FINTECH AND ITS EFFECT IN FACTORING AND INVOICE LENDING, A CASE STUDY OF BILLIE GMBH

Trabajo de Grado de Maestría

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Management Summary

This paper examines the origin, definition and classification of Fintech, starting with its origin in the late 2000's and exemplifies with a successful Fintech founded in the USA in 2009 in the segment of Crowdfunding and Crowdlending. Then, the paper reviews some qualitative and quantitate data regarding the financial industry in Germany and specifically focuses on Factoring and Invoice lending. After that, the paper studies the case of the German Fintech Billie GmbH and explains its products and financial information. Finally, it ends with its contribution and conclusions to the Factoring and Invoice lending industry in Germany.

Keywords: asset-based lending (ABL), cash flow, factoring, invoice discounting, business loans, working capital, Factoring, Germany, Small and Medium sized enterprises (SME), Fintech, Fin-tech, financial technology, Invoice lending, Billie GmbH, Factoring platform.

Table of Contents

List of Figures

List of Tables

List of Abbreviations and Acronyms

ABL	Asset-based lending
Fintech	Financial Technology company
EU	European Union
SME	Small and medium-sized enterprises
Startup	Company in the first stages of operation
UN	United Nations

1. Introduction

1.1. Origin of Fintech

The boom for new finance related companies started in the late 2000's just after the 2008 world financial crisis that started in the USA. This crisis brought several consequences to the financial industry in the way users perceived and interacted with the financial institutions. One big consequence was the lost trust in the traditional financial institutions by the costumers. This situation led to a search of new alternative ways to handle their financial activities. Another consequence for the industry was the increased regulation and the immediate increase of requirements for obtaining loans, not only for companies but also for persons, (Haddad & Hornuf, 2016). Some facts were already changing and disrupting the world at that moment. For example, by 2008 the iPhone had only one year of being introduced into the market and was revolutionizing the way people used to communicate and interact with companies, to the point that now in 2021 it is common to manage the bank accounts from the cellphone or any mobile device.

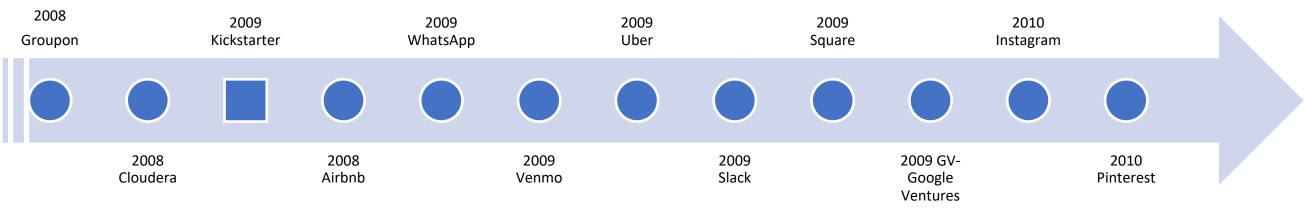
For a lot of workers of the financial industry the 2008 financial crisis meant the end of their jobs as their employers went out of business. Some of these skilled workers with their long and vast knowledge in the financial industry decided to start their own small financial startups focusing on specific population that was unattended by the traditional institutions. This is how the early Financial-technological based companies Fin-tech started. One of this former workers of the financial institutions is Nick Storonsky, who was trader at Lehman Brothers and currently is the CEO and co-founder of Revolut, an European Fintech Unicorn founded in 2015 (Storonsky, 2018).

As an example of this, the first Crowdfunding and Crowdlending platforms emerged in the American market acting as intermediary between non-sophisticated investors and companies seeking funding. These non-sophisticated investors are also called ¨backers¨ who are replacing the role of the traditional banks lending money (Belleflamme et al., 2014).This platforms, also called crowdlending or reward-based crowdfunding portals, take a small percentage of the money according to the project, the industry and the segment (Bradford, 2012, p. 19).

These platforms were internet-based and user friendly. The dynamic was very simple: any person or company could post a project just creating an account and verifying some basic information and then wait for other members in the platform to decide whether they wanted or not to donate or fund the projects. In 2009, ¨Kickstarter¨ the American crowdfunding and crowdlending platform started and rapidly consolidated the leader of this segment, to the point that still in 2021 it is the biggest platform in the USA and has expanded its operations also to Europe (Jinasena et al., 2020)

Figure 1

12 successful startups founded after the 2008 USA Financial Crisis



Source: Self-elaboration with information of (Conklin, 2020; Dorfleitner et al., 2017)

In Figure 1 it is possible to see that **Kickstarter** was among the 12 successful startups founded after the 2008 crisis. This platform became popular due to the friendly interface and the easiness for starting new projects, creativity was the only limitation. Among the projects there were business related and art related products such as musicians demanding funding their own projects. Some of them promise a future benefit to the investor and some of them do not promise anything in return. The term Crowdlending comes from receiving money from the people in terms of a loan and the Crowdfunding was the same concept, but the entity receiving the funds promised to return some benefits in the future in terms of discounts, products, or services to the investors.

As an example, a person starting a jacket shop and needing capital for starting its business and in exchange this person promises different future rewards according to the amount of the funding. A common example for this kind of business was that founders usually received discounts on the products and sometimes they received the products, for example some months later a jacket was delivered. For the person starting the business it was a very affordable way to receive funding capital compared to applying for loans to the regular banks and paying high interest rates, on the other hand for the people donating and funding/lending the money it was a mechanism to support new business and artists while in some cases receiving some benefits in the future if the projects succeed. This mechanism is also known as Reward-based funding (Belleflamme et al., 2014)

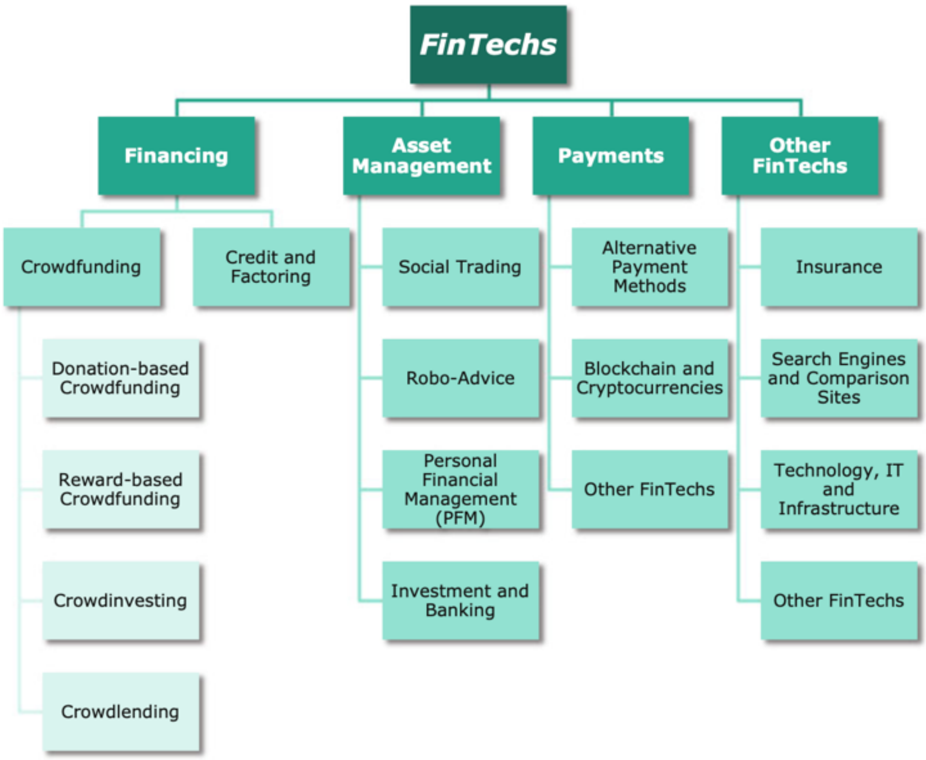
1.2. Fintech Definition and Relevance

This so-called Fintech companies have several characteristics in common. They are startups offering financial services as core business through technology-based systems. According to Kawai (2016), the General Secretary of the International Association of Insurance Supervisors, a member organization of the Financial Stability, it is a “technologically enabled financial innovation. It is giving rise to new business models, applications, processes and products. These could have a material effect on financial markets and institutions and the provision of financial services".

