Development of FinTech in the lending space. Case study on Affirm

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ABSTRACT

Financial Technology (FinTech) is currently growing at a fast pace, with the aim to take the financial sector into the digital world. Fintech is starting to become a towering part of the economy within both the developed and developing countries. Within this paper it will be identified how governments, within Europe, Asia, and North America, dealt with the introduction of these new financial platforms. The development of Fintech is important as it supports the access to finance and create through its sustainable economic growth within different countries. To understand why this occurred a deeper analysis will be conducted. Within this analysis, the LASIC principles will be introduced. LASIC means Low Margin, Asset Light, Scalability, Innovative and ease of Compliance. The principles help us identify whether FinTech's are aiming for a sustainable future, rather as aiming for profit. By examining the case of Affirm, a Fintech leader in lending space, previous information will be validated. Affirm gained a lot of attraction in the beginning of 2021, due to it transitioning to a public company, by listing itself on the NASDAQ. Within this case, information from press-releases, analysts and financials are used in order to get a better understanding of how they managed to develop to a company worth billions of dollars. In the end, it was identified that the digitalization and financial inefficiencies were the major drivers for the company. With their business model, they managed to reap the trust of people, who initially lost its trust in the existing financial system.

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Keywords

FinTech, Lending space, Affirm, Sustainability, LASIC Principles, Finance

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1.0 INTRODUCTION

Financial technology (Fintech) has taken the world by a storm since the last century. It is a sector that aims to take traditional financing to a digital world. One of the first developed financial FinTech that replaced the traditional system was online banking. Through online banking consumers and businesses did not have to meet face to face for payment. Instead, they could send their money from afar and were not bound by the opening hours of the banks. Generally, FinTech companies were able to create services that remove obstacles that took place in the traditional financial services in aspects such as payment, insurance, savings and or loan services.

FinTech is getting deeply rooted itself within the economy and has the ability to shape its future (Arner, Barberis & Buckley, 2015). This can be shown by the growth of the investments in the sector. Whereas in 2013 FinTech companies only received 18.9 billion USD, in 2018 they attracted 111.8 billion USD (Sloboda & Demianyk, 2020). Nowadays, thousands of financial technology companies operate in all the branches of the financial sector, through online loaning services, investment services and allowed people to join the financial stock market via platforms. Each of these opportunities made it easier for consumers to access to a wide range of financial services. FinTech even constructed a world of cryptocurrencies, a type of virtual cash with a limited amount available, designed to be free from the governmental control (Cumming, Johan & Pant, 2019).

Lately, an increasing number of FinTech companies focus on a part of the 17 sustainable development goals (SDGs) set by the United Nations' 2030 Agenda. A clear example of how FinTech can be sustainable lies in its ability to influence the development of green and inclusive financial markets and coordinate financial support to development countries (Moro-Visconti et al., 2020). Such activities belong to green finance, a broad term that refers to the investment in development of sustainable projects and environmentally friendly products (Höhne et al., 2012). These organisations accelerate the adoption of financial systems within the economy and have the effect to empower the opportunities for development. Even more evident is how financial technology supported economic growth by giving millions of people access to finance. Stein, Randhawa & Bilandzic (2011) explored whether there is a link between economic growth and the accessibility of financial services. They ascertained that, when financially excluded households and firms receive access to banking and credit, it leads towards a growth in economics. This idea is confirmed by other studies which assessed that an improved accessibility to finance will increase in literacy, life expectancy and income (Anand & Chhikara 2013). Nowadays, FinTech is often used by small companies to obtain capital. Such firms often require capital to rent or buy assets, in order to get the required items to start producing. As these firms often do not have access to capital markets, it is almost impossible for them to start production or innovate themselves without credit (Berger & Udell, 2002). Peer-to-peer lending platforms help them to link with lenders. This approach will also reduce the chances of debtors to use shady lending practices or have too little money to realise their investment (Allen, 2016). The benefits of online lending will therefore lead to new opportunities to individuals and firms, but also to governments.

With the many new FinTech popping up, customers have the opportunity to choose their preferred platforms as more and more options are available. Millions of people make use of different systems to acquire capital for properties and innovations.

After identifying the underlying drivers behind the development of FinTech, the paper will start focussing on a qualitative case study of the company Affirm. Affirm is one of the leading FinTech in the "buy now, pay later" lending space within the USA. This company allows consumers to borrow money when they require it, through point-of-sale loans. However, they will have to pay it back overtime with an early interest rate of 15%. Affirm promises the customers to be transparent, flexible, and fair to customers.

The goal of this case study is to have a better understanding of how this digital lending platform developed and whether this aligns with a sustainable development of FinTech sector.

This whole approach is required to answer the following research question:

What are the drivers and prospects behind development of sustainable FinTech approaches and how does this reflect in the case of Affirm?

To answer this question, the three sub questions (Table 1) have to be answered.

Table 1: *Sub-research questions and objectives*

Sub-research Questions	Research Objectives
RQ1: How can a FinTech promise to operate in a sustainable way?	To understand what the topic is about and why it is important
RQ2: How did the lending sector of FinTech grow in the past years?	To get an idea of where it came from and how it grew out to be as big as it is today
RQ3: Does the case study on AFFIRM reflect to the development of the lending space?	To understand the similarities and differences between development and growth of the lending space and Affirm.

The first sub question will introduce what the subject is about. It will offer an explanation on what the concept of FinTech is and what it means to perform in a sustainable way. It will mainly focus on which approaches FinTech are able to adopt to be sustainable in a social and environmental way.

