

Louvain School of Management

What are fashion rentals and how are they thriving?

Le Tote case study.

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Table of content

Introduction	1
1. Context	1
2. Examined focus	2
3. Research question.....	3
4. Research scope	4
Theoretical research: Literature review	5
1. The Fashion Industry	5
1.1. Global situation of the industry	6
1.1.1. Growing demand	6
1.1.2. Stress on the environment	8
1.1.2.1. Water	9
1.1.2.2. Carbon emissions.....	9
1.1.2.3. Hazardous chemicals	10
1.1.2.4. Waste	10
1.1.3. Production complexity and labor conditions	10
1.2. Shifting trends: sustainable value creation and disruption	11
2. Fashion Rentals	14
2.1 Description	14
2.2. A Product-Service System.....	16
2.2.1. Origins	16
2.2.2. Definition.....	17
2.2.3. PSS strategic business model	18
2.2.3.1. Competitive model	18
2.2.3.2. Customer perspective	19
2.2.3.2.1. Implication and expectation for fashion	20
2.2.3.2.2. Fashion rentals for whom?	20
2.2.3.2.3. Intention to adopt the concept	21
2.2.3.3. Environmental perspective	22
2.2.4. Operational level	23
2.2.4.1. Contracts.....	23
2.2.4.2. Marketing	24
2.2.4.3. Logistics	24

2.2.4.4. Product-service design.....	26
2.3. Wrap-up on fashion rentals	27
Practical research: Le Tote Case study.....	30
1. Problematic and research question	30
2. Research methodology	31
2.1. Justification of the chosen methodology	31
2.2. Information collection	32
2.3. Analysis structure	33
3. Analysis and results.....	35
3.1. Company	35
3.1.1. Production, wholesale and retail phase.....	36
3.1.2. Sales and marketing.....	37
3.1.3. Delivery, wear and return phases	40
3.1.4. Cleaning, restorage and disposal phases.....	41
3.1.5. Financial support and extension of the business activities	42
3.2. Environmental impact	43
3.3. Customers.....	46
3.3.1. Customer segmentation	46
3.3.2. Subscribers reaction.....	47
3.4. Competition	50
3.4.1. Competitors	50
3.4.2. Substitutes	54
3.4.3. New Entrants	55
3.4.4. Bargaining power of suppliers.....	55
3.4.5. Bargaining power of customers.....	56
4. Discussion and further thoughts	57
4.1. Discussion	57
4.2. Contribution compared to past literature.	59
4.3. Limitations of the practical research	60
4.4. Remaining questions and further thoughts	61
Conclusion.....	63
Bibliography.....	64
Appendix	70
Inside observation.....	70

Appendix 1: Brands in Le Tote's selection	70
Appendix 2: partnering with designers.....	71
Appendix 3: client's sizing and preferences, input during subscription.....	71
Appendix 4 : Client's feedback on worn items	72
Appendix 5: Le Tote subscription plans.....	72
Appendix 6: reduction for new subscribers.....	73
Appendix 7: intern sales	73
Appendix 8: customization by client.....	73
Appendix 9: referral program.....	74
Appendix 10: building of virtual wardrobe	74
Appendix 11: client's participation	75
Appendix 12: Le Tote's ambassador.....	75
Appendix 13: promotion of other services	76
Appendix 14: shipping packaging.....	76
Appendix 15: package sending and shipping label creation.....	76
Appendix 16: return bag.....	77
Appendix 17: optimization of fabric usage	77
Appendix 18: Le Closet (French fashion rental) shipping box.....	78
Appendix 19: Le Tote's sizing recommendation	78
Client's input.....	79
Appendix 20: How did you find out about Le Tote at first?	79
Appendix 21: How long you have been a Le Tote member?	80
Appendix 22: Which of the subscription plans is your current one?.....	80
Appendix 23: If you cancelled your subscription, what was the main reason?.....	80
Appendix 24: How long does it take usually to get your new tote after customizing it?	81
Appendix 25: Do you know from where your tote is shipped? If yes, where ?	81
Appendix 26: Do you shop online too?	81
Appendix 27: Why did you decide to rent clothes?.....	81
Appendix 28: Do you often buy the items of your tote?	83
Appendix 29: Do you recommend Le Tote to your friends?.....	83
Appendix 30: On a scale of 1 to 10, how would you rate Le Tote?	83
Appendix 31: Do you subscribe to other services? Which ones?.....	84
Appendix 32: What is your age range?	85
Appendix 33: Extra Comments?	85

Introduction

1. Context

The textile and clothing industry is one of the biggest in the world, employing about 300 million people and in which customers spend over 1 trillion dollars every year. This sector affects everyone because being able to dress is a fundamental need, but it is also a way of fulfilling one's desires, to express and even to affirm oneself. However, it is also one of the most polluting, and its production and consumption practices raise several sustainability concerns. (Cooperrider and Fry, 2012; Ellen McArthur Foundation, 2017)

Nowadays, the fashion industry is characterized by low quality, frequent replacement and waste, ruled by fast production and consumption. Clothes are meant to be short-lived, condemned to be thrown away by the next upcoming collection. In fact, when disposed, very few clothes return into remanufacturing processes or recycling cycles. Fashion and environmental sustainability are thus two words that are not often set side by side. Conciliate the two is not a small thing (Cooperrider and Fry, 2012).

While technology can continue to improve some aspects of the industry, other challenges need actions from the businesses and customers themselves to change. Those stakeholders are key actors that can take responsibility towards sustainability and change their behaviors. The question remains how to do that and how well can it be done. (Boström & Micheletti, 2016)

Some initiatives have been taken regarding corporate responsibility like with the use of eco-certification and disposed garment collecting. Unfortunately, it stays relatively marginal actions, not systemic changes. Habits are hard to change and the way the fashion economic model (produce-sell) is settled, is not encouraging this change. (Boström & Micheletti, 2016) The system should be redesigned to better reinvent itself. Instead of selling, why not renting? This is what the fashion rentals recommend. Although not new, the concept of renting clothes has just started gaining momentum in the United States, France, and is beginning to break through in China. First, it focused on luxury objects and accessories, then opened up to luxury clothing, maternity and baby clothing, and finally to everyday clothing for women.

2. Examined focus

Following the fast-fashion speed, people buy clothes at an increasing fast pace. Going wild for the last trendy pieces, people have a real need for being fashionable. It is one way to express social status, which is so important for many people nowadays. But as consequence, most of their clothes are languishing gathering dust on the shelves because they are from the last collection, already being out of fashion. The real technical life of those pieces is obviously wasted, especially knowing that the chances are high that they will be burned when disposed.

For many people combining the possibility to access a large variety of fashion styles and the willingness to reduce negative impacts on the environment seems not feasible today. Changing consumption habits appears challenging as hard rooted. However, some companies took up the challenge and launched new ways to enjoy fashion while trying to make a difference. The fashion industry is not an easy sector to disrupt especially because the competition is fierce and with insatiable consumers. (Amed, Balchandani, Beltrami, Berg, Hedrich & Rölkens, 2018) But, succeeding in making a difference in this sector can have great repercussions. In fact, the fashion industry is known to be very polluting and driven by fast consumption.

In this thesis, fashion rentals will be at the core of the analysis. Their purpose is to allow still trendy fashion, but with a lower negative impact through a change in the fashion consumption model. By renting clothes to a large number of clients, fashion rentals are expected to enhance the fashion industry in being more environmentally friendly while still allowing people to be fashionable. Fashion rentals are part of an economic system that combines product and service offerings. Until recently, offering services and offering products would have been two different businesses. But this separation is now fading. At a time when the differentiation between competitors is key, it has become interesting for many companies to provide a complete offer rather than just a product. This fits into the notion of product-service system that characterizes businesses with intentions of economic success along with environmental sustainability and societal changes. It encourages businesses to think their model in a way that will optimize the assets' usage. (Annarelli, Battistella & Nonino, 2016)

3. Research question

Fashion rentals are still at their early ages and except for special segments like event wear, the concept is relatively unknown from the public if we consider the daily wear fashion customers. Moreover, there is a gap in the literature about fashion rentals, about what they are in practice and how they are doing.

To understand what is at stake and in what context the clothing rentals were created, we have first to get more information on the global context, the industry's state. Why is it so important to change the fashion consumption habits and what kind of impact does fashion have on the environment? Fashion rentals, or fashion libraries, are incorporating habits shift and potential lower environmental impact, within a business model that follows the collaborative trend. But how do they do so?

When knowing what fashion rentals are doing, we might ask ourselves how. How is the core model designed and how do they provide this rental service in practice? How are fashion rentals expected to change habits and how ready are people to rent clothes instead of buying them? How more environmentally friendly are they compared to traditional selling fashion models?

In short, are fashion rentals economically viable and sustainable models? Ownership desire is still very strong among most of the population and this is one of the main challenges the fashion rentals have to overcome to at least survive. But changing the habits of consumption can create the first steps to mentality change and potentially better environmental accountability. On the other hand, will renting not encourage even more consumption as people will have access to a larger range of products and ask for higher fashion frequencies.

The research question: What are fashion rentals and how are they thriving?

In a second step, as the literature does not have extensive information on inside processes of fashion rentals, a case study will be developed with as unit the Californian fashion rental company: Le Tote. The question will be adapted to: **What is Le Tote and is it thriving?**

4. Research scope

Through this thesis, we will grasp the fashion industry situation, the fashion rentals definition, the business strategies and tactics that can be affiliated to them. The research will be divided in 2 parts: a theoretical research and then a practical.

For the Literature review (theoretical research), different scientific article publishers will be used as reference, like the Journal of Cleaner Production. According to Reim, Parida and Örtqvist (2015), it is described as dominant in the topic of product-service system and was one of the first at publishing articles about it. The product-service system is a system that supports the strategic and tactic of business models such as the fashion rentals. A second rich source for this thesis is the Journal of Corporate Citizenship that also publishes a good literature on fashion and sustainability topics (Cooperrider & Fry, 2012). Finally, information will come from resources like BCG, McKinsey and Ellen MacArthur Foundation, as well. These resources are recognized by the business and the academic sector as of high value. Reliable, they offer articles with strong extended analysis, key for this paper.

The practical research will illustrate and complement the theoretical section. For this second approach, a case study will be developed on a Californian fashion rental called Le Tote, based on my direct experience of its service. Further information on the methodology used and the analysis structure is detailed in that second part. The single-case study will not be taken as generalization of fashion rental concept, but will be an anchor point that can encourage further research on the topic.

This master thesis will mainly focus the fashion rentals' analysis on the daily clothing branch of the sector, thus minimizing the cases such as for luxury products, maternity and child clothes rentals. The reason is to target the largest spectrum of population that are at the heart of the fashion industry. Those are particularly interesting as the targeted clients have fewer incentives to shift to this model, not looking for a very special event look and not because their sizes are changing frequently. The luxury and maternity niches are already extremely well served, but only reach a very small amount of the population. The paper will also emphasize its analysis on the US markets and industry, as the field research will be done in the United States.

Theoretical research: Literature review

Before jumping into what are fashion rentals and how they are organizing their business model, this theoretical research will develop the clothing industry's situation and the challenges that new entrants could target. As mentioned quickly above, the fashion industry is one of the biggest sectors in the world and has therefore significant impact on people's life and the environment. This is making it a very interesting sector to challenge with a new business concept like offering the possibility to rent clothes instead of buying items. To have a complete understanding of the rental business model, this paper will develop its analysis through the theoretical economic system that underpins it. This system, called product-service system, defines principles and orientations for companies offering combination of products and services, to build economically sustainable business models that also have a lower environmental impact.

1. The Fashion Industry

Fashion is a sector that touches almost everyone from everywhere as production and consumption are worldwide. Dressing is an everyday necessity and for many people it is also an important way of expression. The fashion industry employs more than 300 million people and generates more than \$1 trillion sales. All that makes it a very important wheel of the world functioning. In the last 15 years, the industry saw an incredible rising demand for clothes and thus in production as well. Yet it has very heavy impacts on the environment and significant value losses are made through the model produce-buy-dispose. It is estimated that \$100 billion worth of wasted clothes is burned or landfilled annually and by 2050 the industry will use up to a quarter of the world's carbon budget if nothing changes. It is maybe the time to come to transition to a system that would bring better economic, environmental and societal outcomes. (Ellen MacArthur Foundation, 2017)

In the next sections, the industry will be described through economic and environmental perspectives. This will give an overview on where challenges and concerns raise, and thus where improvement should be made to fill in the gaps. Then, we will talk about the shifting trend that is occurring and looks encouraging to the future of that industry. The next sections

will focus on the fashion rentals that are popping across the world and the system that underlies it.

1.1. Global situation of the industry

In recent decades, the fashion industry has been a driving force for global growth and development. It is one of the largest consumer industries in the world, generating more than \$1 trillion in annual revenues in clothing and footwear in 2016. (Kerr & Landry, 2017) In addition, the sector employs about 300 million people along the value chain. (Ellen MacArthur Foundation, 2017)

The natural resources on earth are under pressure, and, although not the most obvious, the fashion industry is a considerable contributor. In addition, social conditions in the fashion industry are far from those set out in the United Nations' sustainable development goals. These pressures will intensify by 2030 if the current production and consumption trajectories stay the same, to the point of threatening the industry's own growth. As resources become increasingly scarce, the industry will have to face an increase in labor to material and energy costs. (Kerr & Landry, 2017)

By changing practices, the fashion industry can reduce the negative impacts, and generate great value for society, while protecting the economic profitability. It is estimated that if the industry could successfully address these social and environmental issues, the global economy would earn annually about \$160 billion. (Kerr & Landry, 2017)

It is important to recognize that many laudable efforts are already being made across the industry. Individually, many companies are striving to optimize their business practices. Collectively, many initiatives have also been launched with consumer education objectives, the establishment of vast industrial networks dedicated to striving for improvement on social protection and environmental protection. (Kerr & Landry, 2017)

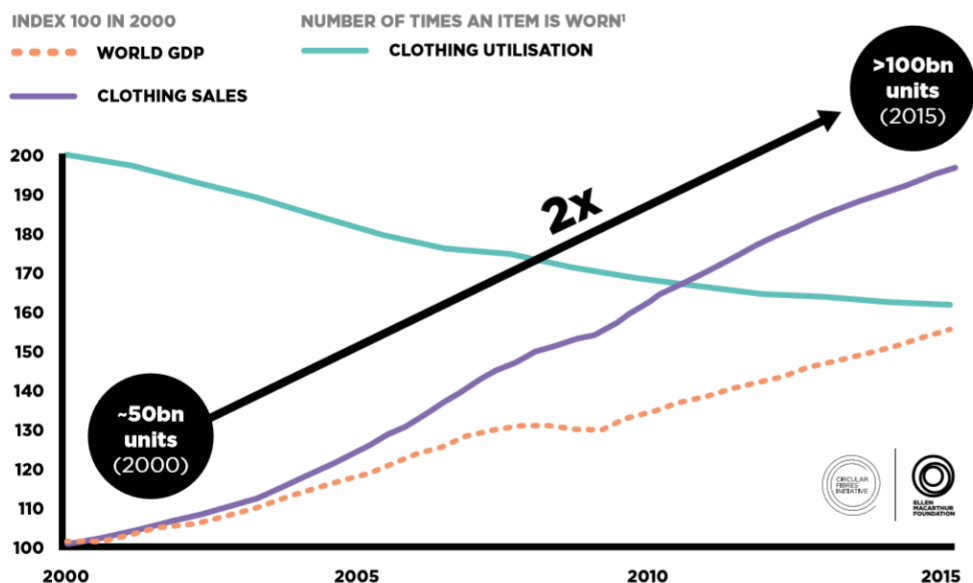
1.1.1. Growing demand

If the world population increases as expected to 8.5 billion people by 2030 and GDP per capita increases by 2% per year in developed countries and 4% in developing countries, the consulting group BCG forecasts that global clothing consumption will increase by 63%, from 62 million tons today to 102 million tons in 2030. (Kerr & Landry, 2017)

At the same time, the surge in demand for clothing, much of which comes from developing countries, will see the annual retail value of clothing and footwear reach at least €2 trillion by 2030. (Kerr & Landry, 2017)

The fast fashion model is based on frequent creation of new trends, with cheap quality products and low costs. The number of collections has thus increased from twice a year, covering the spring/summer and then fall/winter, to 50-100 micro collections. The ever-changing collections are making people always more demanding and encourage them to always buy more pieces. Textile items are then non-stop produced to fulfil the never-ending demand, whereas the wardrobes are already full of sleeping pieces. (Hirscher, Niinimäki & Joyner Armstrong, 2018)

In 2015 already, consumers were purchasing 50% more clothing than in 2000 but the garment was worn less, as shown below on the Figure 1, used by Ellen McArthur Foundation in its 2017 report.



1 Average number of times a garment is worn before it ceases to be used

Figure 1: Sales growth of clothing and decline in utilization of clothing since 2000¹

¹ Ellen McArthur Foudnation. (2017). A NEW TEXTILES ECONOMY: REDESIGNING FASHION'S FUTURE, p18. https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy_Full-Report_Updated_1-12-17.pdf (March 28th, 2019)

The consumption habits are also shifting with the spreading of the social network and digital technologies. Consumers do not shop the same way as 10 years ago. Today, they can browse the internet for all possible items and buy them in a couple of clicks, giving them instant access to a very large product offer and recommendations. This has raised the expectations of customers for convenience, speed and variety. The impatience for renewal is not easy to follow for fashion brand that must then constantly refresh their catalogues. (Berg, Heyn, Hunter, Rölken, Simon & Yankelevich, 2018)

In 2018, out of a McKinsey survey for the apparel industry, it appeared that even fashion companies with a revenue exceeding \$2.5 billion struggle in following the trends' pace and in readjusting their collection, if it is not finding customers. A majority of them also added in the survey that they are too slow in releasing new items to market. The risk of delaying the product launch is critical as the trend might have already changed, while products are just ready for sale. To reduce that risk and thus shorten the time to go to market, the time span between the product development and the launch must be minimized as much as possible. For companies that own their retailing process, like Primark, it takes around 11 weeks to develop products and 28 weeks to go to market. They have thus to anticipate long in advance their collection with the risk it will not find clients. (Berg, Heyn, Hunter, Rölken, Simon & Yankelevich, 2018)

1.1.2. Stress on the environment

Researchers from the Stockholm Resilience Center and the Australian National University defined planetary boundaries of sustainable and safe resource use for humanity. When we look at the planet from the perspective of those indicators, it becomes clear that significant tensions based on human activities are already threatening the planet. According to these researchers, we are already beyond the safe operating space in terms of pollution, climate and land use change. This means that we are facing an increasing risk of destabilizing the planet's state, resulting in environmental change which can potentially damage largely the economic world. (Kerr & Landry, 2017)

Although it is not entirely attributable to the fashion industry, the industry's current linear business model clearly contributes to the stress on natural resources. If the production and consumption of clothing and footwear continue their current trajectory, increasing by a further 63%, fashion's ecological footprint will continue worsen the situation. (Kerr & Landry, 2017)

In the economic worst-case scenario, the fashion industry will face restrictions and new environmental legislation on its main input factors, which will make it unable to grow at the expected rate and, in the long term, to continue to operate under its present operating model. (Kerr & Landry, 2017)

1.1.2.1. Water

The volume of water consumed today by the clothing industry is already significant with almost 79 billion cubic meters. This would be enough to fill about 32 million Olympic-sized pools. It is predicted that by 2030 use of water will increase by 50%. This is a critical situation, as some of the major cotton producing regions such as in China and India already suffer from medium to high degrees of water stress. Thus, as water shortages worsen, cotton producing countries may face the choice dilemma between cotton production and ensuring clean drinking water. (Kerr & Landry, 2017)

The most important use of water occurs during the production of textiles, especially in cultivation of the cotton, but many other aspects of textile processing also intensively require water. In addition, consumers are responsible for further consumption as well, for washing their clothes at home. (Kerr & Landry, 2017)

To produce one cotton t-shirt, 2,700 water liters are required for the cotton crop, and this is one of the most used natural fiber in the apparel industry, representing around 33% of the textile fiber. Plus, each year during the production cycle, 5 billion liters of water are used for dyeing the fabrics. (Drew & Yehounme, 2017; Ellen MacArthur Foundation, 2017).

