## Study - Financial Technology & Lebanese Banks: Opportunities and Challenges

#### I. Introduction

This study sheds light on the definition of Financial Technology (Fintech); the factors motivating its growth; its covered sectors; its benefits to the banking sector, society and economy; and challenges as well as difficulties facing its growth and expansion. The study also highlights the current position and development of Fintech in Lebanon, the operating companies, growth factors, and its opportunities and challenges to banks. It concludes a set of recommendations necessary for the development of a supportive environment for the growth of the Fintech industry, that would achieve advantages to the country's banking and financial sectors.

#### II. Fintech: Definition and Institutions

According to the Financial Stability Board, Financial Technology (or Fintech) is defined as "financial innovations using technology which produces operation models or applications or transactions or new products, that have physical effects on financial markets, institutions and services"

Fintech is characterized by its ability to change the existing financial services structure, leading to better, faster, cost-effective, safer, more transparent and more accessible services. Accessibility is a major characteristic of Fintech since it allows a large parts of the population in a country who do not deal with banks due to certain considerations such as high operation costs, long distances, or complicated bank account opening, to access electronic banking services.

Usually, Fintech innovations in terms of products and services are developed by startup companies working in the Fintech sector, whose objective is to improve financial and banking services to consumers, companies and institutions. Such Fintech services could be provided based on cooperation or competition with banking and financial institutions.

The definition of Fintech has expanded over the last years to include all technological innovations or renovations in the financial services sector, which could be provided by banks or Fintech startups. It also includes other areas such as financial education, financial services for consumers and companies, money transfer, investment management, and encrypted digital currencies (such as Bitcoin).

Fintech is now reaching and affecting the life of consumers and businesses, all over the world, starting from the local merchant who seeks funding, to households who plan for pension, and to the foreign worker who sends money to his/her relatives at home country.

The growth of the Fintech industry is influenced by both demand and supply factors. On the demand side, consumers are increasingly looking for priorities such as fast, easy use and low cost services. On the supply side, there is the accelerated development in the ICT sector and the growing use of internet and smart phones, besides the increasing complications in regulatory and supervisory requirements related to banking activities (such as anti-money laundering, combating terrorism financing, FATCA Law, Basel standards and others).

#### III. Fintech Areas

According to Basel Committee on Banking Supervision, Fintech is related to three major sectors which cover the basic financial services, namely:

- 1- Credit, deposits, and capital.
- 2- Management of funds, investments and wealth.
- 3- Payments, clearing and settlement.

The last years experiences have shown that the banking and financial services that are increasingly linked to Fintech are the following:

- 1- Private banking services.
- 2- SMEs services.
- 3- Corporate banking services.

- 4- Investment banking services.
- 5- Money transfers and payments.
- 6- Management of investments and wealth.
- 7- Financial brokerage services.
- 8- Life and property insurances.
- 9- Insurance Brokerage.
- 10- Market and transaction operators.
- 11- Funds operators.
- 12- Reinsurance services.

## IV. Advantages of Fintech

There are several potential advantages of Fintech in any economy, mainly the following:

- 1- Decentralization and diversification.
- 2- Efficiency.
- 3-Transparency.
- 4- Easy access and use of financial services.

Decentralization and diversification in the financial system lessens the negative impact of financial shocks and crises, due to a more diversified range of financial service providers.

Efficiency, in turn, increases the degree of competition in the financial system, which supports business models of financial institutions.

Good transparency makes evaluation of financial risks easier, more accurate, with less time and cost.

In addition, Fintech facilitates access to financial services, thereby supporting the growth of financial inclusion for households and institutions, and, hence, economic growth and the ability of institutions to control investment risks

Therefore, Fintech plays a major role in the domestic economy, by increasing financial inclusion, economic diversification, and controlling risks. Also, it supports stability in the financial system, mainly by using technology to comply with the regulatory and supervisory frameworks related to risk management, fraud, antimoney laundering and combating terrorism financing.

In parallel with Fintech growth "Regtech" is also expanding. Regtech uses IT to support institutions to comply with international regulation and supervision standards.

In addition, Fintech has another significant advantage: it plays a key role in expanding e-commerce in a country especially with the growth of electronic payment services related to the purchase of goods and services.

### V. Problems and Challenges of Fintech

Despite the fact that technology use is on growth in the economies of countries, yet there are several problems and challenges facing its fast spread and expansion. International data indicates that 50% of customers of Arab banks have interest in Fintech services; however, less than 5% of them use such services. Also, the failure rate of startups in the Fintech industry reaches 30% in the Arab region.