Fintech has as many definitions as authors writing about it. To simplify, Fintech is a term referring to a starting business offering financial services as core business through technology. Additionally this Fintech startups use to innovate with the uniqueness of their business models, to clarify this concept some authors such as (Dorfleitner et al., 2017) have classified the Fintech Industry into 4 segments, Crowdfunding, Credit and Factoring, Payments and other Fintechs.

Figure 2

Segments of the Fintech



Source: (Dorfleitner et al., 2017)

The following segments are based on the Dorfleitner classification and description. **The Financing segment** is divided into the Credit and factoring that refers to companies specialized in giving credits and loans and that are specialized in Factoring. This will be explained in detail in this chapter. The Crowdfunding segment was explained previously and relates to people financing, lending, and investing into other people projects.

The Asset management segment specializes in offer advice, disposal, and asset management as well as indicator of personal wealth. In this category it is possible to find algorithm-based, automated investment advice, automated portfolio management, robo-advice and in general innovative services to manage assets and wealth.

The payment segment specializes in payment transactions with innovative solutions such as Cryptocurrencies, Blockchain and alternative payments solutions. As an example of this there is Klarna the Swedish Fintech that was created in 2005, started operating in 2007 and entered the German Market in 2010 offering innovative payment solutions to merchants and users. In 2015, Klarna became a unicorn and currently employs more than 4.000 people around the globe and is one of the most important and relevant Fintechs that evolved into Banks in Europe.

In concrete Klarna offers credit to the buyers when buying online and finances them free of charge. On the other hand, Klarna charges a fee to the seller store in terms of a percentage out of the total amount financed. For the seller this service is very convenient because the sales increase and for the user it is also convenient since it brings up to 6 weeks of interest free payment period, sometimes creating a sense of unreality to the consumer that is buying without actually having to pay at the moment and therefore buying more.

The other Fintechs segment gather the Insurances companies offering their products mostly through the app and online and the new Fintechs that are not yet classified in the previous categories.

To summarize the term Fintech is very wide and is in constant evolution since there is always new startups appearing with innovative products and services that are hard to classify and fit in the current definition or segments.

2. Methodology

2.1. General Objective

Firstly, the objective of this paper is to provide an overview about how and why Fintech companies have changed the SME funding and cash flow in Germany since 2015.

Secondly, Billy GmbH, a German fintech company specialized in Factoring and Invoice Lending will be studied and analyzed as a case study to determine how and why this company has changed the Factoring and Invoice Lending industry in Germany since 2015.

2.2. Description of Methodology

According to (Yin & Davis, 2007) there is no formula for choosing the case study Method, but, the more the question seek to explain a present circumstance or some social phenomena, then, the more relevant the case study research will be.

There are other Research Methods such as Experiments, Surveys, Archival Analysis History and Case study, according to 3 main criteria is possible to identify the suggested research Method:

1. The form of the Research Question, How, why, who, what, where, etc.
2. Does it require control of Behavioral Events? Yes or No

3. Does it Focuses on Contemporary Events? Yes or No

The case study is used when the researcher has little or no control over behavioral events, and the focus of study is a contemporary event. This method is also relevant when the research question requires an extensive ¨in-depth¨ description of the social phenomena, to answer this, the main research questions are “how” or “why”.

The intended case study deals with contemporary events and the researcher has no control over them, additionally the research questions are ¨how¨ and ¨why¨ therefore the recommended research method for answering these questions is the Case of Study.

There are also 3 different purposes of cases study:

1. Explanatory or causal case studies
2. Descriptive case studies
3. Exploratory case studies

Looking to the main question of the Case Study it is possible to determine the purpose of the case study. Since this Case study is meant to answer the questions ¨how¨ and ¨why¨ it means the purpose is more explanatory. In case it would answer questions such as ¨what¨, ¨how many¨ or ¨how much¨ it would be an exploratory purpose.

According to (Yin, 2013) An explanatory case study is a case study whose purpose is to explain how or why some condition came to be (e.g., how or why some sequence of events occurred or did not occur). That is specifically the intended outcome of this paper, to analyze how and why Billie GmbH have changed in the last 7 years the Factoring and Invoice Lending industry in Germany.

2.3. Population of the Study

The population is the total number of possible units or elements that are included in the study. For this paper the population will be all the companies classified as Fintech in Germany in the subsegment of Factoring and Invoice Lending. Since the total number of this companies is hard to obtain, several data bases and secondary sources surveys will be considered to determine the exact number (Gray, 2017).

2.4. Data Collection Methods

This paper will be based on a systematic literature review of books, academic articles, articles published in professional journals and magazines, reports of associations, such as the German Factoring association, scientific articles and related relevant information about Fintech, Entrepreneurship, early-stage funding, innovation, financial services, and secondary source surveys with special emphasis on the German market.

Description of sources:

Books

- Case Study Research: Design and Methods, Yin, Robert K.
- FinTech in Germany, Dorfleitner Gregor, Hornuf Lars, Schmitt Matthias, Weber Martina.
- Capitalism, Socialism and Democracy, Schumpeter Joseph Alois.
- Entrepreneurship in Emerging Economies: Enhancing its Contribution to Socio-Economic Development, Cieślik Jerzy.
- Fintech : The New DNA of Financial Services, Pranay Gupta, T. Mandy Tham.

Journal Articles

- Cash management: Asset-based lending, Featherstone Simon.

- Crowdfunding: Tapping the right crowd, Belleflamme Paul, Lambert Thomas, Schwienbacher Armin.
- Fintech e inclusión financiera: los casos de México, Chile y Perú, Carballo Ignacio Esteban, Dalle-Nogare Facundo.
- Regulatory Lag, Regulatory Friction and Regulatory Transition as FinTech Disenablers: Calibrating an EU Response to the Regulatory Sandbox Phenomenon, Ahern Deirdre.

Academic Articles

- Success and Failure Retrospectives of FinTech Projects: A Case Study Approach, Jinasena Dakshitha N, Spanaki Konstantina, Papadopoulos Thanos, Balta Maria E

Magazines

- Connecting and Supporting the Commercial Finance Industry Worldwide, EU Federation for Factoring and Commercial Finance.
- Fintech and the IAIS, Kawai Yoshi.

2.5. Limitations of the Study

The intended research entails certain limitations, for example, the main limitation is finding relevant and reliable quantitative information of the Fintech industry in Europe and specifically in Germany. Regarding the case study the biggest limitation is finding the financial information and numbers of the customers and trends for the fintech company Billie GmbH. Therefore, the results might be influenced by the quality of the information that is available to be analyzed and might not be representative in the long term.

