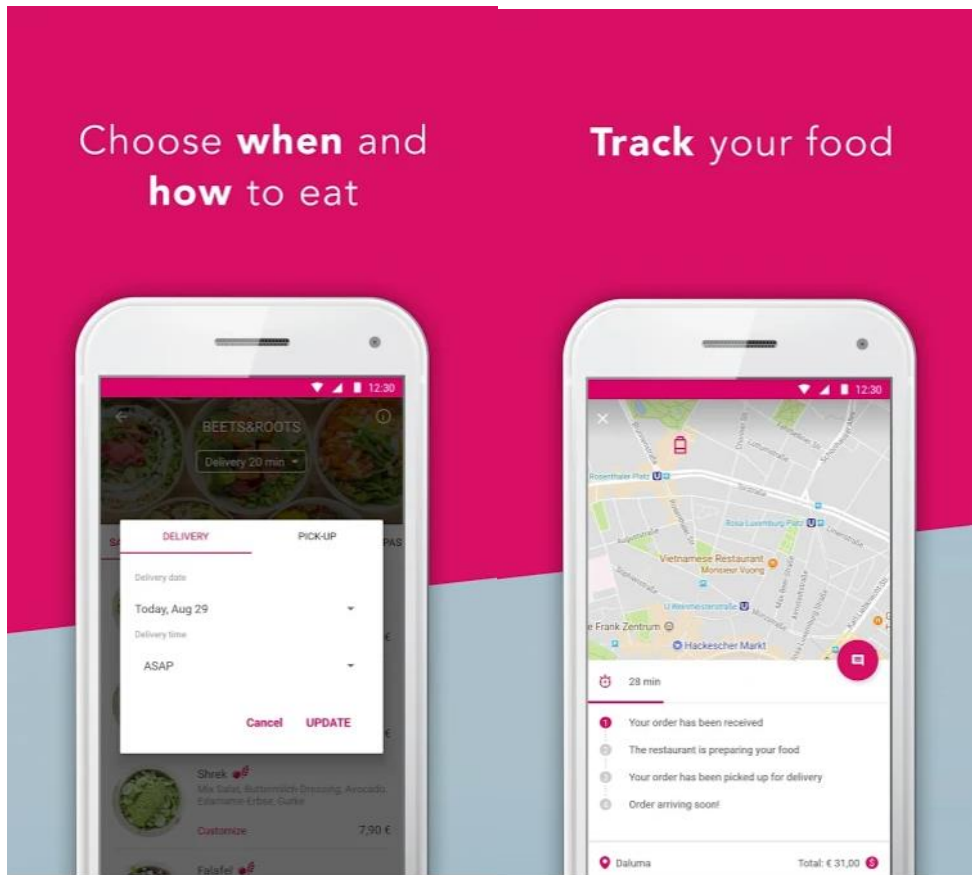


Figure 15 Four Steps to Order Through Foodora (Google Play 2019)

3.2.2 Foodora Merchant

The profit model with Foodora and Wolt are basically the same, in addition to charging users travel fees, will also charge merchants 10% to 30% commission, among which pickup and meal delivery commission fee is different. One thing to mention is that Foodora's control interface is not as brief as Wolt, it may due to its tablet interface, because the tablet offered by Foodora is free of charge. But the free tablet is clearly putting a financial burden on them, so it is said that after the second quarter of 2018, Foodora tablet is chargeable. The main problem with the Foodora system is that it does not allow merchants to choose their own food preparation time, which basically limits everything to 30 minutes. Even pick-up is the same time. This is less user friendly, for example, during the rush hours, restaurants can finish the meal in five minutes, but the system does not support us to do so. In order to ensure the freshness of the take-out food. Merchants can only do it five minutes before the end of the order time, so there are two problems. First, it may have other orders coming in the process of waiting. Second, It is often receiving orders one minute before the kitchen closes, and even if the food can be completed within five minutes, restaurants still have to wait another 25 minutes to finish the delivery to their rider.

In addition, Foodora's online webpage for business owner is not available for updating a new menu since it is not allowed to login at all. (Interviewee 2018.)

"Once we wanted to have a special offer on Foodora, so we contacted the customer service and asked it to do a 20% reduction for us. Soon after, we received a complaint from a customer that we had changed the price indiscriminately. We checked the information and noticed that Foodora just changed our original price to the discount price directly, and did not say that it was a discount price. Since then, we have never had a special offer on Foodora." (Interviewee 2018.)

3.2.3 Foodora Reviews

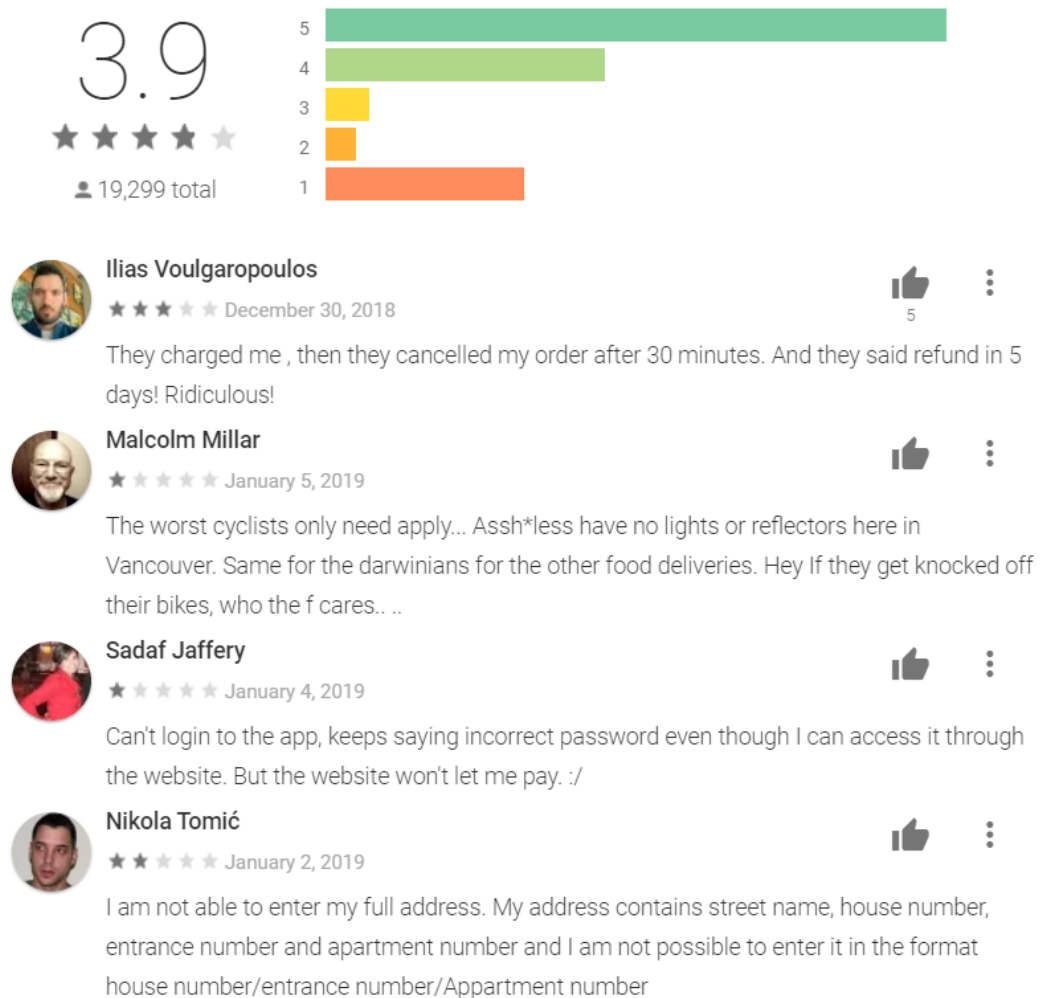


Figure 16 Foodora application reviews on Google Play (Google 2019)

The above Figure 23 commentates the feedbacks of Foodora application from Google Play. As it shows, some comments were done recently in 2019. Generally, the rate score is 3.9

points with the 19,399 experiencers. From these comments, some users pointed out the system login problem, delivery address filling problem, order problem.(Google Play 2019.)

3.3 Analysis of Collaborators

It is not enough to create a new platform on the strength of two people. This platform needs to rely on the promotion of social circles and local enterprises. To enter the market as soon as possible, this idea needs to find a suitable and reliable partner. In this chapter, the author discusses the possibility of cooperation between several local companies, including Finnair, Finavia Airport, Posti, and other IT companies, etc.

3.3.1 Finnair and Airport

Finnair is one of the oldest airlines in the world, was initially established in 1923 to transfer European and Asian passengers via Helsinki airport. Finnair offers a tailed online services for passengers and consumers to experience a new online shopping way, includes pre-order online and domestic home delivery. Additionally, Finnair deliver the pre-order items on board to the buyer's seat on the same flight day. There is no need to make any payments online but pay with bank card at board. (Finnairshop 2018.)

Finland's largest airport service company, Finavia, has a peak passenger reception in 2017. Helsinki-Vantaa, as the largest airport in Finland, received 19 million passengers in the past year. In addition, Finavia had served 22.7 million passengers during the last year at its 21 airports totally. It is worth mentioning that Rovaniemi airport reached an unprecedented peak of traffic, 1 million people in early last year. Thanks to Arctic tourism, most visitors to Lapland are Asian. (Finavia 2018.)

One of the most anticipated collaborators, of course, is the Finnish giant company. Among them, the author locked the opportunity in Finland's largest airlines and airports. For example, people forget to bring an important document, a small handbag, a portable battery, a carefully prepared Christmas gift for friends from other places. Alternatively, duty-free shops at the airport bought discounted drinks but could not deliver them home to their next destination in time. The airport cannot solve all these problems for passengers. However, this platform of the author has all thoughts of these problems, and it is worth mentioning that the huge flow of people has created huge market opportunities, whether it is the people who are about to embark on the journey or those who are going home from the airport. They all have different destinations and demand spaces. The most important key of demanding requires timeliness since people who travel often do not have much waiting time.

3.3.2 Posti

Posti (2016) has operated a new way to deliver the goods in C2C transactions. The seller and the buyer are able to use the nearest Locker at nominated parcel points in Finland. In this case, there is no need for each transaction party to arrange a meeting in person but to reserve a Posti Locker nearby. The service fee for scheduling a locker box is three euro via Posti web service. After purchasing a locker service, a private code will be sent to the payer, the payer leaves the item in the box and locked. The recipient will be informed an access code for collecting the goods, ideally for either party to pick up the goods within one week. The service is available in eight parcel collection points in Lauttasaari, Kallio, Vallila, Käpylä, Kannelmäki and Tapiola. (Posti 2016.)

The resources of last-mile delivery services in Finland are quite limited, hence, the research data of this chapter is a bit difficult to gather. From the used material, last-mile delivery has not been fully understood by the majorities in Finland, the number of the total in-door terminals are 476 (Cleveron 2017), which means not so many amounts of participants have gotten involved in last-mile delivery activities. Thus, there is still a huge opportunity to cooperate such a last-mile delivery platform in Finland.

3.3.3 Other Collaborators

Other collaborative platforms include, but are not limited to, Internet technology companies, because it is a finished research process that is not just based on theory, but the author certainly hopes to one day turn it into a real product. The process not only needs a lot of research time investment, but also needs mature technical support. In addition, there are other logistics companies, as well as transportation companies, such as taxi companies, have been listed as partners in the platform.