The second sub question will discuss the evolution and growth of FinTech companies in the lending space, with help of a literature review on China, Europe, and the United States practices.

The final one will focus on the case of AFFIRM and link it with the previous parts.

Note: In January 2021, Affirm joined the NASDAQ (US stock market focused on technological companies) with an initial offering of $49 per share. After a booming start followed by a sudden decline of valuation, in June 2021 the stock trades at circa $70.

2.0 THEORY ON FINTECH FIRMS

FinTech is a result of the encounter between the financial and technological sectors. In the last three decades FinTech introduced multiple disruptive and additive financial services, which benefited consumers and companies greatly in dealing with their financial needs. Examples are mobile banking, crowdfunding, peer-to-peer lending services and digital payment solutions. These new financial services have penetrated deeply into the economy, but it is believed that the development of FinTech is still in its infancy (Gulamhuseinwala, Bull & Lewis, 2015). In fact, FinTech has the power to shape the upcoming future of financial services (Lee & Teo, 2015). Part of FinTech companies are exploring ways to direct the future of financial sector in a sustainable way, supporting the 17 development goals set by the United Nations in its 2030 Agenda. Such goals consist of the most pressing issues the world has to overcome within the 21st century, requiring action from all kinds of different countries and organizations. They aim to build a sustainable future by improving economics, education, and health, whilst tackling the problems created by climate change (United Nations, 2021). As FinTech platforms are built on immaterial - digital services, they do not possess the carbon footprint of an asset intensive activity, and their activity does not link with many goals directly. Yet, FinTech has a key potential role in the allocation of capital towards sustainability activities around the world. Problems within economies often involve the unavailability of access to financial services, like loans, banking, and insurances. which is referred as financial inclusion.

Lee and Teo (2015) designed a theory for financial companies to support financial inclusion. This theory is referred as the LASIC principles, which involve the following five aspects: low margin, asset light, scalable, innovative and compliance easy.

According to the first principle, FinTech companies should aim to be available and affordable for everyone. This would indicate that their services are even practical and expendable for the lower-class within society. Financial companies are expected to identify new methods to earn a profit, for example by earning their income through subscriptions, advertisements or by selling data of consumer behaviour to firms or analytics. According to this approach, platforms will be able to cut down on margins for consumers, but still earn money to do business and innovate.

The second principle is that FinTech firms should have a low fixed costs in assets. In theory, fintech companies operate in a digital world and therefore require minimal amount of physical resources. It adds no value for the firms to have many assets in the form of vehicles, machinery, and buildings. When they do need physical resources, it is recommended to make use of established infrastructure. For example, information and sales centres could be partnered with existing chain stores. This would reduce the fixed cost to operate the business.

Whereas the previous principles massively focus on monetary benefits, the third principle of scalability focusses on the implementation of the services. Financial platforms should be flexible to do business at a smaller or bigger scale without having to incur a lot of additional costs. It could be that the consumers start using a platform massively at certain times or that the platform grows substantially in a small amount of time. This could save the company lots of costs or prevent the fact that there will be technological shortcomings, for example the platform shuts down on peak hours, since serves cannot handle the huge amount of customers. Another form of scalability is the ease to operate in other regions. FinTech platforms should create their platforms in a way that it is easy to implement in different regions across the world. It would be a waste if these platforms would need to be recreated when operating in a different area.

The fourth principle is that FinTech companies should always try to grow and innovate, from operations to customer service to interfaces. Financial services have to keep up with the market demand to keep their consumers satisfied. Furthermore, they may identify new market opportunities and ideas for improvement. For companies, there is always an opportunity to advance in, and when they are not available, it should be created. If they fail to meet customers' demands, it is likely that consumers will switch to services of competitors.

The latest principle regards the ease of compliance. It is easier for companies to innovate when companies are less regulated. Lower regulations allow businesses to try out and develop different business models more easily. Furthermore, low governmental control indicates that less investments have to be made into compliance activities.

An application of the LASIC principles is to support financial inclusion and therefore boost the economy of the country, which can be observed in Kenya. In 2007, telecommunications provider Safaricom launched a mobile money transfer service called M-PESA. This platform aims to introduce financial services for most of the urban and rural places within Kenya. By keeping the fees for their services low, M-PESA gained attraction from the citizens of Kenya. M-PESA could utilize the retail stores of Safaricom and with the cooperation between them and ATM provider PesaPoint, the assets of the company could be kept to the minimum. Companies started using the application also to pay bills, whilst consumers had the possibility to save their cash online and pay services electronically. Due to the fact that it is helping the economy of a country, different governments started to show their support to MPesa, making sure that the service could expand and allow more consumers to be financially included (Mbiti & Weil, 2016). Within two decades, M-PESA grew to a point where it is operating in multiple countries within South-Africa, Eastern of Europe, and India. This was possible as it was designed in a way that other countries could implement it without much trouble (Jack, Suri & Sloan, 2010).

Van Hove & Dubus (2019) conducted a research on the effect of financial inclusion in Kenya after the introduction of M-PESA. The research concluded that whilst M-PESA offered accessible banking for many inhabitants, whom did not have access to these kinds of services before, it has failed to reach the most vulnerable group. The fact that M-PESA was not able to reach everyone in Kenya cannot be solely blamed on the business structure. In Kenya there is a group of inhabitants that have no access to mobile phones and therefore were unavailable to make use of the services. The study also suggested that males more often felt the benefits of the online banking service as females. This could be explained by the fact that males own a phone more often than females. Furthermore, education played a big role, as poorly educated citizens of Kenya have no information of how the platform could help them financially. At the end, to allow everyone to be fully financially included, FinTechs require to keep on innovating and seek help from other organizations to spread the awareness and possibilities in order to solve the whole financial problem.