1.1.2.2. Carbon emissions

The textile manufacturing produces 1.2 billion tons of CO₂ equivalent. Moreover, by 2030, the industry's CO₂ emissions are expected to increase to reach then nearly an annual 2.8 billion tons. This is equivalent to the emissions produced by nearly 230 million vehicles driven for one year, assuming average driving habits. (Kerr & Landry, 2017; Ellen McArthur Foundation, 2017; Nature Climate Change, 2018)

Besides cotton, synthetic fibers are also largely used for textile production. Polyesters have less impact on land and water than cotton i.e., but they have a bigger greenhouse gas emissions per kilogram. In comparison, a t-shirt in polyester has more than twice the carbon

footprint than one in cotton. The ranges are about 5.5 kg for the polyester and 2.1 kg for the cotton shirt (Drew & Yehounme, 2017; Ellen MacArthur Foundation, 2017).

1.1.2.3. Hazardous chemicals

The fashion industry is a major user of fertilizers as well, i.e. with cotton consuming 4% of the world's nitrogen and phosphorus fertilizers. Then during manufacturing and every clothes washing, toxic substances are released into watercourses and damage heavily the environment. (Kerr & Landry, 2017) This includes among others: arsenic, mercury, plastic microfibers. Half a million tons of plastic microfibers are coming out of the textiles like nylon, polyester and acrylic, and are likely impossible to filter from water when released. (Drew & Yehounme, 2017; Ellen MacArthur Foundation, 2017) The effects of water pollution on human health include the accumulation of toxins in the body, which can lead to cancer and acute diseases. (Kerr & Landry, 2017)

1.1.2.4. Waste

For the clothing industry, there are very limited recycling options. The technology for recycling is not yet available for a large range of fibers and has not yet proven that it can be economically viable on a large scale. For now, only 20% of the collected clothes are reused or recycled. (Kerr & Landry, 2017) The big majority of disposed clothes is ending in incineration or landfill. To contextualize that, this is one rubbish truck that goes to the landfill every second (Nature Climate Change, 2018). To give another comparison, the UK alone counts around 350 thousand tons of apparel disposed in landfills each year (Pal, R. & Gander, J., 2018). Those are untapped opportunities that are representing each year more than \$100 billion worth disposed materials. (Ellen MacArthur Foundation, 2017)

One of the reasons for throwing so many clothes, comes from the fact that the textile quality used for producing the garments is very cheap. It is for the companies a way to cut costs and keep selling at low prices, but it is not helping in creating a more sustainable economic environment.

1.1.3. *Production complexity and labor conditions*

Fashion production is mainly outsourced in countries with low wages, to cut the companies' costs. The clothing manufacturing process (cutting and assembly) is still highly constrained by handcraft manufacturing. It results then in not standardized and not automatized production, driving no alternatives to cut cost with other means than paying low wages. This

can be perhaps explained by the complexity combination of various kinds of materials that are responding differently to cuts, finishes and assembly, and thus preventing a wide adoption of standards. (Elle McArthur Foundation, 2017; Pal & Gander, 2018)

Investing in the production process to decrease the footprint of the activity and potentially improve working conditions is rarely a considered option for the suppliers operating in those low-wage countries. The main reason is because of the difficulty to access the necessary funds to upgrade their facility with low energy and optimal material use machinery. The risk for those suppliers is also that at any times their relationship with the brands can end and thus won't be able to amortize this huge investment. Plus, the payback may not always be positive anyway. (Pal & Gander, 2018)

Among all the critics that can be done, one of the major issues here is social. Textile and fashion production exposes workers to safety and health concern, from factory fire to hazardous chemical exposure, and exploitation. (Kerr & Landry, 2017) Labor practice in the fashion industry is often pointed for criticism. It encompasses a wide range of social issues such as working hours, workers' treatment and rights, pay and child labor. (Kerr & Landry, 2017) More and more those issues are revealed and pushes companies to watch more carefully their suppliers and own practice. (Hirscher, Niinimäki & K., Joyner Armstrong, 2018)

1.2. Shifting trends: sustainable value creation and disruption

The trends pointing for 2019 shows a flattering of the growth that was since the financial crisis, around 2.5%. A slower growth is expected to push the companies to renew their approach and implement new measures. Those will probably firstly be to boost the productivity through cutting the costs and enhancing efficiency, as in 2018 it was a period of rising costs and growth. A normal reaction to cut costs, would be to delocalize to an even cheaper producer and thus gaining some margin on the manufacturing. Then productivity enhancement will require innovations such as production automation, analytics-driven process for decision-making and restructuration for more agility. (Amed, Balchandani, Beltrami, Berg, Hedrich, & Rölkens, 2019) Improving the production process will benefit the brands with a faster go to market possibility. But this will also end up by speeding the fashion cycle

and thus shortening even more the products' life cycle as there will be an increase in fashion trends. (Pal & Gander, 2018) This rebound effect is not answering today's need of systemic change.

Setting aside this technical enhancement point, there is an awakening awareness of the impact that the clothing industry has on the world: environmentally and societally, as being increasingly highlighted those last years. More regulations are created to correct those issues, and consumers seem to respond by a growing interest in products coming from more transparent, environmentally friendly and responsible supply chain. In reaction to that demand, some significant players such as Zara and H&M have opted for an investment in sustainable actions like clothes collecting for recycling. (Drew & Yehounme, 2017) Unfortunately, according to Pal & Gander (2018), still 70% of the companies don't focus on resource and environmental management along their supply chain. Changing the strategic core activity system of a company asks huge efforts and therefore can be unthinkable for business managers. But failing to follow the trend can lead to reputation risk and regulatory compatibility issues. (Ellen McArthur Foundation, 2017)

Most of the initiatives taken by brands that really engage, are mainly just addressing the impact reduction of the actual linear system, for example through more efficient manufacturing techniques. (Ellen McArthur Foundation, 2017) But to truly deliver change and make it last, the businesses need to create new models that can convey disruption and still be economically interesting, because technological innovations and social changes alone cannot do that on their own. Without opting for a systemic change, the positive initiatives risk to only become a distraction that gives the appearance of sustainability, but that are not strong enough to replace the mainstream fashion models. (Ellen McArthur Foundation, 2017) What seems to be truly required is innovative models using better the resources, reorganizing production and distribution, and that can change the value perception. (Pal & Gander, 2018) Fashion businesses have opportunities with innovations and increasing digitalization to think also about new models that can go beyond the traditional fast fashion doing. According to McKinsey, it is expected to see the fashion brands entering into resale, rental and recycling market, via partnership, merge-acquisition or within their own chain. This is an opportunity to pursue not only economic value creation, but also environmental and social benefits. (Villa

Todeschini, Nogueira Cortimiglia, Callegaro-de-Menezes & Ghezzi, 2017; Amed, Balchandani, Beltrami, Berg, Hedrich & Rölken, 2019)

The collaborative business model has entered the fashion industry as in many other sectors. This trendy economic model in the clothing sector being at its early stage of development, there is a scarcity of research done on its inner dynamics. Uncertainties remain about how to structure it to become sustainable. (Villa Todeschini, Nogueira Cortimiglia, Callegaro-de-Menezes & Ghezzi, 2017) But, there is considerable hope that they will change the consumption habits, create new competitive advantages and reduce negative footprint. (Nature Climate Change, 2018; Pal & Gander, 2018; Amed, Balchandani, Beltrami, Berg, Hedrich & Rölken, 2019)

Note already that there are also some limits to consider with stretching and closing the life loop of fashion products, like in resale and recycling. First, the trendiness is limiting the duration you can prolong the life of clothes, if not restyled. Secondly, extending products' life faces technical problems. In fact, the technology to disassemble the fibers and materials to recycle them is still very limited and quite costly to execute on a large scale. (Pal & Gander, 2018) A final point concerns the reselling and donation to developing regions that occur very often. Actually, this solution is raising debates over whether the clothes donation is in reality damaging the local fashion and textile industries. In the 80s, already, the multiple donations to Kenya coincide with a drop of jobs in the textile industry from 500 thousand to 20 thousand. (Pal & Gander, 2018)

2. Fashion Rentals

2.1 Description

The quick rise of rental over ownership in the last few years has profoundly shaken up many sectors, from media to hotels, like with ZipCar, Airbnb, Netflix, and Spotify. Instead of selling as many products as possible to customers, those companies offer services for a subscription fee to enjoy products only when desired. They are focusing on the use turns rather than the sales. The more the customers can use their products, the best return on investment they have. Fashion is no more different. The phenomenon of collaborative consumption, “*people coordinating the acquisition and distribution of a resource for a fee or other compensation*”, gains more and more attention. (Belk, 2014 in Zamani, Sandin & Peters, 2017, p1) Besides collaborative consumption, a plethora of related and similar terms are used, like the product-service system. (Zamani, Sandin & Peters, 2017)

As stated above, sharing and collaborative business models are expected to reduce the negative impacts on the environment and transform society. Unfortunately, not enough research on their success or failure has been conducted. In addition, according to Leismann & al. (2013), the environmental impact of more frequent product transactions might be higher than the impact coming from a production reduction. (Zamani, Sandin & Peters, 2017) With this paper, more insides on rentals can potentially be raised and introduce further thoughts.

So, one of the collaborative models in the fashion industry is the fashion rental, also called clothing library. Based on a membership monthly subscription, it offers the possibility to borrow for a set time a specific number of items. Clients benefit from a rotating and extensive wardrobe. (Zamani, Sandin & Peters, 2017; Agnew, 2018) Since 2009 with the creation of the pioneer company Rent the Runway, the clothing industry sees blossoming other fashion rentals. In the United States, you can find Rent the Runway, Le Tote, Ny and Company Closet, Infinity Loft, American Eagle Style Drop, and in France Panoply and Le Closet, just to name few. (Agnew, 2018)

According to Ingrid Brochard, founder of Panoply, renting clothes is a better environmentally friendly way to consume and saves room in the wardrobes. People would tend to have a

different behavior while renting their clothes and women would be more expressive. The idea behind is to buy less, but the good basics, while having fun with the rentals. (Agnew, 2018) So, on one side, customers can update their closet at least as frequently as with traditional fashion consumption. Then, from the perspective of the item, this rental process can slow down the fashion speed, by increasing the time the item is used before being disposed. In the figure below, a comparison of the life cycle of garments from a traditional model and from a collaborative one shows the phases they go through along their product life. (Zamani, Sandin & Peters, 2017)

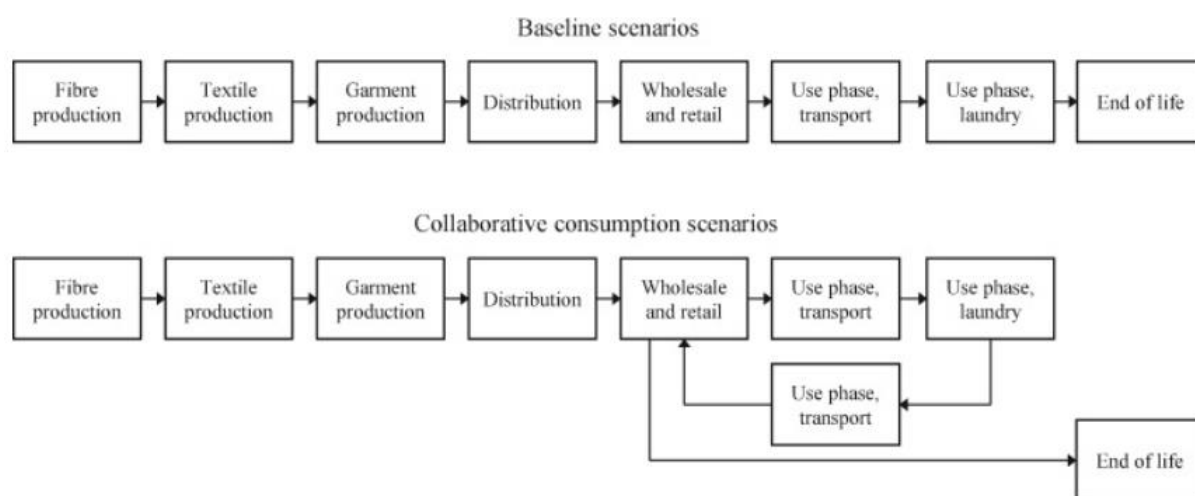


Figure 2: Life cycle phases for baseline scenarios and collaborative consumption scenarios²

Additionally, Ingrid Brochard believes that brands leftovers could be shifted to rental services in exchange for a revenue share for the brand, creating also a new business diversification opportunity for them. (Agnew, 2018)

Unfortunately, there are also rebound effects to take into account: higher product transportation frequency between the customers and the storage facilities, overconsumption due to the craze for novelty, etc. (Zamani, Sandin & Peters, 2017) Because of the high frequency utilization rates, already within the business model, an overall strategy must be defined to support design of products, marketing and logistic. Plus, a focus on decoding and using the customers' data is needed. (Ellen McArthur Foundation, 2017)

² Zamani, B., Sandin, G. & Peters, G.M. (2017). Life cycle assessment of clothing libraries: can collaborative consumption reduce the environmental impact of fast fashion? *Journal of Cleaner Production*, 162, p 1370. <https://doi.org/10.1016/j.jclepro.2017.06.128>

How does fashion rental model satisfy the clients' needs, strive to be competitive and attempt to have a lower impact on the environment than traditional fashion models? There is not much research made on how fashion rentals are working. To shed some light on the insides of the concept, the following analysis will go through the framework that underlies them: the product-service system. This system being at the basics of rental models, like a mother concept, it will help us to structure to better understand the strategical and operational levels of fashion rentals.

2.2. A Product-Service System

2.2.1. *Origins*

The term product-service system is the one coming recurrently in the literature for systems challenging ownership. It emphasizes sharing and increased focus on product's functionality optimization rather than the product itself. However, there is not yet a uniformization of the terminology in the academic and business world, nor in its definition. (Annarelli, Battistella & Nonino, 2016)

The product-service system, also referenced under the abbreviation PSS, appeared the first time in 1999 in the works of Goedkoop & al. It emerged in reports written upon the request of Europe, analyzing the evolution of new economic models that would help to revive the economy and create growing opportunities (Buclet, 2014). This EU project ended around the year 2006. According to Buclet, environmental issues were not at that time the core of the research and are thus not enough emphasized in the concept of PSS. It is true that, back then, many authors of PSS topics focused mainly on economic dimensions, but others were already highlighting that it was also a matter of social and environmental dimensions (Annarelli, Battistella & Nonino, 2016). Today, the concept seems always including the social and environmental pivot points in literature articles.

The waste generated by overconsumption and the pollution of the planet are the greatest addressed issues of our century. Increasing awareness is giving way to more responsibility in consumption, also for companies in manufacturing and selling. Cleaner technologies, minimization of waste, eco-design, recycling and many other approaches have been developed to address environmental issues over the past decades. But to truly stimulate the change, a new strategy is needed in consumption patterns. In fact, consumers from developed

countries seem to care more and more about the negative consequences of their behavior but, are not showing obvious willingness to minimize consumption. In addition, the global consumption will continue to increase as the developing countries need to increase the provision of basic amenities. (Mont, 2001; Boström & Micheletti, 2016)

So, recent thinking is focusing on reducing the flow of material in manufacturing and consumption to face the fashion industry's challenges and potentially create a systemic change. Therefore, the collaborative system like the product-service system, is gaining in interest as able to generate a real change in the customer's habits, while keeping up the business performance level and having lower inherent environmental damages. It will be able to reach the customers differently by offering them a new consumption concept, with products closer to their needs, aligned with the possibility to optimize the products' usage and benefitting of an interesting competitive advantage as it combines products but also services, harder to copy. (Mont, 2001; Beuren, Ferreira & Cauchick, 2013)

2.2.2. Definition

In both literature and business world, other terms are closely related to PSS and sometimes even used as synonyms: “*servitisation*”, “*service design*”, “*service-based businesses*”, “*functional product development*”, “*functional economy*”, “*industrial product-service system*”, “*leasing*” and many others. But, “*product-service system*” is more recurrent as terminology. (Beuren, Ferreira & Cauchick, 2013) Depending on the authors, those associated concepts might still have some divergences with each other on the covered dimensions such as the economic, societal and environmental. (Reim, Parida & Örtqvist, 2015)

The first and most recognized definition of the product-service system is the one developed by Goedkoop & al., back in 1999: “*a system of products, services, networks of players and supporting infrastructure that continuously strives to be competitive, satisfy customer needs and have lower environmental impact than traditional business models*” (Beuren, Ferreira & Cauchick, 2013, p224)

From Goedkoop & al.'s definition, experts commented that the societal implications were not explicitly included. However, it appears in several documents that this dimension should also be highlighted. The business activities have a proven impact on society, whether through the

provision of products and services, but also a negative impact due to the pollution that these activities can generate. In some cases, disruptive business model has even created a shift in the attitudes and behavior of the society, like with ZipCar and Netflix where clients pay per use and not for owning every single product, i.e. (Pal & Gander, 2018). A model like the product-service system implemented in a company can thus be a powerful tool if used to its full capacity. The social axis is more and more addressed in documents as a bottom line of PSS, like with Bocken & al. (2014), Lee & al. (2012) and Annarelli, Battistella & Nonino (2016) to nominate only few (Reim, Parida & Örtqvist, 2015). The social dimension is unfortunately not enough evaluated in analyses of PSS studies.

In the case of this paper on fashion rentals, we will keep the original version of the definition developed by Goedkoop & al., and highlighting on the reaction of the customers. Following the PSS definition, clothing libraries are models offering products through renting services. A player network and supporting infrastructure is generated, including the designers, the company, the suppliers and the clients. Through that collaboration, the system can be competitive, satisfy its clients at best and focus on reducing its environmental impact.

2.2.3. *PSS strategic business model*

PSS is a system of building business plans through integrating environmental and social dimensions on the combination of products and services. The outlined trends are the product usage rather than the product's sale itself, a shift to a leasing or repair business, and a change in customers' attitude towards services. The products-service system can open new market opportunities through the targeting of other, not yet exploited, market segments or to attract differently the clients. It can offer new competitive advantages and offer more flexibility to the company for customers' needs adaptation (Mont, 2001). Let's have a deeper look.

2.2.3.1. Competitive model

A business plan is unique to each company, highly depending on the corporate strategy, how the business will be operated and how value will be created, but common general orientation can be found across all the business plans (Beuren, Ferreira & Cauchick, 2013). Despite the lack of consensus in the literature, it is agreed that product-service systems can be compiled through 3 main orientations (Reim, Parida & Örtqvist, 2015; Mont, 2001; Tukker, 2004, in Annarelli, Battistella & Nonino, 2016):

- Product-oriented: Clients will be able to acquire products and then benefit from services provided by the company. Those services are added values to the products, i.e. the recycling or maintenance of the products. Revalorization services aim at closing the loop of the product's life, taking them to secondary utilization and recycling if not direct reuse is possible.
- Use-oriented: Clients will be able to pay for the use of the product and the extra services that add value to the product. They will make continuous payments. There is no transfer of products' ownership; it stays the company's property. In this case, the utility of the product is extracted by the customer.
- Result-oriented: With the combination of products and associated services, clients will pay for a result. Here, the products' utility is extracted by the person delivering the result to the client.