4 PRELIMINARY CONCEPTION PLAN FOR A SHARING-ECONOMY PLATFORM

This chapter introduces the new plan designed by the authors for a new sharing economy platform. In this part, authors discuss four aspects of the content, which includes description, real-time positioning system, route planning system, and liability cognizance policy. The main sources in this chapter is from authors' own study and views. The plan is incomplete in many ways due to a lack of resources and experience, but it is a creative and innovative plan, and it is still an initial model plan.

4.1 Description

Having studied the Information Technology skills, authors have gained some functional ideas and description of the plan. This section introduces the main functions of the platform plan, which includes four aspects: release delivery task, selection of carrier, route planning, and feedback.

4.1.1 Release Delivery Task

The idea of the plan is to connect task issuer and task applicant via the new platform. For instance, the task publisher is able to announce a task through the platform anytime anywhere in Finland. The platform center will forward the task to applicants who are nearby the task location. The task can be multiple purposes, such as a small product delivery from parcel points to the publisher's final destination, some products from supermarket to houses, a box of sushi from restaurants to offices.

The task center pushes tasks via the platform with four aspects of informations: the amount of reward offered by the publisher, the weight of the goods, the expected time which task principal want to receive the goods, and the destination of the shipment. Those who receive the mission notice can decide whether to accept or reject based on their time and destination.

4.1.2 Selection of Carrier

When one or more applicants send the will to accept the delivery task, the task client receives the information from those who requests, including the real name, a clear selfie, the credit rating and the score of the service quality which according to the previous tasks

reviews. The task client makes the final choice to make sure one applicant can be selected based on these criterias.

4.1.3 Route Planning

As soon as the task principal has confirmed the applicant for the mission, the location of the goods and the track of the shipment are displayed in real time on the task application according to the GPS data. After the applicant picked-up the item, applicant becomes carrier automatically. In addition, it is necessary to enter the carrier's final destination. A route recommendation for the shipment and the countdown to the completion time of the task will be displayed on the applicant's phone.

4.1.4 Feedback

Customer feedback is significant for improving services and products. In order to create more possibilities, authors decide to make the feedback content dependent on three aspects, which are integrity of the goods, time of the delivery, service quality of the carrier.

The first criterion is based on the integrity of the goods, such as whether the outer packaging is damaged, and if there is some damages, make sure the corresponding report has been made. In addition, the completeness of the goods themselves are also vital in this evaluation standard. The higher the integrity of goods and external packing, the higher the delivery person's score will be.

The second assessing factor is the delivery time. For example, customers might not be happy if three-kilometer distance delivery takes half day without any other additional agreement. According to the concept of the plan, it aims to provide an efficient delivery option for customers. Customers give a mark on the time of delivery according to the actual delivery time.

Another qualification needs to be measured is how customers evaluate the service levels of a carrier. It is purely depending on the face-to-face image between customer and carrier. By analyzing this section, it provides supportive data and suggestions to help with the future development of customer services and relationships.

4.2 Real-time Positioning System

Authors aim to create a platform for last-mile delivery which can be easily followed by any user through the Real-time Positioning System. This system allows everyone who is involved in the task to track the actual time from the start to the end. It is important to show the the timing on the platform since more information transparency allows users to have more active choices and control rights.

This chapter consists of two small parts to explain how the Real-time Positioning System works. The content is divided into two sections: task release, and reception and real-time positioning during the delivery task.

4.2.1 Task Release and Reception

Task Release and Reception is considered in two different cases. The first case is a task released by the publisher, the second option can be a delivery person searches for a task on their own initiatives. Each two different cases will be explained accordingly with a flow map which contains the main responsibility of each function department and the process of the work flow.

Case A: Task Issued by Publisher

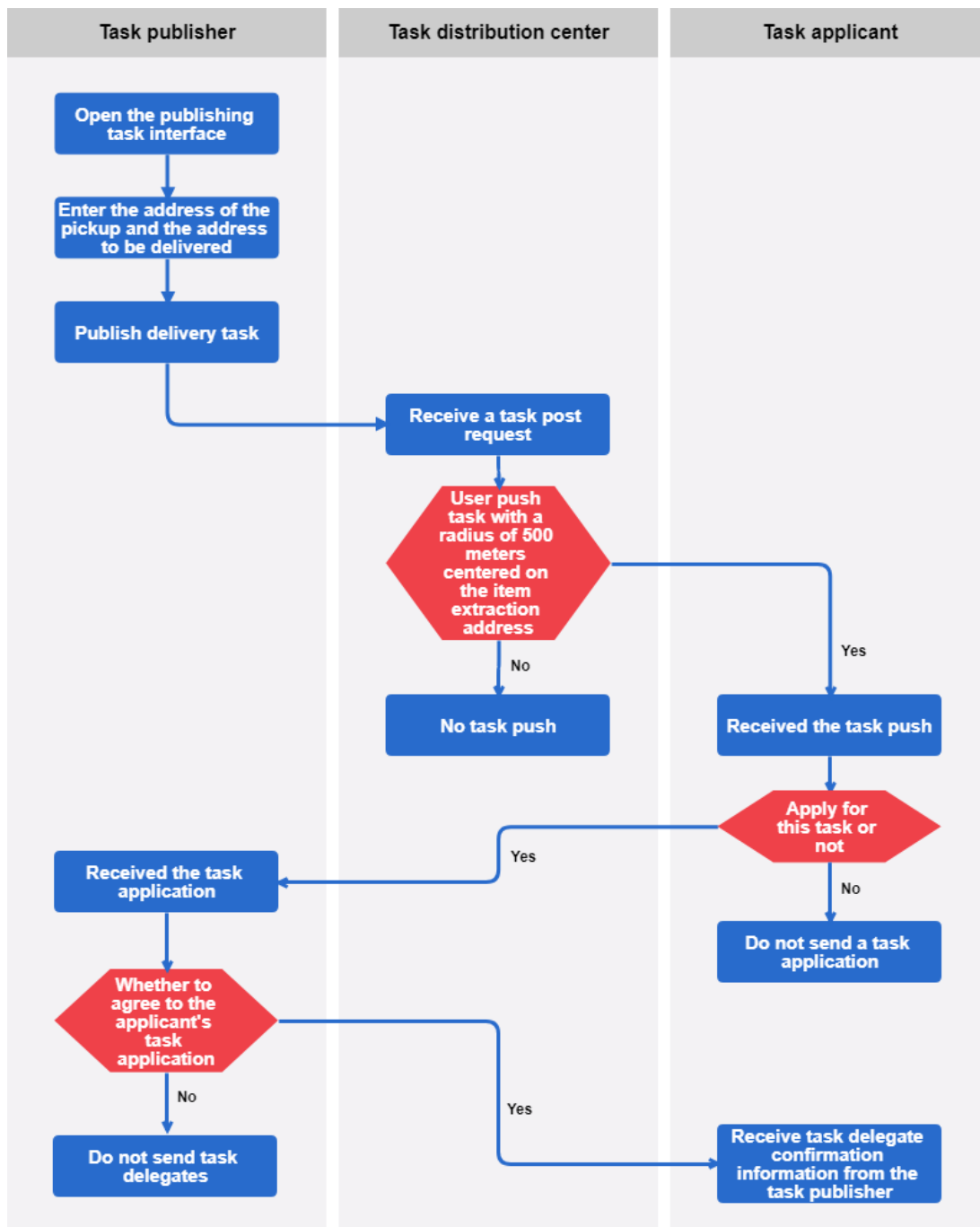


Figure 17 Task Publishing and Receiving Processing. Case A: Task Issued by Publisher

The above Figure 17 is designed by one of the authors to explain how the Case A works in the processing. When a user announces a delivery task, the location of the goods to be extracted and the destination of the goods to be delivered will be published in the app release task interface. As soon as a task release information is sent to the task processing center of the platform, the task processing center sends the task to the mobile phone with the app within a radius range of 500 meters. In this distance, all phones installed with this

application will receive the delivery task. According to the choice between the destination of their journey and the destination of the goods to be delivered in the task, these people can choose whether to apply for the delivery task or not. When someone clicks the "Apply Task" button, the sender receives an application request from one or multiple task applicants. Task issuers may decide to assign tasks to one of the applicants based on their reputation and rating scores.

Case B: Task Searched by Applicant

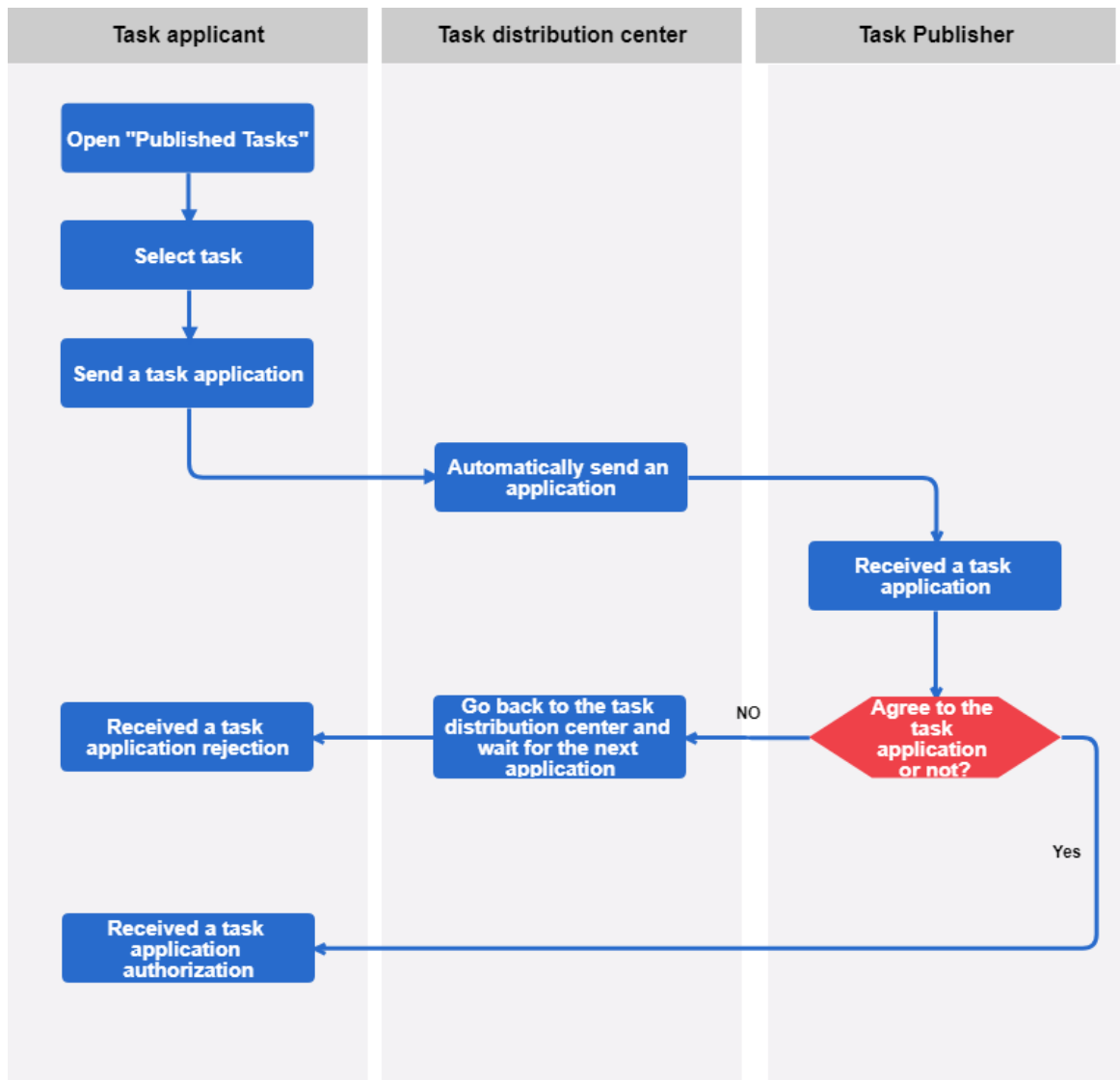


Figure 18 Task Publishing and Receiving Processing. Case B: Task Searched by Applicant

The other way is that the rider wants to receive the delivery task actively. In this case, (Figure 18) the user can apply for the task at the tasks list in the backstage center. The maximum range of the applying a task distance is two kilometers. Under these circumstances, courier can edit a certain range of the way from 500 to 1500 meters. When

the user's travel destination and other required information are sent to the task distribution center, the task distribution center matches the published delivery task and assign a task accordingly. Matching the task requires two options: first, delivery time and destination of the task, second, travel time and destination of the applicant. Once the two parties match each other, the task will be assigned successfully.