Whilst poverty reduction and economic growth represent an important part of the 17 sustainable development goals, FinTech companies look at other aspects of sustainability. One of these aspects, which is closely related to financial inclusion, is equality. Discrimination is a big problem around the world, whereas some parties have easier access to jobs, goods, and finances as others. Therefore, financial services should not provide different services based on gender or ethnicity, which is currently still a common problem (Bartlett et al., 2021).

Another aspect that FinTech supports is the development of renewable energies and environmental projects. Currently FinTech is already a major driver of industrial and energy development, however differences between regions of the World exist (Deng, Huang & Cheng, 2019).

3.0 DEVELOPMENT OF THE LENDING SECTOR

The development of FinTech was driven by inventions such as the mobile phone or the computer. The penetration of the mobile phone all over the World made it easy for the population to conduct banking activities at any point in time (Kirui et al., 2013). Yet, it is more important to research on how FinTech has constructed and completed different policies in order to thrive. Each country has different laws and regulations, which led and will lead to different evolutions. This section will focus on the introduction of lending space in China, the United States and Europe.

3.1 Peer-to-peer lending platforms in China

The introduction of peer-to-peer lending in the FinTech was introduced in China. Peer-to-peer lending is a practice where online services match potential investors with borrowers online. Within the first few years of the 21st century, China had been struggling to allocate capital of investors to different types of borrowers. Small and medium firms did not encounter a way to get access to capital from financial institutes (Wang, 2004). On the other hand, the group that gained lending from traditional banks, classified the interest rates on bank accounts as enormous. It was therefore necessary for a change, which led to the development of peer-to-peer lending in 2007. Ten years later, China counted almost 2,000 different peer-to-peer lending platforms (Lin, Li & Zheng, 2017). The decision for investors to lend money to borrowers is mostly associated with the trustworthiness of the borrower, while investors aim to get their money back with interest, within the agreed timeframe (Duarte, Siegel & Young, 2012). Banks classified lending to small businesses or consumers as too time consuming or not worth it, driving those parties to deal with shady lenders or to do it without capital (Allen, 2016). With the introduction of the mobile phones and computers, different software and crowdfunding platforms have been developed to allow investors to encounter thousands of business owners and consumers.

The increase in popularity of these platforms started capturing large amounts of capital within China, leading to several effects. The first effect was that banks in China started losing customers. They had to solve inefficiencies within their structure and make it easier for customers to get a loan. Secondly, such platforms were benefiting the Chinese economy in the long run, as small businesses had a better chance to develop themselves. Finally, the introduction of peer-to-peer lending started reducing the amount of shady banking systems that were active in China, whose actors started to get included into the formal economy, where strict regulations and taxations apply (Guild, 2017). In the beginning, such platforms solely linked investors with borrowers and did not have a huge balance sheet. This allowed them to minimize the focus the government placed on the businesses. But this changed when the firms started facilitating billions of dollars in investments, and it became necessary to secure the money of both investor and borrower. In 2015, the Chinese government imposed stricter rules for the access of new licenses, but peer-to-peer lending platforms kept on growing whilst securing the quality and the safety of the loans. All of this was accomplished by the design of such regulations. The Chinese government implemented a structure that implemented a partnership between a financial institutes and peer-to-peer platforms when they reached a certain threshold on capital (Arner, Barberis & Buckley, 2015). This approach led smaller platforms to experiment and create new systems, whilst larger platforms could be checked with the regulatory system, securing the enormous capital flowing through them.

3.2 Regulating FinTech in the United States

The rise of FinTech in the United States has gained a lot of attention from financial sector, entrepreneurs, and investors. They all had in mind to explore the possibilities and introduce new systems that would make financial services easier and cheaper to use. According to a research by the Pew Research Center (2021) over 85 percent of the Americans had a FinTech application on their phone. The increase in popularity of FinTech can be partly explained by the shift in customer behaviour. Online shopping through e-commerce platforms but also payments, investment management and peer-to-peer lending became popular among the smartphone users. Peer-to-peer lending, also called FinTech credit, enhanced the deployment speed and availability of credit. However, it also created new risks as it was difficult to supervise the transactions made via the lending platforms (Lenz, 2016).

***Figure 1**: Business model "traditional" lending*

There are some differences in business structures for each of the lending platforms, whereas two models prevailed. The "traditional model" (figure 1) requires that lenders / investors spread their investments over multiple borrowers. The investor will set up the contract of their loans after analysing the risk on the investment.

A second method is called "notary" lending (figure 2), which basically means that the borrower only submits the application of a loan (Clements, 2019) to a FinTech company, which will inform their partnered bank. The bank will check whether the borrower satisfies the conditions for the loan before approving the application. The investor does not have an active role in this type of lending, as everything regarding the loan and requirements have been performed by the financial bank. The investor only has to transfer its capital to the banking system and will receive the repayments when the loan is being repaid by the borrower.

