

Fintech

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ABSTRACT

Currently, many people manage their business and their money online, for this reason finance and technology companies, usually Startups are taking advantage of this situation to look for new financing options and money management different from traditional banking and in this way offer crowdfunding platforms, payment by mobile phone and among other financial services that can be done in a virtual, easy and economical way, that is why this work presents as a general objective to perform a literature review on Financial Technology or Fintech (Financial Technology). For this, concepts of crowdfunding, Crowdequity, Crowdlending, Insurtech, cryptocurrencies, their different applications and case studies in countries where technological finances have been most successful are addressed. Documentary analysis is used as a research method.

Keywords: Fintech, Crowdfunding, Crowdequity, Cryptocurrencies

JEL Classification: G15, F31, P45

INTRODUCTION

The financial industry in the world is undergoing a profound change due to increasing internet access and the connection speed that allows people to perform virtual activities such as buying and selling products. This virtual scenario became an opportunity to increase sales of many companies to create a new business or marketing of products or the provision of services. The financial industry was not left behind in this virtual business model, which is called Fintech where financial products and services such as payments, loans, management of personal finance, project financing (crowd funding), investment management, insurance.

Unlike banks traditions, Fintech offers financial services that move faster, greater convenience and lower cost, in addition to understanding the current importance of acting more like a technology company than a financial one.

The Fintech have a promising future not only for the ease of internet access, but also many countries are betting on an economy without cash. Banknotes and coins are falling into disuse, and commercial establishments allow you to pay by credit card or through mobile applications thanks to crypto currency. In conclusion, the trend will continue to increase

virtual payment and cash will become a marginal form of payment.

This work has as general objective: To review the literature on issues of Fintech in different databases

And as specific objectives:

- Identify key aspects of the use of criptocurrency
- Identify the current use of the financing platforms
- Addressing concepts such as crowdfunding and crowdequity,
- Show the key elements as a factor of success of crowdfunding platforms

METHODOLOGY

In order to meet the objective, there is a revisión of the literature. In order to do so, the literatura must be detected, obtained and consulted. The necessary and relevant is extracted and collected.

Information resources used were specialized databases: SciElo, Dialnet, EBSCO, Science Direct, Google scholar and as a search strategy or keywords: Fintech, crypto divisas, crowdfunding, technological finances. When viewing documents, a selection is made, discarding those that do not correspond with the

prospect of our study. Useful sources of information are carefully reviewed and extracted from them the necessary information, which is then integrated and developed.

THEORETICAL FRAMEWORK

Financial or Fintech Technology (Financial Technology)

Definition of the Concept

"Fintech is a concept that arises from the union of the words finance and technology, and is a relatively recent phenomenon of companies trying to change the financial industry through the incursion of online solutions for financial processes" (Cardenas, 2015).

"The Fintech comprise different types of payment services, financial services, peer transactions, alternative lending platforms and new crypto-currencies. And while some of these companies and new systems such as Bitcoin, have apparently been very volatile and downright confusing, more and more it has an appeal to much greater both consumers and entrepreneurs "(Glucki, 2016)

"The Fintech sector is the set of non-financial companies that use digital technology and associated tools -Computer cloud, blockchain, big data, artificial intelligence, social networks, etc. to provide financial services to consumers and businesses in a innovative way and under new business models. Fintech industry innovations have the potential to transform the financial sector and help provide services to social groups traditionally blind eye by banks "(Development Bank of Latin America, 2016).

Historical Review

The origin of the term Fintech dates back to the early 1990s and referred to "Technology Consortium Financial Services", a project initiated by Citigroup to facilitate efforts for technology cooperation (Hochstein, 2015). However, it is only since 2014 (Google trend search, 2018) that the sector attracts the focus of regulators, industry participants and consumers alike. Arner, Barberis and Buckley (2015) assert that Fintech is not an inherently new development for the financial services industry. In fact, the introduction of the telegraph (first commercial use in 1838) and placement of the first successful transatlantic cable in 1866 (by Atlantic Telegraph Company) provided the infrastructure for the first great period of financial globalization in the late nineteenth century. Subsequently, the introduction of

automated teller machine (ATM) in 1967 by Barclays Bank arguably marks the beginning of the modern evolution of Fintech today (p.4).

Since the late eighties, finance has been an industry based on the transmission and manipulation of digital information. In fact, the ATM is often the only point for most consumers today in which financial transactions move from a purely digital experience to one that involves a physical product (ie, cash).

Since 2008 there has been a rapid expansion in the types of businesses that create and deliver technology to provide financial products and services. It is important to distinguish three main eras of evolution of FinTech. From about 1866 to 1987, the financial services industry, although strongly interconnected with technology remained largely as a similar industry, at least in public perception, a period that characterize as Fintech 1.0. However, by 1987, financial services, at least in developed countries, had become not only once again highly globalized, but also digital. This period, which we characterize as Fintech 2.0, continued until 2008. During this period, Fintech was dominated mainly by traditional regulated financial services industry utilizing technology to provide financial products and services. However, since 2008 (the period are known as "Fintech 3.0"), this is no longer necessarily the case. New startups and established technology companies have started to offer financial products and services directly to businesses and the general public (Arner et al. (2015).

Fintech Companies

The Fintech sector is the set of non-financial companies that use digital technology and tools associated with cloud computing, blockchain, big data, artificial intelligence, social networks, etc. To provide financial services to consumers and businesses in an innovative way and under new business models. Fintech industry innovations have the potential to transform the financial sector and help provide services to social groups traditionally blind eye by banks. (Development Bank of Latin America, 2016).