4.2.2 Real-time Positioning During the Delivery Task

When the applicant receives the confirmation of the task delegate from the task issuer, the applicant's app delivery task interface displays the address of the goods to be delivered. A convenient route will be planned between the location of the applicant and the location of the goods to be delivered, which will help the applicant to reach the pick-up point.

Every rider need to get to the delivery place within the specified time and click the "pick-up package" button before the actual delivery task. The carrier needs to add two types of destinations after the item in hand, the first termini is the final destination where the item should be delivered, and the other one is the final place where the carrier go initially. The platform makes reasonable route planning based on the GPS data of the carrier's location in order to reach the delivery destination first and then to its own destination.

The carrier is required to follow the route given by the platform for delivery, during which the carrier is required to keep the phone on and allow the platform to read the GPS location data of the carrier's mobile phone during the delivery. To ensure that the carrier during the delivery task, the task issuer can use app to track the location of their package in real time, until the goods arrive at the destination and be signed by the recipient. If the carrier deliberately shuts down or turns off the GPS location function of the phone during the delivery task, a warning or penalty may be engendered accordingly.

4.3 Route Planning System

Route Planning System is based on GPS data to provide package delivery person with an optimal route plan. Its main meaning is to plan the most reasonable delivery route scheme based on multiple destinations. When the task applicant is entrusted with the task, the platform will plan a reasonable itinerary between the location of the applicant's mobile phone and the location where the goods are extracted. The planned itinerary will vary according to the mode of transportation of the task applicant.

As soon as the task applicant successfully picks up the goods, the role is automatically transferred from an applicant to a carrier. The carrier is required to fill in the destination of the goods to be delivered and the carrier's own destination. According to the carrier's current location, the platform will first arrive at the destination where the goods need to be delivered, and then proceed to the carrier's own destination in such an order that the route is arranged.

4.4 Liability Cognizance Policy

There is a risk of damage or loss of goods in transit. In order to ensure that whether the goods are damaged during the carrier's delivery of the platform or not, the platform needs a set of standards for the carrier to bear the loss of the goods. The following Table 8 details the Liability Cognizance Policy system:

Table 8 Liability Cognizance Policy System of the platform designed by authors

Step One	The task applicant automatically becomes the carrier after arriving at the place where the goods are picked-up successfully. The carrier should take a clear and comprehensive picture of the six sides of the package as soon as the package is picked-up, and upload the photos to the data center of the platform in the form of original image for storage.
Step Two	When the carrier sends the goods to the designated place, both the consignee and the carrier use their mobile phones to photograph each of the six sides of the package at the same angle and distance. The photos are uploaded to the platform's data center for storage, the consignee and the carrier should upload at the same time, and the images uploaded to the data center will be stored in the data center for 72 hours. Timing begins with the consignee's confirmation of receipt.
Step Three	A certain deposit will be needed before the applicant became a real deliver person. The deposit will be used to compensate for the loss or any damages of the goods caused by the applicant. The user can receive the corresponding amount of the refund deposit in the 5-7 working days after the decision is claimed.
Step Four	The consignee has 72 hours to claim damages after confirmation of receipt if any. When the consignee declares compensation for damage to the goods, the

platform's accountability center compares them by taking corresponding pictures. There are two situations in Step Four:

- (1) If it is found that the packing of the goods in the pictures uploaded by the carrier for the first time is significantly different from that in the pictures uploaded by the carrier and the consignee (e.g., indentation, bulge, breakage), The carrier considered the platform had caused damage to the goods in the course of transportation, and the platform would deduct the corresponding compensation from the deposit submitted in advance by the carrier during this delivery mission. However, the carrier needs to make up the amount of the deposit before it can continue to apply for and receive the delivery task.
- (2) If there is no obvious difference in packaging (e.g., indentation, bulge, breakage) with the first pictures uploaded by the applicant and the later photos taken by the carrier and the receiver, the platform carrier shall not be liable for the loss of the goods, and the platform will reject the addressee's claim for compensation.

5 MARKETING AND DATA ANALYSIS

This section introduces three parts which are marketing analysis, data collection methods, and data analysis. Analyzing market data helps decision making and research plan building. Data collection are mainly from primary data and secondary data. Qualitative and quantitative research methods are used in the data analysis.

5.1 Marketing Analysis

Marketing analysis helps to gain data and opinions from different aspects. It provides a supportive guide for an actual activity to reduce possible risks. This chapter mainly focuses on marketing analysis by interpreting the Finnish society situation, public views towards sharing economy, public statistics analysis, and example study.

5.1.1 Finnish Society

Breaking the Finnish traditional business model is not easy, Finns and the local culture are different from other countries, so there are many challenges in Finland to promote the sharing economy and the platform of the sharing economy last-mile studied by the author. Finnish residents deem the regulation is harsh when a new product or service appears in the market. (Faehnle, Immonen, Mäenpää, Nylund & Träskman 2016, 5-6.)

The development of sharing economy has not been positive so far in Finland. Lahti and Selosmaa (2013, 31) pointed out that Finnish people care more importance of ownership when compared to other European nations. The Finnish Ministry of Economic Affairs and Employment carried out a research of how sharing economy goes in Finland in 2016. In addition, the survey also made a prediction of the future growth of sharing economy in Finland. According to the result, businesses conducted via sharing economy will be added to 1.3 billion euro in 2020. (Työ ja elinkeinoministeriö 2017.)

5.1.2 Public Opinion

A survey done by Haaga Helina University of Applied Science student Syed Shoaib Ullah (2017, 36). The idea is about whether the interviewees like the concept of sharing economy and how it will affect the economy in the future. The results showed that all the participants liked the idea of sharing economy. Additionally, the author concluded that the development of sharing economy participation in Finland has a long way to go because of the regularity and stringency of the Finnish market.

PwC (2015, 8) indicates that there are three main factors to push sharing economy forward: trust, handy, and community consciousness. A survey done in the US showed that people between the ages 18-24 are the most active group in using sharing economy based services. Among the US adults who are familiar with sharing economy, more than 63% agree that sharing economy makes their life easier, more affordable, more interesting and eco-friendlier. 89% of them consider trust as the core element to stimulate the participation between service providers and users. (PwC 2015, 8-10.)

5.1.3 Public Data Analysis

Official Statistics of Finland (2017) has done a survey of the Finnish people online usage and purposes of use in 2017. The data (Table 6) analyzed the different purposes of the internet function according to varied ages from sixteen years old to eighty-nine years old. The purpose of using the mobile electronic equipments are diverse, such as following social media account, placing an order online, and renting accommodation from online market. The research genders are focused on both male and female. According to the result, ages from sixteen to fifty-five are mostly full participated the online service via digital devices. Among those participants, seventy percentage of the youngest group used web service to purchase items through internet. The biggest portion of the online shopping is seventy-eight percent from twenty-five to thirty-four age people. The second largest of web shopping group is from thirty-five to forty-four age which is seventy-four percentage. Only six percent of ages over seventy-five had online shopping experience. (OSF 2017.)

Table 9 Prevalence of Internet usage and certain purposes of use in 2017. Source: Official Statistics of Finland, 2017.

	Used the Internet ¹⁾	Uses the Internet usually several times a day	Used the Internet with a mobile phone outside home and workplace ¹⁾	Used the Internet with a tablet outside home and workplace ¹⁾	Followed some politician through social media ¹⁾	Bought something on the web ¹⁾	Rented accommodation directly from a private person through an online marketplace specialised in accommodation Rented private accommodation online for own use ²⁾
	percentage of population						
16-24	100	95	93	25	28	70	6

	Used the Internet ¹⁾	Uses the Internet usually several times a day	Used the Internet with a mobile phone outside home and workplace ¹⁾	Used the Internet with a tablet outside home and workplace ¹⁾	Followed some politician through social media ¹⁾	Bought something on the web ¹⁾	Rented accommodation directly from a private person through an online marketplace specialised in accommodation Rented private accommodation online for own use ²⁾
	percentage of population						
25-34	100	96	93	30	42	78	8
35-44	99	91	90	35	31	74	10
45-54	99	87	82	35	24	66	8
55-64	91	69	60	29	16	39	4
65-74	75	43	33	15	7	21	1
75-89	37	15	5	7	2	6	0
Men	89	76	70	28	20	52	5
Women	87	71	66	24	24	53	6
Total	88	73	68	26	22	52	5

1) During the past 3 months

2) During the past 12 months

The above research indicates that the most participation of mobile digital services are mostly the young and the middle-aged groups. This means that the recipients and interactors of online informations come from both those age groups. Another statistics conducted by Official Statistics of Finland (2018) stated that the majority consumption expenditure from both lowest-income group and highest-income group. The most popular expenses by both parties are household, water, and electricity etc. Food consumption is the second largest portion of lower-salary owners without changes from previous time.