3. Factoring and Invoice Lending

3.1. Factoring

In this case study, the focus will be only the segment Credit and Factoring Fintechs since the main topic is showing how the new fintech businesses Billie GmbH have impacted the SME funding and the Factoring and Invoice lending industry in Germany since 2015.

It is well known that new business struggles to find funding capital. It ends up not being enough for the ordinary course of business and the new problem is the cash flow. Companies must go to the market to find working capital and the most common way is to apply for a loan at the nearest financial institution. This solution encounters several challenges for small and medium enterprises (SME) because these group of companies cannot fulfill the financial requirements such as time in business, creditworthiness, number of sales, number of employees, etc. At the end the loan application is rejected. During the last 5 years in Germany the rejection rate for SME has been on the lowest positions compared to the other EU countries. In 2020 the rejection rate in Germany was 3% and Slovakia was leading the rejection rate with 7% (Kwaak et al., 2020).

One financial tool for the SME to get working capital is Factoring, which is a process where a company or so-called ¨Client¨ sell its receivables in form of an invoice to a financial institution, the so-called ¨Factor¨, in exchange of a discount in the invoice and immediate liquidity. In this process there are always at least three parties involved, the company that sells the product or provides the services (Seller or Client), the company that purchases and which must pay the invoice (Buyer, Debtor or Customer) and the financial company that buys the invoice (Factor) which also takes the risk of default, and it can also include the dunning process in case the Debtor does not pay. The fee the Client pays as a discount on the total value of the invoice varies according to several characteristics such as, the industry, to the size of the company, the time of the invoice, the size of the buyer company, the location, the creditworthiness, etc. Usually in Germany the fee varies from 0.5% to 5%. These rates change based on the central bank interest rates, usually asset based Loans (ABL) are lower than regular unsecured loans due to the security offered by the assets (Featherstone, 2010).

Table 1

Types of Factoring

Type of Factoring	**Definition**
In-house factoring	also known as bulk factoring, the entire accounts receivable management remains in trust for the factor in the hands of the factoring customer. The factoring company mainly takes on the financing and del credere functions. This already makes it clear that this procedure is particularly suitable for factoring customers who have reliable accounts receivable management themselves.
With due date factoring	the factoring customer uses the advantages of complete risk protection and the relief of accounts receivable management, but dispenses with immediate regulation of the purchase price. Due date factoring makes the customer's financial planning easier, as specific payment dates can be agreed with the factor, regardless of payments from the debtors.
In "Other factoring"	all factoring variants are summarized, which are not to be included in the aforementioned standard versions: These include, inter alia intercompany sales, ABS-related

	products, sales of non-purchased receivables and the refinancing of other factoring institutions.
Real factoring	In this factoring variant the factor assumes the risk of default (del credere protection), i.e. while granting full del credere protection.
Fake factoring	In this factoring variant the factor does not assume the risk of default, i.e. without del credere protection. In Germany, real factoring has been practiced almost without exception for years.
Export / import factoring	The factoring institutes offer factoring for both domestic and cross-border business transactions. If domestic companies (exporters) use the services of a factor in Germany for their cross-border business, it is called export factoring. If it concerns import transactions in which foreign companies make use of the services of a factor in Germany, this is called import factoring.
Silent factoring	In this process the assignment of claims, collection and dunning from the Seller to the factor is not disclosed to the debtor.
Open factoring	in this process the customer is informed about the sale of the receivable to the factor and asked to pay directly to the factor.

Source: Self elaboration with information from (Deutscher Factoring Verband e.V., 2017)

To summarize Factoring is a process where a firm sells its receivables to a financial institution (a factor) in exchange of immediate liquidity with at a discounted fee. The factor takes over collection responsibilities and provides cash up front, typically equivalent to 70% to 90% of the value of the receivables, and remits the balance minus fees upon collection (Pryor et al., 2020).

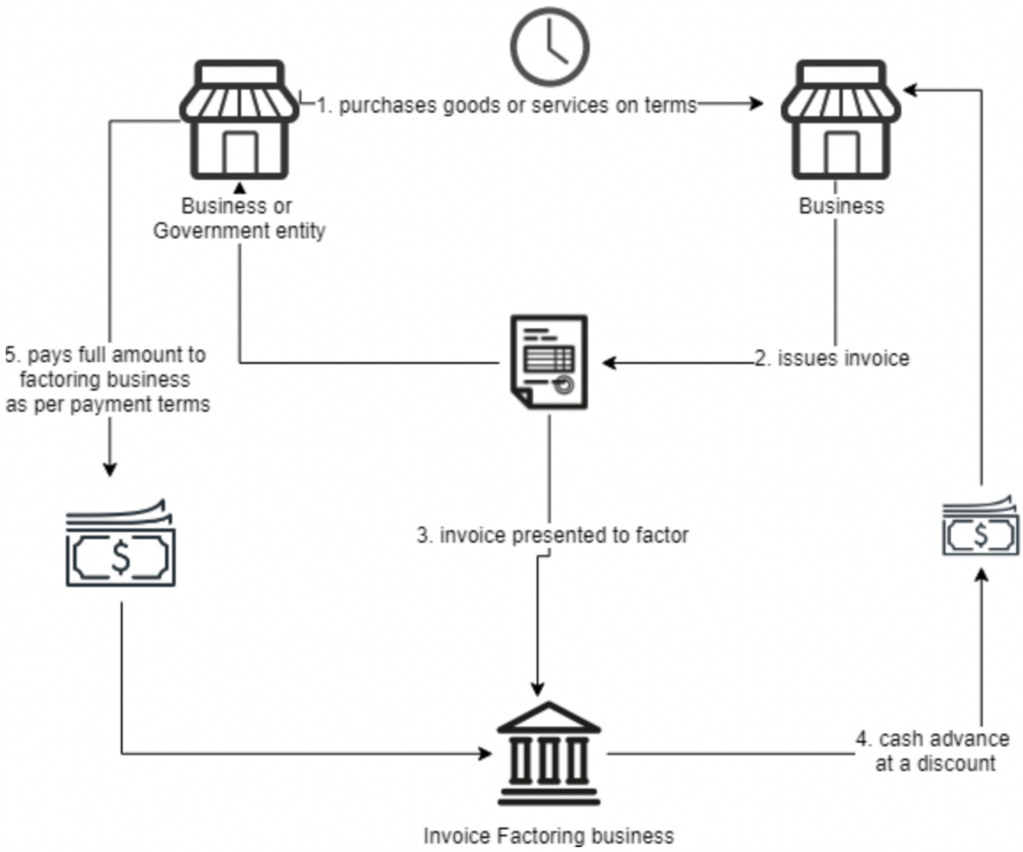
According to BNP Paribas the Open and Silent Factoring have different names, they call them Disclosed and Undisclosed Factoring, in the first one the sale of the receivables is made known to the Debtor, in the case of undisclosed (confidential) factoring, on the other hand, the Debtor has no knowledge of the sale of the receivables (2021).

For Small medium enterprises SME that sell on a credit basis for up to 90 days, this means these companies must wait 90 days until they receive the payments of the invoice. It is a constant challenge to manage their cash flow and keep paying salaries, rent and regular business expenses. Factoring becomes a valuable tool that allows the SME to continue operating as usual selling on a credit basis and improving their cash flow to fulfill their business expenses on time.

An article of the Export Import bank of the United States shows some facts about invoice payments around the world, for example it citates that SME should be more cautious when conducting business abroad since 60 percent of invoices are paid late, invoices are paid 6 days late on average (4.3 days late for SME's), 1/5 of invoices are paid more than two weeks late, the U.S. pays on average seven days late (Bertolo, 2017).