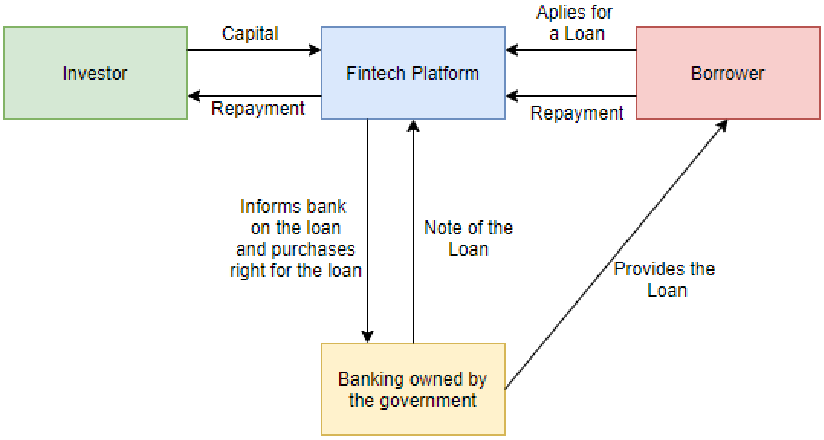

Figure 2: *Business model "notary" lending*

Online lending created new forms of operational risks as well as privacy issues within the United States. The government had to address each aspect and regulate it in a way that it allowed businesses and the economy to grow, whilst minimizing risks for the different parties involved (Clements, 2019). As a result, they integrated traditional banking system together with the FinTech businesses. In this manner it was not necessary to create a new regulation specifically for FinTech businesses. With the introduction of these regulations, FinTech platforms had to license and registrate with many existing federal regulators. One of these regulators is the Consumer Financial Protection Bureau (CFPB), which has the authority over those that provide financial services to consumers (Clements, 2019) and enforce companies against the use of unfair or deceptive financial practices. Other regulators that could affect the practices of FinTech companies are the Securities and Exchange Commission (SEC), The Office of the Comptroller of Currency (OCC), and many more. In comparison to China, who linked banking systems directly to FinTech when they reached a certain capital size, the United States made use of the existing regulations and changed it in a way that would allow FinTech companies to grow with the supervision of different regulatory organizations.

3.3 Development of FinTech in Europe

In the western part of Europe, it is normal to have access to mobile phones and other products with internet. The arise of FinTech was therefore basically inevitable. The first introduction on FinTech platforms for the European Union was online banking, which was quickly adopted by the citizens. However, the uptake on FinTech was not the same for every European country. FinTech platforms have been mainly growing in the northern and western part of Europe, whereas the deployment was slower within the eastern part. In 2017, less than 10% made use of online banking accounts in the Balkan region. On the other hand, in the western part of Europe this amounted to almost 55%, whilst in the Northern of Europe it was even over 75% (Demirguc-Kunt et al., 2018). A reason for this variation could be linked to the difference in digitalization between the European regions. Within the western part of Europe over 90% has access to internet, whilst countries within the Balkan region only 60% of the population had access to internet (Berg et al., 2020). Alongside the difference in digitalization, there is also a discrepancy in support from the governments. Regulations and laws on FinTech are still fragmented. Each country is able to set up their own regulations in order to support the innovation of FinTech in their own way (Williams, 2020). Countries such as France and the United Kingdom invested massively into the development of FinTech companies. In the Northern part of Europe, Sweden is currently leading in FinTech's payment and lending solutions. Furthermore, countries such as Lithuania are starting to attract new start-ups in FinTech with the prospect of friendly regulations (Berg et al., 2020).

Governments have set different rules in regard to how FinTech should act in order to protect both the consumers and the companies. Furthermore, the authorities are often open to modify the regulatory framework to minimize risks and allow innovation (Berg et al., 2020). By engaging with the financial platforms from an early stage, they are able to address issues in regards of regulatory uncertainty. This approach helps both companies and governments to form a common solution on how FinTechs could advance in a sustainable way. This approach vastly differs from how the United States and China deal with FinTech developers. In Europe FinTech platforms are not necessarily linked with banking systems owned by the government or have to license with multiple partners. This opportunity allows them to test new business models within their sector (Baba et al., 2020). The teamwork between authorities and FinTech start-ups aims to promote the development of financial technology and create a sustainable place for their consumers

4.0 METHODS

The thesis aims to shed some light on how FinTech companies in the lending sector started to develop and what the drivers were behind their growth. It is assumed that different parts of the world required FinTech companies for different reasons, and governments treated the foundation of FinTech differently. By looking at different areas of the world, it was possible to observe the consistencies and variations between the development of FinTech. For such reasons, we have looked at the development in the lending space across Asia, Europe, and the United States.

In the next part, a case study on the firm Affirm will be performed, to support the earlier findings. The case study is executed in order to find concrete and in-depth knowledge about the development of FinTech in the lending space. Within this case study it will be further analysed what the drivers were behind the growth and what is expected to happen in the future. This information will be retrieved with help of the financial data available and the statements made by the officials of the company. This data will be used to identify whether it corresponds with the theory. The case study is also beneficial to implement the LASIC-principles into practice.

For the case study, it is important to identify a potential business that is in synchronize with the previous theory. Firstly, the FinTech should operate in the lending space, within the regions Europe, United States or China. Secondly, reports on financial data and non-financial data should be available company in order to check its past and present situation. Lastly, the company should have reached a reasonable size. The size matters as this paper wants to identify whether the company is able to support financial inclusion.

In the end only one company made the selection, which was Affirm. Since Affirm transitioned to a public company in the beginning of 2021, it has released their quarterly reports twice. Other large firms in the lending space, such as Klarna and Afterpay have yet to publish their financial situation as they are still private. On the other hand, companies with a lot of financial data available, such as PayPal and Square, only had a small segment that focusses on the lending space. Affirm is a "Buy-now-pay-later" service, which mainly focusses on the lending space. The last justification to choose Affirm for the case study is the similarity in their mission and the goal of the LASIC principles. Affirm hopes to offer financial products that may improve lives in a clear and honest way. In other words, they aim to contribute to the financial inclusion within the United States. This paper hopes to identify if Affirm is on the right path to offer financial services, with use of the LASIC principles.