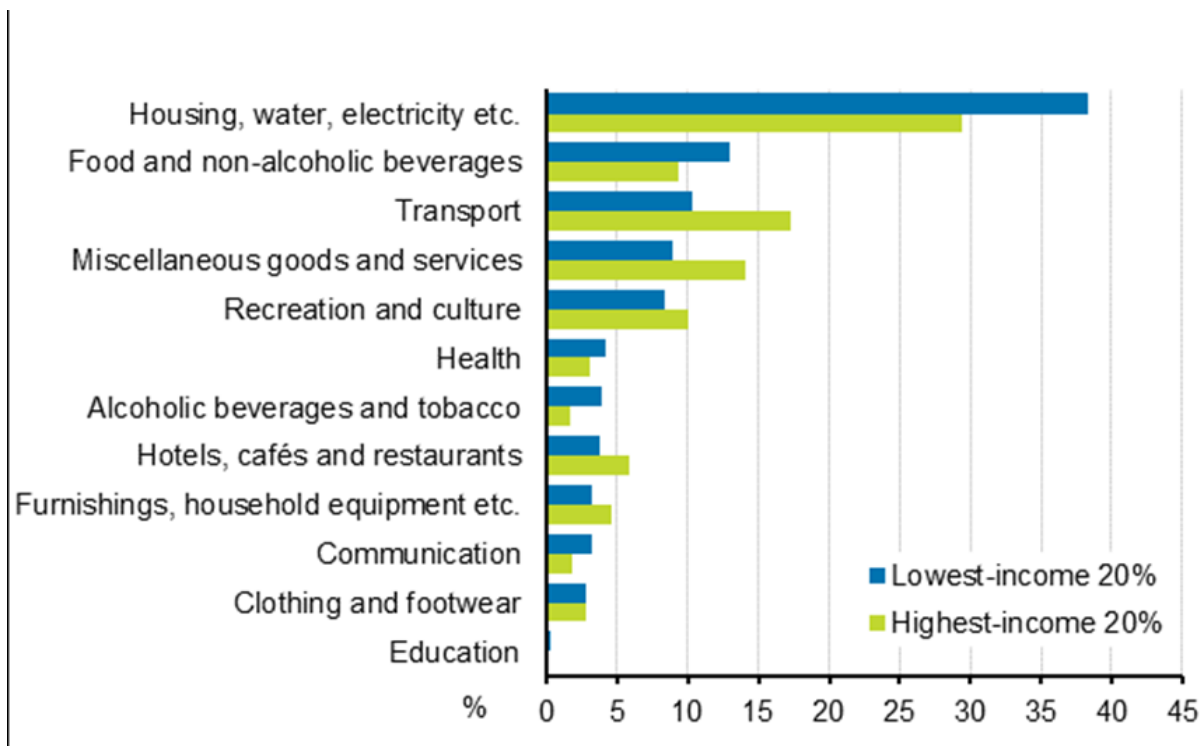


Figure 19 Shares of consumption expenditure by main group according to the household's income group in 2016 (Statistics Finland 2018)

According to the data, food consumption has a big market share of the whole Finnish local consumption expenditure. It is worth to highlight that Finnish online food delivery revenue is up to US \$106 million in 2018. In addition, according to the annual growth rate, it is expected to increase by 11.3 percentage by 2023. However, the online delivery from platforms to consumers is not a huge amount. On the other hand, there is still a lot of market share of online food delivery in Finland. (Statistics Finland 2018.)

5.1.4 Online-food Consumption

Wolt (2018), as one of the largest Finnish local online food delivery platform, now has over one million users. In Helsinki, more than thirty-five of the total population have registered Wolt. In 2016, Wolt has been recorded a raise of US \$ 12.4 million for its online food ordering (Dean 2016).

Based on the above analysis data, it is obvious to conclude that in Finland, the total living cost per capita is high, according to the data, Finnish people calculate the living cost the most among others, such as food, water consumption and housing. Many of them think that sharing economy help them save money, making their lives more effective and convenient,

especially for young people, who is the main active group in the sharing economy platforms. It is crucial to to grasp the market of the main active population.

5.2 Data Collection and Analysis

Data in this paper is collected from primary sources and secondary materials. The secondary data includes sharing economy phenomenon, for example, definition, case analysis, previous data study and how it impacts in market reactions. The framework in theory in this report was followed by textbooks, e-books, online articles and previous concluded study of sharing economy and last-mile. In addition, the internal sources consists of authors' own knowledges in Information Technology. This part of the sources will be maily applied in the fourth chapter of the report. Since the textbooks of this topic is not widely published, the majority of the information was gained by online sources and e-publications. The research method used for the secondary data was combined qualitative and quantitative means. For instance, qualitative research was mainly applied to the theoretical knowledge, such as the concept of sharing economy and the sharing economy in Finland. Quantitative method was applied for analyzing the statistics.

The primary data was collected by an interview with the marketing manager of the case Company X. The interview is formed with both open and ended part. Turner (2010, 754) indicated that a qualitative interview is set for developing the views and emprical value of the participants. Hence, the interview arranged by authors will target on investigating the viewpoints of case Company X as an experiencer in Finnish food industry and the problems they are facing at the moment. In addition, two surveys were conducted in September 2018 to conclude the views of sharing economy and last-mile situation in Finland by sixty respondents. Quantitative analysis is used to summarize the results of the survey.

Primary data and secondary data are gathered during the research. The interview with the manager of company X is done by a list of questions in Helsinki. The main analysis method for the interview is qualitative approach. In addition, two surveys done to support the validities of the research. Quantitative method is applied to discuss the results of the surveys.

5.2.1 Interview Results

Case study from Company X allows us to compare the results and phenomenon from customer's side to company's side. By analyzing its current operation situation, advantages, challenges and possible changes in the future, the research sums up whether sharing economy can make up for this phenomenon. Meanwhile, analyze Company X's present

cooperation platforms avoids existing shortages of technical problems when considering the actual development of sharing economy model service. The results of the interview has been divided into three parts as following: the background of the case company, the starting point of adjusting marketing strategy, the opinions of using experiences in current platforms and services. A more detailed description of using experiences as a merchant of third-party platforms is discussed in the chapter three.

1. Background of Case Company

Company X is running a restaurant in Helsinki central area, which was founded in 2016. The core business of the current restaurant is take-away orders. Since 2017, Company X has registered as a merchant of third-party platforms. Additionally, Company X built its own online ordering website in 2017. According to the manager, eighty percentage of the revenue was based on third-party platforms. Hence, Company X has a real experience in Finnish online food market participation. The aim of the interview is to discuss the business opportunities through sharing economy and the food last-mile delivery situations. On the other hand, analyze the third-party platforms, for example, the functions, benefits, problems and suggestions. (Interviewee 2018.)

2. The Change of Marketing Strategy

The interview took approximately two hours in Helsinki. The manager emphasizes the significance of knowing and understanding their customers need. The business does not going well in the beginning of the foundation year because of the limitations of restaurant premises location. The manager considers the atmosphere and the decoration of the restaurant was not popular to Finnish people, and they do not win so many regular customers at first. The founder left the restaurant for one month break for renovations and strategic changes. First, they removed unnecessary ornaments and seats to expand their operation space. Second, as they are not successful in eat-in services, they changed their marketing policy to take-away operation. The business gradually increased 200 percentage at the second half year of 2016. The manager underlines that it is very difficult to gain attention in food market if the business does not have any fresh ideas, for example, if everyone goes to Chinese restaurants, as a founder, maybe it is better to consider establishing an Australian canteen. According to the manager, they benefit a lot from sharing economy due to third-party platforms. However, the commission fees of the third-party platforms are increasing gradually. As two main competitor in Finland, there is a rivalry between Foodora and Wolt in food market. If one restaurant chose only one of them, the commission fee will be three to five percent lower than the normal deduction rate in the

agreement. This message was affirmed by the manager, though the restaurant takes both platforms as its marketing strategy. (Interviewee 2018.)

Seeing the huge change in revenue from the third-party platforms, the restaurant decided to study its own website and offer delivery and pre-order services. However, the effect is not satisfactory. The manager attributes that the failure of their own website is they do not have enough riders for the online orders due to high labor costs. Additionally, the restaurant mainly develop their own webpage service for regular customers who already knew their webpage service because running a marketing event for their own, for example, advertising costs are expensive in Finland. (Interviewee 2018.)

3. Opinions

Yet, there are some findings from the manager by using the third-party platforms. The basic functions of different platforms are diverse. Wolt has won the favor of case company in comparison with other platforms. Totally, this restaurant has cooperated with seven third-party platforms, which are Wolt, Foodora, Pizza-online, ResQ Club, Offerilla, Let's Deal and Edenred. A more detailed comparison with Foodora and Wolt has been analyzed in the third chapter. One thing the manager has repeatedly stressed is that if you work with a third party, it is not the participant who maximizes the benefits, but the organizer, which means, if a merchant gives the channel to a third party platform, they lose the opportunity to communicate directly with clients. Whether the food or service is good or bad, it is learned from third-party platforms that over time the merchant will be highly dependent on third-party platforms, which is one of their biggest concerns right now. (Interviewee 2018.)

Thus, companies are starting to worry about whether or not to rely too much on the sharing economy, and even started thinking whether it is really a shared economy, a series of questions that have been focused on during the interview process. According to the manager, the sharing economy must have brought a lot of benefits to the catering industry, for example, saving on labor costs, but in the long run, delivery services that rely solely on third-party platforms are not expected by all restaurants. Because Finland, which has high costs in all respects, can maximize its benefits in a limited market share by having a voice, resources and manipulation. Instead of meeting this expectation, some third-party platforms are starting to monopolize the market and drive up commission prices. The sharing economy, if it can be improved in the catering industry, on the other hand, truly benefits consumers and businesses, rather than letting them send money to third-party platforms. (Interviewee 2018.)

5.2.2 Survey Results

The survey was implemented in April 2018 with sixty attendees totally. In order to compare multiple results to get reflection from the surveys, the authors conducted two surveys, one is in China and the other is in Finland. A few questions were selected for comparison. Equally, the survey was carried out with thirty participants who are at age range from eighteen to forty-eight in both nations. The survey has seven questions and can be completed within a couple of minutes. Most questions in this survey are multiple questions and two questions can be filled with multiple answers. China has generated many sharing economy activities during recent years, however, sharing economy phenomenon in Finland was not found so widely among local area. It is very interesting to observe the some big differences between two countries. Final results will be compared individually to gather some findings. Quantitative and qualitative analysis methods are utilized in this survey. The following figures and charts indicate the outcomes of the comparison:

1. Do you know sharing economy?

Figure 13 shows among thirty respondents in Finland, seven of them know nothing about sharing economy, however, nearly 3/4 participants at age from eighteen to twenty-eight understand the concept of sharing economy. The situation in China is similar with which in Finland. Figure 14 explains that six Chinese are ignorant of sharing economy, however, the rest twenty-four participants realized what it is. (Survey 2018.)