Figure 3

Process of Factoring



Source: (Kokane, 2019)

In the last Figure it is possible to see the detailed step by step factoring process. This process can always vary according to the industry and the companies involved, for example for cross-border transactions the process can take more time because the Factor needs more information for verifying the invoices and financial information of the companies involved in the transaction. Additionally, for cross-border transactions the risk of default differs and consequently the discount rate, which means the seller business issuing the invoice will end up receiving less money. Furthermore, there could be one more step in Figure 3. Sometimes the Factor does not pay 100% less the fee upfront in step 4 and instead they pay an advance of 70%

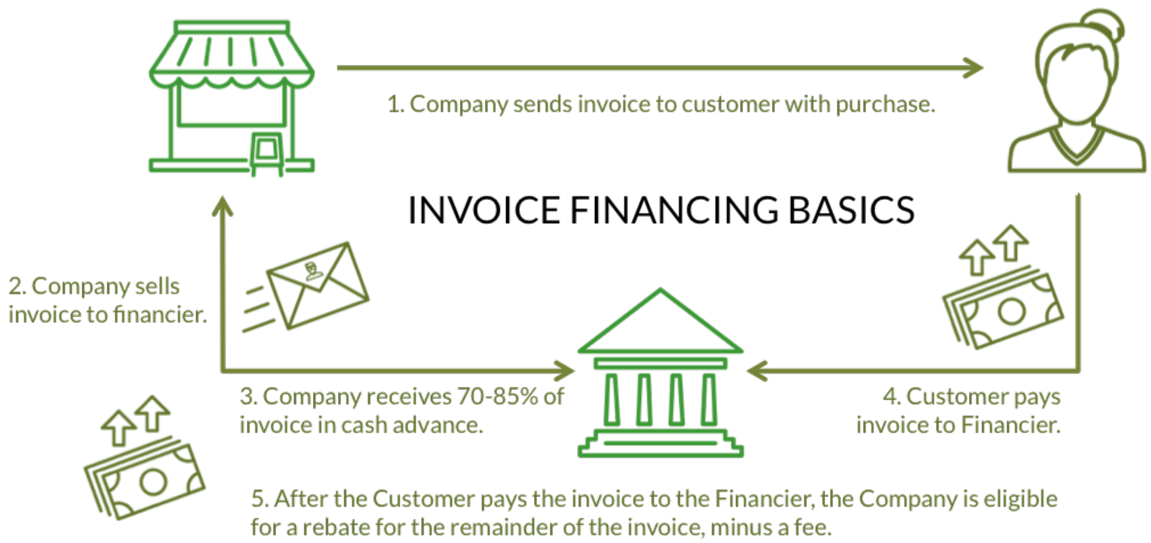
to 90% on the total of the invoice and when they collect the payment in step 5 they proceed to make the final payment of the remaining percentage.

3.2. Invoice Lending

Invoice Lending or also known as Invoice discounting works basically the same to Factoring, the seller company needs cash flow and have outstanding invoices that can be used to access liquidity. With Invoice lending the Seller uses the invoice lending to access a special line of credit that is backed up with the invoice. The default risk and collection process are not covered by the financial company since the seller owns the invoice and does not transfer its property just like in Factoring (Gocardless, 2021).

Figure 4

Process of Invoice Lending



Source: (Haotanto, 2017)

3.3. Differences between Invoice Lending and Factoring

As mentioned before, in Factoring the financial institution owns the invoice and takes the default risk, whereas in the Invoice lending the financial company extends a loan backed on the invoice but does not own the invoice nor take the default risk. This also means the collection and dunning process is performed by the Seller and not the financial institution.

Since the risk of default in Factoring is carried by the Factor, their fee is usually higher compared to invoice Lending, on the other hand the upfront payment in Factoring is bigger than in Invoice Lending where it regularly is between 70% and 85%.

Figure 5

Differences between Invoice Lending and Factoring

DIFFERENCES	INVOICE FINANCING	INVOICE FACTORING
Typical Initial Advance	80% of the invoice value	85% to 90% of the invoice value
Typical Fee	1% to 3% per month	2% to 4.5% per month
Who Owns the Invoice?	Your business	The factoring company
Who Collects on the Invoice?	Your business	The factoring company

Source: (Harbour, 2020)

3.4. Advantages of Factoring and Invoice Lending

These financial tools are improving the cash flow and competitiveness of the seller due to the uncomplicated and fast process of receiving liquidity. Also, with factoring the fact of not having to worry about the collections and default risk is a big release specially for SME that cannot afford to pay lawyers and wait long collection processes.

From the accounting point of view with factoring the company is selling the invoice and receives cash. This cash is not accounted as loan and therefore the financial indicators of the company are not affected, differently to the invoice lending that the money received is accounted as loan and therefore the financial indicators are affected.

By keeping the cash flow gap under control, the companies can focus on selling and have freedom to offer better payment schedules to attract new customers.

These two financing tools are inclusive since financial companies do not need to run an in-depth credit study and focus mostly on the invoices and receivables. This means companies, especially those who are facing financial difficulties, can always access these financing tools.

3.5. Disadvantages of Factoring and Invoice Lending

Since this is a convenient and fast way to receive liquidity (cash), sometimes when the disbursement is very fast the fee is higher than a regular bank loan. The rates often vary according to the due date of the invoice and the financial creditworthiness of the Debtor.

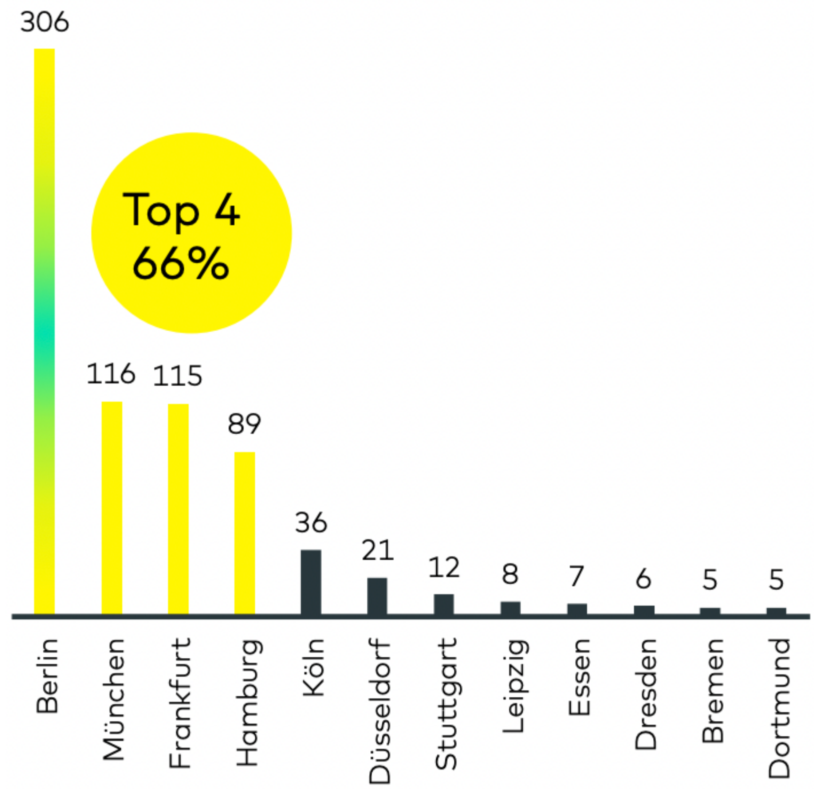
Using Factoring can send a wrong message to the market because the buyers or debtors will know that the Factor is collecting the money and might interpret using factoring as signal of financial weakness or problems with the Seller (Harbour, 2020), even though the collecting process nowadays is very discreet to the point that the dunning process taken over by the factor looks like performed on behalf the seller company and not on behalf the factor.