In the specific case of fashion rentals, they are the perfect example of a use-oriented PSS. The clothes stay the company's property and see their usage expanded through the rental system. This ownerless system looks perfect at answering the clients' fast changing desires for style and can focus on long-lasting product design. The fashion rentals can thus have strong competitive advantages and use means more in tunes with today's trends to attract and retain more and more customers. (Armstrong, Niinimäki, Lang & Kujala, 2016)

Integrating use-oriented PSS in daily fashion wear segment can truly make a change in society and potentially on an environmental perspective. The presence of the fashion rentals on the market is a proof that there is willingness to pay for clothing subscription. To truly shift away from the current throwaway system for clothes, there is a need in scaling up rental models, convincing the customers to shift. Linked to that, it should make sustainability more attractive because until now it is too often not considered as trendy, and finally brand commitments should be further involved in sustainability actions. (Ellen McArthur Foundation, 2017)

2.2.3.2. Customer perspective

With PSS, it is not only about selling a product anymore but to create value through strong relationships with customers and increased utility in the products (Beuren, Ferreira & Cauchick, 2013). That way the company has built a unique competitive advantage, difficult to

mimic for competitors. Note that the main goal is to count on the strong relationship created with few clients, but that would be the most profitable for the company, not to gain the largest customers' share. However, the customer acceptance is one of the pivot points of the success of a PSS and this might face cultural resistance to change from sale to service-oriented attitudes. Paying for the use of a product or for a result is not yet in the classical consumption schemes for all consuming categories. (Annarelli, A., Battistella, C. & Nonino, F., 2016)

2.2.3.2.1. Implication and expectation for fashion

Besides, practical reasons of primary needs, clothes fulfil also more subtle desires, such as identity expression and value demonstration. (Ellen McArthur Foundation, 2017) Fashion is definitely supporting societal and emotional desires. For example, from a Panoply research study, a third of the 24-35 years old who responded to their survey admitted that they do not want to be seen with twice the same outfit on social media. They have a constant need for novelty. Having access to an unlimited wardrobe is surely very interesting for those clients. (Pal, R. & Gander, J., 2018; Agnew, 2018) With the rapid expansion of online shopping method, it suggests that a significant number of clients set lower value on physical shopping experience. Subscription and rental models can surf on that wave and provide an extensive choice of clothes at the fingertips of the clients. (Ellen McArthur Foundation, 2017)

For customers, fashion rentals can save time, space and provide variety in the everyday life, as everything is then managed by the rental company. On a money perspective, renting clothes in exchange of a fee per month can help at budgeting and diverse payment scheme. Plus, the more items clients can return, the more money they are making. With some rentals, it gives customers the accessibility to high-quality products, but without the upfront risk and cost. (Abnett, 2015; Sheahan, 2018) Use-oriented PSS will reduce the needs for ownership in clients' habits, create strong loyalty relationships with the customers and ultimately change the general consumption habits. (Armstrong, Niinimäki, Lang & Kujala, 2016)

2.2.3.2.2. Fashion rentals for whom?

Rental services were used primarily for special occasion wear or for special equipment, like for prom and wedding outfit, or skiing suits. It expanded then to luxury products with the company Rent the Runway, allowing high-end products access. The value proposition is particularly compelling for segments where clients' needs are shorter term or where preferences are evolving fast. (Armstrong, Niinimäki, Lang & Kujala, 2016; Ellen McArthur

Foundation, 2017) In the case where sizes change a lot in a short time, the rental concept also works well. This is the case for babies, young children and pregnant women. (Ellen McArthur Foundation, 2017)

For long, it was not considered possible to extend that concept to everyday clothing. What came out of the study made by Armstrong, Niinimäki, Lang & Kujala, is that in the case of everyday wear, as clothes are cheap, client then rather prefer buying than renting. However, already in 2016, people believed that the fashion rentals could better satisfy their desire for variety, without the guilt of buying. The participants to the survey of Armstrong, Niinimäki, Lang & Kujala, acknowledged that it was also a way to try new styles and clothes without the risk associated. Nowadays, we can observe an increasing number of fashion rentals focusing more and more on everyday wear for every woman. This is particularly interesting as being the biggest market, and this intrinsically being the most meaningful for systemic change to reduce environmental impact. (Ellen McArthur Foundation, 2017) Fashion rentals also exist for men, like the Black Tux and Mr. Collection.

2.2.3.2.3. Intention to adopt the concept

Physically going shopping for some people is a true experience, fulfilling emotional needs. To adopt rentals, it is like with online shopping, there is a delay in the product's acquisition and no real physical experience. People have to accept that or won't enjoy the experience. Also, ownership used to vehicle strong meaning especially when it is about unique fashion items. Fashion helps in the expression of oneself, in her identity, and is important to show status. Therefore, a service of renting would not seem very attractive to people valuing ownership for those reasons. (Armstrong, Niinimäki, Lang & Kujala, 2016)

Another issue that comes against an easy adoption of the rental concept, is trust barriers due to quality, hygiene, fitting, durability and maintenance concerns of the products. Service businesses need to earn that customers' trust, and it can be very difficult. A clear contract on service delivery must be guaranteed, including thus the description of involved liabilities and rights. This must be completed by some educational marketing and incentives given by the company to convince. (Armstrong, Niinimäki, Lang & Kujala, 2016)

Out of a study of Armstrong, Niinimäki, Lang & Kujala, done in 2016, it was identified that customers were not ready to really shift to rental models for fashion items. But since 2016,

rentals seem to have already popped up. The increasing presence of the fashion rentals on the market is a proof that there is willingness to pay for clothing subscription.

2.2.3.3. Environmental perspective

Now discussing from the environmental dimension, it is necessary to bring some nuances. Services don't necessarily bring less environmental impact than traditional purchasing. In the case of PSS, while it focuses on optimizing the products usage phase, reducing the environmental impact of consumption, it would be interesting to consider also the other phases impact such as from post-usage or even service delivery.

Initiatives to improve sustainability can be classified in three categories of actions, not exhaustive from each other: narrowing, slowing and flow closing.

The company can narrow its resource loop in the different phases such design, production, distribution, use and disposal. It would aim at better using the resources and materials. It can apply for example the establishment of an optimal material cut that would minimize the waste or organizing the production to make bigger batches so transportation can be more efficient. (Bocken & al., 2016 in Pal, R. & Gander, J., 2018) PSS businesses are sometimes owing the products, they will have then more incentives also to use better material quality to produce (Annarelli, Battistella & Nonino, 2016) Companies can also slow the flow of resource use. To slow it down, repairing and reusing can be chosen to extend the usage of the products and thus condensate the overall demand. User-oriented PSSs increase the use cycle of products, by definition. Finally, the third method consists in closing that flow. A closed cycle of resources is based on anticipating their return to the production loop, their reuse for other purposes or their recycling. This method is getting very close to a circular economy. (Stahel, 1994; McDonough and Braungart, 2002 in Pal & Gander, 2018)

Now to be more specific to fashion rental cases, they can come up with a decrease in clothes per production, and thus the associated environmental negative impacts. This comes from the fact that a smaller number of the same product will be needed to answer the demand. Also, each of those products will be used many more times before being disposed than in conventional consumption. To make them last long and optimize their renting potential, fashion rentals are encouraged to ask for better quality materials for their products. For

customers, on the other hand, it will look like an increase in speed as they will have access to more frequent wardrobe updates. (Zamani, B., Sandin, G. & Peters, G.M., 2017) Focusing on sustainability can drive higher product value perceived by the customers through “image improvement”. (Reim, Parida & Örtqvist, 2015; Annarelli, Battistella & Nonino, 2016)

However, besides the bright sides of such renting activity, there are rebound effects. While it might diminish the number of impulse purchases, analysis should take into consideration the highly probable increase in transportation, packaging and washing impacts. In fact, returned clothes need to be washed even though they have been worn only for some hours, and secondly the impact that increasing transportation can generate to deliver the service might surpass the positive outcome of better usage. (Mont, 2001; Beuren, Ferreira & Cauchick, 2013; Annarelli, Battistella & Nonino, 2016) Note on another perspective that the increased transportation, packaging and washing process will have to be done locally. This will actually increase the number of local jobs.

2.2.4. Operational level

As a last look into the concept on a theoretical approach, it can be interesting to get deeper into how PSS reverberates on some operational levels. Here below, we will develop mainly four tactics that are interesting to point out in the case of a PSS: contract, marketing, logistics and product-service design. (Reim, Parida & Örtqvist, 2015)

2.2.4.1. Contracts

Contracts under a PSS will be more complex than when it is just about selling a product, especially since the PSS is ideally about long-term relationships with the customers. With the fact that the provider remains the owner of the product in a user-orientation model like fashion rentals, it is preferable for the company to agree with its clients on the decision rights and the responsibilities. Many elements should be taken into consideration to prevent any adverse behavior and equilibrate the interests. The considered features are, for instance, payment details, price, availability level, information handling, use control, extra fees in case of damages, unexpected events and in the event of non-return of the lent products. (Reim, Parida & Örtqvist, 2015; Armstrong, Niinimäki, Lang & Kujala, 2016)

2.2.4.2. Marketing

Close collaboration with the clients will extend the marketing role. Information management will gain importance as PSS models ask the creation of a strong relationship with the clients and their inclusion in the business process. Marketing is then focused on value-driven communications, as well as collecting insights of preferences, tastes and local purchasing habits (Mont, 2001; Reim, Parida & Örtqvist, 2015). Rentals can gather directly first-hand data of customer information and feedback that are very useful to improve service and products offers. This includes thus any review of products, new desires and dissatisfaction such as for the sizing, the comfort and the styling, etc. That pool of information could be sold as well to other fashion companies. This has already been the case with the retailer French Connection partnering with the fashion rental Le Tote for that and had led to changes in some clothing design and in sizing. (Ellen McArthur Foundation, 2017)

Besides, until now, consumers have been accustomed to owning the objects that give them the satisfaction they need. Changing this mentality is not an easy task and therefore requires investment in the customers' education by companies that offer "ownerless consumption" solutions (Mont, 2001; Reim, Parida & Örtqvist, 2015). Moreover, part of that challenge is also to educate the customers to take care of the products while under their custody. For example, starting by enticing the user to pack with care the clothes through the use of a shipping package that has compartments. This will invite the customer to fold and place the items rather than through them randomly. Doing that will increase the feeling of sending off valuable items and thus reinforces the feeling that to begin with, it was valuable. (Ellen MacArthur PDF, 2017)

2.2.4.3. Logistics

Distribution for rental models are extremely important, as products need to be moved repeatedly and the intern logistics very well chained to process well and quickly the clothes when sent back. Five main points must be taken into account for the logistic tactic: (Ellen MacArthur PDF, 2017)

First, it is the cost. The biggest margin killer for fashion rentals is transportation. Collaboration with other companies to share distribution channels could do some savings, as

well as ensuring larger batches for each shipment. Using drop-off depots that clients can integrate in their daily routine movements can also be a solution to reduce the costs instead of going to collect them one by one at the clients' place. The other major cost that fashion rentals have frequently is for replenishment of their inventory with new items. (Ellen MacArthur PDF, 2017) Actually, one of the major entry barriers for fashion rentals is the investments into building the first clothing stocks.

Second point is about preservation of quality. Obviously, subscribers to fashion rentals do not expect to receive brand new clothes, but they might still expect a certain quality. Cleanliness is a minimum required. So, extra steps for each product between clients' use must be undertaken: cleaning and repairing. Those "care" steps can actually help the company to facilitate monitoring of quality, maintenance, retire or upgrade too much worn clothes. Plus, the packing and transporting of products should be thought to preserve the quality. (Ellen MacArthur PDF, 2017) Moreover, including a repair process in the chain can be interesting to further extend the life of the products and help at keeping them longer. On a close matter, the company should be careful about its "brand quality". Working with third parties to deliver their product-service packages might endanger the company's reputation if not well done, as those delivery companies have direct contact with the customers. (Mont, 2001; Byungun, Sojung & Jongtae, 2012)

Thirdly, collecting and using correctly information is key for marketing and product design purposes, but it is important to get garments information status, as well. Logistic supervisors need to know where they sit at any time and when they will likely be sent back. Tracking and tagging products can give information on state and residual value of the products. (Ellen MacArthur PDF, 2017) The use of an automatic easy-to-scan system can really facilitate the logistics. As in the case of the Danish baby clothing rental Vigga, it is using RFID (Radio Frequency Identification) tagging and tracking. (Ellen McArthur Foundation, 2017) The use of algorithms is another feature that logistics should rely on to optimize the clothes allocation to clients. It would collect all information from the clients' input (sizing, preferences, feedback) and from the tracking system of the products. That way when it is time to send new items to the client, styling can be appropriate in function of the client's profile and the availability of the items that would fit.

The fourth point to mention is the need for speed. Just like in the online shopping model, the need for speed is very important, with here an additional emphasis on the return delivery speed feature. Rental models have to deal with sending quickly the clothes packages to the clients but also have the challenge of getting those packages as quickly as possible once the client drop them. Faster returns help at keeping inventory down and extracting the most value from the assets. With faster returns and cleaning-checking processes, the items can quickly go back into the renting loop, and this will avoid the company to have multiple time the same items. After all, assets in transit don't make money for the rental company. Therefore, speed is a key feature, but the infrastructure might be a constrain as the company must deal with the existing delivery system or create its own. (Ellen MacArthur PDF, 2017) Recently, Rent the Runway has partnered with UberRUSH to launch same-day delivery in New York city. Its customer can now receive their package the same day if send their order by 12 p.m. (Tepper, 2017)

Finally, convenience is important in all phases of the rental process: ordering, packaging, retrieving and clothes sending off. Online models have the benefit of easily controlling centralized inventory and the convenience for the customers to have a wide selection of products at their fingertips. The growing presence of pick-up lockers can increase the delivery and drop-off convenience, and can be interesting on a cost perspective as well. Some rentals also have a physical store where clients can select and try on items. This is the case of Rent the Runway, for example, that has increased its physical presence through its own stores and collaborations with retailers, in the US. (Ellen MacArthur PDF, 2017)

2.2.4.4. Product-service design

Involving the stakeholders in the design process is crucial for the PSS success and to offer products and services aligned with the customers' needs as well as the company's. With the data extracted by the information management, the design of products can respond to the real needs of the clients. The fashion rental can anticipate then the needs and potentially diminish the time to go to market. But besides this input of preferences, the products' properties must align with the service offered, be thought to reduce the material flow during production and hopefully be designed to last long. The aim is to make the products reparable, reusable or recyclable, by design. To do that, close collaboration with the suppliers and designers is recommended as well. (Reim, Parida & Örtqvist, 2015)

2.3. Wrap-up on fashion rentals

Until now, the existing fashion rental companies are not always very attractive financially. When they are compared to the low-cost traditional fashion, they appear expensive. But to counterbalance, businesses can emphasize on the high-quality added value of their product and the many additional benefits it provides. (Ellen McArthur Foundation, 2017)

The existing fashion rentals prove that there is a market for them and that they can survive, as some of them exist since some years now. The fashion product-service combination offers new competitive advantages and a different access to customers. The model appears to provide the perfect offer for clients in need for variety, looking for consumption alternatives and more convenience. In addition, the system is built to extract the maximum value out of the clothes. While usually, when a piece of clothing is disposed, it is still bearing some value left. With a rental model, an additional value can be extracted from the fashion items. On an economic perspective, this is particularly favorable. Moreover, the renting model offers a consistent revenue stream for the company. (Ellen McArthur Foundation, 2017)

However, to truly reach the full potential of such model, they ask for significant initial investment to procure enough fashion items in the first stocks. Then they need a lot of scaling, a strong logistic running and investment in marketing for clients' education. Logistic is more complex than in traditional selling models and depends on the available infrastructure to support its activity, or need to create its own. Ideally, the company should also look into the environmental burden that those infrastructures will add to its total activity impact, as well.

Besides operational tactics' challenges, the industry itself poses some barriers. Competition is tough and economically dominated by a top 20 companies (see Figure 3 below). Fashion rentals seems to only be marginal for now and does not appear as a strong threat for traditional selling companies. They are thus not in direct competition, but they have to compose with those. (Amed, Balchandani, Beltrami, Berg, Hedrich & Rölken, 2018) Also, the fashion frequency speed makes it difficult for fashion rentals to provide always fashionable items. Their model relies on maximizing the number of turns that each item can do. But as fashion trends changes rapidly, it is challenging to keep each item fashionable. If scalability with the opposite hemisphere is possible, it can answer partially the problem. Indeed, when it is winter in the north, it is the summer in the southern hemisphere. If the company has a subsidiary in a market from the opposite hemisphere, and if that market is a

step behind in terms of fashion trends, it could be possible to send the stock there to make it used longer.

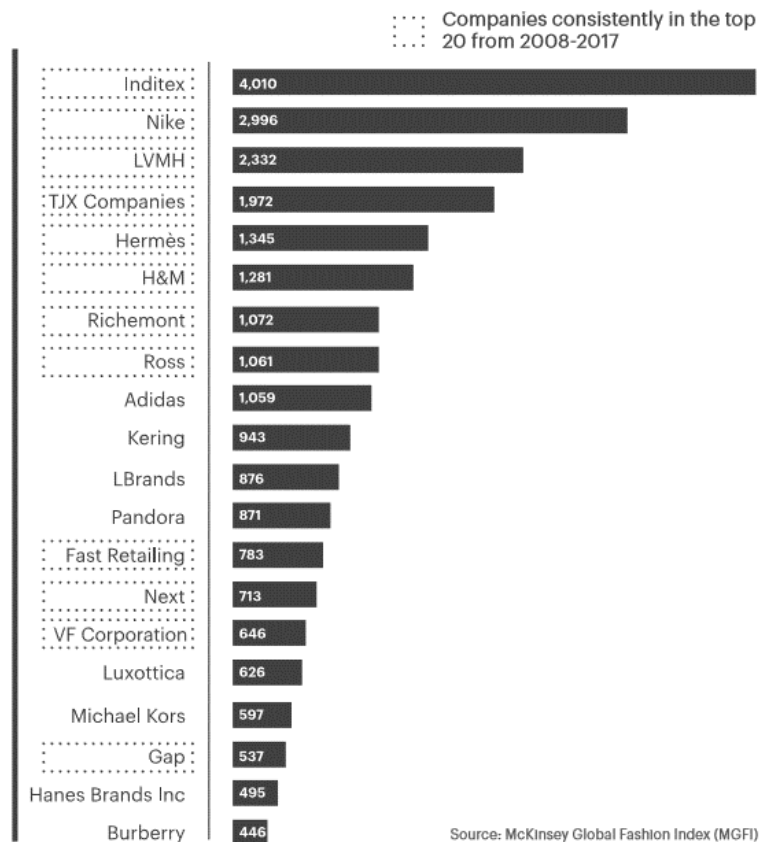


Figure 3: Top 20 players 2017, by economic profit (\$US million)³

On an environmental dimension, most of the issues generated by the fashion industry exposed previously are linked to clothing production. Fashion rentals are not expressly answering those issues. Instead it focuses on waste and systemic consumption changes. Although ownerless consumption seems to offer many hopes and advantages, it also raises concerns. Studies revealed that in some cases user-oriented PSS might generate negative environmental impacts, concluding that multiple use of a product does not always lead to less negative environmental impact, as for transportation frequencies consequences, illustrated above. If transportation frequencies can be optimized, the rental company would probably be lowering

³ Amed, I., Balchandani, A., Beltrami, M., Berg, A., Hedrich, S. and Rölken, F. (2018). The State of Fashion 2019. Business of Fashion and McKinsey&Company. P96. Retrieved on the 3rd of February 2019 from <https://www.mckinsey.com/~/media/McKinsey/Industries/Retail/Our%20Insights/The%20State%20of%20Fashion%202019%20A%20year%20of%20awakening/The-State-of-Fashion-2019-final.ashx>

environmental burden. Unfortunately, not enough research has been done on that to really conclude.

As final point, what about habits changes and customer readiness? No conclusions were found in the literature about true customer habit changes through renting fashion. But it is safe to say that with the popping up of many use-oriented companies in many sectors, we can say that it found a certain demand for ownerless consumption and it takes customers to experience that with other of their needs. Unfortunately, it appears that the rest, which is still the majority of customers, don't show readiness to shift to rentals. For many among them, buying and owning is still part of the fashion experience. The rentals also have to overcome very strong barriers linked to sharing products: trust and hygiene issues slow the adoption process.

While fashion rentals are popping more and more every year, too few have yet been successful to be cost-effective and holding back their environmental impact, according to Kerr & Landry (2017). But in two years, the situation might have changed. As it comes more and more important to focus on environmental and social improvements, the clothing industry can get some opportunities to pursue profit and growth differently while creating values for society. (Kerr & Landry, 2017) Fashion rentals could bring a beginning of a ground change.

Practical research: Le Tote Case study

1. Problematic and research question

From the literature review, we could gather information on the industry's situation and how damaging for the environment it is, but also how important it can be for people's identity and lifestyle. In many sectors, use-oriented companies are seeing the light and actually doing pretty well like Netflix, Spotify and ZipCar. Fashion is not different, just that there is not enough research made on their buzz rental model. Fashion rentals have popped up in the United States and France for some years now, and even expanded to China recently. Unfortunately, very few literature can be found on them.

This paper opened the subject of clothing library through a literature review. It gave some information on the industry and what the fashion rentals are, but could not give specific information on their processes and no real illustration. We have had a contextualization, some definitions and the principles of user-oriented PSS. With the following research, we can give more inside information on the subject. It will see how a fashion rental is actually doing, how competitive and sustainable it can be, and what do customers think of their renting experience. As mentioned previously, renting clothes can be a strong disruptive model, and this gives a real incentive to look into the question: can it thrive? A case study of Le Tote, a Californian fashion rental, can give a good anchor point to start that kind of analysis, even though this case study should not be taken to generalize.

The targeted points for the analysis below are focusing on 5 points: what the rental company offers to its clients, how it is structured to support its activity, if it is implementing environmentally focused initiatives, what the reactions of its subscribers are and how competitive is the environment. When the research question is translated to be applied to the case study, we have:

What is Le Tote and how is it thriving?