Figure 20 Do you know sharing economy? (Survey Finland 2018)

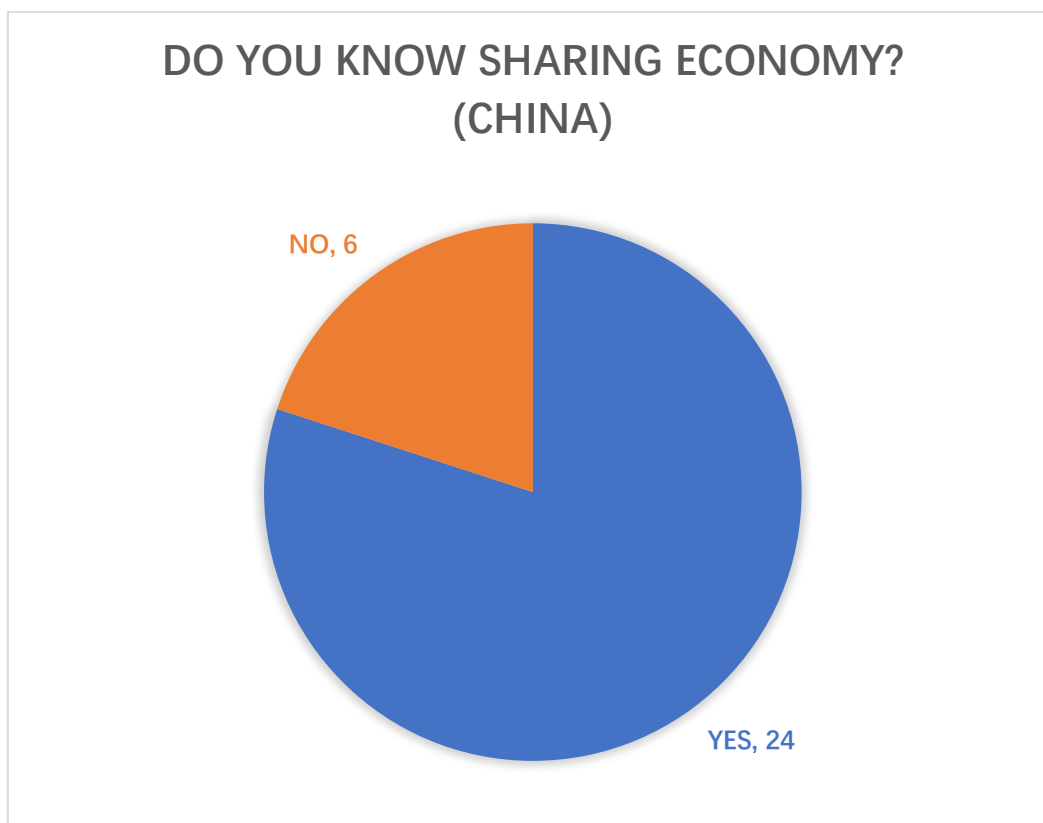


Figure 21 Do you know sharing economy? (Survey China 2018)

2. Which of the following do you think is sharing economy?

In this question, the answers are multiple. Obviously, the aim of this topic is trying to know how much do the participators know about sharing economy when it comes to our life in reality. For example, forty-two percentage attendees indicate that Airbnb and Uber are the most well-known as the representatives of sharing economy. However, the later established firms, such as City Bike and two restaurant platforms are not popularly noticed in both countries. Only five percent Finns consider Foodora and Wolt as sharing economy. Additionally, there is also an argument about City Bike, some voices in China have clarified that it is no longer carried pure initial purpose of sharing economy, but instead of business economy. However, nine percent of Finnish residents consider City Bike as sharing economy. (Survey 2018.)

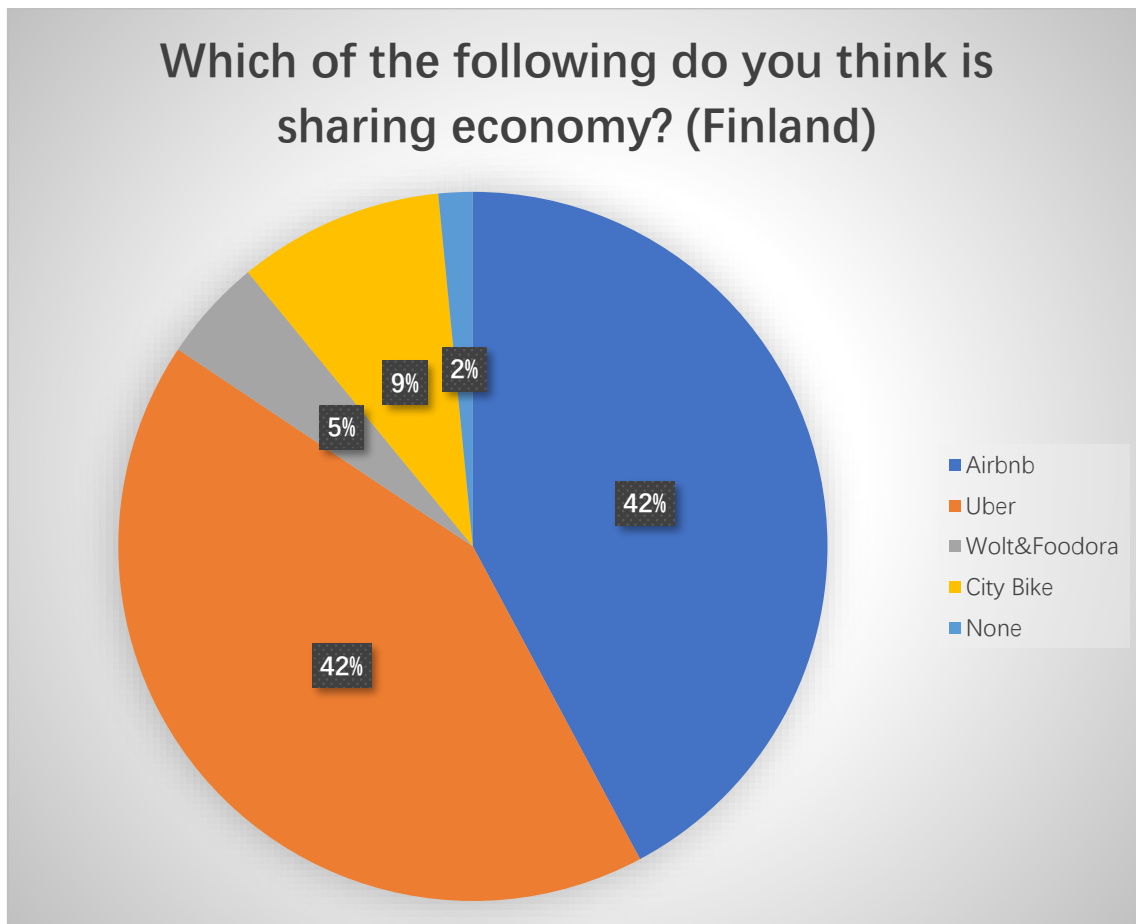


Figure 22 Which of the following do you think is sharing economy? (Survey Finland 2018)

3. How long does it take for your online order delivery normally?

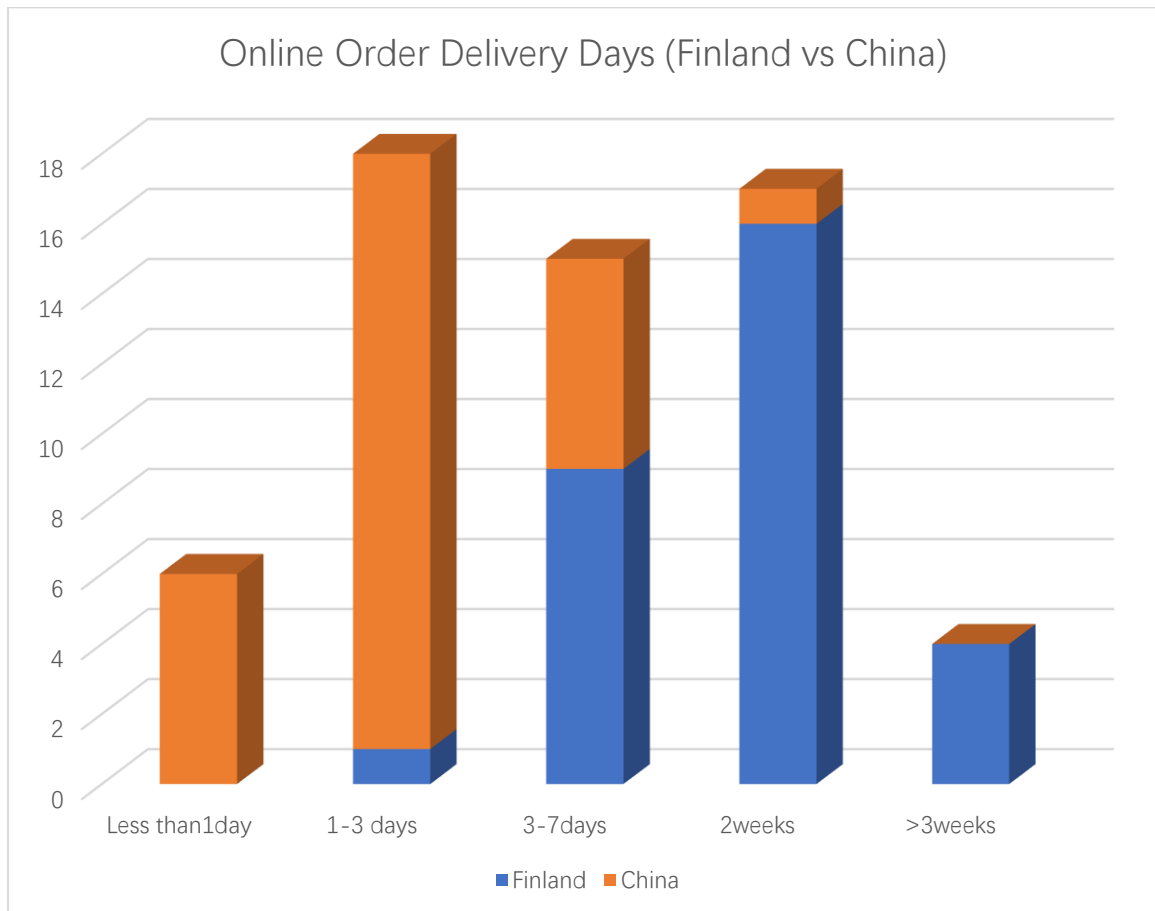


Figure 23 Online Order Delivery Days, Finland vs China (Survey 2018)

The above figure interprets that the online order delivery in China and Finland. The differentia from two states are rather huge, for instance, nearly half of the total actors in Finland receive the online orders within two weeks, however, it only takes one to three days for the majority group of shoppers in China. It is worth to highlight that in China, some orders can be delivered within the same day in some cities, which rarely happens in Finland. (Survey 2018.)