We can mention the following problems and challenges which face the fast spread and expansion of the Fintech sector in the Arab region:

- Weak financial culture and awareness, which lessens customer confidence in Fintech services, thereby decreasing the ability of Fintech companies in attracting customers.
- Customer preferences for on-delivery service, due to their fears of fraud, hacking and financial crimes which are daily increasing.
- Regulatory and legal restrictions imposed on the establishment of Fintech companies, besides other impediments to its market access.
- Financial opportunities for Fintech companies, because the private equity and venture capital markets are still immature, especially with the declining oil prices and revenues.
- Despite the growing internet and smart phone penetration in some Arab countries, yet the services provided in such sectors are characterized by low quality and slowness.
- Ongoing fierce competition between foreign Fintech companies and banks as well as financial institutions which prefer to develop its own traditional financial and

banking services, and which are currently upgrading its digital financial services by adopting innovative digital policies.

 Limited competent and experienced human resources in the fields of Fintech, and banking and financial sectors.

## VI. Current Position of Fintech in Lebanon

According to available statistics for 2015, there are 15 start-up companies working in the Fintech industry in Lebanon, with an increase of 12 companies from 2011. The annual compound growth rate for this period is nearly 50% in the country. This figure represents nearly 14% of the total number of Arab Fintech companies (nearly 105 companies in 2015). Lebanon has established some incubators and accelerators to help in expanding the number of Fintech startups over the past years. Population of Lebanon are interested in Fintech innovations, as 54% of customers with bank accounts are using digital banking services as far as 2017 in concerned, relative to a rate of 38% in 2016.

Fintech has a basic advantage for the banking sector and economy of Lebanon. It supports the growth of financial inclusion, i.e. spreading financial services to larger groups and regions of the country. Domestic available data for 2014 indicate that the share of opened accounts at official financial institutions as a percentage of the mature population over the age of 15 reached 46.9%, ranging between 62.4% for males and 32.9% for females. Also, 53% of the Lebanese do not have banking accounts.

The major start-up companies operating in the Fintech industry in Lebanon are the following:

- **ReAble**, which operates in the field of private financial affair management, especially for special-need people. It provides application and tools to carry on financial and banking transactions in an easy way and under the supervision of custodians.
- Card Switch, which operates in the field of credit management in banks. It provides digital banking services based on linking payment cards with smart phones of users.

- **Bluering**, which operates in the field of digital banking services. It provides solutions for credit management to the Middle Eastern banking and financial sector, besides techniques for analyzing and evaluating loan files for individuals and SME companies.
- **PinPay**, which is the first application for payment and financial activities via the mobile phone. It is provided by some Lebanese banks.
- **Zoomal**, which is a platform for collective financing to innovation projects in the Arab region.
- **CMO** is an application for electronic payments via the mobile phone launched by CSC Bank. It also provides other services such as money transfer and cash withdrawals from ATMs.
- **Via Mobile**, which provides payment solutions using the mobile phone to individuals and companies.
- Risk + Solutions, which is specialized in developing and implementing IT solutions in the field of financial intelligence and risk management, which are provided to banks and financial institutions.
- **Jelly Fish**, which provides the B2B application for the business sector. It also equips SMEs and NGOs with services such as organization and examination of financial reports and budgets for several sections in real time without the need for accountant consultation.
- **Anzimaty**, which operates in the fields of e-commerce and electronic payment solutions in Lebanon and the Arab region. It designs websites on the internet and apps on smart phones.
- **FOO**, which operates in the fields of e-commerce, electronic payment solutions, and electronic banking operations using smart phone or smart watch apps.

Hence, it is obvious that Fintech companies are active in the fields of payment solutions using smart and mobile phones, e-commerce, collective financing, personal financial affair management and others.

Fintech companies do not tend to compete with Lebanese banks but rather cooperate and partner with them, in order to provide Fintech services to customers. In this sense, both parties benefit when dealing with customers. The Lebanese banking sector accommodates modern developments in the ICT industry, thus developing and diversifying its services, controlling its risks, and enhancing its compliance with local and international banking rules and standards.

Due to continued Fintech innovations on one hand, and the strong and growing financial potentials of banks on the other hand, Lebanon has a valuable opportunity to become a major hub for Fintech services in the Arab region. This requires a collaborative effort on the part of concerned ministries, Central Bank, banks and financial institutions, ICT companies and entrepreneurs in order to further develop the Fintech industry in the country.

# VII. Driving Forces for Fintech Growth in Lebanon

There are several driving forces for Fintech development in Lebanon, although the number of start-ups operating in this field is still limited. A major driving force is the existence of a strong, large and supportive banking sector whose assets and deposits represent more than four times and three times respectively of the country's GDP. Most Lebanese banks have launched Fintech applications, whether independently or in partnership with Fintech start-up companies.

Also Lebanon enjoys an educated, talented, well trained and experienced human capital in the fields of ICT, finance and business. The Lebanese human resources also enjoy a competitive edge in terms of low cost as compared to other countries such as the GCC countries.

