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## GLOBAL FINANCING DISRUPTIVE INNOVATION: AN ANALYSIS OF FINANCING FINTECH SERVICES TO SMES AND LMES IN UAE AND GERMANY

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### **Introduction**

Fintechs are newly founded technology-driven companies that provide financial services and products (Dorfleitner, Hornuf, Schmitt, & Weber, 2016). The terminology is a neologism that originates from finance and technology (Gomber, Koch, & Siering, 2017; Puschmann, 2017; Tiberius & Rasche, 2017). Currently, there is no universal academic definition of fintech (Dorfleitner et al., 2016). The Financial Stability Board defines fintech “as technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services” (2017, p. 7). Schueffel analysed different databases in order to find a definition that contains the major commonalities in more than 200 academic studies (2016).

Since these SMEs are not attractive for traditional banks, it might be that they do not consider financing fintechs as a strategic threat. As the findings of Dorfleitner et al. show that the most German banks do not consider fintechs – generally fintechs, not specifically financing fintechs – as a threat (2016). According to the disruptive innovation theory, incumbents often fail competing disruptive innovation because they do not consider it as disruption. First, the entrants serve low-end customers, which are not attractive for the incumbents, or non-customers, which are not served at all. Then, they improve their performance, which means functionality and reliability of the product or service, and serve mainstream customers and disrupt the incumbents. For example, when Netflix started its business in 1997, it was not attractive to the Blockbuster’s mainstream customers who typically rented new releases on impulse. The delivery through mail by Netflix took several days. However, as the technology allowed to change its business model to streaming video over the internet, it finally became attractive to Blockbuster’s mainstream customers (Christensen & Raynor, 2003; Christensen et al.,

2015, 2004). Therefore, there is a strategic risk for traditional banks that financing fintechs are a disruptive innovation.

In order to evaluate the success of companies, different theories can be applied. For example, the market-based view, which is subjected to the structure conduct performance paradigm, implies that a company's success mainly depends on the competitive market structure (Porter, 1980). According to Porter, strategic positioning means "performing different activities from rivals, or performing similar activities in different ways" (1996, p. 3). In contrast, the resource-based view implies the company's success mainly depends on the internal resources of the company (Barney, 1986). In this context, the disruptive innovation theory can be considered as a more radical approach which can lead to destruction of competitors (Tiberius & Rasche, 2017). In a widely used context, fintechs can be seen as enabling disruptive innovation in financial services and markets (Peat, Kelly, & Broby, 2017).

### **Paper's Research Aim**

In order to achieve the research aim, three different research questions have to be answered, whereas the third question is answered by the results of the previous questions. The first research question is as follows:

C1: What defines the business model of financing fintechs, i.e. crowdlending, crowdinvesting, and factoring platforms that provide services to SMEs in UAE and Germany?

C2: In a critically exploratory and evaluative way, to which extent is the service of financing fintechs a substitute for traditional banking services to LMEs (large mid-sized companies) in UAE and Germany?

C3: To what extent are financing fintechs that provide services to SMEs in UAE and Germany a disruptive innovation threat to traditional banks?

### **Literature Review**

According to Schueffel, a fintech is "a new financial industry that applies technology to improve financial activities" (2016, p. 1). The term describes the connection of mainly internet-based technologies with established business activities of the financial industry. In contrast, bigtechs imply large technology-driven companies that initially started in other industries like Amazon, Apple, Facebook or Google and then started financial activities on the payment market and by now also partly enter the financing market (Basel Committee of Banking Supervision, 2017; Demertzis, Merler, & Wolff, 2018).

Crowdlending and crowdinvesting can be considered as crowdfunding with financial return to their investors (Kirby & Worner, 2014). The second segment of financing is loans and factoring. The former means the fintech platforms arrange loans between borrowers and traditional banks. Factoring, also known as invoice trading, is related to the sale of accounts receivable through online platforms. Asset management can be split into four following segments: Robo advise, social trading, personal financial management, and investments and banking. Payment services consist of cryptocurrency and blockchain and alternative payment services. The last segmentation contains other fintech services that are not related to financing, asset management, or payment services. This includes services linked to insurance services and searching and comparison platforms. Furthermore, there are fintechs offering technology solutions for banks or other financial service providers (Dorfleitner et al., 2016). The

segmentations are illustrated by figure 1. However, there can also be different segmentations and terminologies. Fintechs that provide insurance related services are also known as insurtechs, and fintechs that provide regulatory services for banks are known as regtechs (Alt, Beck, & Smits, 2018).