4. Which of the following do you think is acceptable for your online order delivery?

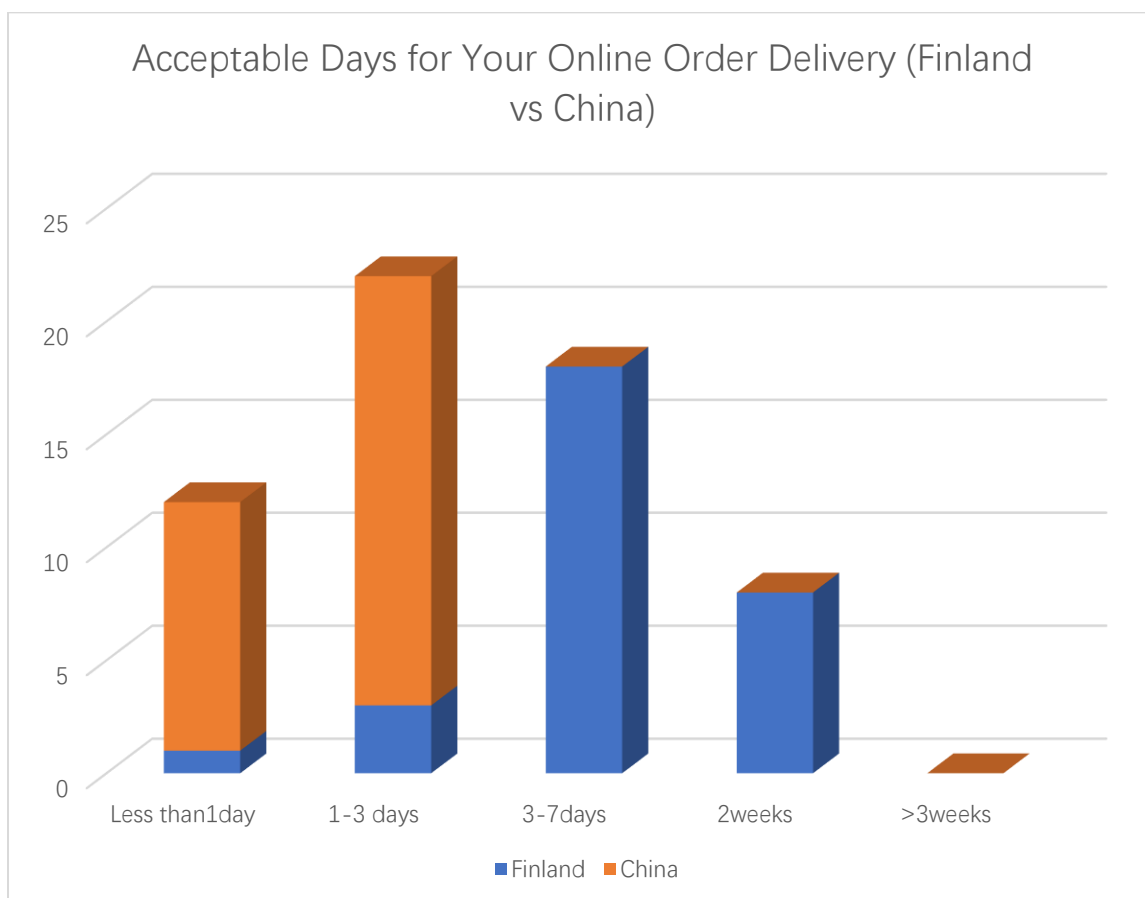


Figure 24 Acceptable Days for Your Online Order Delivery, Finland vs China (Survey 2018)

It is found in Figure 17 that diverse expectations from different national citizen needs. People in Finland await the delivery service could improve much more efficiently from ten days approximately to normally three to seven days. However, nearly one third of Finns consider it is also acceptable if their orders can be reached in two weeks. Contrarily, Chinese customers seem do not have such patience as the Finnish customers. Most Chinese consumers are satisfied with the current delivery time, but still, nearly one third of the participators push their express company to complete the last-mile service within one working day. Last but not least, none of the both groups will not be mad if the delivery is over three weeks. (Survey 2018.)

5. Are you satisfied with your express delivery service in your country? (e.g. delivery costs, time, etc.)

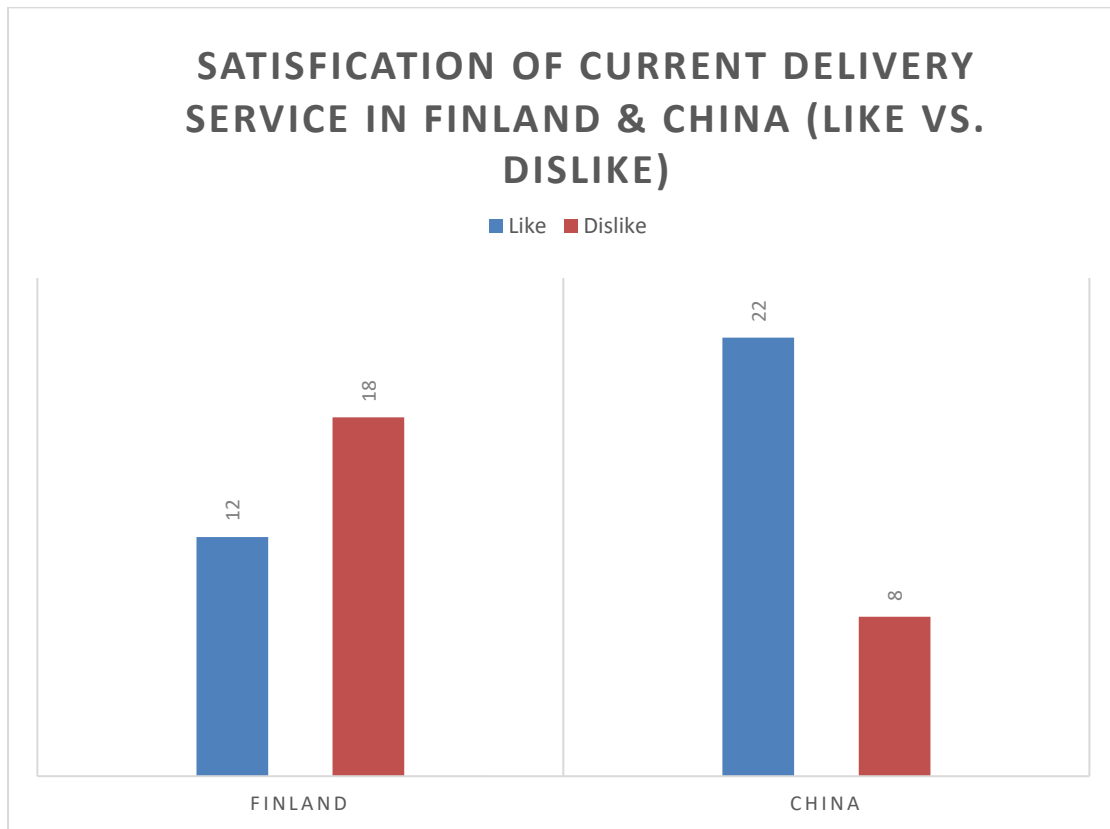


Figure 25 Satisfaction of Current Delivery Service in Finland & China (Like VS. Dislike) (Survey 2018)

As mentioned in the previous paragraph, most Chinese people are satisfied with their current delivery service, however, it seems that Finnish express service could make an improvement to increase the level of customer satisfaction. (Survey 2018.)

6. Do you think if sharing economy could change the current trends of delivery service?

Over sixty percentage of Chinese people believe the sharing economy can make a huge change to their living society without any reason, for a few comments, they have realized sharing economy changed multiple industries in their business operations, but there are still two-fifths Chinese citizens are convinced that sharing economy has no impact on their personal living habits. The reasons are not stated. The situation in Finland is quite similar with which in China. Twenty percent of Finnish people in this questionnaire leaves their hope to the Finnish government, which is rarely seen when compared to China. (Survey 2018.)

7. Are you willing to be a participant of Sharing Economy and why?

This question won a Grand Slam from both parties of the representatives. All of the participants show the willingnesses to become a part of sharing economy. Some reasons are indicated by Finnish people, which are sharing economy helps save resource for everyone by allowing everyone to use the resource in an efficient way and save money in life. (Survey 2018.)

6 SWOT ANALYSIS OF THE PLAN

Spee and Jarzabkowski (2009, 1-3) argue that the research tools should not only be used for “textbook” study purpose, but also need to be clear how to use these strategic tools and for what kind of purposes. The actual used purposes behind the tools may vary from different users. In addition, the reasons of using the same research method may also different. SWOT analysis tool is considered as a quick start approach to be mastered in strategic mission due to its flexibility.

The main purpose of using SWOT analysis tools in this chapter is to gather the research information and results, and give a brief view for audiences to understand the strengths and weaknesses of the plan, and recognize the opportunities and threats we are facing.

This chapter gives a SWOT analysis (Figure 26) of the new platform service. The analysis results are based on the previous data study and authors' own sources of platform building processing. The following chapters explain the strengths, weaknesses, opportunities and threats of the platform accordingly.



Figure 26 SWOT Analysis of the plan of the new platform

6.1 Strengths

One of the biggest strengths is the flexibility. Flexibility in this chapter refers to the great flexibility of both the location and the time of delivery. For example, the package has arrived at the Helsinki delivery point, but the owner of the package is on business trip in Lahti, where the owner is keen to receive the package that day. At this time, the greatest advantage of this platform will be brought into play, as long as according to the desired requirements, such as distribution time, distribution location of the release, riders only agree on the final release of the task data.

In addition, the advantages include a variety of options for transportation. In theory, the platform was developed for the delivery of small packages along the route, that is, not limited

to any means of transportation. The main purpose is to complete the delivery of tasks and earn commission. Travel tools can be chosen according to the circumstances and conditions of the distributor, bicycle, walking, car, taxi, train, or even snowboard, etc.

Moreover, one of the benefits is helping customers save time and money. Again, this platform not only reduces the hiring costs of express companies, but also offers freelancers to earn extra incomes on the way. Furthermore, holiday delivery in this platform will be very common and possible to create more job opportunities.

6.2 Weaknesses

Orders in the remote areas will take more time as usual due to the less crowd flow. As the out-of-the-way districts may have lower populations, the delivery processing of the task may take longer. In addition, since the authors are students and the sources are very limited, the actual platform building needs a plenty of professional technical support and market influence in the beginning. Moreover, the local society has to be taken into consideration, for example, aging is a serious problem. In Finland, the main active generation in social media with sharing economy is between age 18-24. (PwC 2015, 8-10) Thus, this platform probably has limitations of user groups due to the social background of aging, in other word, it may grasp the market of the young group instead of the general population.

6.3 Opportunities

The growing trend in sharing economy makes people increasingly grow the awareness of the benefits of sharing economy. In addition, this is a fresh idea in Finland, no such a concept has yet been seen so far, so, there is are still large gaps in the market space. Furthermore, Finnish government supports sharing economy activities, such as City Bike (HSL 2018), Restaurant Day (2018). Again, everyone has the opportunity to become a delivery person to win commission on the way home.

6.4 Threats

Despite the description of responsibility and discussed, the safety of each item remains a concern. The security problem refers not only to the integrity of the object, but also to the safety of the object itself. For example, dangerous goods, such as flammable and explosive, leaky gases and liquids, must be sent to the sender in advance when the task is issued. In addition to the safety of items, the personal safety of the courier must also be considered in

detail. Again, as a new concept, logistics companies with relatively fixed delivery modes and services in Finland, it is difficult for the author to estimate and judge the degree of cognition and acceptance of new products because Finns' acceptance of fresh products is not high. (Faehnle, Immonen, Mäenpää, Nylund & Träskman 2016 5-6)

7 CONCLUSION

In this section, the aim is to conclude the thesis by three chapters. First, answer the research questions after analyzing the resources gained during the work. Second, validity and reliability of the thesis will be followed. Finally, the third sub-chapter interprets the future suggestions.

7.1 Answering the Research Questions

As mentioned in the introduction section, the main purpose of the work is to find out the influences of sharing economy and platforms on last-mile services. Based on the results, establish a plan for the new sharing economy platform. This part gives the answers for the research questions. The subordinate questions will be replied first, and the answer of the main question will be followed.

- **What stimulates the participation of sharing economy?**

According to the results of the research, stimulating the development of the sharing economy can be attributed to three factors: first, the growing development of technology and the Internet, for example, the popularity of online shopping caused a great impact on the traditional economy. More and more people enjoy the convenience of shopping without leaving home. In addition, the development of technology has also contributed to the emergence and use of a series of shared economic platforms. Second, the surplus of resources. The biggest meaning of sharing economy is to maximize the use of resources, that is, "yours is mine, mine is yours." Finally, the government and society's supportive work helps to promote sharing economy. Any new policy and promotion can not be separated from the support of the society, the government has played a positive role in this connection. To sum up, it is the concept and practical significance of the benefit of the nation and the people that enable the development of sharing economy.