Lebanon is also known for its widespread expansion of the internet service. The World Bank statistics for 2016 show that 76% of the Lebanese use internet relative to 42% for the Arab region. It is also known for the continued growth of smart and mobile phone use, where domestic statistics for 2015 show that 88% of the Lebanese have mobile phones and 52% have smart phones relative to the world rate of 43%. This Lebanese rate increased to nearly 90% in 2017.

In addition, the ICT sector is a growing industry in Lebanon, thereby paving the way for further expansion in the number of IT companies. Lebanon is ranked 6th in the Arab region and 64th worldwide out of 176 countries in terms of the ICT Development Index issued by the International Telecoms Union. It is also ranked 5th and 53th respectively in terms of ICT Use Index.

Furthermore, the Central Bank's regulatory incentives provided to domestic banks constitute another driving force for the growth of the Fintech industry in Lebanon. The intermediary circular nb. 331 issued in December 2013 allows banks and financial institutions to subscribe up to 3% of its private capital in start-ups, and business accelerators and incubators operating in the ICT sector. The Central Bank has allocated nearly USD 400 million for bank investments in this sector. It is worth mentioning here that 8 business incubators/accelerators and 6 venture-capital funds are currently operating in Lebanon.

However, there is a major factor impeding the fast growth of the Fintech industry in Lebanon, namely the increasing threats of the cybercrime activities. Lebanon's efforts in this respect are still below the regional and international standards. It is ranked 15th in the Arab region and 119 worldwide among 165 countries for 2017 in terms of cybercrime security efforts according to the International Telecoms Union.

# VIII. Opportunities and Challenges of Fintech for Lebanese Banks

There are several opportunities which Fintech allows for the banking and financial sector in Lebanon. Firstly, it enhances the scope of financial inclusion in the country, since it increases the access of several sectors of the society and several regions to financial services.

Also, Fintech provides better and more appropriate banking services to individuals, companies and institutions, depending on cooperation schemes between Fintech companies and banking and financial institutions, especially in the fields of money transfer and payments within or across borders.

In addition, Fintech increases competition in the local market, between Fintech companies themselves or with banks or even among banks, thereby lessening the scope of financial risks and increasing domestic financial stability.

Furthermore, Fintech helps in the automatization of regulatory reports and compliance and regulatory requirements, whether local or international, especially in the fields of anti-money laundering and combating financing terrorism.

However, the implementation of modern technology in banking and financial services is increasingly producing, according to the Basel Committee, several risks, hence forcing banking and financial institutions to adopt and implement effective strategies and policies for controlling and managing these risks in order to secure its safety and financial stability.

The major risks induced by Fintech expansion in the banking and financial sector are the following:

- **1- Strategic risks:** These risks are produced by the competition of Fintech companies with banks, which usually lead to pressures on banks' profits and its sustainability in the medium and long terms.
- **2- Systemic risks:** These risks are produced by the market interconnection between Fintech companies and banks, so that any IT crisis could lead to a financial systemic crisis and to more complication in the financial system.
- **3- Operation risks:** These are induced by the innovation-led products and services, which complicate the risk-management process as far as operational risks are concerned.
- **4-Compliance risks:** These are induced by the increasing difficulties of compliance with international regulatory and supervisory requirements for AMS, CFT, fraud and privacy of financial data.
- **5- Outsourcing risks:** These risks are produced by the ability of banks to monitor and manage risks of operations implemented by outsourcing parties.
- **6- Cybercrime risks:** these risks are produced by fraud and hacking activities of private data and information, given the increased use of IT in banking activities.
- **7- Liquidity and Finance risks:** These are induced by the degree of loyalty of customers to banks, at times Fintech companies are delivering direct products and services to customers in more dynamic, flexible and easy ways and

with low cost. This is causing fluctuations in deposits and finances at banks, thereby increasing liquidity and finance risks.

# IX. Requirements of a Supportive Environment for the Growth of Fintech and Banking

It is evident that Fintech is benefiting Fintech companies, banking and financial institutions, and also customers.

It is also evident that Fintech poses several threats or risks that could jeopardize the strength and stability of the banking and financial sector. This could prevail if banks do not upgrade its risk-management potentials, and if IT innovations are transformed into instruments and techniques that support financial crimes, which in turn lead to significant financial losses for banks, financial institutions and its customers

Hence, creating a sound and sustained balance between Fintech innovations on one hand, and risk management on the other hand becomes a crucial and necessary strategy. This definitely needs a financial and banking environment which is supportive to overall stability. Such an environment should be established and developed based on an effective cooperation between all stakeholders, namely banks and financial institutions, IT companies, Central Bank, and domestic regulatory authorities.

Following are major measures that could strengthen banking and financial stability in light of increased use of Fintech activities:

**First:** The current regulatory and supervisory frameworks should encourage innovations in the ICT sector, and at the same time increase the scope of instruments and techniques for controlling potential banking and financing risks.

**Second:** Encouraging cooperation between Fintech companies and banks, in order to provide customers with new and safe products and services that depend on IT innovations

