Abstract: Technological development has played an integral role in the transformation and progress of the financial sector. Reductions in time, costs, efficiency, are some of the opportunities that the FinTech sector stimulates. In this paper we will examine the advantages of technology integration in finance and FinTech’s interaction with other sectors such as banking but also the risks it carries. We will analyze FinTech implementation in Albania market and the challenges faced for development.

If we take into consideration how quickly the economic, social, cultural and natural conditions are changing, of course finding, applying and developing new alternatives is the right solution. FinTech is therefore seen as the future of the financial sector.

In conclusion, Albania as a developing economy and unknown with new technologies, regardless of all the difficulties, is open to innovations and can be seen as a new market for the development of FinTechs.

1. INTRODUCTION

Financial globalization, global crises and the need to overcome them, consumer behavior changing over years and lately the Covid-19 pandemic has brought to focus the absolute need to develop new sectors. FinTech as a sector that applies technological solutions in various financial services areas is seen as a support and choice in the transformation and modification of business models, applications, processes, and products (Feyen, Erik; Frost, Jon; Gambacorta, Leonardo; et al, 2021). Services offered by FinTech companies vary from payment applications, lending and money transfers, advancing to digital lending and cash management, robo-advisory, social integration and trade, indicating the growth of its spread.

Fintech has gone through three transition stages, with each one having great importance. The development of Fintech dates since 1866 where the first phase of this sector is thought to have begun. On the other hand, the changes that have driven the transformations in the financial sector have mainly come as a result of the 2008 Global Financial Crisis (The World Bank Group, 2020), where the brand image of banks was deeply shaken (W. Arner, Barberis, & P. Buck, 2017). Nowadays FinTech has been characterized by the rapid growth of companies and startups by expanding in scope and covering the full spectrum of financial services and finance.

The benefits of financial sectors that have been driven by FinTechs are numerous, some of which are faster operative processes, cost efficiency, lower information asymmetries. At the same time, the growth of Fintech faces different typologies of risks, such as money laundering, information theft, fraud, and cyber-risk (Nino, Langthaler, Fabian, & Mayorga, 2017), which are being more and more an obstacle to the development of this sector.
In Western Balkan, the FinTech sector remains unexplored despite the high growth in the use of cards and digital payments. The barriers have been and still are high cash-use, low accessibility to payment and information systems, limited access to capital and finance (Odorović, McKain, Garvey, & al, 2020). Albania as an economy in development and compared to the possibilities given to startups and innovation is paving its way toward FinTech development, however not enough information is available for this sector to give and determine the importance of its implication in the economy.

2. AN OVERALL VIEW TO FINTECH – LITERATURE REVIEW

2.1. FinTech Sector Presentation

The separation between Finance and Technology is now almost non-existent with financial technology companies (FinTechs) (Leong & Sung, 2018). FinTech as an industry representing the advanced technology that benefits finance is seen as a wave of companies affecting and changing the way consumers and businesses, investors, and regulators lend, invest, pay and send money. They are start-up companies with a variety of business propositions and were firstly developed in the US with a fast spreading out to the East Coast, Europe, Hong Kong, Singapore, Australia, and much of Asia (Sironi, 2016).

2.2. FinTech Companies Services

The financial technology industry includes technology firms offering financial services, in order to support financial transactions (Chishti & Barberis, 2016). FinTech companies are setting up new and innovative services that are changing the way customers expect overtime and not just taking advantage of the gaps left by traditional players (Riemer, Hafermalz, Roosen, & et al, 2017).

Managing business/consumers financial cash flows and optimizing their spending structure, providing financial accounting solutions for SMEs, robotization, innovative forms of electronic payments, are some of the services offered by FinTech companies (Stern, 2017).

Payment sector. The innovation that FinTech brings in the payment sector consists in not including by necessity of having a bank account to make a transaction, decreasing transaction fees, giving companies more control over whether transactions are approved. Different companies come with different payment services, below we will present some of them (Kauflin, 2021):
– Marqeta – Through its services in debit card transactions, it gives more control over whether transactions are approved to the companies that issue cards to employees and customers.
– Arcus – Offers online payments and maintaining digital wallets to companies’ end customers in Latin America. An example is Walmart’s digital banking app Cashi.
– Wise (formerly TransferWise) – With Wise, online international money transfers costs for consumers are reduced to an average of 0.7% compared with 3-4% from U.S. banks, by matching currency orders within a country.