- **What functions should a third-party sharing economy platform have?**

A sharing economy platform should be designed to make the process of resource sharing more efficient. In other words, it should be designed for two subjects, the user of the resource and the owner of the resource. Based on these two aspects of the experience to create a series of functional options, such as the background management platform management system, including the management of resources, the release of resources, and the use of resources rules. When considering the experience of a resource user, it

should imagine adjusting to the user's usage habits as much as possible. For example, user login interface, resource display, delivery behavior description, customer service, customer service here is not only considering the service of sharing economic platform, but also worth paying attention to the customer service provided by resource owner. In addition, transparency is also a concern for a sharing economic platform, such as real-time tracking of where resources go. Getting customers and merchants to know the location of goods and resources is a way to improve the transparency of the platform.

- **What are the opportunities and risks of the new platform plan?**

Opportunities are conducted as follows:

- 1) The increasing awareness of sharing economy
- 2) Fresh idea and new concept
- 3) Large market chance
- 4) Government positive attitude
- 5) Low entry threshold for everyone

Risks are listed as below:

- 1) Safety of the items concern
- 2) Safety of delivery person concern
- 3) Finns' acceptance of fresh products

- **What are the marketing spaces in Finland for a sharing economy platform?**

The government and society have responded positively, as shown by the fact that by 2020 Finland is expected to achieve a total forecast value of more than 1.3 billion euros for real business activities through the idea of sharing economy. (Työ ja elinkeinoministeriö 2017) In addition, another official data shows that Finns own a high percentage of computers per capita. People living in Finland also have a large number of online buyers. For example, 78% of people online are for online shopping between the ages of 25 and 34 (OSF 2017). And this part of the population, occupied a large number of major consumer groups and Internet social media active groups. In Finland, the biggest share is living expenses, such as. (Statistics Finland 2017 for water, electricity, food, and housing. The sharing economy platform for food resources in living resources has gradually begun to develop in Finland, and one of the rapidly developing cases is Wolt.

- **How does a sharing economy platform impact on last-mile delivery?**

With the development of e-commerce, a lot of online orders reach customers' houses by express delivery. There are three ways of traditional express delivery: home delivery can be classified into three categories: delivery from supermarket to home, door-to-door delivery from designated warehouse, and delivery from outdoors. (Durand & Gonzalez-Feliu 2012, 512) The popularity of sharing economy services and platforms also promote the logistics industry's last-mile delivery service to provide customers with more options and possibilities. In this answer, the author sums up its impact in three ways:

First, services and platforms in sharing economy increase delivery opportunities, for example, from 10 packages delivered by couriers per day to 30. And most express workers earn income based on their performance. In some ways, a pay-for-work system gives those who want to do more work more opportunities to make money. Second, the development of sharing economy services and platforms reduce labor costs and resources in traditional industries. In Finland, the cost of hiring an ordinary employee is very high. Third, it reduces the delivery time, makes it normal for the same city to arrive on the same day, and during the holidays, the delivery service is still available, and it is possible to receive gift packages at Christmas.

7.2 Validity and Reliability

The qualification of the research needs to take validity and reliability into consideration. The notion of the validity and reliability does not make sense if it is just transferred the two conceptions from one theory to another. (Bergman & Coxon 2005.)

Two factors are the obstructions on our way to explore the experiential observation in qualitative research: (Bergman & Coxon 2005.)

- 1) The existed statistics and data are set up within specific conditions, e.g. cultural impact, political setting.
- 2) Researchers vary from all kinds of background, e.g. education, nations.

Each process in the study is set up to find the answers to the questions. In this research, the primary resource and the secondary resource were analyzed in detail respectively. Among them, the first resource was collected through an interview with manager of Company X. In addition, two surveys are done in China and Finland to compare the differences and similarities. These results explain the popularity of the sharing economy and the practical experience of using the platform, thus giving a supportive direction to the plan to build a new platform. According to the survey data, a total of 60 people responded

to the question of the survey, which made the research reliable. The findings of the current study are therefore very credible. Secondary resources mainly gained through electronic books, online journals, published text-books, etc. However, what viewers need to consider is that with the development of the internet and technology, sharing economy and the concept of platform building may lead to a different outcome in the future. All in all, the findings of this study are credible and valid currently.

7.3 Suggestions for Future Research

Sharing economy platforms can share a plenty of resources, including logistics information, technology and equipment, storage facilities, terminal distribution, and human resources. Under the concept of sharing economy, through the thorough development of social logistics resources and technologies, this will lead to the collision of a larger logistics resource sharing platform, whether to provide a more convenient solution to people's daily life, or build win-win bridge for traditional industry and the development of the Internet industry. One of the most important concerns is to consider how to integrate cross-industry resources to maximize utilization. In the future, these innovative models will be promoted and added value through these technologies and platforms.

8 SUMMARY

The goal of this paper is to discuss the market impact and phenomena of Finland's sharing economy and last-mile, case studies of sharing economy platforms, delivery solutions for last-mile, customer behavior, and what has stimulated the phenomenon of sharing economy. The final objective is to create a plan for a new platform for the Finnish market on the sharing economy and last-mile delivery to answer research questions. It also introduces what functions and design concepts a sharing economy service platform should have, how it works generally, the opportunity and risk analysis of this platform plan, and future suggestions.

The first section introduces the background and goal of the writing, in which the background part introduces the theoretical background and research significance of sharing economy and last-mile. The actual research background is based on case Company X, as a catering company, faced with the used experience of third-party platforms and delivery of service quality analysis. The main research question is to sort out how the sharing economy and the platform affect the delivery service of the final mileage. The limitations of the study are mainly limited to land delivery services in Finland, and the results are only based on a platform building plan that did not improve to a finished product.

After the thesis theoretical frame, the second chapter introduces the sharing economy and last-mile delivery. In this chapter, authors discuss the definitions and examples, such as Uber, Munchery, and Postmates. In addition to discover further in the topic, the followed paragraphs are divided to explain the sharing economy in Finland, such as Slow Fashion, Restaurant Day, City Bike. The next chapter defines last-mile delivery and last-mile delivery in Finland. In this sub-chapter, three main home delivery categories are introduced, in which five main solutions for last-mile delivery are also classified. Again, the followed part gives two example companies of last-mile delivery in Finland which are Posti and Gigantti.

The main purpose of the research is focused on a plan for a new sharing economy platform, thus, it is important to study the current platforms, possible cooperation parties domestically. In the third section, authors give an introduction and analysis of how Wolt and Foodora work in Finland. This section explicates the example companies who have already done some platforms service in Finland. Again, this chapter lists the main functions and steps of how to use platform services. In addition, the advantages and disadvantages of the platforms are conducted as well. Customer reviews are discussed in the last paragraph of each example company. Moreover, based on the analysis results, the new plan also looks

forward to cooperating with the local enterprises, such as Finnair and Finavia, Posti, and other cooperation parties.

The followed part interprets the plan of the new sharing economy platform. In this section, the content is about the information technology preliminary conception, including the functions description, explanation of the system, and liability cognizance policy.

In order to find out the analysis results of the research plan, authors illustrate the marketing analysis and data analysis in the fourth section. Marketing analysis is given based on Finnish local society research, public data analysis, and customer opinion towards sharing economy. Data is collected from primary sources and secondary sources. The primary data study is based on an interview with Company X and two surveys done in Finland and China with sixty participators. In addition, authors' own study and experiences in Information Technology also includes in the theoretical operations to support the research purpose. The interview's questions are related to the using experiences and problems of the current online platforms. In addition, the survey questions are covered with the sharing economy and last-mile delivery information.

After introducing a plan for the new platform, the thesis presents a SWOT analysis. Finally, the concluding section answers the research questions, discusses the validity and reliability of the research, and gives ideas for future work.

By using sharing economy services and platforms, customers not only save time and costs in life, but also contribute to the improvement of the real economy in Finland. With the development of technology and popularity of e-commerce, sharing economy and platforms allow more possibilities in home delivery solutions. It is recommended that both user party and merchant party should be considered averagely when creating a new platform for the improvement of last-mile delivery service. All in all, according to the research study, the biggest problem of sharing economy in last-mile delivery and platforms is not the problem of operation safety and cost control, but how to realize the transformation of cross-industry and the sharing of resources.

LIST OF REFERENCES

PRINTED SOURCES

Durand, B. & Gonzalez-Feliu, J. 2012. Urban logistics and e-grocery: Have proximity delivery services a positive impact on shopping trips?, *Procedia – Social and Behavioral Sciences*. Vol. 39, Elsevier, pp.510 – 520.

E-commerce 2014. 2014. Internet Standard Report, International Data Group Poland SA, Warsaw.

EU Commission. 2016. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A European Agenda for the collaborative economy. Brussel, 2.6.2016.

Lahti, V-M. & Selosmaa, J. 2013. Kaikki Jakoon! Kohti uutta yhteisöllistä taloutta. Atena. Keuruu.

Nagelvoort B., Welie van R., Brink van den P., Weening A, Abraham J., 2014. Global B2C E-commerce Report 2014, Ecommerce Foundation, Amsterdam – Netherlands

Patton, M. Q. 2002. *Qualitative Research and Evaluation Methods*. 3rd Edition. Thousand Oaks, pp. 341-347. Sage Publications.

Söderqvist, F. 2016. *Plattformsekomin och den Svenska partsmodellen*. Stockholm: Unionen.

ELECTRONIC SOURCES

Allen J., Thorne G., Browne M., 2007. BESTUFS Good Practice Guide on Urban Freight Transport. pp.37-48. BESTUFS Consortium. European Commission [accessed 6 March 2018]. Available at:
http://www.bestufs.net/download/BESTUFS_II/good_practice/English_BESTUFS_Guide.pdf

Botsman, R. 2013. The Sharing Economy Lacks A Shared Definition. *Fast Company* [accessed 6 March 2018]. Available at: <http://www.fastcoexist.com/3022028/the-sharing-economy-lacks-a-shared-definition>