2. Research methodology

2.1. Justification of the chosen methodology

There is a lack of research made on fashion rentals. While mentioned in some papers, there is no specific analysis done on them that would explain their functioning and state. This was also the reason that, in the literature review part, the analysis had to be based on PSS principles because there is not yet specific framework developed for fashion rentals. To give a better understanding of their model and a first dedicated inside description of fashion libraries, this paper will develop a case study. To answer questions on how it is delivering services, how it is thriving and how clients are reacting, we can typically base the research on a qualitative methodology. Qualitative data will give the opportunity to get closer to the concept of fashion rental and take their situation in its whole.

The case study will focus on Le Tote, a Californian-based clothing rental company. The reason for choosing this company among others as a case study is that it is one of the most cited in the literature, even though it is only few, when it comes to collaborative economy; the other being Rent the Runway. Between the two, the major difference is in their product offerings. Rent the Runway provides access to high-end product rental, much more oriented towards the occasional wear. In the case of Le Tote, the company mainly offers everyday clothing. This thesis focuses on the possibility of changing the impact of industry on the environment and on people, while switching to a new business model than traditional selling. With everyday clothing, a greater impact could be observed because it is more at the heart of the ecological problem, the under-use of the technical life of fashion products, and can generate a radical change in consumption style. Le Tote seems thus a good subject.

The idea with the qualitative study of a single-case is not to create a generalization of principles on the concept by the end of the analysis, but to open the topic to a better visibility. Such study can also help at reorient future examination and serve as pilot case to be compared with others. (Yin, 1994)

2.2. Information collection

To collect data for the case study, two kinds of information were gathered: first-hand and second-hand data. Having different sorts of data gave more objectivity to the analysis and completed my own observations.

Firstly, there is my own experience of Le Tote. Being a Le Tote's subscriber for five months, I had access to first-hand information and a good understanding on their service process. Also, as customer, I can see how it is impacting my consumption habits. I was able to collect direct information on convenience of the renting, the selection of suppliers and availability of items, shipping processes, sales and direct interaction with customer services, etc. To support the thesis analysis, physical artefacts such as notes, pictures and items coming from the clothes packages were systematically kept for references in order to ensure reliability. (Yin, 1994)

Two other sources for data collection were used as well, in order to create a triangulation verification with my observations and fill in the gaps. Using multiple sources is particularly important to construct validity. (Yin, 1994) The first was a group of 38 Le Tote's customer that answered directive and open questions. The second source is the use of external documents such as news articles from Le Tote and from its former business incubator, and sources used by Crunchbase, as well as rentals' website.

To give more objectivity to my experience, a confrontation with other points of view was needed to complete a section on customers' reaction to Le Tote's services. As Le Tote member, I was able to enter a discussion group for Le Tote's clients. Most of the topics discussed in the group were about lack of product stock renewal and variety. In order to develop other points with the customers, a new topic was created with questions about their general experience, subscription and some consumption habits. At the end, people were invited to add extra comments. (Appendix Client's input) This discussion group offered me the perfect access to clients that all had experienced Le Tote's service. The purpose was not to do a quantitative analysis of the consumer's experiences of fashion renting but to dig more qualitative information about the company, which is shy in disclosing information about its business. Actually, the company discloses very little information concerning its business nor even the number of subscribers. After 38 answers, some pattern still started to appear. Their answers were compared and regrouped in themes to extract.

However, what would have given significant information and a lot of answers, would have been interviews of people from inside Le Tote. Unfortunately, despite all the contact made, no additional information from Le Tote had been sent. Fashion rentals are still in their early ages and are very unwilling to share information on their inside practices with the public. Therefore, direct first-hand observation was a good way to have a look in Le Tote, just enough to still perceive its organization and potential.

2.3. Analysis structure

From the literature, we know the general context of the fashion industry and what a fashion rental model should look like. While the purpose is not to make out of Le Tote's case a generalization of the fashion rentals, we will still use this study as a first illustration and a source of deeper information for raising further thoughts.

The data collected will be used within frameworks to structure the analysis. As remainder, the research question is what Le Tote is and how it is thriving. Therefore, the case development will start from the company to go then broader into its environment. In overall, the structure will follow a 3C approach: go from the company, to the customers, and finally to the competition. In the company's analysis, additional attention will be set on the different features that characterize user-oriented PSSs, in order to create an echo with the knowledge we just got from the literature part. We will have then a better understanding of the insides in Le Tote and its strategic position in the market.

For the first point, about the company, a description of Le Tote's activities and infrastructure will follow the scheme of products' life cycle and include some support activities necessary for the business running. Namely, it will go through the production of the clothes, sales and marketing, the delivery, the wear and return phase, the cleaning and post operations. Finally, there will be an extra section on the financial support Le Tote is getting and on its recent expansion to China.

This will bring us to a second point: its environmental impact. As exposed in theory, the fashion rental concept, as product-service system, brings some good ideas to reduce the environmental negative consequences of fashion, but unfortunately can bring some serious

negative returns in other exploitation phases. We will see for Le Tote what the environmental results of its activities are.

Third, a special point on clients will be discussed. This section will serve, among other reasons, as a transition to the next point on competition in the marketplace. In order to define the market in which Le Tote operates and establish the issues involved, we must identify who the target customers are. It is therefore with the client base targeting that the “Customers” section will begin and then enter in a second point on some reaction of Le Tote members.

The fifth point developed here is the competition. To know if Le Tote can thrive, we need to understand what forces are at stake on the market. The 5 forces of Porter is a good framework to grab all the information to draw a first conclusion. It can determine the forces that influence the market. There is first the intensity of the rivalry among the existing competitors. It will mainly look into the differentiation between the fashion rentals and their pricing. Then there is the potential threat of substitutes to fashion rentals and the threat of new entrants. The first depends on the cost of shifting to another company’s service and the second on how attractive the market is and the barriers of market entry. Finally, there are the threats of significant bargaining power of the suppliers and of the customers to impose their will on the players. Depending on the degree of the forces, the market will be or not favorable to Le Tote and let him thrive.

3. Analysis and results

3.1. Company

Le Tote is a monthly subscription fashion service for women that allows its clients to rent clothes and accessories for a flat fee. In few steps, customers can get fashionable for the month. First, Le Tote styles a new garment order. The subscriber can always decide to change the items selected by an algorithm. Then in two to three days, the order is delivered, and the client is free to wear its new pieces as long as she wishes. If the client really likes an item, she can keep it for up to 50% off the full normal price, the rest just have to be sent back. (Le Tote, 2019)

“Just wear, return, repeat.” (Le Tote, 2019)

Created in 2012 by Brett Northart and Rakesh Tondon, just 3 years after the pioneer Rent the Runway, the company Le Tote seems today to have ups and downs. (Crunchbase, 2019) On the bright sides, the company is expanding its activities to the Chinese market and gains always more and more subscribers. With the viral “unboxing” video, phenomena of filming box unpacking, the renting concepts are attracting a lot of attention lately. The downside is that they struggle to stay a head of the demand for variety and thus replenishing constantly their catalogue of products. While, they welcome many new subscribers, many also left, usually because of clothes selection shortage. This issue is the most published topic on the online customer group.

Rental services are complex to settle down, in need of a lot of investment and relying heavily on existing delivery infrastructures. The case of Le Tote is interesting because it has sustained for enough years to have really got fully into the market and to offer thus a good analysis anchor point. To look into its activities and processes, the structure will follow the life cycle phases of products, exposed previously in the literature review: production, wholesale and retail, delivery transport, cleaning and reprocessing, as well as disposing. (Figure 2: life cycle phases; p18) Additional sections were incorporated: sales&marketing and expansion strategy. We know from the literature that the marketing plays a very important role in the rental concepts, it was thus included. Plus, since Le Tote is expanding geographically, a point needed to be made on that particular topic.

3.1.1. *Production, wholesale and retail phase*

Le Tote provides clothes and accessories for women, and also has special options for pregnant women. Its catalogue goes from dresses and jumpsuits, pants, skirts and shorts, to tops, sweaters and jackets. Then it had added accessories to its possibilities: bracelets, earrings, scarves and handbags, among others, to upgrade the clients' outfits. While many fashion rentals focus on special event wear, Le Tote is willing to give its customer the perfect pieces for any occasion and especially the ones to spice the daily routine. The categories are open for all needs: casual, business casual, professional, event and outgoing, or even athleisure occasions. (Le Tote, 2019)

To offer access to an infinite wardrobe, Le Tote gets fashion pieces created by different brands. We count up to 127 different brands in Le Tote's catalogue. (Appendix 1) The brands for clothes can be classified in 3 sourcing categories. Firstly, with its designer team, Le Tote has its own labels. Second category gets collections from designer/brand partners and thirdly it buys pieces from other brands.

First category: the in-house created fashion apparels. While, we know they are created by Le Tote's team, it is probably still manufactured outside by contractors, and probably in other countries. An example of Le Tote's labels is Kaïa Collective. For its labels, Le Tote is involved from the design creation, pattern, fabric and color choices, to wash testing process. (Le Tote blog, 2018)

Second category: clothes selection created in partnership with designers. It is interesting for self-running designers to get known by Le Tote as it gives the possibility for good exposure, but it can also be for already famous designers willing to try something new with the rental concept. Le Tote is for example partnering with Olivia Culpo (Le Tote blog, 2017), or also with Cupcakes and Cashmere which is a small brand, that created for Le Tote fresh and feminine fashion items. (Le Tote blog, 2016) But you also have the case of a partnership with Badgley Mischka and Amanda Uprichard (Appendix 2) that are already known in their domain. (Le Tote blog, 2017)

Last category: the clothes bought from other brands. This is the case for the majority of Le Tote's items. We can mention brands like BCBMAXAZRIA, Lumière, Eliza J, Nike, Calvin Klein, Free People, Karl Lagerfeld, Noir, Sabié, Vince Camuto. (Le Tote, 2017; Appendix 1)

When creating a fashion outfit stock, companies must also pay attention to fitting issues. Sizing, whether it is for classic fit or maternity, is a difficult parameter for a renting company. Every woman has a different body shape and sizes. For fashion rentals, it is a real challenge to figure out if willing to not discriminate its customer base, on size. In addition, there is no standardization across the industry, and sometimes within a brand collection, items are sizing differently while under the same size range name. To overcome that issue, first of all, Le Tote has ranges from XS to XXL (0-16) and for the maternity section from 4 weeks size to 41. It can cover thus a very large spectrum of size demand. (Le Tote, 2019) Secondly, Le Tote asks during the subscription for the measurement details of the client. (Appendix 3) This gives the styling algorithm good data to start suggesting clothes that would fit the best the customer. The client is also encouraged to review and rate the worn items; feedback data helping at adjusting the algorithm on the size of the client but also on the technical details of the items themselves. (Appendix 4; Le Tote, 2018) The choice of Le Tote for having such a large number of clothes suppliers is probably motivated, first for style and selection variety, but might also be to have some spread in sizing that can satisfy the largest client spectrum.

To keep track of its inventory, Le Tote built its own warehouse management and control systems software, as well as its own ERP system, working as data management centre. Those tools were all built by the company and could be monetized in appropriate time. (Ycombinator, 2018)

3.1.2. Sales and marketing

With Le Tote, there is a large number of subscription options with different prices (table below; Appendix 5). The service, in addition, also includes the shipping and the cleaning of clothes and accessories. (Le Tote, 2019) Le Tote's plans are numerous and are categorized in 2 main groups: the classic plans and the maternity plans. Then, within those, clients can choose to rent accessories or not with their clothes selection and decide to have one or two boxes of clothes per month.

Some years ago, it was still possible to have an "unlimited" plan with Le Tote. (Appendix 33 P15) This option consisted in receiving an unlimited number of packages during one month. The only factor that was impacting the number of boxes per month, was then the speed of delivery. However, on Le Tote's side, it brought an enormous challenge, as the company had to follow the speed on variety demand. In fact, the more the clients were receiving the packages, the more complaining they were because of the, not fast enough, renewability of the

stock. Le Tote finally abandoned this option, but the clients who previously had subscribed to this plan, can still enjoy it. (Appendix 23)

For Classic Plans		For Maternity Plans	
With Accessories	Without Accessories	With Accessories	Without Accessories
3 clothes, 2 accessories per box; twice a month: \$79/month	4 clothes per box; twice a month: \$89/month	3 clothes, 2 accessories per box; twice a month: \$89/month	4 clothes per box; twice a month: \$99/month
5 clothes, 3 accessories per box, once a month: \$79/month	5 clothes per box; once a month: \$69/month	5 clothes, 3 accessories per box, once a month: \$89/month	5 clothes per box; once a month: \$79/month
7 clothes, 3 accessories per box, once a month: \$99/month	8 clothes per box; once a month: \$89/month	7 clothes, 3 accessories per box, once a month: \$109/month	8 clothes per box; once a month: \$99/month
10 clothes, 5 accessories per box, once a month: \$119/month	10 clothes per box; once a month: \$109/month	10 clothes, 5 accessories per box, once a month: \$129/month	10 clothes per box; once a month: \$119/month

Added to the subscription fee, clients have to pay the taxes and can choose to pay or not for a \$5/month insurance that covers all damages from normal wear. Normal wear damages can be missing beads or broken zippers, for example. In the literature, it was said that user-oriented business should be careful at developing contracts that will secure their relationship with the clients and clarify the responsibility taking due to ownerless consumption. When checking out to pay the first subscription, the client must agree on the terms of the service. Here are some of the contract disclosures. It warns the client that products might be slightly different in color and style than the photographs of the product on Le Tote selection interface. Obviously, with the increased usage of the clothes, their quality and color might deteriorate. The contract also stipulates that the subscriber is responsible for the items under its renting period and must return them in the same condition as they were shipped. (Le Tote, 2019)

Jumping for the first time into fashion subscription models can be a difficult first step. To reduce the reluctance to try, Le Tote offers promotional codes for reductions on the three first months or even a free month trial. (Appendix 6) To get this free tote promotion, the new

subscriber must receive a promotion link from an active Le Tote member, who will then benefit in return from \$10 reduction every month the new client is active. (Appendix 9) This is obviously a good way to find new clients and encourage participation from the active members. If clients are not convinced by the concept, they can always put on hold their profile, for as long as they wish. Also, if the clients want to set their profile on pause the time for vacation for example, they can put it on hold for as long as they need to. (Le Tote, 2019)

On top, while it is about renting fashion, members can still have the choice to buy the items of their boxes and have access to intern sales when Le Tote wants to change and refresh its inventory. All clothes and accessories for sale are discounted. Customers can thus really enjoy all experiences of fashion at smaller costs. (Appendix 7; Le Tote, 2019)

An extra feature with Le Tote and which is not always allowed with other fashion rentals, is that clients can customize their order. When the customer is eligible for a new box, Le Tote's algorithm prepares a pre-selection of items that the customer can swap with others if not satisfied by the pre-selection, then confirm. (Appendix 8) Le Tote uses its own created algorithm that takes into account the style preferences and feedback of previously rented clothes to create new order suggestions. The algorithm continuously improves its recommendation of clothes by taking into consideration the sizing of the person; data that the client had filled in during its subscription and that is continuously narrowed through the feedback she sent after wearing rented garment. (Appendix 4) The customer also had to enter its zip code location during its profile setting, besides for obvious delivery reasons, it improves the algorithm also in its choices of clothes, as it can look for the local weather for the upcoming weeks. Secondly, the algorithm considers the client's clothes preferences. On the virtual clothes catalogue, the client can "like" the picture of items that will then be recorded in her favorites. (Appendix 10) This pool of information facilitates the suggestion of the best options for that customer, but obviously also help Le Tote at understanding the customers' needs and desire regarding fashion and type of clothes. Plus, those data can be interesting for the suppliers of Le Tote. It has already been the case with French connection that benefited of Le Tote's data on style and sizes, to changes its production standards. (Ellen McArthur Foundation, 2017)

Creating a community and encouraging the members' participation in the sharing process are a big part of the marketing tasks at Le Tote. Through its interfaces (website and app), its Instagram account and its blog, Le Tote tries to give the chance to its customers to express

themselves regarding the services, the styles and trends. Clients can for example send pictures of their styling at Le Tote, gives preferences on new design creation and participate in the shootings of the new collection. (Appendix 11) By letting its clients in the creation process, Le Tote is building stronger relationships with its members. In addition, with the sharing economy being more and more viral, many bloggers, social media influencers and famous people are acting as ambassador to the renting company, giving another exposure. (Appendix 12) Le Tote counts today more than 400 “marketing affiliates” which regroups all bloggers, publishers and influencers that promote Le Tote’s service. Working with those affiliates, can bring the company many new customers and create more brand awareness. (Berthene, 2019) Le Tote is using additional promotion channels as well, like TV commercials, radio recordings, Facebook and Google popup ads. (iSpot.tv, 2019; Appendix 20)

Finally, Le Tote takes the opportunity with its packages delivered at the client’s place to send coupons for other types of subscription services such as HelloFresh. (Appendix 13) While the idea is great to associate other partnerships, this cross publicity must be smartly used. Lately, a customer made note that she was surprised to have received a coupon for wine subscription services while she was under maternity plans at Le Tote. In this case, a better data management should be required to better know the clients and not send artefacts that are of no use to the client.

3.1.3. *Delivery, wear and return phases*

When the client has confirmed the customization of its new order, an employee of Le Tote will get all the items and prepare the pack for delivery. To send the clothes, they have different sizes of package, but all with the same cardboard material and clothes are wrapped up in papers. (Appendix 14)

When the box is ready to be shipped, a delivery label is created and the package is transferred to the post office of Sacramento, California. (Appendix 15) Depending on the time that package gets ready, it can be already shipped the same day, or will wait until the next working day. The client receives a tracking number that gives update about the package transfers. Le Tote guarantees a priority shipping of 2 to 3 days, through USPS, the United States Postal Service. (Le Tote, 2019) At the maximum, Le Tote’s boxes need up to 5 days to arrive to the client, from the customization of the box to the reception by the client. Among the 38 women that answered, 20 attested that Le Tote’s boxes arrive generally in less than 3 days after customization. 2 participants answered that it took more than 4 days to arrive. They both have

the unlimited plan, and thus 4 days to get the new package, seems a loss. In fact, with this plan, the more you can return, the more money you are making because the investment is worth more clothes. (Appendix 21)

When the client receives her new box, she can keep the items for as long as she wants. Then when she wants to get new clothes, she just has to put the items in the USPS prepaid shipping bag that was included in the box. The USPS bag can be dropped at any USPS offices. (Le Tote, 2019; Appendix 16) Then the client is ready for a next box customization if it is allowed by her subscription plan: once, twice or unlimited times per month.

With Le Tote working with USPS, it can ship boxes to any of the 48 states and they can be sent to residences, P.O. boxes, hotels and commercial establishments. (Le Tote, 2019)

The delivery infrastructure was one of the major constraints of clothing rentals establishment, as they have to rely on existing installation or create their own. Now with the booming of subscription box services, USPS sees many packages transiting in its facilities. While it is a case not very different from shipping boxes from citizens to citizens, USPS further developed its activities to support the large number of shipments generated by the fashion rentals. USPS offers free software to businesses that are willing to include data access and tracking system. In addition, its shipping services are insured, fast, cheap and can have different levels of priority. (USPS, 2019; Office of Inspector General, 2015) Those are important features as the shipping costs are taking an enormous part of the total cost for fashion rentals and are “margin killers” for them, but are also a key element to consider in customer satisfaction. (Abnett, 2015; Office of Inspector General, 2015) USPS also developed its service to speed return shipping with prepaid labels, when their clients are ready to hand in the clothes. (Office of Inspector General, 2015) USPS being the official postal service of the United States, is present nationwide. It has hundreds of millions of delivery points and thousands of retail outlets, often conveniently located. (USPS, 2019) So, it is quick and easy for the customer. The infrastructure barrier raised in the literature, is actually lower than expected.