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4 Rebecca Menat – Director of Communications of the Assets
5 SME – Small and medium-sized enterprises
6 Marqeta Official Website – https://www.marqeta.com/uk
7 Arcus Official Website – https://www.arcusfi.com/
8 Wise Official Website – https://wise.com/
Paysera\textsuperscript{9} – Helps clients to transfer money quickly and easily in many different currencies across the world, available to everyone, anytime at a fairer price than banks.

**Finance Management**

Spendee\textsuperscript{10} – Helps its users to sort their transactions into different categories by connecting the user’s mobile phone with the customer’s bank account and downloading all transactions.

**Lending.** Dropping all obstacles faced in loaning from banks, FinTech is making it easier for small business and startups.

OppLoans\textsuperscript{11} – Insures middle-income consumers a better financial path, by choosing a loan with rates that work best for them (Daley, 2021).

### 2.3. FinTech Benefits and Risks

**Benefits**

• Cost Efficiency – Strengthening business models of financial institutions with Robo-advice and RegTech. Lowering transaction costs and providing better capital allocation via FinTech lending (FSB, 2017).

• Transparency/Lower information asymmetries – By providing transparency and clarity on fees and charges (KPMG, 2017).

• Faster and personalized operative processes through online or mobile platforms – Personalizing services and significantly enhancing customer engagement and experience (KPMG, 2017). With the improvement of financial services across all participating companies, visibility and access to FinTech services is at the easiest (Vučinić, 2020).

**Risks**

• Lack of regulation – Supervisory authorities and regulatory frameworks must be adapted to the rapid expansion of FinTech (Gu, 2021).

• Cyber-risk – Financial organizations accumulate a lot of data and the security of it is top priority of the companies using and participating in this sector as hackers can access and use this information for financial fraud\textsuperscript{12} (Burak, 2021).

• Technology failure – Includes problems due to poor or lack of internet signal resulting in wrong data entry, process management failures, error in systems’ maintenance, delivery failures and execution failures.

### 2.4 Development through years – FinTech Phases

The evolution of Fintech has gone through three different stages of evolution (W. Arner, Barberis, & P. Buck, 2017), each one having great importance.

**FinTech First Phase – 1866 to 1967**

In 1866 financial globalization was successfully possible through the laying of the first transatlantic cable. In 1918 a transfer system was developed enabling the movement of

\textsuperscript{9} https://www.paysera.com/v2/en/index
\textsuperscript{10} Spendee Official Website – https://www.spendee.com/
\textsuperscript{11} Opploans Official Websitehttps://www.opploans.com/
\textsuperscript{12} Financial Fraud – Cooking the books, making false insurance claims, fraud schemes, and identity theft leading to unauthorized purchases (https://www.investopedia.com/terms/f/fraud.asp)
funds electronically to member banks, Fedwire. In 1950, Diner’s Club Inc. offered the first universal credit card which could be used in different establishments (C2FO, 2021).

FinTech Second Phase – 1967 to 2008
In 1967, the first ATM\(^\text{13}\) was installed by Barclays Bank. In the 1990s Internet development led to digital banking platforms giving customers flexibility in managing their expenses and incomes. In 1973 was established SWIFT\(^\text{14}\). In 1998 the first online payment system was launched, PayPal. This phase ended with the Global Financial Crisis in 2008.

FinTech Third Phase – 2008 to Present
After the Global Crisis, the trust of customers toward banks was heavily shaken leading people to trust far more technology firms to manage their money rather than banks. What has characterized this phase with rapid growth was the development of technology. In 2011 was the introduction of Google Wallet, followed then by Apple pay in 2014\(^\text{15}\).

3. METHODOLOGY

3.1. FinTech In Albania

Albania in Banking Sector (e-banking, payment sector). What we will study in this paper, with a brief view, is how much do the current payments transaction and money transfers cost and where they stand compared with transactions held through FinTech companies. The following table will show three second-level Albanian banks and their incomes from commissions and fees.