5.0 CASE STUDY

5.1 The history of Affirm

Affirm Holdings is a FinTech company was launched in 2012 in the United States. It was founded by Max Levchin, Nathan Gettings, Jeffrey Kaditz and Alex Rampell, with as a goal to create a leading credit network. Max Levchin was already known for the creation of the worldwide firm "PayPal" and Nathan Gettings as part of the foundation team of the technological company "Palantir". In an interview with the USA today, Levchin discussed the fact that the younger generation disliked dealing with the traditional banking institutes (Baig, 2014), a belief created after the economic crisis in 2008, which led to unemployment and a broken credit system. The younger generation watched how their parents and other family members struggled with payments on their mortgage, for the troubles created by the excessive risk-taking of banks (Hurd & Rohwedder, 2010). For Affirm, it was a golden opportunity to grow, offering the younger generation credit for anything their current capital was unable to cover. Consumers can choose between different payback methods with a fixed interest rate. In this manner they know how much they had to pay back and when. In this way, Affirm acquired the trust from the younger generation.

The firm formed partnerships with organizations such as Walmart, Shopify and BigCommerce. This allows retail companies to offer consumers to break up payments over multiple months with help of Affirms services. Consumers may not be capable to pay $1200 on electronics at once and prefer an expense of $100 a month for a whole year. Affirm pays the retailer at the point of purchase, whilst the consumer will pay Affirm back overtime. By linking the services, it will be easier to notice and execute transactions with credits. This way of shopping is designed to make purchases for consumers more accessible and affordable (Cagle, 2017). Secondly, Affirm does not directly look the credit score of their customers. Instead, it makes use of a machine learning platform that determines the creditworthiness of a consumer with support of personal data. Furthermore, it makes it more difficult for users to take credit when they failed to pay back their previous credits. Another attraction is that Affirm allows consumers to select whether they want to pay back their loans within 3 months, 6 months, or 12 months. Normally, the interest rates differ between an annual rate of 10% - 30%. Some retail companies choose to offer consumers an interest rate of 0%.

Having established its position within the lending space through different partnerships with retailers, Affirm is currently trying to grow in new directions. In June 2020, the company launched a new online service called Affirm savings, which let consumers save money with a relatively high yield, compared to other saving platforms. The interest rate may become higher or lower depending on the market situation. Currently they provide a yearly interest rate of 0.65%, which is higher than its competitors (Rowan, 2020). In fact, savings accounts offered by organizations such as Ally Bank, Citizens Access, Marcus by Goldman Sachs, and Synchrony offer an annual 0.50% interest rate. The Federal Deposit Insurance Corporation (FDIC) reported that Affirm's saving accounts are not only beneficial for consumers, but also for the company, increasing the total capital available to invest. Interestingly, the interest rate on the savings account is likely less as the interest rate a third party would want for their capital. allowing Affirm to cut down on additional funding costs.

With the introduction of the savings account, Affirm is developing new platforms that involve the financial lives of their customers. In the beginning of 2021, Affirm announced that they are planning to introduce a credit card, which offers the same buy now and pay later service for physical purchases (Gabrielle, 2021), whereas the online services are solely meant for online purchases. This service could result in an expansion of services, resulting in the possibility to attract more attention from its consumers. However, the project is still in development.

Along with its internal growth strategy, Affirm is acquiring new businesses. In December 2020 it bought PayBright for about USD 264 mln (Affirm Holdings, Inc., 2020). PayBright is a Canadian buy-now-pay later service provider. The acquisition allowed Affirm to expand its reach. Furthermore, with this purchase Affirm eliminated a potential competitor. Four months later (April 2021) it acquired Returnly for a total of $300 mln (Affirm Holdings, Inc., 2021), strengthening its after sales activities, crucial for the online lending, since often products bought over internet do not meet the consumers expectations. Thanks to Returnly, Affirm can help customers to easily return their product and guarantee their return of capital, covering the whole experience of online shopping of a consumer.

Innovation is quite important for Affirm, as the company wants to catch up and outpace other competitors in the financial lending services. After the economic crisis in 2008, they were not the only company operating in the "buy now, pay later" sector. Competitors Afterpay and Klarna started offering almost the same services as Affirm, and today own bigger market shares in online lending platform as Affirm (Nunez, 2021). Klarna is a Swedish fintech company, founded in 2005. As the credit lending Fintech was a disruptive technology by that time, European governments promoted it with beneficial supervision. The platform itself was easily deployed in different countries, and it soon started operating in almost all European countries. In 2019, Klarna even expanded their services outside of Europe, heading for Australia and the United States. On the other hand, Afterpay was founded in Australia and expanded to the United States in mid-2018.

Currently, the online lending service is still in its infancy and therefore it is not set in stone who will survive and lead this sector in the future. It is therefore still possible for Affirm to catch up with its competitors, but this will depend on the innovations it will bring in the market, as well as the consumer perception on their services.