3.1.4. *Cleaning, restorage and disposal phases*

While clients can wear the rented items for as long as they want, they are not supposed to wash them. When received back by Le Tote, the clothes are washed and the accessories are sterilized, before set back into renting rotation. By letting Le Tote doing the laundry, you can reduce the overall impact of laundry on the environment. The company developed a cleaning

process that works with detergents that are biodegradable, and according to them, they can use 11% less gas, 43% less electricity and 50% less water than when customers are doing the laundry themselves. (Le Tote, 2019) This process helps at keeping the cleaning standards and allow quality checking for re-storage or knowing if it is time to dispose that item. In an interview of Le Tote's CEO Rakesh Tondon for Business of Fashion, in December 2015, he explained that the quality check process includes 27 checks on each piece of clothing and that it can take 12 to 18 hours. (Abnett, 2015)

If the item is still in good quality, it is sent back in the renting loop. Le Tote's warehouse holds at any time about 10-15% of its whole inventory. The rest of the items is on loan. While the goal is to rent at any time the maximum number of clothes from the inventory, it also has consequences then on the selection availability. Many customers complain often that there is not much choice when it is time for them to customize their new order. With more than 80% of the inventory gone on loan, the choice of variety might be too small. This is one of the main subscription cancellation reasons. (Appendix 23) With the increasing number of members, Le Tote must increase a lot its inventory to offer enough choices and styles for everybody. According to the Le Tote's clients, lately the selection is rather unsatisfactory. (Appendix 33)

When the items are not in good condition anymore, how is Le Tote processing them? The CEO of Le Tote, Rakesh Tondon, explains that each garment is rented about 15 to 17 times. (Abnett, 2015) After that, clothes are on sales for the members. At a discounted price, clients can shop Le Tote's previous clothes. Unfortunately, sometimes the clothes are so damaged due to excess worn and cleaned, that clients receive clothes in bad condition or shrunken. Besides that, Le Tote might have other plans for recycling, but no evidence was found.

3.1.5. Financial support and extension of the business activities

Cautious, Le Tote never discloses its financial results and barely discloses its growth data. However, information can be found on the external investments that have been injected into the company.

Since its creation, Le Tote has raised a total of \$62.5 million in 5 rounds. Starting with a seed round of 3.7 million from 18 different investors, the startup came out from the business incubator YCombinator. (Crunchbase, 2019) Then in 2015, Series A and Series B of respectively \$8.8 million and \$15 million comforted the young company into its activity,

going from 14 employees to 100 and acquiring a new warehouse. Le Tote was booming, and the new cash helped at increasing the inventory. In 2015, 30% of the revenue was coming from the purchases of rented clothes, the 70% remaining were generated by the subscription fee, with more than 60,000 items rented per month. (Taylor, 2015) In 2017, Le Tote raised 2 Series C, for \$35 million and an undisclosed amount. (Crunchbase, 2019)

Nowadays, the company is estimated to bring \$5.5 million revenue per year and has around 250 employees in the United States, 120 people in China and 50 in the Philippines. (Crunchbase, 2019; YCombinator, 2018) While cash seems to enter the company quite well, it seems to still have difficulties to maintain itself at flow. In 2018, Le Tote had cut its staffing, trying to reach profitability. The layoffs were accounting for one third of the corporate staff. (Bhasin & Gurman, 2018)

After six years, growing in the United States, Le Tote decided to expand its activities to the Chinese market. In Spring 2018, Le Tote China has launched a trial period that only a selected group of 3000 Chinese clients was able to try, to better understand the needs of the market. The Chinese version of Le Tote provides services close to the American version. However, the Chinese market has its own norms and expectations; a simple copy-pasted version of the American Le Tote would not work. Le Tote is thus doing a partnership with a local Chinese shoe retailer, Clement Tang, whose family had previously invested \$30 million into Le Tote. The partnership with someone that truly deeply understand the Chinese, like Mr. Tang, will help at deliver offers that can truly answer the needs of the locals. With a growing middle class and increasing number of working women, China is offering Le Tote a market of 400 million potential clients. According to their market research, the Chinese women that are the most interested in the fashion rental services, are between 28 and 32 years old. Interestingly, it is a younger age range than with American customers, that is more around 35. (Tong, 2018)

3.2. Environmental impact

Improving the company's impact on the environment is part of the definition and goal of any product-service system. From the literature review, we have identified three types of actions: narrowing the flow of resources, slowing the flow and closing the flow. Let's see what Le Tote is doing:

First of all, the main initiative undertaken by Le Tote is the fashion flow slowing that works through condensation of the demand, reusage and repairing. Le Tote is reducing waste by

increasing the usage of the products it rents. This has as main consequence to diminish the number of fashion products the customers are buying, because they are renting instead. In women's closets, 80% of the clothes have been worn no more than 3 times and after 2 years usually end up in landfills. Tondon, Le Tote's CEO, says that on average 29 kg of clothes are thrown each year by every woman. So, by using Le Tote, those women are buying less but also then throwing less. With Le Tote, millions of fashion pieces are sent out across the United States and each of those items are worn multiple times before reaching their functional end. This reduces wastage a lot and improve the fashion consumption impact on the environment (YCombinator, 2018) Besides improving the usage cycles of trendy fashion items, we can reasonably assume that renting those pieces can actually improve the usage of the "basics". Most people rent clothes to upgrade their wardrobe. (Appendix 27) They have the basics and just rent what can style their normal clothes into a styled outfit. In the end, the basics will be more worn and the trendy garments as well by the community of renters. In addition, we might reasonably think that to extend the life of its assets, Le Tote has also included the possibility for damage repairs in its facility, like for missing buttons and broken zippers.

The narrowing and closing initiatives are less spoken by Le Tote. There is a lack of information on that topic and even through observation, it is hard to drive conclusions. For reminder, narrowing the flow consists in better using the processes to reduce pollution and waste ratios per items. Closing is about anticipating the afterlife of the items and recycling them.

For narrowing the flow, we can think Le Tote is maximizing the size of batches sent for transportation, in order to diminish the number of round trips to the post office. But it is hard to prove how they are actually organizing their transportation system. While for the customers, it is a matter of speed to get their new order, Le Tote is probably waiting the end of the day or the next day to send them, all in once. When tracking the status of the box, customers can see when the shipping label is created and when the Sacramento Distribution Centre receives the boxes. As general trend, when the customization is validated by the client, Le Tote will prepare the box and create the shipping label the same day, but Sacramento Center will only receive it in the next day early morning. (Appendix 15) Secondly, then when boxes are returned, Le tote might also wait to collect more items before launching the washing process. That would save a lot of environmental consequences but make clothes selection availability reduced as they are not returned in inventory. Another flow narrowing

that seems to be applied by Le Tote's clothes suppliers, is the maximum use of the textile in the production of their items. In fact, across the selection visible in Le Tote's virtual catalogue, we can see that some products have the same fabric, for example one is a top and the other a dress, cut from the same textile. (Appendix 17) Creating the maximum number of items from one piece of textile is a great process to reduce textile waste.

On a flow closing perspective, it is also unsure how Le Tote is dealing with items not matching their quality standards anymore and need to be disposed. It is hard to prove again, how they are closing the product's life loop.

Besides good initiatives, there are certain rebound effects that come along with the business. Le Tote is using cardboard boxes to ship the orders, clothes are packed in tissue paper and each time, there is a pamphlet that inventories what is in the box and stickers to seal the package. (Appendix 14, Appendix 33 P19) On an environmental perspective, we can doubt Le Tote is careful about its impact, knowing that it sends thousands of boxes per month. Other rentals have decided to opt for reusable textile boxes, there are thus other means that Le Tote could have used. (Appendix 18) Second point is the increasing transportation impact. Deliveries are key components of the business model of Le Tote. But the more clients it will have, the more environmental costs it will generate. A little can be saved by optimizing the transfers of packages, when it is possible to transfer a bunch in a time. But we also have to consider the environmental impact of the returns. Hopefully, clients are dropping the shipping bag when they are on their way to somewhere else, distributing thus the cost effects of the drop-off with a normal journey. But it is still every single trip that is adding carbon footprint into the global impact. So, on an overall perspective, shipping is a big environmental burden for Le Tote.

It is also worth to ask about the potential overconsumption of fashion that the rental model can create. It was established in the first part of this paper, that due to the craze for novelty stimulated by fashion rental, consumers might desire access to always more and different fashion products. Already nowadays, we can see Le Tote's clients asking for more novelty in the selection while it is adding new clothes every month. (Appendix 23, Appendix 27) This would push potentially to an increase of fashion micro-collection. There would be by definition of the rental model, fewer products of one pattern manufactured but a lot more styles. So, instead of thousands of the same red garment, we would have thousands of different styled clothes produced only a few times. No analysis and forecast have been

conducted on that matter; it is thus hard to drive any conclusion yet about what would generate this increased micro-production on the environment, this will potentially bring less scalability and thus different environmental issues and wastes.

3.3. Customers

3.3.1. Customer segmentation

By knowing the customer segmentation targeted by Le Tote, it will allow us to seize the market and who are the competitors, in the section: Competition. To describe at best the segmentation, 3 main characteristics will be developed based on Le Tote's location, clothes styles that it offers and the answers collected of 38 clients.

The first segmentation point is demographic. It can be defined by variables such as gender, age, physical appearance, family, etc. Le Tote is offering products and services to active women. This can be told by looking at the fashion style that clients can access: casual and athleisure fashion, event and going-out outfits, business casual and professional wear. It has everything for days at work, for weekends and everything in between. As mentioned before Le Tote offers plans also dedicated to pregnant active women. Concerning sizing, Le Tote has size ranges from XS to XXL (0-16) and for the maternity section from 4 weeks size to 41, as well as nursing-easy style. It covers thus a very broad spectrum of clients through all sizes and various occasions clothes provision. (Le Tote, 2019) When Le Tote was doing market research for its launch in the US market, it noticed that American women interested in the service were typically about 35 years old and more focused on utility than fashion trends. (Tong, 2018) Out of the 38 clients' answers, we can affirm that the age range is around 35, but they seem to be still very interested in fashion trends. 16 of them were 41-50 years old, and 13 from the range below (31-40), corresponding to the active working ages. (Appendix 32)

This brings us to the second segmentation characteristic: the behavioral and lifestyle. Based on the behaviors, decision-making and usage of products, we may further identify Le Tote's segmentation. We can already say there are mainly two types of targeted women: the working women and the future mothers. The main reason for subscribing raised by the clients is the desire for variety. 32 participants out of 38 said they choose to subscribe to get variety and to style their closet. (Appendix 27) We have thus active women or mothers-to-be that still want to have access to a large variety of items and wants novelty. Plus, they are people ready to share clothes and try ownerless consumption. Physical shopping seems for Le Tote's

customers to not be an important component of the fashion experience. In fact, the majority of the clients who answered were accustomed in doing shopping online. (Appendix 26)

Thirdly, there is the geographic segmentation. Le Tote's headquarters is based in San Francisco, California, and has a warehouse in Stockton, California. But customers can live in the 48 states and shipments can be made to residences, P.O. boxes, hotels and commercial establishments. For now, Le Tote does not ship to Hawaii, Alaska, nor to Puerto Rico, but it has with the rest already a large potential customer base. (Le Tote, 2019) To scope the analysis and corroborate with the observations made during 5 months in the US, we won't enter into the case of Le Tote China but stay focused with only the American case.

So, Le Tote targets an American customer base of active women, especially business women, and pregnant women, around 30-50 years old, that desire to enjoy fashion variety in their daily routine and for special occasions. Those women are used to online browsing and are accepting to share products with others.

3.3.2. *Subscribers reaction*

Le Tote has existed now for 7 years and some of its clients have witnessed its evolution since its early age. Among the clients that answered my questions, 3 are members for more than 4 years already and 26 of them are for around 3 years. (Appendix 21) Having their testimony as reference is bringing more weight to my own observations.

Out of 38 clients that agreed to give me some input, 33 are on the unlimited plan, meaning they can have as many boxes as they want per month. (Appendix 22) The only constraint is the shipping time of the packages and returns. As this plan no longer exists, for analysis of the Le Tote, we might need to reconsider the impacts sometimes. For example, in the case of the lack of novelty in the selection. Their consumption pace of rented items is so fast that Le Tote cannot follow their need for always more new clothes. This is probably the reason of the disappearance today of this plan in the subscription choices. 8 of those clients with the unlimited plan had previously set their account on hold for some time because they were not happy with the selection available. (Appendix 23) Note also that in the past years, Le Tote's service was cheaper than today. In 2017, Le Tote's subscription options were ranging from \$39 to \$69, half of the prices of today's monthly plans. 2 of the participants complained that it had become a luxury and paused their subscription for some time, for savings. (eTail, 2017)

One of the most evoked motives for renting clothes is the search for variety. 32 people out of 38 have said the reason they subscribed was to get variety and to style what they already have in their closet. One added that it was also to be less waste full, because she does not like to buy something she would wear only few months. Another added that it is because she actually needs variety for her job, being an on-air meteorologist. 5 added that it was also by curiosity for the economic model. They firstly wanted to try the rental of fashion clothes. 4 people out of the participants explained they started to rent at first because they were having a baby and were looking for alternatives to buying maternity clothes. Then they just kept renting. (Appendix 27)

Le Tote is a great tool when you need flexibility. You can change your subscription plans in function of your needs, shifting from classic plans to maternity for example, but you can also put on hold your membership. In addition, it is an interesting service for women that travels a lot within the US. One client told that she often travels and make Le Tote send the packages all over the country. (Appendix 33 P18) No need for heavy luggage anymore, clients can ship their packages anywhere.

Renting its clothes save time compared to physical shopping. In few clicks, you can select what you want and confirm your order that will be delivered at your door. Convenience is at its maximum. It also makes you plan more your week agenda. Depending on your schedule, you might want to have the proper outfit for your business meeting Tuesday, for the happy hours Friday and for the summer temperature of this weekend. Plus, in order to maximize the time you have with your monthly subscription, you will plan when to send back your return bag.

On a money perspective, renting can make shopping better budgeted. You know that every month, you will pay the subscription fee, instead of impulse purchasing that were not budgeted at all. Plus, if really the customer cannot think about sending some items back to Le Tote, she can buy it at a reduced price. In the same line as she has already worn it a couple of times, the risk of not being happy with the product after purchase is drastically reduced. With traditional purchasing, it happens that your new item is actually not stretchy enough to be comfortable for a long day, or it becomes transparent under natural light. However, with the rental model, there is also the scenario where the clothes selection for a new order is so poor and that nothing satisfies the client, she will definitely feel scammed knowing the monthly fee

has already been paid. Some clients might still find it is too expensive to let it run month after month. (Appendix 23)

From the literature, the main barriers raised for not using fashion rentals were issues of trust due to hygiene, fitting and quality concerns. For hygiene matters, Le Tote is using its own process for laundry in order to standardize hygiene procedures and also preserve quality. From my observation, every rented clothes were clean. Most complains of the customers come from the fitting and the quality of products, rather than hygiene. (Appendix 33) As the sizing of each product can be slightly different from any other, it can have too tight or too large parts that don't fit the customer while should have been the good size. Le Tote is upgrading its algorithm regularly, but it is still disappointing for the client to receive item that does not fit while had been recommended by the program (Appendix 19). Also, regarding quality, some issues appear because of fading colors or rough textiles due to laundry and usage.

Ownerless consumption for customers is a real change of habits and attitudes. In its early ages, Le Tote was at first not giving the opportunity to its members to keep the clothes they really liked from their packages. But due to customer insistence, it opened its service to items selling. Out of the input data given by the other clients, it shows that 10% of them often buy items of their packages. But, in the majority, the items are returned to Le Tote: 21 out of 38 clients who answered it, rarely buy items from their orders and 11 did sometimes. 3 people among them have even completely stopped shopping since they subscribed to Le Tote. (Appendix 28) It seems that in most cases, clients reduced their purchasing habits but not completely give up on those old consumption habits.

On a scale from 1 to 10 (very bad to awesome), 16 clients out of the 38 have rated Le Tote with a 7. Then 7 clients at 8/10 and 6 at 6/10. The majority gave thus a rating that is generally good. Even though some have rated Le Tote over the half, they don't necessarily recommend it to their friends. In fact, 13 people have given Le Tote a rate above 5 but don't recommend it. On the opposite, all the 23 people that have said they recommend Le Tote to their friends, rated it from 6 to 10. (Appendix 30) Le Tote has done great up to now, but expectations are high and clients want more from it.

3.4. Competition

3.4.1. Competitors

Since the launch of Le Tote, many other fashion rentals have seen the light across the US; making the market more and more challenging and competitive. Nowadays, we can find fashion rentals for customer base from babies to adults and for any occasion. For the analysis, we will focus on Le Tote's targets, meaning women wear for occasions like business, casual and going out. This excludes the cases of wedding dress rental, prom dress rental and other very special events like those that are so popular in rental models.

For the purpose of the study and thesis length constraint, we will also not get into the full details on the maternity segment. But just as quick review on it, Le Tote has many competitors for this specific market segment. In fact, the maternity clothes rental for everyday wear was one of the first segment developed with the everyday wear rental concept as fitting perfectly in the "one-off" wear. The customers' need for the maternity specific clothes is only for a defined short period of time and often pregnant women don't want to spend a lot of money for clothes that they will dispose in few months. But they might still want to stay fashionable. (Le Tote, 2019) The maternity fashion rental became thus quickly a hit and competition filled rapidly the market. To name some of the competitors of Le Tote in the US: Rent the Runway, Armoire, Infinitely Loft, Mine for Nine and Borrow for your Bump.

For the normal everyday wear segment, the direct competitors of Le Tote are Rent the Runway, NY&Company Closet, Infinitely Loft, Infinite Style, Ms. Collection, Haverdash, Gwynnie Bee, Armoire and AE Style Drop. In the table below, we can see the different rental plans they each are offering: first table for Le Tote and the second with the competitors. There are two main subscription types: once a month or unlimited per month. For the first type, clients only get one box per month with a defined number of items in it. For the second type, subscribers get an unlimited number of boxes with a defined number of products in it. Note already that Le Tote has no longer an unlimited option plan but offers a "twice a month" plan instead. To create a comparison with the other services, let's take the classic plans of Le Tote without accessories, as the other competitors don't offer plans with accessories.

<u>Fashion rental</u>	<u>Once a month</u>			<u>Twice a month</u>
Le Tote Classic plans without accessories	5 items: \$69	8 items: \$89	10 items: \$109	4 clothes/box: \$89

Other fashion rentals	Once a month		Unlimited per month						
Rent the Runway ⁴		4 items: \$89				4 items /box: \$159			
NY&Company Closet ⁵					3 items /box: \$49.95				
Infinitely Loft ⁶					3 items /box: \$64.95				
Infinite Style ⁷					3 items /box: \$95				
Ms. Collection ⁸	3 items: \$59	4 items: \$69			3 items /box: \$79	4 items /box: \$89			
Haverdash ⁹					3 items /box: \$59				
Gwynnie Bee ¹⁰			1 item /box: \$49	2 items /box: \$69	3 items /box: \$95		5 items /box: \$139	7 items /box: \$179	10 items /box: \$199
Armoire ¹¹						4 items /box: \$149			
AE Style Drop ¹²					3 items /box: \$49.95				

All those fashion rentals offer casual, business and formal wear to rent, as it was a constraint to be considered in this analysis. What they also have in common is that all the subscription plans include free shipping both ways and the cleaning when clothes are returned. Except Le Tote, all the competitors offer at least one plan with unlimited amount of shipping per month. Then another common feature is the possibility to buy the rented clothes at a discounted price if the client does not want to part with them. In addition, all the fashion rentals, mentioned

⁴ Rent the Runway. (n.d.). Rent the Runway. From <https://www.renttherunway.com/>

⁵ NY and Company Closet. (n.d.). NY and Company Closet. From <https://www.nyandcompanycloset.com/pages/how-it-works>

⁶ Infinitely Loft. (n.d.). Infinitely Loft. From <https://www.infinitelyloft.com/pages/how-it-works>

⁷ Infinite Style. (n.d.). Infinite Style. From <https://www.infinitestylebyanntaylor.com/pages/how-it-works>

⁸ Ms. Collection. (n.d.). Ms Collection. From <https://themrmscollection.zendesk.com/hc/en-us/articles/115000630467-What-is-The-Mr-Ms-Collection->

⁹ Haverdash. (n.d.). Haverdash. From <https://www.haverdash.com/pages/how-it-works>

¹⁰ Gwynnie Bee. (n.d.). Gwynnie Bee. From <https://closet.gwynniebee.com/pages/how-it-works>

¹¹ Armoire. (n.d.). Armoire. From <https://support.armoire.style/how-it-works>

¹² AE Style drop. (n.d.). AE Style drop. From <https://www.aestyledrop.com/pages/how-it-works>

here, use algorithms to customize the selection of clothes for the clients' next boxes. Their processes of customization base itself on the customers' feedback and virtual closet where clients had previously added items they like and would like to see delivered. They call that the clients' prioritization.