<table>
<thead>
<tr>
<th>Table 1. Incomes from commissions and fees (lek currency)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Banks</strong></td>
</tr>
<tr>
<td>Intesa Sanpaolo Bank</td>
</tr>
<tr>
<td>Credins Bank</td>
</tr>
<tr>
<td>BKT</td>
</tr>
</tbody>
</table>

**Source:** Banks Income Statements\(^\text{16}\)

<table>
<thead>
<tr>
<th>Table 2. Albanian Banks commissions and fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raiffeisen Bank</strong></td>
</tr>
<tr>
<td>Transfers within bank from individual clients</td>
</tr>
<tr>
<td>Transfers within bank from business clients</td>
</tr>
<tr>
<td>Transfers outside bank from individual clients</td>
</tr>
</tbody>
</table>

**Source:** raiffeisen.al & bkt.com.al

Money Transmitter Fees in Albania. Remittances have a great impact on the Albanian economy; Albanians, on the other hand, are traditional in decision making when it comes to the safety of their cash by choosing what they are more familiar with. MoneyGram and Western Union are two of the

\(^{13}\) ATM – Automated Teller Machine

\(^{14}\) SWIFT – Society For Worldwide Interbank Financial Telecommunications


\(^{16}\) Income statements source – https://qkb.gov.al/kerko/kerko-ne-regjistrin-tregtar/kerko-per-subjekt/
biggest operators in this sector. According to the World Bank transferring a value of 200 USD in Albania costs 9.39%, whereas the average global cost is 7.25% (The World Bank, 2017).

### Table 3. MoneyGram Transfer Fees Worldwide

<table>
<thead>
<tr>
<th>Value Transferred</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01 – 100</td>
<td>8</td>
</tr>
<tr>
<td>100.01-200</td>
<td>16</td>
</tr>
<tr>
<td>200.01-300</td>
<td>21</td>
</tr>
<tr>
<td>300.01-400</td>
<td>26</td>
</tr>
<tr>
<td>400.01-600</td>
<td>32</td>
</tr>
<tr>
<td>600.01-800</td>
<td>38</td>
</tr>
<tr>
<td>800.01-1100</td>
<td>45</td>
</tr>
<tr>
<td>1100.01-1400</td>
<td>52</td>
</tr>
<tr>
<td>1400.01-1700</td>
<td>62</td>
</tr>
<tr>
<td>1700.01 – 2100</td>
<td>77</td>
</tr>
<tr>
<td>2100.01 – 2500</td>
<td>95</td>
</tr>
<tr>
<td>2500.01 – 3000</td>
<td>116</td>
</tr>
</tbody>
</table>

*Source – AKInvest*\(^7\)

**FinTech Development in Albania.** Albania is still in the first steps into FinTech development, Central Bank is supporting this sector by incorporating PSD2\(^8\) into the Albanian law to facilitate this process, and also software development companies have been eligible for tax relief since January 2019\(^9\).

In this section, we will take a look at FinTech companies’ services fees so that we can compare them with the above platforms.

**EasyPay.** Deposit to EasyPay electronic account is FREE. Electronic cash transfers from one EasyPay client to another EasyPay client are FREE. Electronic money transfers, withdrawn in cash at EasyPay Authorized Agents are subject to a service fee as above.

### Table 4. EasyPay Money Transfers Fees

<table>
<thead>
<tr>
<th>Value</th>
<th>With EasyPay account</th>
<th>With its agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-2000</td>
<td>0 – All</td>
<td>60 – All</td>
</tr>
<tr>
<td>&gt;2001</td>
<td>0 – All</td>
<td>3% of value</td>
</tr>
</tbody>
</table>

*Source: EasyPay Website*\(^20\)

Core functions are:

a) Payment system for the exchange transactions,

b) Transfer system,

c) Lending etc.

These are services widely offered by banks in Albania. What Fintechs offer more is cost and time transaction reduction, efficiency, faster and more accurate technology. Albanian banks as banks worldwide are adapting to the new changes, transforming profoundly and partnering with the Fintech start-ups (Raiffeisen Bank in Albania, 2021).

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\(^7\) AKInvest – https://ak-invest.com/MoneyGram

\(^8\) Revised Payment Services Directive 2 – aims to better align payment regulation with the market and technology’s current state


\(^20\) https://easypay.al/llogaria-easypay/#tarifat-dhe-limitet
### 3.2. Survey Results

This survey is addressed to bank employees in Albania. It aims to obtain general information on the position of Albanian banks regarding the development of FinTech. The survey was drafted after analyzing the strong relationship between banks and FinTechs as potential opponent or collaborator, as well as e-banking representing the more advanced technology used from banks in order to adapt with market requests. The survey is structured in five parts, to gather different information. The survey was completed by 14 bank branches in Albania in one week. The results of the survey are given below.