The fact that Affirm is still growing can be noticed as Affirm transitioned to become a public company on 13 January 2021. The company joined the NASDAQ, an US stock market focused on technological companies. Affirm sold 24,6 Million shares for an initial offering of $49,00 per share, for an initial public offering (IPO) worth over 1.2 Billion dollars, a substantial amount of additional capital, which could be used to grow even further. After the first week of being public, Affirm reached a share price up to $146,87. However, the stock declined in the months to the lowest point on May 11, 2021, with a share price of $46,53. Currently, on the end of June, the stock is worth about $70,00 per share. The fact that the stock was overvalued in the first week can be explained by different reasons. First reason is that investors started jump in on this stock in order to own a part of the business as they believed it will grow in the future. The second reason is due to a general excess of capital looking for IPO opportunities during 2020. Other companies like DoorDash or Airbnb also shot up crazily when they were introduced to the market, ending with share prices doubling their initial offering. In the case of Affirm, it promoted to go public with an initial price range of $31 per share in the beginning of December 2020, however due to a delay this share price reached $49 on 13 January. The increase in price probably increased the anxiety of traders who wanted to be part of it. Furthermore, whilst Affirm allocated over 25 million shares, only 3 to 4 million shares were really transferred on the stock market in the first day of negotiation (Levine, 2021). A limited supply of shares, summed up with an extreme demand caused the fact that Affirm - boomed over their initial offering.

5.2 Financial performance of AFFIRM

Looking at the chart of Affirm's stock (Figure 3), it is possible to verify that the company grew within the first month to a top of $146,87 until 11 February 2021, with the publication of its first quarterly earnings. Before this date, investors had little insight on how the company performed financially. It was not until the 5th of May, that the stock started to go up again, with the release date of the second quarterly report of Affirm. These large fluctuations are also due to the fact that only a low percentage of shares are afloat. Yahoo Finance (Nasdaq, 2021) reports that about 75% of the total shares are either held by institutions or insiders, indicating that only 25% of the total shares is available for potential trading.

Figure 3: *Share-price of Affirm since IPO (NASDAQ, 2021)*

Yahoo offers investors information on the financials in regard to stock prices and on what analysts expect the stock to do in the near future. Firstly, it reports that on 27th of May, Affirm has a total of 10 Million shares shorted. When a share is shorted, it indicates that investors or institutions expect the prices of Affirm to drop. The amount of shortage compared to their outstanding shares on a company is a good view whether other investors think that the share price will drop. Currently, only 3,83% of the total shares of Affirm are shorted, which indicate that that only a small amount of investors expect the stock to drop in the future. This is in accordance with the statements various financial analysts have made. On average these institutions expect the stock to reach a price of $76,46, whereas they all advise investors to either keep on holding or expand their positions in Affirm.

The share price is, however, only a reflection of the investor's perception on the company. It is therefore of importance to also dig deeper into the financial status of Affirm in order to check its potential. As Affirm was only introduced into the stock market in 2021, prior financial data is hard to find, as private companies are not obligated to publish their financial situation, in contrast to public companies. Fortunately, Affirm has already disclosed two quarterly reports. They highlight elements such as revenue, profits, assets, and liability of the company, which can help identify leads on how Affirm might develop in the future. Affirm Holdings, Inc. (2021) reported to have a quarterly revenue of almost 130 million dollars in the last quarter of 2019. In the Last quarter of 2020, this revenue grew to just a little over 204 million dollars, which shows that the revenue of Affirm grew by nearly 60% within a year time. The surge is backed up by the data from the first quarter of 2020 and 2021, where a growth of almost 67% appeared. This finding acknowledges the fact that there is a lot of possibility for growth within the lending space.

Table 2: *Affirm quarterly earnings (Affirm Holdings, Inc., 2021)*

	LAST QUARTER OF (IN THOUSANDS DOLLAR)		**FIRST QUARTER OF (IN THOUSANDS DOLLAR)**	
	2019	2020	2020	2021
TOTAL REVENUE	$ 129,976	$ 204,041	$ 138,278	$ 230,665
OPERATING EXPENSES	$ 162,609	$ 235,760	$ 219,778	$ 400,121
OPERATING LOSS	$ 32,633	$ 31,719	$ 81,500	$ 169,456

With the information provided by the quarterly reports of Affirm (Table 2), it presents the fact that whilst the revenue of Affirm is growing rapidly, so are the expenses, and the company has yet to profit from its businesses. It is noticeable that the operating expenses on the first quartile of 2021, seems to have almost doubled since the last quarter of 2020. Such increase can be easily explained by the fact that the company went public in the first quarter of 2021. Transitioning from a private to a public company normally involve additional operating costs, for example in administration and promotion. Furthermore, the expenses include an additional USD 130 mln due to employees' stock-based compensation. The expenses in the first quarter of 2021 are therefore not so reliable and so the associated increased loss of the period. It is more useful to look at the losses in the last quarter of 2019 and 2020. Finally, within one year, revenue grew by almost 60%, whilst the expenses only grew by 47%. Even though the company is still operating at a loss, the data shows that the average expense led to more revenue. If this trend will keep on occurring, Affirm will likely be generating profits in a couple of years.

In order to check the current status of the company, it may be a better indicator to look at other factors such as the assets and liabilities (table 3). According to the quarterly reports, it can be found out that the total assets of Affirm are steadily increasing. In less than 3 quarters, Affirm managed to more than triple its assets, going from USD 1,4 to USD 4,7 bln. The massive increase in assets is a result of the IPO. At the moment Affirm joined the NASDAQ stock market, it sold part of their ownership to institutional and retail investors.