However, it is on the customization process that the fashion rentals are starting to diverge. For the box styling, some companies allow client's input in the clothes choosing process on top of the customization made by the algorithm, some don't. With Le Tote, Rent the Runway and Armoire, when the algorithm has released its customization, clients can approve the styled customization or decide to change the selection and swap the items with others they are choosing themselves. All the other fashion rentals will just rely on their algorithms to select items for shipping; clients don't have the final say on customization. Moreover, while most of fashion rentals ask the client to give their sizing when they subscribe, Infinitely Loft is the only one that does not require that information. So, when clients are building their virtual wardrobe with items they like, they must pay attention to the size there are saving, because Infinitely Loft does not have a fitting assistance.

The competition, for the classic everyday wear segment, seems to mainly be played on the box styling process and the subscription price. The price range for fashion rental is very large, going from \$49 and going up to \$199. Here Le Tote seems to be in the middle end with its \$69 to \$109 subscription.

Some fashion libraries decided to affine their products' origin to differentiate more from the other competitors. This is the case with NY&Company and AE Style Drop that only offers clothes from their own brand, and Infinite Style that have only clothes designed by Ann Taylor. In the same line, Rent the Runway and Armoire are focused only on high-end and designers' products. To try to stand out again, Infinite Style also offers a special selection of clothes for women of short height. This strategy of targeting women with a different physic is also the case for Infinitely Loft that has a selection dedicated for women of short and tall height, as well as women with a plus-size.

As final note, Rent the Runway was already the pioneer in this market but has also pushed the concept with another feature: the flagship stores. Besides being very active online, Rent the Runway has opened some flagship stores in Chicago, New York City, San Francisco and

Washington DC, where customers can try clothes before using their service. It is also the case with Armoire that opened an “Armoire Retail Experience” store in Seattle.

While price is a strong decision-maker feature when it is about choosing a rental service, the variety rentals can provide, is as important. With the unlimited plans that many fashion rentals offer, clothes have high rotation frequency, but customers ask then to see more often new clothes arrival in the selection availability. Constant renewal of the inventory is a major challenge that the clothing libraries must deal with. Out of the online group of Le Tote’s discussion, we can see that customers are having multiple subscriptions with one company or with different fashion rentals. Some are having multiple accounts with Le Tote; others also subscribe to other rental companies. (Appendix 31)

Le Tote has abandoned its unlimited option plan, but clients that had subscribed before that, can still benefit from an unlimited box shipping option. Not having this plan anymore might be one of the biggest weaknesses of Le Tote in comparison to the other clothes rentals, as clients are looking for maximum variety access. Only Rent the Runway and Ms. Collection offer as well plans that have a strict number of boxes per month like Le Tote. With Ms. Collection, clients can have 4 items per month for \$69 while with Le Tote for that price customers can get 5 items. With Rent the Runway, for \$89, the members can have 4 items per month while with Le Tote, it would be then 8 items per month or 2 boxes of 4 items each per month. So, even though it does not have unlimited plans, Le Tote has pretty good deals to offer. In general, we can locate Le Tote in the high end of the middle price range, with Armoire, Gwynnie Bee and Rent the Runway having plans in the most end of the price range.

The strength of Le Tote is that it allows its clients to choose what they want in their boxes. During the styling of the box, the algorithm will preselect items that were liked by the client and that would fit the client’s size. Then the customer can decide to swap items with others available if she wants before confirming the package. This clients’ input at the customization process is done only by Rent the Runway and Armoire as well, the other rentals just let the algorithm prepare everything. In addition to the strength point, Le Tote seems to have a large plan option for subscription, with or without accessories.

3.4.2. Substitutes

Fashion rentals are considered as substitute to fashion ownership model which is the traditional fashion selling. But the force of substitute is quite high since fashion ownerless consumption is not yet adopted by the majority of the customer base. The cost of shifting from Le Tote to another model or company is null. In fact, there is no fee to pay if the client wants to cancel her subscription or put it on hold. Note that the hold option, nevertheless, helps at retaining clients as they still have an account and come back anytime. There are various kinds of business models that can be substitutes to fashion rentals.

First, still in a sharing economic model, there is the peer-to-peer renting. Through a membership subscription, people have access to a platform where they can rent clothes from someone else's closet or lend her own clothes. Tulerie, for example, is a peer-to-peer business that connects people that will share clothes. (Tulerie) This peer-to-peer, mixing AirBnB's and the fashion rentals' models, can be an alternative to Le Tote's like business models, if hygiene concern can be overcome and delivery process organized.

Second type of alternatives are other fashion subscription boxes. Based on a monthly subscription service, clients will receive each month a new box with trendy items of the new collection. What is different with the fashion rentals is that the client has a couple of days to send the box back with the items she does not want to keep. It is actually more like online shopping but based on a monthly subscription styling service. Wantable and Stitch Fix are two businesses that are offering this monthly service. (Wantage; Stitch Fix)

As other sort of alternative of fashion rental, if people still want to have variety access and do something for the environment, they can buy clothes from second-hand stores and during "empty your closet" initiatives. Those initiatives are more and more popular those days and the second-hand stores surf on the vintage trend that is still in the air. Also focusing on maximizing the use of life of clothes, they can substitute fashion rentals.

Finally, we can mention all the brands with an online service that offers to ship products to the clients and that might also include the free returns in the case of clients' dissatisfaction. They don't work as monthly subscription models and they are not encouraging maximization of clothes' use, but they offer an alternative with which the clients are already accustomed: the online shopping. This is the case with Zalando, Zara, H&M, and any of the top 20 players of the fashion industry exposed in the Figure 3 (p. 35). As the majority of fashion clients are

not yet accustomed to fashion renting, and most renters are not relying 100% on rentals as well, traditional sellers are still strong in place.

3.4.3. *New Entrants*

The initial investments to become an active fashion rental on the market is significant and is therefore a first major barrier of entry. The new company needs to constitute first a good stock of clothes that will offer enough variety to the first clients. Then, it will need to invest in cleaning machinery and people that will check the quality and state of clothes after being returned. In addition, building the algorithm for box preparation is also taking money and time. This algorithm is necessary as it will handle the availability of items and allocate them in function of the clients' preferences input.

Some barriers that were raised theoretically in the first part of this thesis, on the other hand, needs to be balanced. With USPS that is specializing in the subscription packages delivery. The infrastructure barrier is lower than thought. Secondly, people are more and more comfortable with the idea of subscribing to services, as we can see their increasing number in many sectors: food with HelloFresh, cars with ZipCar and film with Netflix. Fashion is doing its way in this service system and is gaining more and more adepts. The customer adoption barrier that was previously a major factor is now reduced. However, new entrants still need to promote themselves and attract their first clients.

The fashion rentals are popping up rapidly, but what we see is that most of them now are traditional fashion sellers that open themselves to the rental system. It was the case with Ann Taylor that opened its rental service: Infinite Style. The barriers of entry for already established companies are lower as they have the money to invest in all the machinery and warehouse. For the clothes, they already are producing them under their brand. They also have the clients that know already the quality of their products and it just needs to convince them of the service. Only the process and the algorithm will need to be developed.

3.4.4. *Bargaining power of suppliers*

Most suppliers for fashion libraries are clothes producers and retailers. Constantly in need for novelty, rentals buy very frequently new productions and tie strong relationships with the suppliers. On the other hand, the retailers and designers can access through fashion rentals a lot of data concerning sizing and demanded trends.

There is little evidence that the partnership between clothes producers/retailers and clothes rentals is unbalanced and that the suppliers enjoy strong bargaining power. It seems that the relation they have is equilibrated by the clothes provision from one side and information diffusion from the other.

But some of the clothes suppliers are also well-known brands, with large capital capabilities and could decide to take actions. We could mention Nike, that is a supplier of Le Tote but also a strong fashion player in the market. This brand could also decide to open a new business in the fashion rental to compete against those new fashion models and expand its activities.

3.4.5. Bargaining power of customers

The bargaining power seems to come more from the customer side rather than the suppliers. As the shift cost to other services is very low, clients have a lot of alternatives. In addition, with Le Tote, they can put their profile on hold for an indefinite period of time.

The fashion rental service works with long-term relationships. In the case of Le Tote, it is important to work on customer retention than attract always new customers, as the first subscribed month can be for free or at least with 30% reduction. (Appendix 6; Appendix 9) Therefore, Le Tote must be very attentive to the customers' feedback.

4. Discussion and further thoughts

4.1. Discussion

Fashion rentals are defined as user-oriented PSSs, aligning thus with the definition of Goedkoop & al. (1999) : *“a system of products, services, networks of players and supporting infrastructure that continuously strives to be competitive, satisfy customer needs and have lower environmental impact than traditional business models”*. (in Beuren, Ferreira & Cauchick, 2013) Le Tote is indeed following this definition. This is critical as it is how a fashion rental is properly defined in this thesis, and in the literature in general. To support that evidence, the following paragraphs will raise points by points the features. However, out of the case study, some remaining questioning stayed that could be hypothesis for future examination.

Le Tote is a system of product and services. It offers products access for a monthly fee, delivering the service of fashion novelty. The fashion rental is in a network of players and supporting infrastructure. Many stakeholders get into the business activity and support it. Le Tote has 2 main types of contractors: the clothes producers that can be partners or just third-party companies, and USPS that manages the shipping phases. The rest of the fashion rental's business activity is handled in-house like the quality testing and laundry, as well as algorithms building and data management. Note in addition that the customers also participate in the creation of new design ideas and the promotion campaigns. Le Tote strives continuously to lower its impact on the environment, to satisfy its clients and to be competitive.

In observing the total environmental cost due to the impact of Le Tote's activity, we will have a mitigating effect. First of all, the positive initiatives taken by the company: through its Le Tote model, it increases the life span of clothing, and thus reduces the consumption of impulsive clothing purchases by its customers. Another point that can be addressed is the minimization of fabric waste when making clothing. Without having confirmation, it can be observed in the clothing selection that Le Tote offers its members that some clothing is made from the same fabric.

Besides that, there are things Le Tote could be more careful about. This is the case with the cardboard boxes and various papers that it uses for the packaging of the delivery. Other

fashion rentals are a little ahead by using reusable bags. One of the biggest negative effects of Le Tote's model is the impact of parcel delivery. Indeed, thousands of packages are sent and received by Le Tote and this generates a very significant carbon emission. However, no detailed analysis has been made on this point, nor has it been done on the potential overconsumption due to the fact that people have a growing need for novelty with fashion rentals. We therefore have mixed results that must await further analysis before a real conclusion can be reached on this environmental issue.

Created in 2012, since then Le Tote evolved with its market and its customers' feedback. It strives to update its inventory to the latest trends and keep up with anticipating the customers' desires. Le Tote found a demand that is expanding across the years. It focuses on close strong relationships with its stakeholders, including its subscribed members. That builds for Le Tote a key competitive advantage but often under pressure of the competition that offers other styles and additional services like with flagship "try" stores. While no figures are disclosed by Le Tote, it is said that they have an increasing client base but still sees many of the members leaving because it offers not enough novelty in its trend offerings. Compared to the global everyday fashion wear segment, the demand for fashion rentals is relatively marginal for now. Le Tote has the capability to answer the customers' needs but struggles still with the speed of fashion trends changes.

Concerning competition and market forces, Le Tote must exercise caution. Although it has interesting subscription plan offers, it must remain attentive to its customers' wishes because it appears that they tend to register near several fashion rentals and do not hesitate to pause Le Tote if the available clothing does not suit their taste. To win their loyalty, or even regain it, Le Tote must be careful to bring in more novelty. The company already offers one of the most customizable services available, and it is by including them to the maximum that it will be able to defend himself better and better against competition, substituents and new entrants.

It was estimated that competition was fierce because of the dominating companies of the traditional fashion sellers, like Nike. But it appeared that for now, they are actually Le Tote's suppliers. However, those might decide to enter the subscription market and becomes new entrants competing then Le Tote directly. Another possible scenario is that they would merge or just buy those concept businesses like Le Tote and include them in their portfolio. This is

the strategy used by the giants like Facebook or Google to grow and keep the leadership in their sectors. The competitive situation seems for the moment not to evolve against Le Tote's prosperity, but companies characterized as substitutes in Porter's forces can change the situation.

Success of fashion rentals is not yet defined in the literature, and even for PSS too few researches have been made on that matter to extract a generalization of successful models. But we might be able to judge if Le Tote is simply thriving or not. If its business strives to be competitive and answers customers' needs as established in the definition of product-service systems, then it should be on the good path to thrive.

To sum up, we can say that Le Tote has room for improvement as a product-service system. It found demand and now strives to satisfies its clients, as well as keeping good competitive advantages. However, the remaining question is if Le Tote really does enough to lower its environmental burden.

4.2. Contribution compared to past literature.

The objective of this thesis was to highlight fashion rentals through a study of the existing literature on this subject first and then through a single-case study.

Quickly, it was notifiable that the literature contained only a few references to fashion rentals, being just mentioned from time to time as a vague example for a PSS or a sharing model, or as the latest economic trends. This was also part of the reason for the research developed by this thesis: to create content on this subject that is almost non-existent in the research.

To give a theoretical basis to the concept of clothing rental, it was necessary to go back to an economic mother category that includes fashion rentals to discover the different aspects: the product-service system. This system helps to understand how the business model of a combination of products and services works and what impact it would have on the environment and its customers. But being a category that encompasses several business model concepts, it was not clear what fashion rentals really were, specifically and how they were evolving in their markets.

The objective then to develop a practical case study was to extend the theory of literature with a real scenario as illustration. A lot of detailed information has been revealed during the various observations and data collections, but there are also still many grey areas about the functioning of Le Tote and its robustness in an increasingly competitive and challenging environment. This case study offers a new direction for further exploration on the topic.

From Le Tote's case, some key points can be highlighted that were not in the literature. The importance of the algorithm was not emphasized in the literature section while Le Tote relies heavily on it. It links all the stakeholders and the infrastructure together and is definitely a key feature in the service running. Another feature that did not appear in the first section was the sizing issue. In fact, this is what really prevents the full sharing of clothes as women don't have the same body shapes and sizes. In addition, in the theoretical research it was mentioned that the infrastructure will be a main barrier to the development of fashion rentals. But with USPS, the delivery is well handled.

A major barrier to the thriving of Le Tote and that should be further highlighted in the literature is to follow at answering the need for novelty which seems to increase when clients rent clothes. Le Tote had adjusted its plans offerings to cope with that issue, but it is the only among the competition players to have done it. Keeping the inventory high enough to serve enough choices for the clients but also to make the stock turning rapidly in the renting loop to create money out of it.

4.3. Limitations of the practical research

The main limitation of this practical research is the lack of direct contact with Le Tote. Interviews of people from inside the company would have given more in-depth information and more accuracy on the business processes. But Le Tote stays particularly quiet and does not disclose information on its growth improvement and activity. It was quite difficult to approach the company. Using alternatives was therefore necessary but they lead to limits that impact the above developments.

The main source used for the practical research of this thesis was my personal observation of Le Tote's service. While I can testify precisely on my experience and how I perceive Le Tote's logistics and running, it is still the point of view of only one person. Further

examination should be done to compare and expand the analysis. To lower the subjectivity that can arise in the development of customer reaction to fashion renting, input from other customers was gathered. The aim was to provide more data on various points and better see if clients actually like the service or not. Here again, it would be worth to develop more the customer side and look how deeply ownerless consumption affects and changes the habits. Final point to mention here is the lack of ground data to measure the environmental impact of such renting service. Already in the literature, there is a gap for that topic in PSS principles.

4.4. Remaining questions and further thoughts

The research for this thesis could not address in detail all the points raised in the analysis but leaves interesting questions for future research. The business model seems robust on an economical perspective, but it would be interesting to further assess it and study the environmental impact and the social changes it brings.

Concerning Le Tote, questions remain unanswered: what is it doing with the pieces of clothing that are too old or just that are out of the trend now? What is its true environmental impact? Ingrid Brochard, founder of a French fashion rental, claim they are a better environmentally friendly way to consume. However, in the light of what we learned from Le Tote, the truth might be not as bright. This point could be a research question for a quantitative analysis. Up to now, in general, models combining products and services are not often analyzed on the environmental cost perspective and would be actually worthy to develop.

In addition, the analysis developed in this thesis would gain more value with comparable case study of other fashion rentals, in order to develop a more specific definition of the concept and specific principles. So, it would be interesting to discover how the other fashion rentals are doing and how different they are from each other.

Then, changing the perspective of the analysis could give more in-depth understanding of the situation. Taking a deeper look into how fashion rentals impact the designers' activities and businesses, as well as if those rentals really do threaten traditional brands like Zara. In the case fashion rentals pursue their growing expansion across the market and gain more and more consumers, this might change the rules of the game for traditional fashion sellers.

Finally, deeper analysis of the consumption habits changes could be very interesting. Rent the Runway and Armoire are both fashion rentals that also have physical location where clients can try clothes. Do those stores really bring something to the renting concept? Do the clients find it necessary? Is fashion renting, as ownerless consumption concept, having traversal influences on the consumption of other products?

Conclusion

The fashion industry clearly has the opportunities to change and create new value for the society. In view of the environmental and ethical challenge that the sector faces, it is time to push new ideas into the markets and change our consumption habits. (Kerr & Landry, 2017)

A fashion rental is a renting concept that allows clients to access an infinite wardrobe for a monthly fee. Combining service and products, clothing libraries are related to the product-service system which encourages companies to strive to find new ways of competitiveness while lowering the environmental impact it generates and satisfying the clients. As use-oriented PSS businesses, fashion-rentals focus on expanding the life of clothes by renting them to many clients. That way, the clothes instead of resting the majority of the time in the closet as it is usually, are been worn much more. In addition, by the fact the company keeps the ownership over the product, it can focus on using good quality material to produce them and do everything to keep them in good shape. Renting fashion items truly changes the habits of consumption. Most part of the consumers are not ready to adopt this concept but recognize its benefits in terms of variety access. For the business providing this flexibility and fashion infinity, it has to fully rethink a new operational running. In fact, renting bears many key points that need to be secured in order to deliver the adequate service: design clothes that can last long; establish a clear responsibility contract with the clients as they won't bear the ownership of the products they will use; manage the customers' data, organize the logistics and work with contractors for deliveries; build a cleaning process when clothes are returned; etc.

Product-service system definition and principles had to be used to build the frame of the analysis because there are too few researches made on fashion rentals themselves. This thesis takes thus the opportunity to illustrate the renting of everyday fashion through a practical research as well. A single-case study was developed on observations made over Le Tote's business. This Californian company exists since 2012 and has even expanded, in the meantime, in China. The case illustrates the PSS principles and adds some extra interesting points and information. While this thesis contains limits, it can be a good anchor point encouraging further research on the topic. Le Tote has still a business that evolves a lot through the years, following its improvements and further develop the cases to other fashion rentals, can fill in the gap in the literature.

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Appendix

Inside observation

Appendix 1: Brands in Le Tote's selection

1. 1State	38. DUBGEE	76. Lucky Brand	114. Supply & Demand
2. 525 America	39. Ella Moss	77. Lysse	115. Susana Monaco
2. 818	40. Essentials by ABS	78. Maggy London	116. T Tahari
3. ABS	41. Fate	79. Maison Scotch	117. Tart
4. AELLA	42. Free People Movement	80. Max Studio	118. Taylor
5. Alex and Harry	43. French Connection	81. Michael Stars	119. Three Dots
6. Alexia Admor	44. Glamorous	82. MinkPink	120. Trina Trina Turk
			121. Two by Vince Camuto
7. August 1 Eight	45. Hayes	83. ModCloth	
8. Ava	46. Hummingbird	84. MPG	122. Uniq
9. AXS	47. Hutch	85. Mystic Los Angeles	123. Velvet Heart
10. BB Dakota	48. i.Madeline	86. Niia	124. Willow & Clay
11. BCBGeneration	49. ICHI	87. NSR	125. Wish
12. Bebe	50. Indigo Blue	88. Octavia	126. Yumi
13. Belle by Badgley Mischka	51. J Brand	89. Olive + Oak	
14. Beulah	52. Jack	90. OVI	
15. Beyond Yoga	53. Jessica Simpson	91. Philosophy	
16. Blank NYC	54. JOA	92. PL Movement	
17. Blaque Label	55. Jones New York	93. Plenty by Tracy Reese	
18. BLK LT	56. Juicy Couture	94. Premise Cashmere	
19. Blush Noir	57. Julep And Petals	95. Rachel Rachel Roy	
20. Bobi	58. Just Black	96. Rachel Roy Collection	
21. Cactus & Clover	59. Keepsake	97. Rachel Zoe	
22. Calvin Klein Jeans	60. Kenneth Cole	98. RD Style	
23. Catherine Catherine Maladrino	61. Kensie	99. Rune	
24. CeCe	62. KUT from the Kloth	100. Sabina Musayev	
25. Charlie Jade	63. LA Made	101. Sanctuary	
26. Chelsea & Theodore	64. Laundry by Shelli Segal	102. Scotch & Soda	
27. Cistar	65. Lavender Brown	103. Serena	
28. CK Performance	66. LaVi	104. SIXTEN	
29. Clover and Sloane	67. Le Lis	105. Skies Are Blue	
30. Collective Concepts	68. Levi's	106. Some Days Lovin	
31. Cotton Glam	69. LIKELY	107. Sophie Max	
32. Current Air	70. LILA LI	108. Splendid	
33. Cyrus	71. Line and Dot	109. Staple The Label	
34. Dee Elle	72. London Rose	110. State of Being	
35. Design History	73. London Times	111. Sub_Urban Riot	
36. Do&Be	74. Lost + Wander	112. Summer & Sage	
37. Donna Morgan	75. Love RACHEL Rachel Roy	113. Summer & Sage Maternity	

Appendix 2: partnering with designers

Amanda Uprichard's collection items created for Le Tote



Appendix 3: client's sizing and preferences, input during subscription

LT

Your Style & Fit > Choose Plan > Customize First Tote

Next

Enjoy 30% off Your First 3 Months with code 30FOR3

Choose the tops you would like to wear

The more styles you choose, the more variety you'll see.