3.6. Factoring in Germany

According to a recent study published in January 2021 by Comdirect bank in Germany, the number of fintech registered and operating in 2020 was 946 companies. In the same document it shows that Berlin is by far the city that hosts the highest number of fintech startups, followed by Munich, Frankfurt, and Hamburg.

Figure 6

Number of Fintech Startup in Germany



Source: (Comdirect, 2020)

In a survey conducted in 2016 among the factoring Fintechs in Germany regulatory and technological impediments were evidenced, companies complained about the degree of development of the dissemination of the broadband and the high cost of acquiring licenses and permits, especially for startups (Dorfleitner et al., 2017, p. 33).

These problems of broadband and the high cost of acquiring licenses are present in multiple countries around the world, for example a report of June 2018 of the CEPAL in cooperation with Deutsche Zusammenarbeit evidences some effort of changing the legal framework in several countries in Latin America such as Mexico, Colombia, and Brazil (Núñez Reyes & De Furquim, 2018, p. 34). These changes were a starting point to adapt the law to the market circumstances in an attempt to foster the new role of the Fintech in the national economies.

In Germany currently there is not a specific ¨Fintech law¨, companies are tied to the specific regulation of their specific field of action, but in general in order to offer financial services it is necessary to obtain a special license, and comply with the German Payment Services Supervision Act **Zahlungsdiensteaufsichtsgesetz "ZAG"** and the German Banking Act Kreditwesengesetz; "KWG".

Regarding the turnover volume among EU countries on market volume in invoice trading until 31 of June 2021 France was in first position with €174,249 million with a variation of 14.1% compared to 2020. Germany was in second place with €146,477 million with a variation of 8.6% compared to 2020 and in third place Italy with €119,896 million with a variation of 12.0% compared to 2020.

In terms of market share these three countries hold 18.3 %, 15.4% and 12.6% respectively and together have 46.3% with a total market of €787.230 Million in the European Union (EU Federation for Factoring and Commercial Finance, 2021). After the Brexit, the United Kingdom is not considered anymore in the official statistics of the EU but is still mentioned due to its importance since it was the country with the most developed market in factoring with €153,158 million and a yearly variation of 11.9% as it can be seen in figure 5.

Figure 7

Turnover Volume by Country

Turnover volumes by Country (Millions of €)						
30 June 2021	**Notes**	**Total Turnover**	**pct var. on the previous year (Total)**	**GDP Penetration**	**Country GDP change y/y**	**Market share**
Austria*		14,219	11..0%	7.4%	4.7%	1.5%
Belgium*		47,090	20.2%	19.6%	10.3%	4.9%
Croatia*		565	22.9%	2.2%	10.0%	0.1%
Czechia*	(1)	4,244	27.2%	3.8%	9.2%	0.4%
Denmark*	(1)/(2)	9,369	0.0%	5.8%	5.6%	1.0%
France*		174,249	14.1%	14.4%	9.7%	18.3%
Germany*		146,477	8.6%	8.6%	4.4%	15.4%
Greece*		7,965	14.8%	9.5%	6.4%	0.8%
Italy*		119,896	12.0%	14.0%	10.2%	12.6%
Netherlands*		62,050	9.5%	14.9%	5.8%	6.5%
Poland*	(1)	36,780	22.9%	13.9%	7.3%	3.9%
Portugal*		15,774	4.1%	15.4%	5.3%	1.7%
Spain*		93,406	6.3%	15.9%	8.5%	9.8%
Other EU Countries	(1)/(2)/(3)	55,149	0.0%	5.8%	10.2%	5.8%
EU Countries	**(1)/(2)**	**787,230**	**10.6%**	**11.4%**	**7.7%**	**82.6%**
Norway*	(1)	12,962	2.7%	7.0%	17.7%	1.4%
United Kingdom*	(3)	153,158	11.9%	12.3%	6.5%	16.1%
European Countries	**(1)/(2)/ (3)**	**953,350**	**10.7%**	**11.4%**	**7.7%**	**100.0%**
EUF Members or Partners (*)		**898,202**	**11.5%**	**12.2%**	**7.4%**	**94.2%**

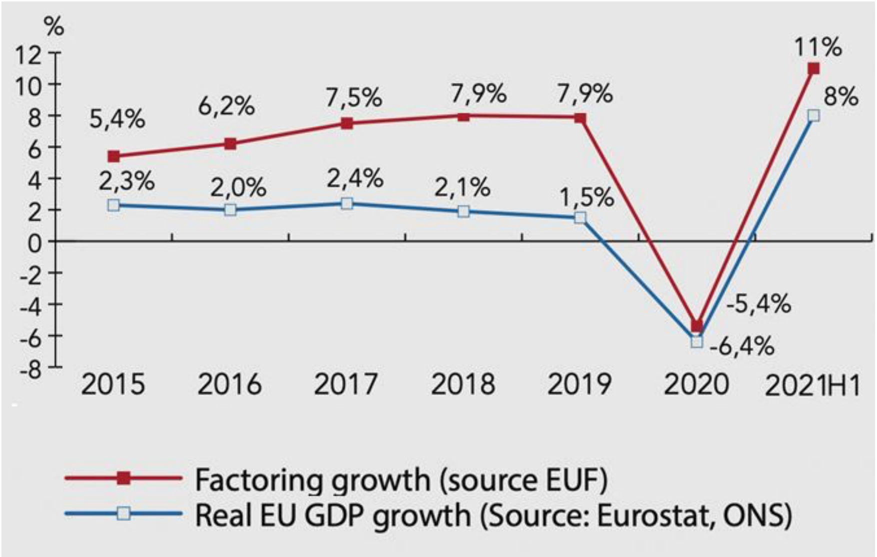
Notes:
1) Pct variation has been corrected in order to avoid biases due to exchange rates fluctuation.
2) Due to the lack of information - previous years' IHY turnover was taken
3) GDP estimates on the basis of the available information. In case EU GDP values - unadjusted data were used
Source: EUF Members. Eurostat. statistia.com

Source: (EU Federation for Factoring and Commercial Finance, 2021)

The newsletter of November 2021 of the EU Federation for actoring shows the turnover growth trend of factoring and EU GDP growth. It further shows that Factoring turnover had mantained a steady growth since 2015 and even during 2020, where the Covid19 pandemic started, the growth was higher, as shown in the figure 6.