Table 3: *Affirm Asset and Liabilities (Affirm Holdings, Inc. 2021)*

	June 30, 2020	**December 31, 2020**	**March 31, 2021**
Assets (In thousands)			
Cash & equivalents	$ 267,059	$ 520,741	$ 1,623,672
Loans held for investment	$ 1,038,771	$ 1,900,734	$ 2,195,394
Other assets	$ 96,421	$ 286,647	$ 947,323
Total assets	$ 1,402,251	$ 2,708,122	$ 4,766,389
Liabilities (In thousands)			
Accrued expenses and other liabilities	$ 27,810	$ 47,762	$ 295,319
Notes issued by securitization trusts	$ -	$ 818,466	$ 1,241,126
Funding debt	$ 817,926	$ 804,960	$ 760,395
Other liabilities	$ 119,441	$ 59,247	$ 65,528
Total liabilities	$ 965,177	$ 1,730,435	$ 2,362,368

In the same span of time its liabilities only doubled, going from about USD 1 to 2,3 bln. As a consequence, the debt to asset ratio is shrinking and Affirm is gaining equity over liability. For investors, this result is a positive sign as the business presents less risk. Even though the ratio is decreasing, the debt has been increasing over time. Affirm is still a relatively young company, with lots of investment projects happening, such as the Affirm savings account and Affirm debit card. Therefore, it is not strange for the business to have obligations, although USD 2,3 bln is a large amount of money.

5.3 Affirm & sustainability

In this section, with help of aforementioned LASIC principles - which involve five aspects such low margin, asset light, scalable, innovative and compliance easy of a Fintech - it will be analysed whether AFFIRM supports financial inclusion, and consequently sustainable development.

Firstly, it will be verified if the company offers a low margin. The normal margin Affirm handles in their company is the interest rate between 10-30%. On average lending services in the United States have a yearly interest rate of 16,28%, therefore if a consumer borrows money with an interest rate of

20% or even 30% it will be a relatively high margin. It should be said that Affirm currently still borrows money from third parties in order to supply their lenders, as it has yet to have enough capital to supply it themselves. As a result, the interest rate must be relatively high. With the introduction of Affirm's saving accounts, the company has access to more capital. Due to this new service, its interest rates might drop in the future. Furthermore, the interest rates the company provides are highly transparent before the purchase. This approach attracted an active consumer base of 5,2 mln lenders, who lent a total of USD 4,2 bln, showing that, even with high interest rates, it is still possible for Affirm to onboard millions of customers.

Secondly, it will be identified whether the company is not asset intensive. In total Affirm owns over USD 4.7 bln in assets, most of them in form of available cash and investments. In fact, Affirm invests over USD 2.2 bln and has USD 1.6 bln cash on hand, covering 80% of the total assets. The large amount of cash available is generated by the shares sold when the company transitioned to the stock market. These assets have almost no fixed costs, whilst the investing capital can even increase in value. It is also possible to verify that the assets in property and software is only worth about USD 50 mln, only about 1% of their total assets (Affirm Holdings, Inc. 2021). In total, only below 20% of the total assets have a potential fixed cost, with the remaining available to support company's growth and return on investment.

The fact that Affirm is highly scalable is easily seen in the growth occurred in the last couple of years. Their active consumer base grew from 3,3 to 5,4 mln over a year time. Since, Affirm is mainly an online platform that offers each consumer the same service, only an essential additional capital is required for expansion. Even their newest innovations such as the savings account or the upcoming credit card are also highly scalable. The services the company offers are basically a "one size fits all". This indicates that the services do not have to be personalized, preventing additional costs, and that the business model of Affirm can be easily used anywhere. Said this, Affirm expanded it services to Canada by acquiring PayBright for USD 267 mln rather as implementing their own platform directly. Whether Affirm can scale with minimum costs outside of the United States and Canada is until this point unknown.

Innovation is quite important for Affirm, as the company wants to catch up and outpace other competitors in the financial lending services. Innovation allows companies to meet the users demand and make things easier for them. Branching out in different spaces within the financial space, such as the credit-card and the savings account, Affirm will offer their users different options. In this way Affirm will allow customers a better overview of their finances. For consumers it is easier to use a platform with a wide range of services, as it would prevent the trouble of having to deal with multiple different business platforms. Their demands and preferences are always changing, and it is therefore of importance for a firm to engage with them. Therefore, introducing innovations is not only an opportunity for growth, but also necessity for the company to survive. In the case of Affirm, this mostly happens by reducing costs and increase the performance of their current and new services. For example, by engaging with new partners, such as Shopify, Peloton or Adyen, the company can cut down costs and interest rates for the use of its services. Furthermore, it will indirectly advertise the firm, whilst making it easier for users to access products. The acquisition of Returnly even shows that Affirm intends to engage in innovations which are not directly linked with financial services. Returnly is a company that allows consumers to refund their purchase in case it does not meet their initial requirements. According to Max Levchin, Affirm plans to cover the full shopping journey to drive loyalty and increase satisfaction of consumers (Affirm Holdings, Inc. 2021).

The last part of the LASIC principles refers to the ease of compliance. Affirm is based in the United States and therefore has to follow regulations set by the US government. It means that it must get licenses and registrate with different organizations backed by the Government. For example, before and after going public, Affirm has to deal with the Securities and Exchange Commission (SEC). Furthermore, Affirm is linked with different banking organizations. An example is the Federal Deposit Insurance Corporation (FDIC), ruled by the American congress, that makes sure that consumers will have their money guaranteed. It could be seen on these two examples that even though Affirm can offer a wide range of services, it has to contract and partner with different public organizations, investing money and time into it.

In conclusion, it could be said that using Affirm consumers can easily lend capital when they require it for a purchase. Even though Affirm must interact with many regulators, this does not really hinder the growth of the company and its opportunities to grow. However, the margin Affirm handles is usually quite high. As a result, Affirm is not able to offer beneficial services for economically vulnerable individuals. However, the introduction of Affirm savings should result in lower interest rates and more inclusive services. Furthermore, with the acquisition of Returnly, Affirm starts to not only deal with finances before purchase, but also with the after-sale services, in case a product has to be returned. With this acquisition, Affirm is able to manage the complete shopping experience of consumers. By creating a service for savings, consumers are able to earn a little extra cash over the years and, at the same time, to have a better overview of its financial situation. Lastly, only twenty percent of the total assets that have a potential of fixed costs. Given that Affirm, operating in billions of dollars, only allocated USD 50 mln in properties and software, it is clear that they are pressuring their fixed costs.