Shirts



Sleeveless



Tees



Off the Shoulder



Ruffles

LT

Your Style & Fit > Choose Plan > Customize First Tote

Answered 0 Of 3

Enjoy 30% off Your First 3 Months with code 30FOR3

Get smart size recommendations

Every brand fits differently. Tell us your sizes, and help us learn your ideal fit.



Select your dress sizes

0

2

4

6

8

10

12

14

16



Select your top size

XS

S

M

L

XL

XXL



Appendix 4 : Client's feedback on worn items

My Totes

Rate items (4)



RD Style
Smocked Gingham Top
Size XS

Rate It



Kaia Collective
Drape Front Tank
Size XS

Rate It

Past Totes

05/10/19







HOME

MY TOTES

MY ACCOUNT

My Totes

Rate

Skip

Did you like the style?

Yes

No

Any style issues?

Fabric

Color

Pattern

Silhouette

How many times did you wear this item?

0

1

2+

Other issues?

Scent

Wrinkled

Damaged

Too Worn

How did it fit?

Bust

Tight

Fit

Loose

How did it fit?

Bust

Tight

Fit

Loose

Waist

Tight

Fit

Loose

Length

Too Short

Fit

Too Long

Photo & Review (Optional)

Share advice about this style with other members.

Upload photo

Show my rating to other Le Tote members (we'll display your height and size worn)

Toggle

Submit

Appendix 5: Le Tote subscription plans

Exit Account Details

Switch your plan

Accessories

No accessories

5 Clothing Items & 3 Accessories

\$79/month

One tote per month

7 Clothing Items & 3 Accessories

\$99/month

One tote per month

10 Clothing Items & 5 Accessories

\$119/month

One tote per month

Popular

3 Clothing Items & 2 Accessories

\$79/month

Two totes per month

Baby on the way? See our [maternity plan](#)

Exit Account Details

Switch your plan

Accessories

No accessories

5 Clothing Items

\$69/month

One tote per month

8 Clothing Items

\$89/month

One tote per month

10 Clothing Items

\$109/month

One tote per month

Popular

4 Clothing Items

\$89/month

Two totes per month

Baby on the way? See our [maternity plan](#)

Exit Account Details

Switch your plan

Accessories

No accessories

5 Clothing Items & 3 Accessories

\$89/month

One tote per month

7 Clothing Items & 3 Accessories

\$109/month

One tote per month

10 Clothing Items & 5 Accessories

\$129/month

One tote per month

Popular

3 Clothing Items & 2 Accessories

\$89/month

Two totes per month

Not pregnant? See our [classic plans](#)

Exit Account Details

Switch your plan

Accessories

No accessories

5 Clothing Items

\$79/month

One tote per month

8 Clothing Items

\$99/month

One tote per month

10 Clothing Items

\$119/month

One tote per month

Popular

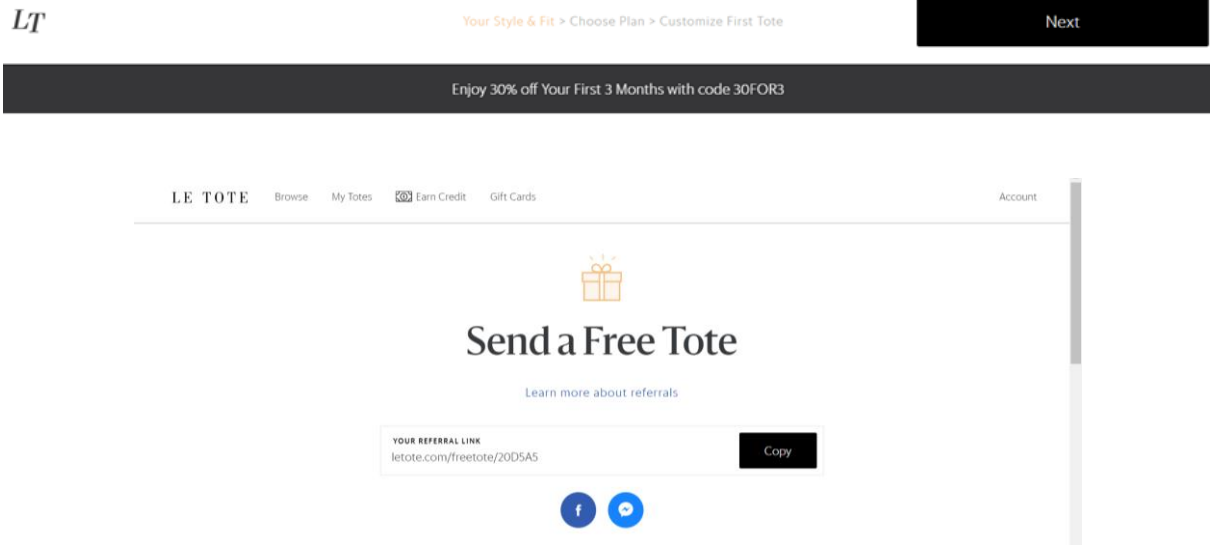
4 Clothing Items

\$99/month

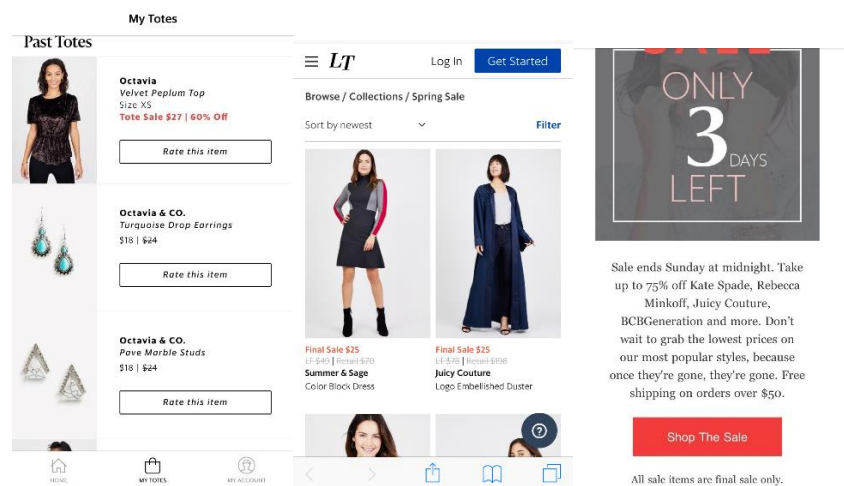
Two totes per month

Not pregnant? See our [classic plans](#)

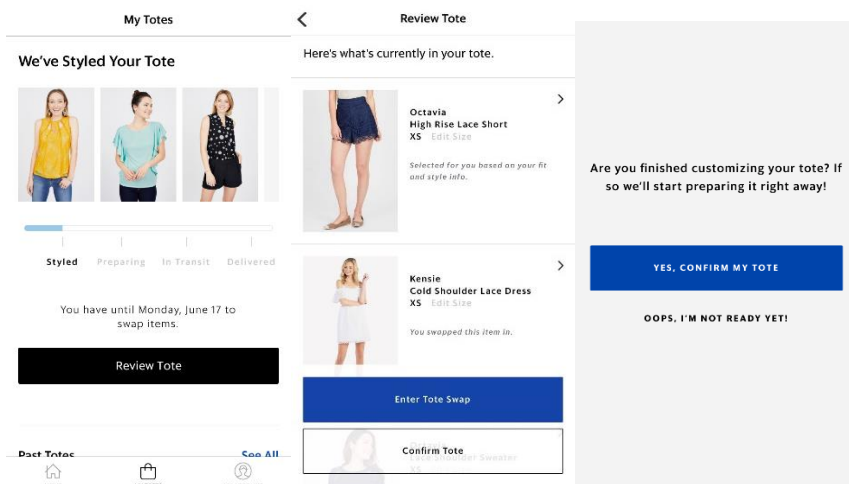
Appendix 6: reduction for new subscribers



Appendix 7: intern sales



Appendix 8: customization by client



Appendix 9: referral program

Earn Credit

How Our Referral Program Works



Send A Free Tote

Invite a friend to try a free sample tote by using your referral link or have her enter your unique code at checkout.



Earn \$25

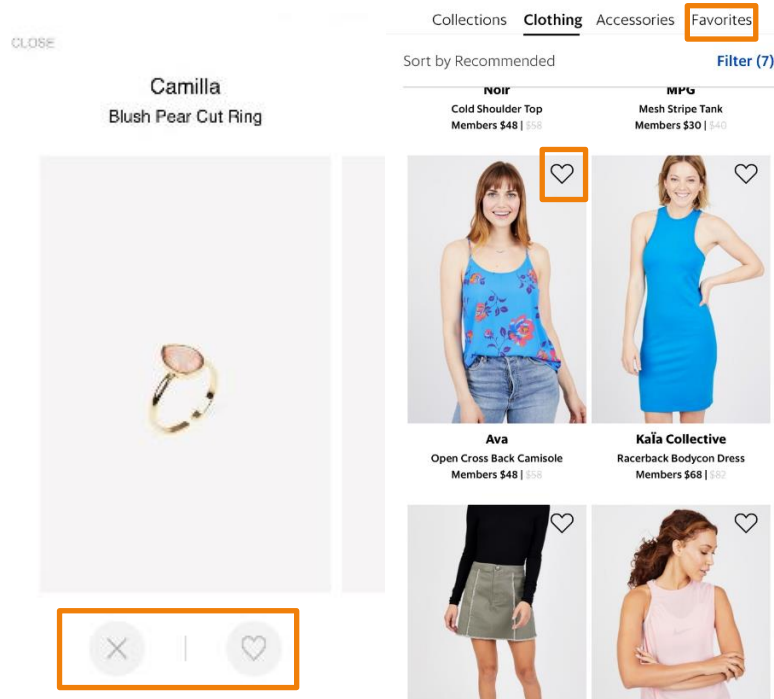
If your friend decides to join Le Tote, you'll earn a \$25 purchase credit.



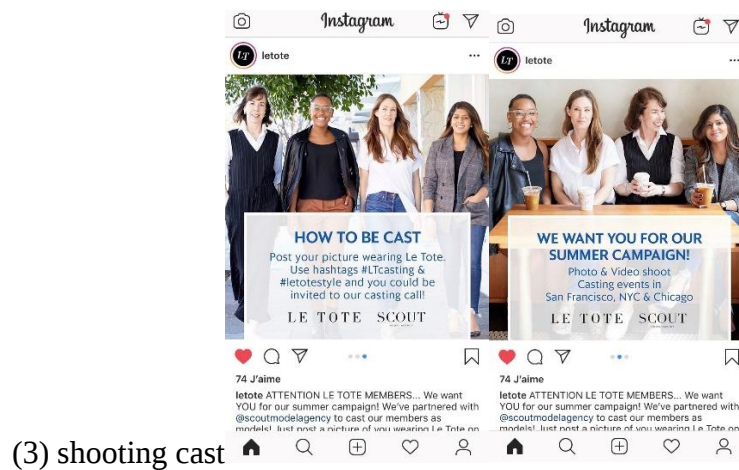
Save Even More

For every new friend who joins, you earn an additional \$25.

Appendix 10: building of virtual wardrobe



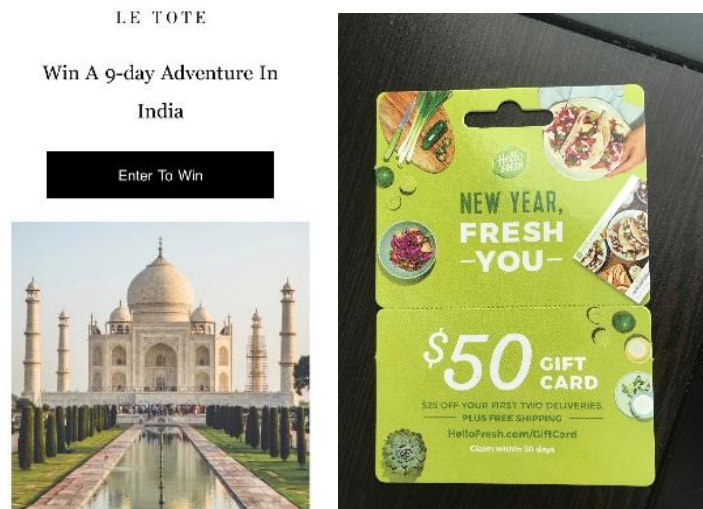
Appendix 11: client's participation



Appendix 12: Le Tote's ambassador



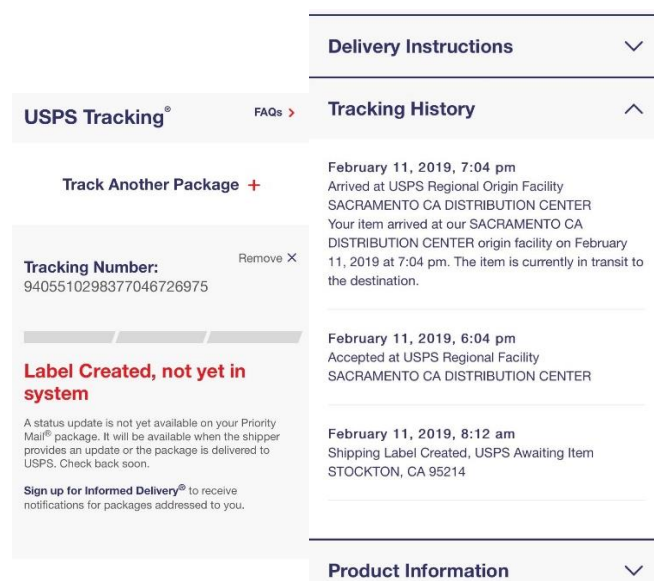
Appendix 13: promotion of other services



Appendix 14: shipping packaging



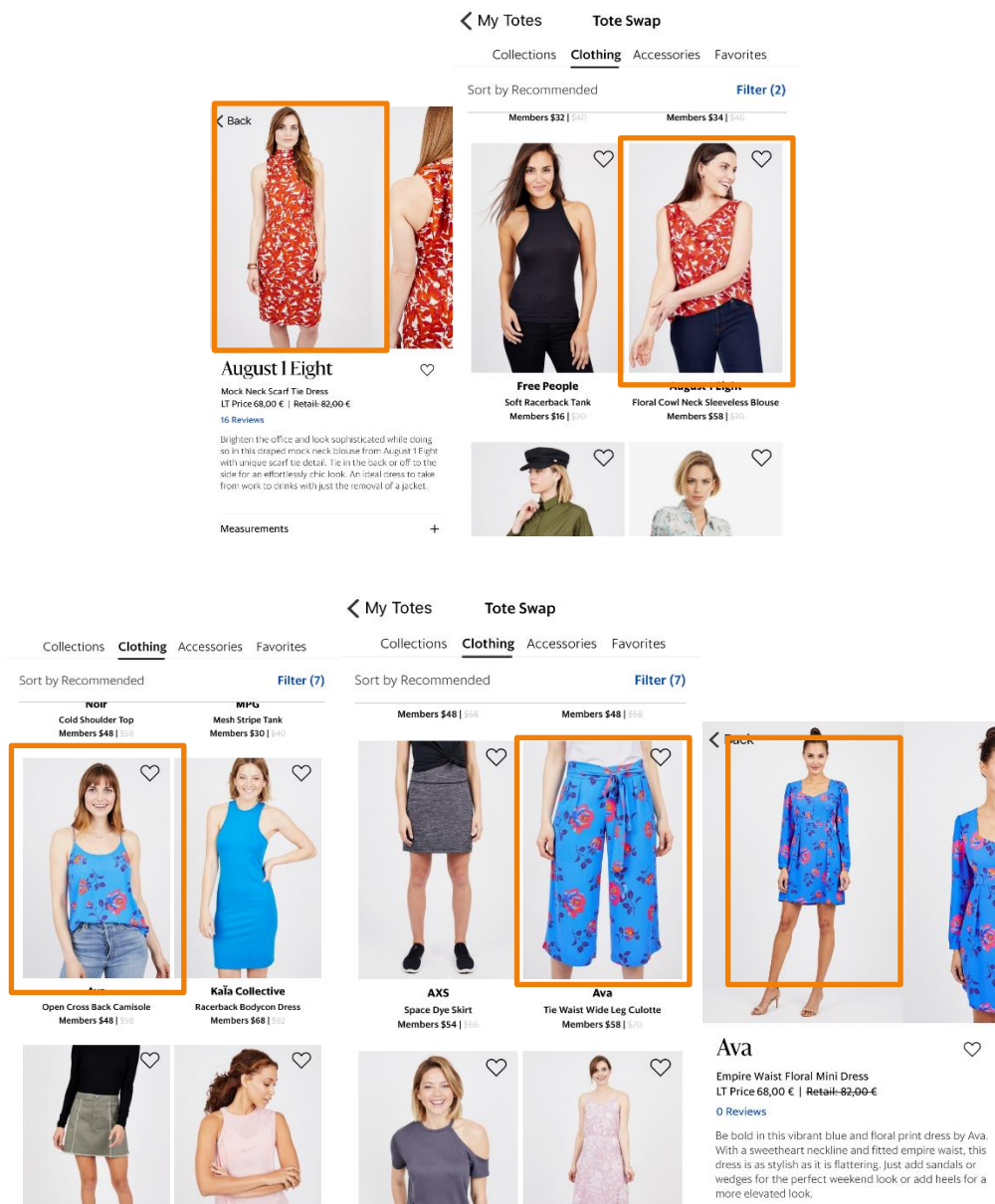
Appendix 15: package sending and shipping label creation



Appendix 16: return bag



Appendix 17: optimization of fabric usage



Appendix 18: Le Closet (French fashion rental) shipping box



Appendix 19: Le Tote's sizing recommendation

We recommend a size X-Small

This size should fit you perfectly based on the measurements and ratings you've provided.

Dresses

Tops

Pants

Sweaters

Jackets

Skirts

Jumpsuits

Shorts

Sizing (1)

Le Tote Recommends

XXS (0)XS (2)

S (4-6)M (8-10)L (12)XL (14)

XXL (16)0246

81012141624

252627282930

Update Size

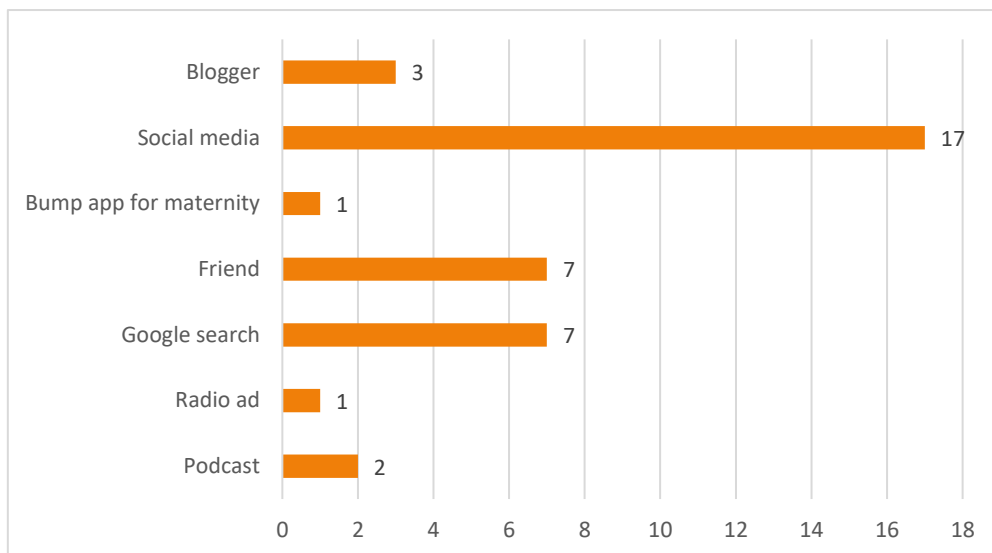
Apply Filters

Client's input

Participants were asked how they knew about Le Tote and since how long they were Le Tote's members. Then questions about their subscription plan. Le Tote offers a large range of service options. It was interesting to see what people opted for and the reason of their subscription cancel if it was the case. This section already gave some idea about what is not working with Le Tote's operations. The next questions were related to Le Tote's functioning: about delivery speed and shipment origin. This last point had the purpose to see if there were other warehouses across the US. The following range of questions were about fashion consumption habits: if they shop online, the reason of shifting to renting options and if they still buy the rented pieces. Then if they recommend Le Tote to their friends and how would they rate the rental company. Next, it was interesting to see if the change in habits caused by the renting process is contagious to their overall habits, and the question for that was whether they had subscribed to other subscription services. Finally, the last range of questions were for gender and age range of the participants. Optional at the end, participants could add any extra comments.