**Survey analyzes and results:**

1. Referring to the first question is important to know the position of the interviewees because it establishes the importance of the answers given. The answer of the bank employees in a higher position is more valuable due to its decision-making possibility and participation in overtaking the steps toward structure changes. To a considerable extent the answers from this questionnaire are from the intermediate level of management with 92.9% and only 7.1% are from the high level of management.

2. The second and fourth question give information regarding the use of e-banking and the sector in which it is used the most. Even though Albania is thought to have moved forward in the adaptation of e-banking and technology in general, there are still many gaps that need to get over. Compared to the promotion made from banks, even though e-banking is a necessary tool when dealing with a new field, according to banks it is not used enough. 46.2% of the answers state that e-banking is sufficiently used and 23.1% state that it is considerably used, showing in this way not a very widespread usage. Further support for this answer from banks, is the conclusion from the fourth question (see appendix). Payment sector is the most used by bank’s clients with a percentage of 85.7% and, bank’s income from commission is one of the most profitable services for them. This implies that e-banking is the most common service, comparing to other services offered by banks online.

3. Understanding the difficulties and dysfunctions of the existing systems used in e-banking helps us understand more Albanian customers and technologies used by banks. Albanian users of e-banking with 50% of the answers, are more predisposed in finding difficulties related to the use of the services offered online, showing in this way lack of technology and innovation embracement. Problems and difficulties derived from problems of bank’s systems, as results of malfunctions with 35.7% and technology problems with 64.3% and therefore bringing complaints from customers. Although FinTech is widely seen as an opponent of the banking system, Albanian banking employees claim the opposite. They see FinTech as a future collaborator and partner of banks, accepting in this way the importance, innovation and benefits that companies of the FinTech sector are bringing. On the other hand, agreeing that payment services are the most used in those offered by FinTechs, indicates a collision between two sectors.

4. To conclude, the representatives of banks were asked if they have a plan for FinTech development, 64.3% of them did not have any information. Although in a small percentage 28.6% of the answers confirmed to have a plan toward the latest changes in technology and innovations.

### 4. Conclusion

Conclusions from this paper are divided into five key points relying on the reviewed literature and the results from the questionnaire answers.
**FinTech Development is a Necessity.** FinTechs companies provide to financial institutions, banks and companies, advanced technologies and tools (Crouhy, Galai, & Wiene, 2021). Offering cost reduction, time reduction, innovative, personalized processes, FinTechs are being more appealing to less-lucrative retail clients and to SMEs (Crouhy, Galai, & Wiene, 2021). On the other hand, supporting FinTech is a necessity, as seen from the developed questionnaire, customers are dissatisfied with e-banking (as the most competitive form of FinTechs) resulting from technical problems, being not innovative in technology, or not adapting the customer needs relating with the latest changings.

**FinTech Difficulties.** Being a new sector, FinTech companies are seen to have a lack of regulations and supervision organizations (Narváez, 2021), unlike banks that have a well-structured control system operating for years. This encourages distrust of customers toward choosing FinTechs over banks. Representing developed technology, FinTech can suffer also from lack of customer understanding, bringing difficulties in adaptation with the offered services (KPMG, 2019). Albanian customers according to our questionnaire have had problems in using e-banking as the closest form of technology advancement, implying a gap between customers and the use of online platforms. This shows a major problem that FinTech faces and a reason why companies in this sector are not developed and are not considered a choice for customers.

**FinTech in Albania.** FinTech development in Albania faces various obstacles, lack of financial inclusion is one of these difficulties. Albania compared to other SEE countries or even upper-middle-income countries has the lowest share of adults with a transaction account. This indicator in upper middle income is at 73.1%, while in Albania it is at 40% (The Global Findex Database, 2017). This underdevelopment in Albania might come mainly as a result of the poor information and lack of financial education. A conclusion drawn from our questionnaire is that in order to adapt more quickly to the Albanian market, FinTechs should focus on sectors that are mostly used such as payments, transaction costs, followed by the lending or financing sector and data management.

**Albanian banks toward FinTech development.** 28.6% of the answers from the last question directed to Albanian banks implied that they had a strategy to deal with technology and FinTech development. This low percentage is a result of the low number of interviewers or the fact of not being part of leadership level, but certainly all interviewed levels agree on the benefits that the embracement of new technology would bring and all banks must boost it.