The Basel Committee on Banking Supervision consider fintechs as growing competition to traditional banks (2017). They argue that especially due to the adoption of new technologies, which lower the barriers to entry in the financial services market, fintechs represent a strategic risk for traditional banks. However, as shown previously, the services of fintechs are wide-ranging in scope while the segment of financing fintechs represents a high strategic risk for traditional banks due to the phenomenon of disintermediation (Dorfleitner et al., 2017; European Banking Authority, 2015).

This implies the substitution of financial intermediaries like banks by direct interactions between investors and borrowers through a platform (Dorfleitner et al., 2016). Crowdfunding platforms are two-sided marketplace business models that provide a matching service between two sides of the market (Belleflamme & Lambert, 2014; Belleflamme, Omrani, & Beitz, 2015; Pur, Huesig, Mann, & Schmidhammer, 2014). Factoring platforms also provide a direct matching between a company and investors who buy the account receivables (Dorfleitner, Rad, & Weber, 2017).

However, the strategic impact of financing fintechs on traditional banks depends on whether or not the services are substitutes for traditional banking services (European Commission, 2015). In case the services are not substitutional, the strategic impact is reduced. There are indications that the services of financing fintechs can be a substitute for traditional banking services in the retail segment (Ghose et al., 2016; Noeth et al., 2014; Wolfe & Yoo, 2017). Not solely for consumers but also for SMEs (small-and-medium-sized enterprises), financing fintechs could be a substitute for traditional banking services (Blohm, Leimeister, Wenzlaff, & Gebert, 2013; Dimler, Peter, & Karcher, 2018; Gierczak, Bretschneider, Haas, Blohm, & Leimeister, 2016; Yan, Yu, & Zhao, 2015). For SMEs that have difficulties to access traditional financial sources, financing fintechs might be an alternative. The higher competition could bring benefits for the SMEs (European Commission, 2016).

Navaretti et al. analysed theoretically the impact (2018), while the Basel Committee on Banking Supervision defined five scenarios to describe the possible impact of fintechs on traditional banks (2017). Brandl and Hornuf conducted a network analysis on contractual link data between banks and fintechs to analyse the reactions of traditional banks (2017), while Dorfleitner et al. sent a questionnaire to 9 traditional banks and 33 smaller, innovative banks in order to request their fintech related activities (2016). However, these studies do not include the application of the disruptive innovation theory based on empirical data. By answering this final research question, the research aim should be achieved – the specific contribution to academics and practice is also stated in chapter seven.

## **Discussion**

The objective is to critically explore and evaluate to which extent the service of factoring platforms is a substitute for traditional banking services especially traditional factoring to LMEs in UAE and Germany. The categories previously illustrated contain indicators that enable or disable the substitution of traditional and relationship banking by factoring platforms.

- 1) Signaling effect: The results show that executives of LMEs can critically consider the publication of the intention to use factoring. They assume that this implies a negative signal to

the market that the company has financing difficulties. The signal can be sent to potential investors and to the customers. In case of the auction-based and pre-agreed financing mechanism, the information should be more published than in traditional factoring even though solely institutional investors are involved. However, on the other two matching and financing mechanisms, the information should be as private as in traditional factoring. Staroßom also argues that notification factoring can be a negative signal to the market (2013). However, on the platforms non-notification factoring is partly possible. Therefore, this indicator is evaluated as neutral under the status quo.

1. Economic conditions: The results show that the current economic conditions on factoring platforms should not be attractive for LMEs as demonstrated by the executives. Therefore, this indicator is evaluated as disabling under the status quo. If a new approach based on big data and machine learning could produce soft information that is equal to or higher than in relationship banking, and the platforms have more economies of scale effects while their business is increasing and they are consolidating, then the disabling effects of higher fees might be neutralised.
2. Transaction costs: The results show that executives of LMEs critically consider the administrative effort of financing individual accounts receivable. In these cases, the number of annual transactions varies between 1,500 and 350,000. Due to the higher transaction costs of financing individual accounts receivable or auctions of total portfolios which also should cause higher transactions costs than a general agreement, this indicator is evaluated as disabling under the status quo. If factoring platforms would provide general agreements, then it could potentially neutralise the disabling effects. The financing of individual accounts receivable might be interesting for accounts receivable that have high volumes and/or high risks, but it cannot substitute traditional factoring.