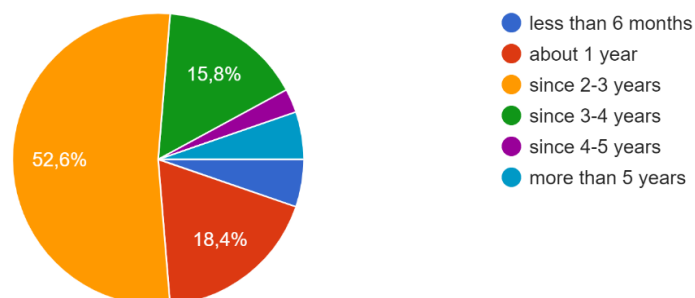
Appendix 20: How did you find out about Le Tote at first?

The number of participants (horizontal axis) who have heard about Le Tote through those media (vertical axis)



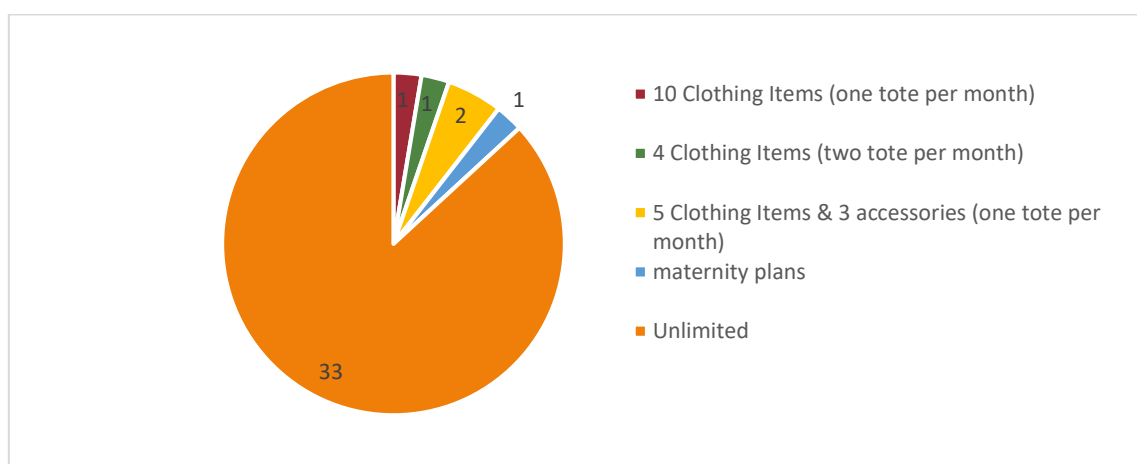
Appendix 21: How long you have been a Le Tote member?

The number of participants per seniority at Le Tote, expressed in percentages.



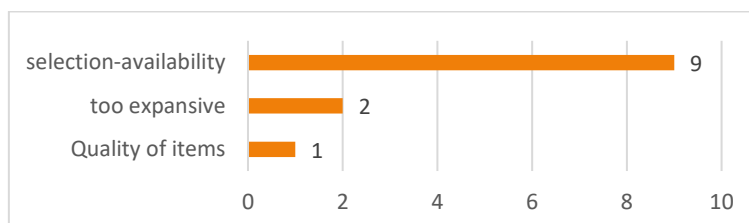
Appendix 22: Which of the subscription plans is your current one?

The number of participants using those subscription plans.



Appendix 23: If you cancelled your subscription, what was the main reason?

The number of participants (horizontal axis) who have set on hold their subscription or completely cancelled it, and the reason of that (vertical axis).

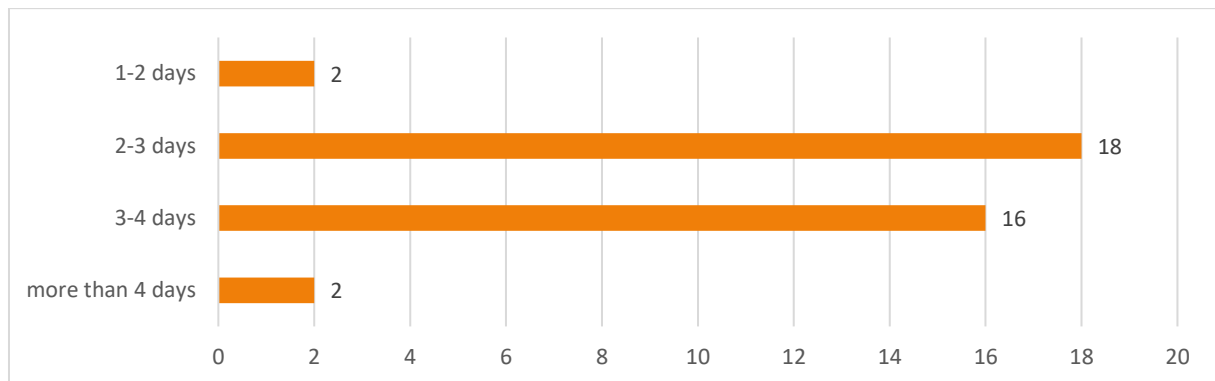


Crossing with the subscription plan of the participants:

number of participants	subscription plan				
	10 Clothing Items (one tote per month)	5 Clothing Items & 3 accessories (one tote per month)	Unlimited	Total	
cancel reason					
Quality of items	1			1	
selection-availability		1	8	9	
too expensive			2	2	
Total	1	1	10	12	

Appendix 24: How long does it take usually to get your new tote after customizing it?

The number of answers (horizontal axis) that states the number of days for delivery (vertical axis).



Appendix 25: Do you know from where your tote is shipped? If yes, where ?

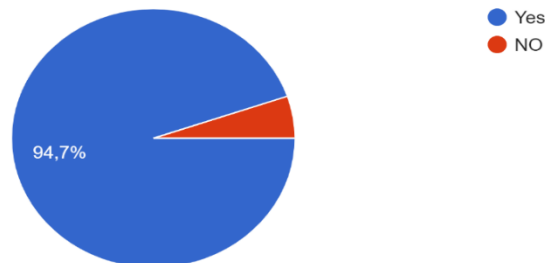
36 participants answered: California

2 participants didn't know

Appendix 26: Do you shop online too?

Percentage of participants that do online shopping:

- 94.7% do
- 5.3% don't



Appendix 27: Why did you decide to rent clothes?

Reasons of the participants (P) to start renting clothes:

P1	To style the clothes I already have in my closet - get some variety, I have basics in my wardrobe, and I rent the rest
P2	To style the clothes I already have in my closet - get some variety
P3	I have basics in my wardrobe, and I rent the rest
P4	To keep my wardrobe fresh, without spending a lot of money shopping
P5	I have basics in my wardrobe, and I rent the rest
P6	To style the clothes I already have in my closet - get some variety, I wanted to try and see what it is to rent clothes
P7	I like the ability to rent prints and styles that I want to wear once, but not own
P8	To style the clothes I already have in my closet - get some variety, To wear stylish clothing that isn't obsolete after 6 months of wearing it. I hate the pile of clothes sitting in my closet that

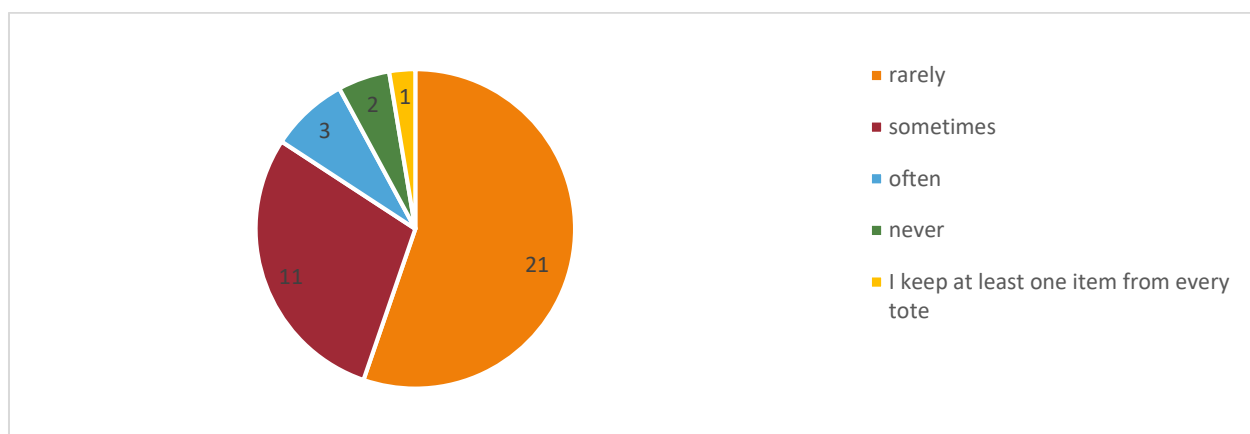
	never gets worn anymore. I want to reduce my closet size and only buy quality pieces now (or a few basics) and rent the rest. I feel less wasteful.
P9	To style the clothes I already have in my closet - get some variety, I wanted to try and see what it is to rent clothes
P10	To style the clothes I already have in my closet - get some variety, I wanted to try and see what it is to rent clothes
P11	To style the clothes I already have in my closet - get some variety
P12	I have basics in my wardrobe, and I rent the rest
P13	I have basics in my wardrobe, and I rent the rest
P14	To style the clothes I already have in my closet - get some variety
P15	I don't have any clothes in my closet anymore, I rely 100% on rentals, I am an on-air meteorologist, so I always have to wear something new.
P16	Cut back on buying clothes
P17	I have basics in my wardrobe, and I rent the rest
P18	To update my style to current, spend less money buying clothes and have the satisfaction of always having new items
P19	I have basics in my wardrobe, and I rent the rest
P20	Started with maternity clothes because there is no point in buying them! It was a godsend and I recommend it to all my pregnant friends
P21	To style the clothes I already have in my closet - get some variety
P22	To style the clothes I already have in my closet - get some variety
P23	To style the clothes I already have in my closet - get some variety
P24	I wanted to try and see what it is to rent clothes, I have basics in my wardrobe, and I rent the rest
P25	To style the clothes I already have in my closet - get some variety
P26	I have basics in my wardrobe, and I rent the rest
P27	I have basics in my wardrobe, and I rent the rest
P28	I live in a very rural area, so shopping/stores are not nearby.
P29	I wanted to try and see what it is to rent clothes
P30	I have basics in my wardrobe, and I rent the rest
P31	To style the clothes I already have in my closet - get some variety
P32	To style the clothes I already have in my closet - get some variety
P33	Initially, it was because I had a baby. My size was constantly changing, and I hated buying new stuff every month to have it fit improperly the next. They I really liked trying new things and having a small closet
P34	I have basics in my wardrobe, and I rent the rest, Pregnancy and changing body from having 3 children.
P35	I have basics in my wardrobe, and I rent the rest
P36	I just had a baby and none of my clothes fit anymore. I also don't like shopping and trying on clothes.
P37	To style the clothes I already have in my closet - get some variety, I wanted to try and see what it is to rent clothes
P38	I have basics in my wardrobe, and I rent the rest

Summary of reasons:

- For variety: 34 answers mention that
- Looking for ownership alternative: 7 answers mention that
- Need the rental system for job or because not alternative: 2 answers are about relying 100% on rentals

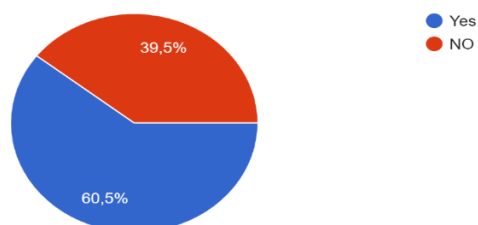
Appendix 28: Do you often buy the items of your tote?

The percentage of participants that buy items from their box:



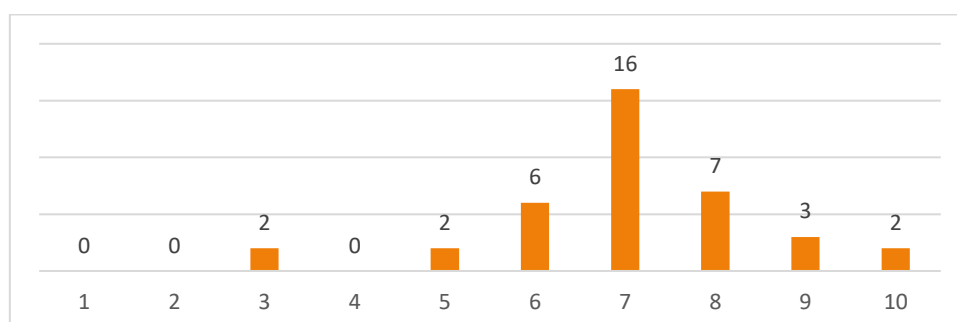
Appendix 29: Do you recommend Le Tote to your friends?

Percentage of participants that recommend Le Tote to their friends:



Appendix 30: On a scale of 1 to 10, how would you rate Le Tote?

Rating of Le Tote given by the participants: the number of answers giving to each grade (horizontal axis).

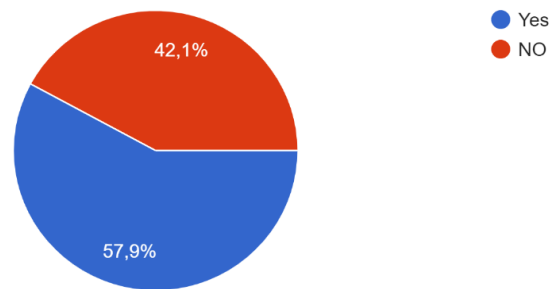


Crossing this ranking data with the results of the recommendation question (Appendix 29) :

Number of participants answering yes and no per grade category		
Grades given		
	'No	'Yes
3	2	
5	2	
6	4	2
7	7	9
8		7
9		3
10		2

Appendix 31: Do you subscribe to other services? Which ones?

The percentage of participants that subscribe to other services:



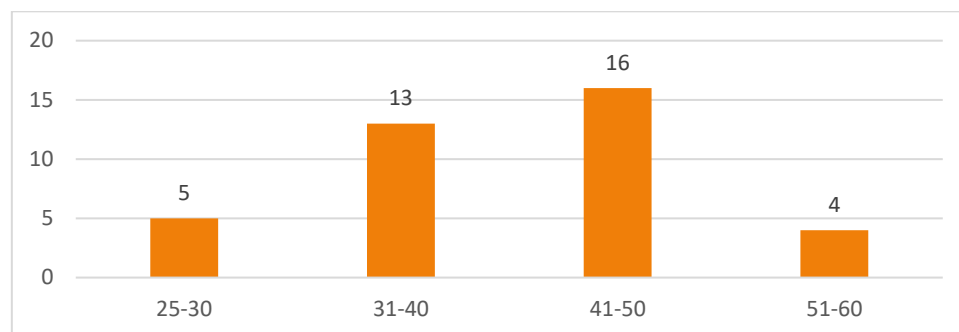
If yes, clients were invited to cite the ones they are using in addition to Le Tote:

P1	HelloFresh, AE Style Drop, Haverdash
P2	Infinitely Loft
P3	Sunbasket, Rent the Runway
P4	N/A
P5	N/A
P6	N/A
P7	N/A
P8	Misfits market, HelloFresh,
P9	N/A
P10	N/A
P11	Home chef
P12	Kidpix
P13	Gwynnie Bee, Sephora
P14	Stitch Fix, Facetory
P15	Gwynnie Bee, BoxyCharm
P16	Ipsy
P17	N/A
P18	HelloFresh, Loft, bark box, birchbox
P19	Emeals
P20	RocksBox
P21	Infinitely Loft, Gwynnie Bee
P22	Used to use Munchery
P23	I dont
P24	Armoire, Butcher Box
P25	N/A
P26	N/A
P27	N/A
P28	Currently Freshly, but I've tried HelloFresh, Plated, and HungryRoot. I also get a monthly Allure Beauty Box.
P29	Infinitely Loft, Rent the Runway
P30	N/A

P31	HelloFresh, Rent the Runway
P32	Rent the Runway
P33	Amazon Prime
P34	N/A
P35	N/A
P36	Kidsbox, Ipsy, Gwynnie Bee, Scentbird
P37	N/A
P38	N/A

Appendix 32: What is your age range?

The number of participants (vertical axis) per age range (horizontal axis).



Appendix 33: Extra Comments?

It was an optional question on: Extra comment? About fashion renting? About Le Tote?

Here below are the comments of each participant (P):

P1	Renting allows me to wear new clothes all the time and feel good about sustainability/no "fast fashion" wear it and "trash it" type of clothing. I want to be able to wear the latest trends but feel bad about purchasing cheap clothes from places like H&M that I know won't last because they are poor quality.
P2	I do not buy as many new clothes since joining rental services. I don't actually subscribe to Le Tote right now, I'm on hold because their selection has been poor. I wonder if there is a way to quantify how subscription services are changing how much people buy. I feel like I'm buying less, but I haven't tracked my personal spending. I feel like packaging for rental services is just as much as when I buy new clothes, but I think it is less of a drain environmentally because the clothes get worn more than if they were in my closet. I have been very curious about this question of sustainability.
P3	Le Tote has changed in their service and used to be so much better, but now shipping and quality is starting to lack once they received an infusion from a venture capitalist. It's no longer member centric. I foresee this being a typical business problem for many companies not putting customers first and a potential for failure.
P4	
P5	
P6	
P7	I love the concept, but have been frustrated by quality issues - pilling on sweaters, articles that are faded or shrunk from laundering.
P8	Le Tote's selection has been poor lately. I may cancel my subscription soon.

P9	
P10	
P11	I find I buy less clothes because of le Tote.
P12	Great idea. Lately selection has been limited especially when going from one season to the next.
P13	
P14	
P15	I only don't recommend Le Tote because of the new plans. If people could still choose unlimited then I would recommend.
P16	
P17	I loved it for the first 2 years, but selection is horrible now and the condition is falling below acceptable.
P18	I travel full time and have totes shipped all over! Love the flexibility
P19	If this is about sustainability, I would like to point out the amount of waste that goes into Le Tote packing. Stickers, pamphlets, tissue paper, boxes... it isn't very green.
P20	It's amazing and has really helped cut down on my spending. I love that it's not new stuff I'm buying.
P21	
P22	
P23	It was a great idea-unlimited, at a reasonable price with quick turnaround. It has become more expensive with longer turn arounds and less exciting choices.
P24	
P25	
P26	
P27	I really think it's a great way to reduce
P28	Le Tote's customer service is spectacular, I always use the live chat and they go above and beyond to fix and problems, answer stupid questions, and inform their tech team when there's a problem on the site itself. Never been disappointed.
P29	
P30	
P31	I loved renting before le tote changed their business model, since then there has been no selection, very slow service and 90% of the items I received were damaged. Rent the runway meets my selection needs, but is cost prohibitive for everyday rental
P32	
P33	I love renting. It reduces the stuff that I own, let's me try things I normally wouldn't, let's me try before I buy and keeps my style fresh. I've tried several other services and although I think Le Tote has room to improve, they have been the best fit for me so far
P34	The selection has been frustrating, I live somewhere really hot in the summer and 90% of what is available is sweaters right now.
P35	
P36	
P37	
P38	