Figure 8

Trends of factoring Turnover growth and EU GDP growth



Source: (EU Federation for Factoring and Commercial Finance, 2021)

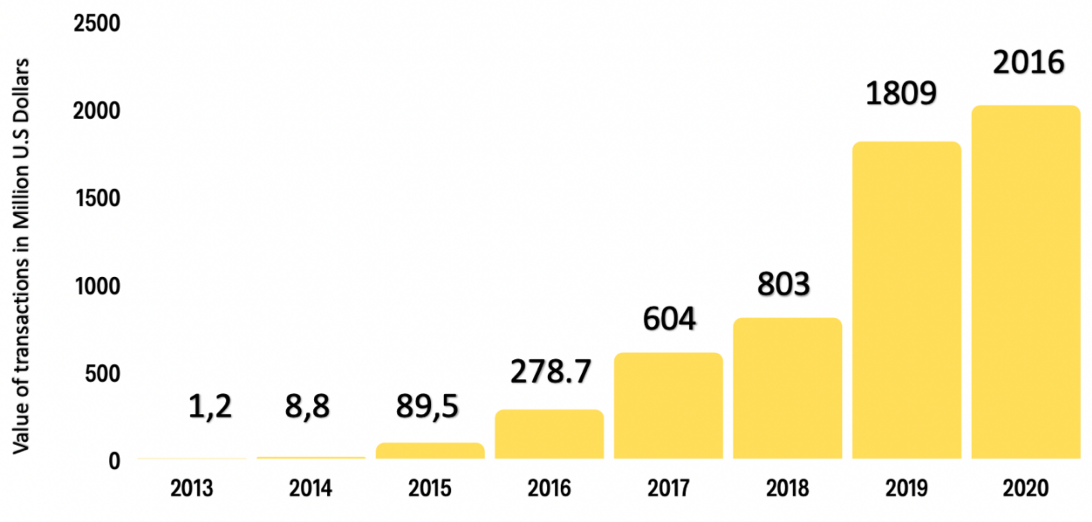
The last figure was done by EUF, which is the Representative Body for the Factoring and Commercial Finance Industry in the EU. This lobby organization acts as a platform between the factoring and commercial finance industry and key legislative decision makers across Europe bringing together national experts to speak with one voice (EU Federation for Factoring and Commercial Finance, 2021).

3.7. Invoice Lending in Germany

The invoice lending transactions value in Europe since 2013 to 2020 shows a clear growth tendency (The Cambridge Judge Business School & CME Group Foundation, 2021) and is also supported by the steady growth of the factoring segment since 2015 in Germany as it is shown in the figure 7 (Deutscher Factoring Verband e.V., 2017).

Figure 9

Alternative finance invoice trading transaction value in Europe 2013-2020 (in million U.S. dollars)

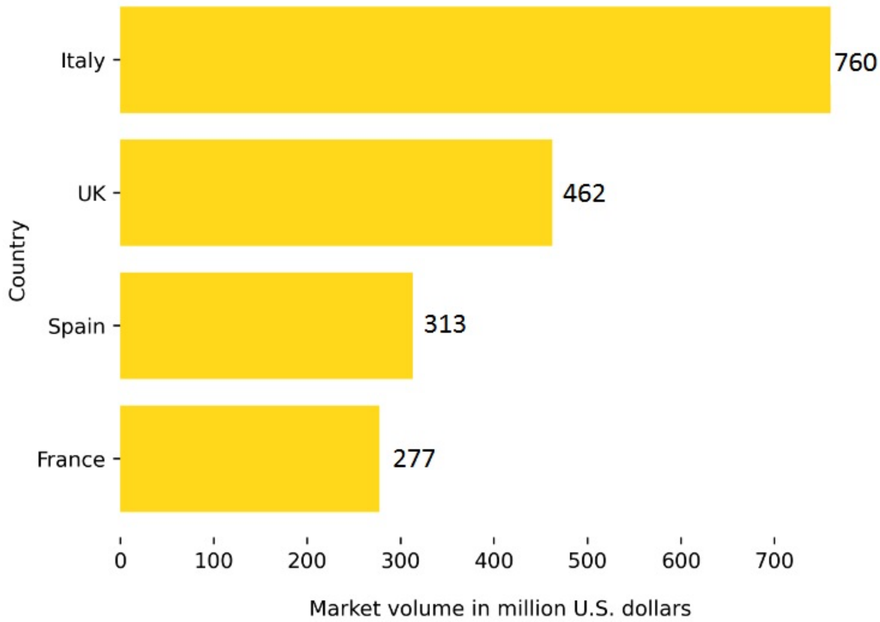


Source Self elaboration from Statista and (The Cambridge Judge Business School & CME Group Foundation, 2021)

The leading European countries based on market volume in invoice trading in 2020 were Italy, the United Kingdom, Spain, and France. In 2020, the total market volume in Italy was worth approximately 760 million U.S. dollars.

Figure 10

Leading European countries based on Market Volume in invoice trading 2020 (in millions U.S dollars)



Source: Self elaboration with information from Statista and (Ziegler et al., 2021)

4. Case Billie GmbH

4.1. Origin

Billie GmbH is an online factoring Fintech based in Berlin, founded in 2016 and started operations in 2017. It was originally founded by 7 people, some of them were working at ¨Zencap¨ and were also the co-founders. When this company was sold, they decided to start a new business together. This founder team had experience in incubating, accelerating, and selling companies, in average each founder team had more than 6 years of experience and was an expert in their fields of work.

Billie started its operations in June 2017 and closed the year with 18 employees, 5 women and 13 men, in 2018 they added four more people to the team and had on average 22. In 2019 they added 38 more employees and had in average 60 employees including two working students. In February 2020 the Fintech reached 100 employees and in October 2021 the company had 139 employees.