6.0 CONCLUSION

Within the first part of the study, it was analyzed what Fintech companies are and how these businesses are able to perform their operations in a sustainable way. It was discovered that Fintech companies aim to take traditional financing into the digital world. FinTech started by establishing platforms for online banking, but soon expanded to different sectors such as payments, lending and investing. Later, FinTech started to introduce disruptive innovations such as digital currencies, known as cryptocurrency. Cryptocurrency is a currency that can be globally accessible without the influence of governments.

Within the last couple of years FinTech has been expanding its influence on the economy tremendously. For the future, however, it is important that FinTech companies will find solutions on how to operate in a sustainable way, supporting the 17 development goals set by the United Nations. As FinTech platforms are built on immaterial - digital services, they do not possess the carbon footprint of an asset intensive activity, and their activity does not link with many goals directly. Lee and Teo (2015) suggest that financial platforms should focus on financial inclusion, in order to be sustainable for the future. Around the world, there is still a large percentage of individuals that do not have access to banking or capital. By following the five attributes of the “LASIC” principles, FinTech are able to harness the creation of a sustainable social business.

The second part of the paper analysed on how FinTech, within the lending space, developed in the past years. The main cause of the expansion is due to the deficiency of traditional finance and the indefinite potential of FinTech. Within China, investors had trouble to make a connection with borrowers, whilst borrowers were not taken seriously by banking institutes. This process led to a massive network of underground financial activity, outside of regulations and systems. Early innovators created an online lending platform, in order to link potential investors with borrowers more easily. As this platform took care of the current financial problems within China, it became remarkably popular.

In both the United States and Europe, the popularity of FinTech can be explained by a shift in customer behaviour. At the same time as the creation of FinTech, mobile phones and computers started to become more accessible and standard. Innovators and entrepreneurs all had in mind to introduce systems that would make financial services easer, cheaper and more accessible. They introduced platforms for online shopping through e-commerce, investment management and even online lending. As the programs were easily accessible and more convenient, consumers accepted it quickly after establishment.

However, these new and radical changes in the financial sector had to be supervised. Governments had to find a way to secure the financial situation of both consumer as business, whilst allowing the platforms to innovate. Within China and the United States, governments started to link traditional banking systems with FinTech through licensing or partnering. The traditional banking systems were regulated by the government and made sure that the companies followed the regulations. In Europe, the government started collaborating with FinTech at an early stage. They offered start-ups easy access to finance and assistance in case of regulatory uncertainty. Authorities have set regulations to protect the interest of the business and consumer, but they are open to modify the regulatory framework to minimize risks and allow innovation.

The last part of the paper involved a detailed case study on Affirm, focusing on their development and sustainability approach. Consistent with the entire FinTech sector, Affirm is growing at an incredibly fast pace. Their platform was able to grow due to the rise in popularity of online services, as well as the economic crash in the United States. During this crash, Millennials lost most of their trust in the traditional lending system. Affirm managed to increase their active consumer base from 3 to 4.5 million users within the last year and increased its revenue by 60%. Innovations such as the Affirm debit card and the savings account could reinforce its position in lending space drastically. With the acquisition of PayBright, Affirm managed to expand its businesses outside of the United States. Furthermore, with the purchase of Returnly, Affirm is able to address the full shopping journey of consumers. The fact that Affirm will keep on growing over the next couple of years is undeniable.

With help of the LASIC principles, a case analysis on the sustainability of Affirm has been performed. Affirm is a lending Fintech which mainly operates in the United States and Canada. Its services allow users access to finance, which they do not possess yet. Normally the interest rate is between 10-30%, which is not cheap as the average interest rate for credit is 16.28%. These high interest rates can be explained as they still need capital to innovate, and are depending on cash from third parties However, they manage to reach a total of 5,2 mln lenders, who lent a total of USD 4,2 bln. With the introduction of services such as Returnly and Affirm Savings, Affirm is leading towards operating in a more sustainable way. Furthermore, Affirm is identifying new means to reduce interest rates on loans for consumers. Thus, whilst Affirm is currently unable to reach the lower-class of society, its potential to support financial inclusion is unmistakable.

With help of the case study on Affirm, it is shown that the drivers for the development of fintech are mainly due to two factors. Firstly, the digitalization of technology contributed toward a change in customer behaviour, where digital access to finance became more important. Secondly, there were many inefficiencies and problems within the traditional banking systems. Innovators and entrepreneurs had in mind to introduce systems that would make financial services easer, cheaper and more accessible. Currently the FinTech sector is actively growing in the United States, which can be observed from the data on Affirm. FinTech innovators are busy exploring new services and possibilities in order to make finance more accessible and affordable to everyone.

As the online lending service is still in its infancy, there was not much data available. The lending sector is still shaping itself in society and has yet to start developing in most poverty-stricken economies. Therefore, it might be better to look back at the lending space within a couple of years, once it settled its position within society. On the other hand, it might also be better to use banking or payment services as research material. These services are at this point of time more settled and have more data available to study. In the end, it is an undeniable fact that FinTech is rapidly changing and is gaining a lot of attraction from innovators, consumers, businesses and governments. Due to the many disruptive innovations within the last century, it is uncertain to exactly point out where the development will lead.

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