**FinTech & Banks.** In banking institutions, all services offered by FinTechs are fully integrated (Crouhy, Galai, & Wiene, 2021), but the problem remains in the efficiency of those services. Banks have been operating for a much longer time gaining in this way the trust and reputation of many loyal customers. They also are managed under a regulatory umbrella being safer and more trustful (Crouhy, Galai, & Wiene, 2021). Being aware of these advantages banks are now trying to embrace the new and modern technologies and also partnering with FinTechs. As far as partnering, banks and FinTechs are also seen as opposing. Payment sector is the most used in e-banking and in the same way the most preferred and successful in FinTech, due to low-cost transaction. In this way, transferring money through EasyPay would not add extra cost whereas using different money transmitter in Albania would cost a minimum of EUR 8 to EUR 116; banks also apply different fees depending on the amount transferred.

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21 SEE- Southeastern Europe countries
The number of banks partnering with FinTechs or adapting the newest technologies is a recognition of the need to keep up with the innovations coming with financial globalization and help to accelerate benefits from technology improvement. According to research from Tink, it was found that 69% of the financial institutions in Europe in 2019 increased their number of financial technology partnerships. From this partnership, banks can access emerging technology and innovative new ways of working is in this way more competitive and able to meet the consumer needs (Giesecke & Devrient, 2021).

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Tink – An opening banking platform that enables banks, fintechs and startups across Europe to develop data-driven financial services (Open Banking).


ANNEX

1. What is your position in bank:
   a) Intermediate level of management
   b) High level of management
   c) Leadership level

2. How developed/used is e-banking by your bank customers:
   a) Compared to the promotion made by bank, sufficiently used
   b) Compared to the promotion made by bank, considerably used
   c) Compared to the promotion made by bank, widely used

3. Have customers encountered difficulties in adapting / accepting / using e-banking:
   a) Yes, they have had difficulties in use
   b) Yes, they have had difficulties in acceptance
   c) No, they were easily adapted

4. What are the services that according to the use have the most frequent e-banking:
   a) Saving
   b) Funding
   c) Payments
   d) Exchange
   e) Balance verification and payment

5. Are there frequent customer complaints due to the system used in your bank:
   a) Yes, there is often dissatisfaction towards system malfunction
   b) Dissatisfactions are rare and come mainly from technical problems
   c) No, there are no complaints from customers

6. Do you think that the absorption of new technologies by banks would bring:
   a) Providing services at the lowest cost
   b) Shorten time of banking procedures
   c) Increased customer satisfaction
   d) It would not make a big difference

7. Do you see FinTech as a potential opponent or partner of the bank:
   a) Opponent
   b) Collaborator
   c) Both

8. In which sector do you think FinTech will be most successful:
   a) Payment
   b) Remittances
   c) Lending / Financing
   d) Data management
   e) Transaction cost
   f) other

9. Does the bank that you represent have a strategy to deal with FinTech development
   a) Yes
   b) No
   c) Do not have information
APPENDIX – RESULTS FROM THE SURVEY

1. What is your position in bank:
   - Intermediate level of management: 82.9%
   - High level of management: 17.1%

2. How developed / used is e-banking by your bank customers:
   - Compared to the promotion made by bank, sufficiently used: 46.7%
   - Compared to the promotion made by bank, considerably used: 30.0%
   - Compared to the promotion made by bank, widely used: 23.0%

3. Have customers’ encountered difficulties in adapting / accepting / using e-banking:
   - 50%
   - 35.7%
   - 14.3%

4. What are the services that according to the use have the most frequent e-banking:
   - Saving: 85.7%
   - Funding: 7.1%
   - Payments: 7.1%
   - Exchange: 0%
   - Balance verification and payment: 0%

5. Are frequent customer complaints due to the system used in your bank:
   - Yes, there is often dissatisfaction towards system malfunction: 64.3%
   - Dissatisfactions are rare and come mainly from technical problems: 35.7%
   - No, there are no complaints from customers: 0%

6. Do you think that the absorption of new technologies by banks would bring:
   - Providing services at the lowest cost: 73.4%
   - Shorten time of banking procedures: 26.6%
   - Increased customer satisfaction: 0%
   - It would not make a big difference: 0%

7. Do you see FinTech as a potential opponent or partner of the bank:
   - Opponent: 78.0%
   - Collaborator: 14.3%
   - Both: 7.1%

8. In which sector do you think FinTech will be most successful:
   - Payment: 50%
   - Remittances: 14.3%
   - Lending / Financing: 28.0%
   - Data management: 0%
   - Transaction cost: 0%
   - other: 0%

9. Does the bank that you represent have a strategy to deal with FinTech development:
   - Yes: 64.3%
   - No: 28.0%
   - Do not have information: 0%