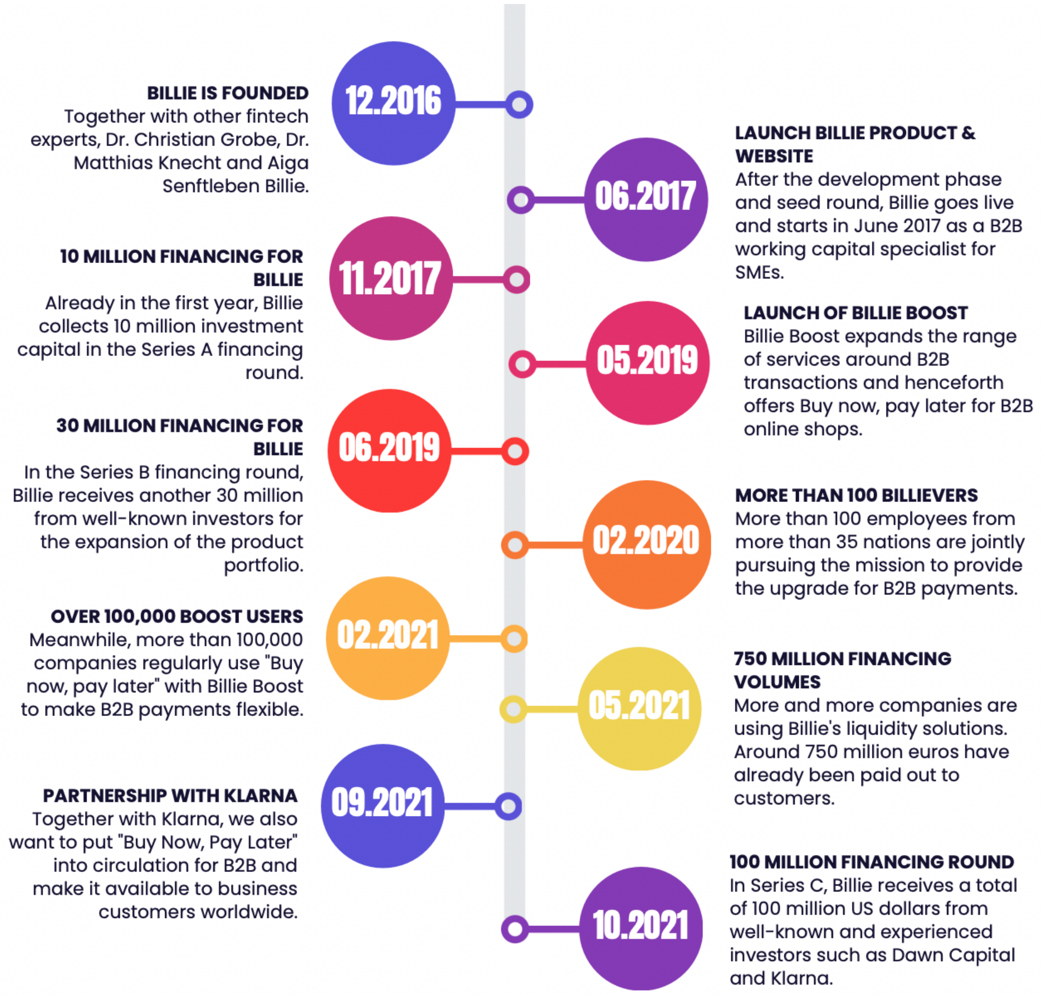
4.2. Founding Team

After analyzing four out of seven profiles of the founders it is evident that from the beginning it was a high skilled multidisciplinary team, composed by the Managerial and Sales staff Matthias Knecht and Christian Grobe, the legal area in head of Aiga Senftleben and the engineering team in head of Artem Demchenkov. One remarkable aspect is the degree of education and experience they had when they founded Billie, four co-founder hold master's degrees, and two co-founders hold PhDs degrees. In average the founder team had more than six years of professional experience and for two of them starting a new company was not something new since they had previous experience founding and selling Zencap which later changed the name to ¨Funding circle¨.

The information about the co-founders working experience (see annex 1) was obtained by secondary sources such as newspapers, YouTube events, presentations and LinkedIn profiles.

Figure 11

Timeline Billie GmbH



Source: Self elaboration with information from (Billie GmbH, 2021)

4.3. Products and Services

According to the Co-founder Matthias Knecht the mission of Billie is to ¨create a B2B world where every company could choose where and how to pay without needing to worry about collections or credit defaults¨ (NOAHConference, 2019). Thus, Billie GmbH offers innovative financing solutions to the companies. Currently they offer two main services to their customers. The main service is a Factoring platform where companies can sell their invoices and within seven minutes the system runs the credit check and due diligence and when the request is approved the money is transferred to the customers bank account and in case the request is denied then Billie requires a secondary analysis where more documents are required.

This Factoring Platform brings the companies instant liquidity, automated collections and 100% default coverage. This platform is institutive and user friendly. Billie is flexible and does not ask for fixed long term contracts, in fact the contracts have no minimum duration as it was a business practice in the past.

The second product Billie offers is named ¨Billie Flow - B2b Zahlungen Für Kmus¨ which is a platform for B2B payments aimed to SME. With this service Billie aims to integrate the lending solutions directly to the point of sale by offering financing solutions and different payment methods to SME so these companies can decide how and when to pay the invoices to the counterpart, the company selling the products, who receives the money immediately. This product is aimed to two main segments, online payments and the regular B2B payments.

Billie Flow aims to reduce the current problem of not having many options for payments between B2B. For example, in the B2C segment when customers buy online at the check-out payment they receive several options, such as Credit card, invoice payment at the end of the month, bank transfer, etc. But in the B2B for SME world the options are limited according to the market practices and the power of negotiation of the B2B, usually the payment method is bank transfer and invoice payment to 30, 60 or 90 days.

4.4. Innovation and Disruption in the Fintech Industry

According to Schumpeter the main function of the entrepreneur consists of implementing innovations. By introducing innovative products and processes, organizational methods and marketing techniques, the entrepreneur replaces the old way of doing things. This concept of ¨Creative destruction¨ is relevant because it is perhaps what the Fintechs were doing in the last decade not only in Germany but also around the world (Schumpeter, 2014).

When a Financial Institution is running a credit study to a company wishing to take out an asset-based loan (ABL) such as Factoring or Invoice lending, the lender or Factor conducts a credit analysis to determine weather is viable or not buying the outstanding invoice. The purpose of this was to predict the amount of funding the facility can generate. This value was then compared with the actual cash needs of the company to ensure the cash- flow requirements were met.

As part of the credit analysis or also called due diligence process, the provider analyzed the company's books and records, including accounts receivable and inventory, and appraises fixed assets such as machinery, equipment, and property. This diligence sometimes included a visit to see a prospective borrower's inventory first-hand and assess the strength of the senior management team, this procedure was carried in this way because this financial companies didn't have any better automated way to perform the task. The Factor was then able to assess the company's value, weighing qualitative as well as quantitative factors, and provide a bespoke facility (Featherstone, 2010). Since this process is slow and time consuming, it was mostly designed for large companies with a high amount of invoices, ongoing transactions or opened lines of credit. Due to this most SME were left behind and could not access this ABL financial products such as Factoring and Invoice Lending.

Currently in 2021 there are still financial companies that use the same ¨classic¨ due diligence process and continue working with the old business practice. On the other hand, it is remarkable that since the appearance of the new Fintechs in the last decade these processes were shortened and simplified, allowing not only SME but also freelancers to effectively access new financial products that were inaccessible before.

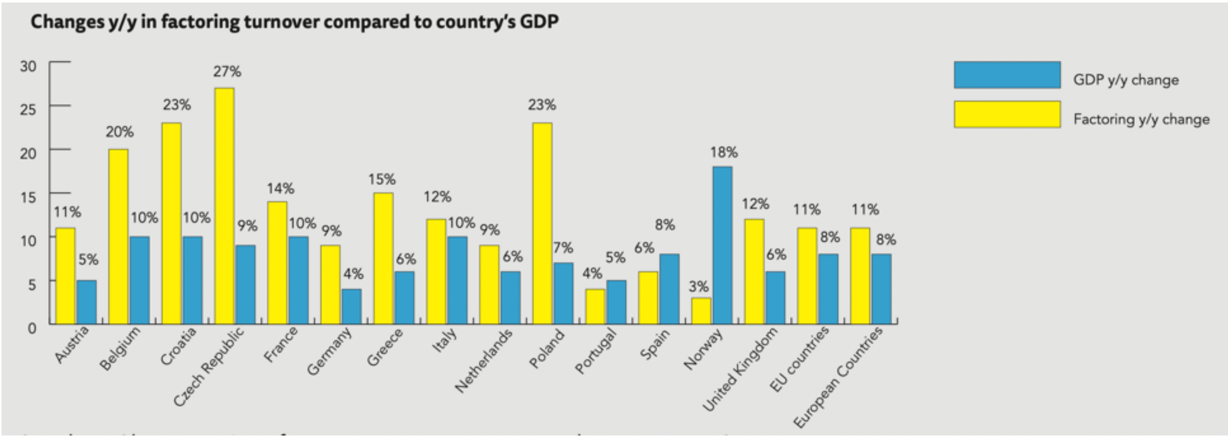
In contrast to that, Billie GmbH with his Innovative Factoring product enables SME to access quick liquidity in a very convenient and uncomplicated way. Any company, especially the SME just needs to enter the website of Billie, register and create a user account and then provide the legal documents of the company. Once this step is done the seller company can access the platform where he can easily upload as many invoices as they wish and request the liquidity. This step takes only 7 minutes and afterwards the money is transfered from Billie's bank account to the seller company within the next business days. Billie offers the seller company several options at the moment of the transaction. These options vary in time of disbursement of the money and the discount fee of the invoice, the most expensive option is the one with the fastest disbursement of the money and the other way around.