- Bringg. 2018. The New Rules: Delivery Logistics in the E-Commerce Era. Bringg Delivery Technologies Ltd [accessed 6 March 2018]. Available at: <https://www.bringg.com/resources/white-papers-and-ebooks/white-paper-the-new-rules>
- Cleveron. 2017. Posti Group Last Mile Solution in Finland. Cleveron AS [accessed 06 May 2018]. Available at: <https://cleveron.eu/case-study/posti-group-last-mile-solution/>
- Codagnone, C. & Martens, B. 2016. 2016. Scoping the Sharing Economy: Origins, Definitions, Impact and Regulatory Issues. Institute for Prospective Technological Studies Digital Economy Working Paper 2016/01. JRC100369. 9. European Union [accessed 06 March 2018]. Available at: <https://ec.europa.eu/jrc/sites/jrcsh/files/JRC100369.pdf>
- DB Schenker Pick-up Points to K-food Stores. 2017. K-food Stores' Parcel and Postal Transactions Quadrupled in 2016. K-Group, Kesko Corporation [accessed 08 November 2018]. Available at: <https://www.kesko.fi/en/media/news-and-releases/news/2017/k-food-stores-parcel-and-postal-transactions-quadrupled-in-2016/>
- Dølvik Jon. Erik. & Jesnes. Kristin. 2018. Nordic Labour Markets and the Sharing Economy. Report from a Pilot Project. Nordic Council of Ministers [accessed 03 November 2018]. Available at: <http://www.diva-portal.org/smash/get/diva2:1072087/FULLTEXT02>
- Faehnle, M., Immonen, H., Mäenpää, P., Nylund, M. & Träskman, T. 2016. Jakamistalous ja verotus - Mahdoton yhtälö? Sitra 22 September 2016 [accessed 08 November 2018]. Available at: <https://www.sitra.fi/artikkelit/jakamistalous-javerotus-mahdoton-yhtalo/>
- Finavia. 2018. Finland sees record-breaking number of air passengers in 2017 – share of international passengers growing rapidly. Finavia, Newsroom [accessed 04 December 2018]. Available at: <https://www.finavia.fi/en/newsroom/2018/finland-sees-record-breaking-number-air-passengers-2017-share-international>
- Finland Economy. 2011. Social indicators & living standards. EIU ViewsWire [accessed 04 December 2018]. Available at: http://www.eiu.com/public/subscriber_only.aspx?x=363726420
- Finnairshop. 2018. Finnairshop Pre-order Products. Oneworld Alliance [accessed 08 November 2018]. Available at: <https://www.finnairshop.com/en/pre-order-products>
- Finnish Fashion Cares. 2018. VisitFinland [accessed 04 November 2018]. Available at: <https://www.visitfinland.com/article/finnish-fashion-cares/>

Foodora.2019. Where We Are. Foodora [accessed 04 January 2019]. Available at:
<https://www.foodora.com/about/>

Gigantti. 2018. Book online, pick up from the store, Gigantti [accessed 13 October 2018]. Available at: <https://www.gigantti.fi/cms/collect-at-store/collect-store-tilaa-netissa-nouda-myymalasta/>

Google Play. 2019. Foodora GmbH on Google Shop. Google [accessed 28 December 2018]. Available at:
https://play.google.com/store/apps/details?id=de.foodora.android&hl=en_US

Google Play. 2019. Wolt Enterprises Oy on Google Shop. Google [accessed 28 December 2018]. Available at:
<https://play.google.com/store/apps/details?id=com.wolt.android&hl=en>

HSL. 2017. Choose a pass. HSL [accessed 05 November 2018]. Available at:
<https://kaupunkipyorat.hsl.fi/en>

Iwan, S, Kijewska, K & Lemke, J. 2016. Analysis of Parcel Lockers' Efficiency as the Last Mile Delivery Solution – The Results of the Research in Poland. *Transportation Research Procedia*, 12, pp. 644-655 [accessed 06 September 2018]. Available at:
<https://doi.org/10.1016/j.trpro.2016.02.018>

Jakamistalous ja verotus: Eväitä yhteiskunnalliseen keskusteluun. 2016. Yrkeshögskolan Arcada Ab. pp. 4-6 [accessed 08 November 2018]. Available at:
http://dspace.arcada.fi:8080/xmlui/bitstream/handle/123456789/41/AWP_4_2016_Jakamistalous.pdf?sequence=1&isAllowed=y

Ljungberg, J. 2000. Open Source Movements As a Model for Organising. *European Journal of Information Systems*; Abingdon. 9(4). pp.213-214 [accessed 06 September 2018]. Available at: <https://doi.org/10.1057/palgrave.ejis.3000373>

Bergman Manfred Max & Coxon Anthony P.M. 2005. The Quality in Qualitative Methods. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*. Volume 6, Issue 2 [Accessed 04 March 2018]. Available at: http://www.qualitative-research.net/index.php/fqs/article/view/457/974#footnoteanchor_6

Martin. ITU/V. 2012. Finland has largest share of economy based on information technology – UN. UN News. United Nations Publications [accessed 04 December 2018].

Available at: <https://news.un.org/en/story/2012/02/403412-finland-has-largest-share-economy-based-information-technology-un>

Matkahuolto Near Parcel. 2018. Matkahuolto Parcel Services. Matkahuolto [accessed 08 November 2018]. Available at: <https://www.matkahuolto.fi/en/parcel-services/send-parcel/near-parcel/#.W-SjVigzZPY>

Kosoff Maya. 2016. A startup founder left Vietnam for America on a fishing boat when he was 11- now he runs a \$300 million company. Businessinsider [Accessed 6 March 2018]. Available at: <https://www.businessinsider.com/how-tri-tran-came-to-america-and-founded-munchery-2016-1?r=US&IR=T&IR=T>

Munchery. 2018. Munchery [accessed 03 November 2018]. Available at: <https://munchery.com>

Official Statistics of Finland (OSF): Use of information and communications technology by individuals [e-publication]. ISSN=2341-8710. 13 2017. Helsinki: Statistics Finland [accessed 11 November 2018]. Available at: http://www.stat.fi/til/sutivi/2017/13/sutivi_2017_13_2017-11-22_tie_001_en.html

Official Statistics of Finland (OSF): Households' consumption [e-publication].ISSN=2323-3028. 2016. Helsinki: Statistics Finland [accessed 11 November 2018]. Available at: http://www.stat.fi/til/ktutk/2016/ktutk_2016_2018-03-13_tie_001_en.html

O'Sullivan, J. 2015. Wolt Cuts Down Time at the Counter. Business Finland. [accessed 11 December 2018]. Available at: <http://www.goodnewsfinland.com/feature/wolt-cuts-down-time-at-the-counter/>

Posti. 2016. Posti is Piloting a New Way to Exchange Goods in C2C Trade. Posti [accessed 05 November 2018]. Available at: https://www.posti.fi/english/current/2016/20160413_Nearby-Lockers-at-Parcel-Points.html

Posti. 2018. Online Store Delivery Types. Posti [accessed 05 November 2018]. Available at: https://www.posti.fi/liitteet-yrityksille/ohjeet/posti_verkkokaupan_toimitustavat-ohje_2018_en.pdf

Postmate. 2018. Postmate [accessed 04 November 2018]. Available at: <https://postmates.com/>

- PostNord Send. 2018. PostNord [accessed 08 October 2018]. Available at: <https://www.postnord.fi/en/send/parcels/parcels-for-consumers/mypack-collect>
- PwC. 2015. The Sharing Economy. Short report in the Consumer Intelligence Series.8 [accessed 06 May 2018]. Available at: <https://www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/assets/pwc-cis-sharing-economy.pdf>
- Restaurant Day. 2018. My Helsinki [accessed 05 November 2018]. Available at: <https://www.facebook.com/restaurantday>
- Riikka Jokinen. 2017. Gigantti opens a whole new store chain in Finland. Helsingin Uutiset [accessed 05 November 2018]. Available at: <https://www.helsinginutiset.fi/artikkeli/532723-gigantti-avaa-suomeen-kokonaan-uuden-myymalaketjun-tasta-on-kyse>
- Spee, A. P. & Jarzabkowski, P. 2009. Strategy tools as boundary objects, *Strategic Organization*, 7(2), pp.1-3. doi: 10.1177/1476127009102674 [accessed 31 January 2019]. Available at: <https://journals-sagepub-com.aineistot.lamk.fi/doi/pdf/10.1177/1476127009102674>
- Tsui, K. K. 2016. Economic explanation: From sharecropping to the sharing economy. *Man and the Economy*, 3(1), pp. 77-96 [accessed 22 September 2018]. Available at: <http://dx.doi.org.aineistot.lamk.fi/10.1515/me-2016-0005>
- Työ- ja elinkeinoministeriö. 2017. Jakamistalous voi kasvaa kymmenkertaiseksi lähivuosina [accessed 11 November 2018]. Available at: http://tem.fi/artikkeli/-/asset_publisher/jakamistalous-voi-kasvaakymmenkertaiseksi-lahivuosina
- Uber. 2016. Uber [accessed 03 November 2018]. Available at: <https://www.uber.com>
- Uber.2018. The basics: How to drive with Uber in Finland. Uber [accessed 23 December 2018]. Available at: <https://www.uber.com/en-FI/drive/requirements/>
- Ullah Syed Shoaib. 2017. Sharing Economy in Travel and Tourism: Finland vs. Hong Kong. Haaga-Helia University of Applied Sciences. pp. 36 [accessed 11 November 2018]. Available at: <http://www.theseus.fi/handle/10024/128123>
- Wolt. 2019. Our Open Positions. Wolt [accessed 28 December 2018]. Available at: <https://wolt.com/jobs>

ORAL SOURCES

Interviewee. 2018. Manager. Company X. Helsinki. Interview 13 December 2018.

APPENDICES

APPENDIX 1. Interview with Marketing Manager of Company X

1. Please introduce briefly about your company, e.g. business area, market event.
2. Do you know Sharing Economy, Last-mile Delivery?
3. Could you please give any examples of any Sharing Economy phenomenon?
4. Are you a part of Sharing Economy?
5. Does your restaurant deliver food directly to consumer?
6. What are your target customer group?
7. How do you develop new customers? Do you have any marketing activities?
8. What kind of third-party platform do you cooperate?
9. What are your findings when using third-party platforms? Any sales improvement, or problems?
10. What is the biggest finding/problem do you cope with the third-party platforms?
11. Among those platforms, which is your preference?
12. How is your own website business going?
13. What are the biggest problems you are facing at the moment?
14. How long does the food delivery take from your kitchen to customer's table?
15. How do you ensure your service and quality of the food?
16. What are your suggestions as a participant of third-party platform?
17. What do you expect if there is a more costless way for food last-mile delivery?
18. Any other comments? Is there anything else you want to share with us?

APPENDIX 2. Survey (Chinese)

您好，我们现在正在进行一个关于共享经济和最后里程递送服务的调查问卷，请您花费1分钟的时间帮助我们调查，非常感谢您的宝贵时间！

1) 您的年龄:

7-17

18-28

29-39

40-50

51-61

61+

2) 您知道共享经济吗?

是

否

3) 以下哪些您认为是共享经济?

共享单车

爱彼迎

美团

阿里巴巴

优步

中国航空公司

4) 一般您的网购订单几天能到?

1天以内

1-3天

3-7天

2周

超过2周

5) 您对给您配送的物流公司满意吗?

是 否

您认为共享经济能改变物流配送的趋势吗?

是 否

7) 您是否愿意参与到共享经济的活动中来呢? 为什么?

是 否

APPENDIX 3. Survey (English)

Hello, we are now conducting a questionnaire on sharing economy and last-mile delivery services. Please take a minute to help us with the survey. Thank you very much for your valuable time!

1) Your age:

- 7-17
- 18-28
- 29-39
- 40-50
- 51-61
- 61+

2) Do you know Sharing Economy?

- Yes
- No

3) Which of the following do you consider as Sharing Economy?

- citybike
- Airbnb
- Wolt/Foodora
- Alibaba
- Uber
- Finnair

4) How long does it take for your online order delivery normally?

- less than 1 day
- 1-3 days
- 3-7 days

2 weeks

more than 2 weeks

5) Are you satisfied with your express delivery service in your country?

Like Dislike

6) Do you think if sharing economy could change the current trends of delivery service?

Yes, of course! No

7) Are you willing to be a participant of Sharing Economy? Why?

Yes, of course! No