### **Description of results**

In total, 21 financing fintechs were analysed, of which, five crowdlending platforms. Each platform was characterised with a number (#). As described in chapter four, the source of the content was the web-presence of the respective platform, while only for the founding date online-handelsregister.de was used, which is an online trade registry service; for checking of whether or not the platform has a banking licence, the search function on portal.mvp.bafin.de of the BaFin was used. Since crowdlending platforms are two-sided marketplace business models, the categories were split into three groups: Category one (C1) to C12 is related to the platform, C13 to C20 to the borrower, and C21 to C25 to the investor. C26 is related to overall topics without a specific defined content.

The results are summarised in one profile matrix which is illustrated in table 16. If certain information is not described in the following for a platform, then the information was not available. Whether or not the information was available, is also shown in the profile matrix – it is labelled with zero and not available in case of a category and with not available in case of a sub-category. C1 relates to formal aspects which describe the name of the platform's legal entity and starting domain. Due to simplification reasons, in the following the platforms are termed with the starting domain but without the top-level domain. C2 describes the legal entity's founding date, which varies between 2013 and

2015 – see details of each platform in profile matrix.

Again, the platform either needs an own banking licence or has to cooperate with a bank. Sub-category one of C3 (C3S1) describes that the platform has a banking licence on its own, while C3S2 describes it has no banking licence and cooperates with a bank. The latter also includes the information, whether the resale of the loan claim from the bank to the investors is direct or indirect. No platform has a banking licence on its own. Fundingcircle cooperates with Wirecard AG and Kapilendo with Fidor Bank AG. All platforms, except Unternehmerich, apply the indirect resale mechanism.

C3 describes the contractual agreements and fund flows between the parties involved. Both the indirect and direct resale mechanisms are already explained in chapter three. However, in order to illustrate the contractual agreements and fund flows, the mechanisms of Kapilendo and Unternehmerich are explained in the following. Kapilendo consists of two legal entities: Kapilendo AG and Kapilendo Funding GmbH. The borrower and each investor have a user contract with Kapilendo AG in order to use the platform. This contract can be agreed via registration on the platform. After the platform positively selected and published the funding, the investors can screen the funding and in case they want to invest, they have to click a button to offer. This click procedure is legally an *invitatio ad offerendum* meaning a request to receive an offer. Afterwards, the investors receive a contract with Kapilendo Funding GmbH via e-mail for the resale of the partial loan claim against the borrower. After the receipt of the e-mail, the investors can click a button on the platform to agree to the contract without a further written agreement.

The agreement of the partial loan claim contract includes an agreement of an investment arrangement contract between Kapilendo AG and the investor. The investors transfer the funds to Kapilendo Funding GmbH. Instead of providing the loan, the platform arranges the loan between the partner bank (Fidor Bank AG) and the borrower. Therefore, there is a loan arrangement contract between Kapilendo AG and the borrower. Additionally, there is a loan agreement between Fidor Bank AG and the borrower which is only valid if the funding threshold is reached. Furthermore, there is a resale claim contract between Fidor Bank AG and Kapilendo Funding GmbH.

### **Summary and Conclusion**

The objective was to critically explore and evaluate to which extent the service of financing fintechs is a substitute for traditional banking services to LMEs in UAE and Germany. This is relevant in order to evaluate the disruptive innovation threat of financing fintechs that provide services to SMEs in UAE and Germany to traditional banks. Again, according to the disruptive innovation theory, incumbents often fail competing disruptive innovation because they do not consider it as disruption since the entrants firstly serve low-end or non-customers. However, as their performance increases, they finally serve mainstream customers and disrupt the incumbents (Christensen & Raynor, 2003). As described in chapter four, LMEs can be considered as mainstream customers of traditional banks. However, a disruptive innovation is solely critical if the entrant's service or product is a substitute for the incumbent's service or product (Christensen & Raynor, 2003; Rafii&Kampas, 2002).

As shown by the research gap which is illustrated in chapter three, this is the first study which explored and evaluated to which extent the service of financing fintechs is a substitute for traditional banking services to LMEs in UAE and Germany. Based on the results, indicators were identified and

evaluated as disabling the substitution or as neutral. No indicator was evaluated as enabling the substitution. Therefore, the results show that in the status quo the services of crowdlending, crowdinvesting, and factoring platforms cannot be considered as a substitute for traditional banking services for LMEs in UAE and Germany. For crowdlending and crowdinvesting there are no potential adjustments which could substitute the traditional banking services in the future, while factoring platforms might have the potential to neutralize the disabling effects. However, neutralizing the effects does not imply enabling the substitution. The final evaluation of the disruptive innovation threat is illustrated in the next chapter.

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