This Factoring Platform of Billie was a game changing service, especially for the SME requesting liquidity, as there is no need to physically visit any bank branch or financial institution office due to the new technologies of online identity legitimation. Additionally, another benefit for the SME is that they can easily manage and track their invoices in the platform saving administrative time and centralizing the invoices in one place.

The yearly variation in factoring turnover among the EU countries is in most of the cases higher than the yearly change in GDP and in few countries such as Czech Republic, Poland, and Belgium, the development is significantly higher. These markets figures might signify an increasing opportunity for Billie to grow its customers base and start exporting its services.

Figure 12

Changes y/y in factoring turnover compared to country's GDP



Source: (EU Federation for Factoring and Commercial Finance, 2021)

4.5. Economic Report

This information was obtained from the financial information submitted by Billie in March 2020 corresponding to the fiscal year 2019. According to the German Factoring Association (2017), the German factoring market continued its steady growth in the last decade. Sales of the members of the German Factoring Association increased by almost 14 percent to €275.5 million in 2019 despite a globally increasingly uncertain economic environment. The year 2019 was once again characterized by dynamic new customer numbers, especially from SME, the customer numbers of the members of the association increased by over 100 percent during 2019 from 45,000 to around 90,000 and reached 100,000 in February 2021. This is due to new business and the admission of new association members as well as the launch of the new product Billie Boost in 2019.

4.6. Business Development and Earnings Situation

The focus of Billie since the beginning has been further expansion of the customer base. The company has successfully achieved this goal and gained numerous new factoring customers over the course of the years, this could only be achieved by expanding the product range.

On the second half of 2019, the company has begun to offer so-called full-service factoring where all customers can transfer their commercial dunning, collection cases and receivable default risk to Billie. This expansion of the product range was accompanied by a conversion of the fake to real factoring (PKF Industrie- und Verkehrstreuhand GmbH, 2020).

According to the financial information submitted by Billie in March 2021 corresponding to the fiscal year 2021, the Interest income from Credit and money market transactions increased from 15,47 percent from EUR 4.679.598 to EUR 5.535.703, however is not enough to compensate the total administrative expenses that grew 38,53 percent from EUR 7.177.038 in 2019 to EUR 11.675.856 in 2020, this increase compared to the previous year is mainly due to increased marketing and rating costs as well as increased expenses for renting the business premises as well as the recruiting costs, license fees, external services, and legal costs.

Billie GmbH was unable to show profit once again during 2020, the Annual loss increased 44,82% from EUR - 4.775.718 in 2019 to EUR - 8.654.021 in 2020, plus the loss carryforward from the previous year 2019 EUR - 9.732.450 that totals EUR - 18.386.472 as Balance sheet loss for the year 2020.

4.7. Asset and Financial Situation

Billie GmbH reduced the Claims on Customers by 119,41 percent from EUR 12.836.697 in 2019 to EUR 5.850.451 in 2020, and in part explains the reduction of the total assets of 35,95 percent from EUR 41.437.772 to EUR 30.480.410 in 2020.

According to the managerial team Billie had sufficient refinancing at all times. The receivables portfolio is refinanced by several credit institutions by means of fixed loan commitments and the company had sufficient liquidity at all times to meet all obligations (PKF Industrie- und Verkehrstreuhand GmbH, 2020).

The equity ratio was stable changing form 69.2 percent in 2019 to amounted to 69.4 percent in the 2020, the Liabilities to banks with an agreed term or period of notice reduced 53,85 percent from EUR 11.213.133 in 2019 to EUR 7.288.444 in 2020, and the total Liabilities reduced 35,95% from EUR 41.437.772 in 2019 to EUR in 30.480.410 in 2020.

The management is satisfied with the past financial year, as the factoring volume could be moderately expanded despite adverse circumstances and the revised pandemic business plan was achieved. Due to the still available own funds, the assets and financial situation are assessed as very good (PKF Industrie- und Verkehrstreuhand GmbH, 2020).

5. Conclusions

Finding the cash flow information about Fintechs is very challenging since most of this information is reserved. Moreover, finding a Fintech that disclose this financial information was difficult, consequently the upcoming conclusions are affected by the scarcity of information that was analyzed and might differ from the current state of the industry.

The Fintech industry and the subsegment of Factoring and Invoice lending has shown a steady growth in the last decade and looks like it will continue growing. This indicates that there is still room in the future for new fintech companies like Billie to enter the market to compete and innovate with their products and services.

The new Factoring and Invoice lending Fintechs like Billie GmbH have dynamized the market and offered more financing possibilities to new customers that before the origin of the fintech were unattended or were excluded from the financial system. As an example of this inclusion Billie GmbH currently offers services to Freelancers, a group that was historically excluded, this inclusion for new costumers is possible to see the success case of ¨Code Control¨ the freelancers company that currently improved the cash flow and is now able to offer better payment terms to its employees and to the costumers.

The fast growth of Billie GmbH is possible only by a combination of factors such as managerial expertise, the innovative technology that supports the factoring platform and the marketing plan tied to the financial expenditures focus on customers acquisition. According to the Co-Founder Mathias Knecht the growth is explained by the acquisitions of new costumers and the creation of the new products (NOAHConference, 2019).

Even though Billie GmbH has successfully raised capital in the different Investments round, they still need to probe ability to generate profit and have long-term viability since the strategy to increase the market share is by acquiring customers with an aggressive value proposition offering low fees and uncomplicated processes. This strategy can be dangerous in the long term since the users can move to a competitor with similar market strategy or even lower fees.

During the literature review there were several factoring Fintechs that closed in the last years without being clear what was the cause of the failure, these companies failed for different reasons, were not profitable because of the high competition among the industry, luck of big investments to support the losses in the short term and inability to find a critical mass of costumers, these companies out of business are Flex payment and Decimo.

Since the origin of Fintech companies, the consumers have more options to acquire funding and improve the cash flow from their SME with crowdfunding, crowdlending and financial tolls like Factoring and invoice lending.

In Germany the competition between well stablished banks and the Fintechs has been based mostly on creating strategic partnerships and benefiting mutually about the strengths of each of them, for example some Fintechs offering banking services do not have a bank license because they focus mainly on front-end operations. Therefore, they start a strategic partnership with a bank which lets them operate under his bank license usually paying a transaction-based fee. On the other hand, the bank is not willing to invest for building its own infrastructure and take advantage of some strengths of the fintech skills. In some cases, the banks use online id legitimation platforms from Fintechs to serve their own customers. As an example of this, there is Fidor Bank and Solaris Bank offering an innovative service named ¨banking as a platform¨.

The cooperation among Fintechs and Big financial institutions is expected to continue the same way because banks do not show any willingness to make big investments to compete with the Fintechs, instead of that the well stablished financial institutions are investing on the Fintechs (Brandl & Hornuf, 2017). This cooperation and strategic alliances not only occur among big financial institutions and Fintechs but also among Fintechs. As an example of cooperation among fintech companies in 2021 Billie GmbH partnered with Klarna to offer financing on the point of sale in online purchases.

Finally, a consequence after the market entry of Billie is that the factoring processes are faster and uncomplicated for the users, due to the unique way to analyze and measure the credit risk based on algorithms, artificial intelligence, and computer power instead of intense human based labor procedures that were standard practices for the regular Factoring and Financial companies. This has resulted in changing the industry standards wait times for the money disbursement, to the point that the competitors are offering 24 hours for the money disbursement as well.

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