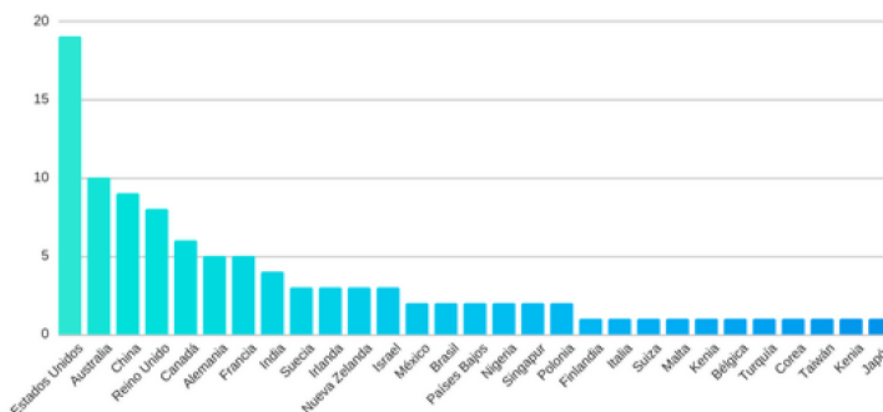
The technology giants and telecommunications and some large retail chains have also decided to seize the opportunity opened up by the digital revolution to enter the financial business, both emerging markets and developed countries. For example, Alibaba, the Chinese e-commerce giant is also the largest provider of digital payments and fund management in China. Amazon offers a payment platform (Amazon

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Payments) and a platform loans and credit line sellers on its platform (Amazon Lending). Google, Intel, Apple, Samsung and other big names are also in the market with their own innovations, on their own or in partnership with other companies. The Chairman of BBVA, Francisco González, has noted that the main competitors of banks in the future will be

players like Google, Facebook, Amazon. Gonzalez has also indicated that these companies "have the opportunity to create their own packages with financial products and services. And these packages will not be easy to reproduce by banks "(González, 2014). Then the geographical location of the most important companies in Fintech shown:

The most outstanding FinTech in the world



Source: KPMG and H2 Venture taken from <https://www.reportefintech.com/las-10-fintech-mas-importantes/>

Some of the most important Fintech companies in the world according to their ranking are:

Ant Financial

Payment Management - China - 2004. It is the payment platform world's third largest.

Zhongan

China - Insurance - 2013 is highlighted by the use of big data for their operations. It was the first company to receive an insurance license on the Internet. It operates with Alibaba. It is public capital.

Qudian (Qufenqi)

China loans - 2014. It offers smart phones, laptops and other consumer electronics devices for students and professionals in China in monthly payment plans. Customers can choose flexibly from a range of payment options and time periods.

Oscar

Insurance - United States - 2013. Dedicated to health care, also uses big data to manage.

Avant

Loans - United States - 2012. Through the use of big data offers personal loans. Points to a wide range of segments.

Lufax

Capital market - China - 2011 is the largest Chinese online financial company.

Kreditech

Credits - Germany - 2012. It offers financial services based on the use of big data to optimize services and improved costs.

Atom Bank

Credits - UK - 2014 A fully digital bank, through which customers can access services 7 days a week, 24 hours a day.

For Latin America the ranking is made up of:

Nubank (Brazil- Payments - 2013)

It is in 12th place worldwide. Highlights: operates 100% online. From the app you can control the own credit card, Platinum Mastercard.

Kueski (Mexico - Credits - 2012)

It is located at number 47 worldwide. Highlights: Users can apply for small loans through online applications, determining the amount of money and time required for refunds.

Guiabolso (Brazil - Credits - 2012)

It is located at number 48 worldwide. Highlights: seeks to be a solution for managing personal finances.

Zaveapp (Mexico - Bank - 2015)

Within the ranking it is on the list of emerging Fintech. Highlights: it aims to help young

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people achieve their financial goals in the short term, incorporating different techniques and teaching savings. MangoPay associated. It has more than 30,000 users.

Business Groups

The Fintech sector is composed of two groups of companies:

New Ventures

They are mostly young companies. This group of companies has innovated both solutions offered as business models and tends to specialize in niches within the value chain of banks.

The average age of a typical company in the first group is only six years (Venture Scanner, 2015), but that universe of companies is not restricted to small businesses.

By 2015, more than 36 companies had reached the level of "unicorns" companies founded since 2003 with less than \$ 1,000 million (KPMG / CB Insights, 2015) valuation.

Tech Giants

E-commerce and telephony, such as Amazon, Samsung, Vodafone and Alibaba. This group tends to be located in several segments of the banking business simultaneously, and integrates financial services to its business model and service package. (Development Bank of Latin America, 2016).

Advantages of Fintech Companies

The Fintech companies disaggregate the value chain of a bank to enter the market with digital services in the various segments that compose both which relate directly to the client (front-office) and those conducting final or intermediate functions support customer (back office) and facilitating processes between these two (middle office).

Essentially, Fintech companies use new technologies management and analysis of large data, social networks, artificial intelligence, cloud computing, NFC2 and encryption, among other innovations to offer solutions that are very convenient for customers for three reasons: the ease with which they can be used, the speed with which the service, sometimes in real time is provided, and the cost affordable. These companies differ from banks in several elements that make it competitive: (Development Bank of Latin America, 2016).

They Offer an Experience Simple and Quick Purchase

Through a user-friendly digital interface, accessible on multiple digital channels that are available at any time and anywhere.

They are Completely Digital Business

No branches, ATMs or legacy systems, items impacting operating costs of banks. According to the Corporation Deposit Insurance (Federal Deposit Insurance Corporation) in the United States, the average cost of these items over wages related reaches between 51% and 60% of total operating expenses of commercial banks in United States (FDIC, 2016).

They Understand Customer

They have tools to understand customers and meet their needs and protect it from fraud, such as big data analytics, predictive modeling and artificial intelligence (PWH, 2016).

Leverage Technology

To enter segments where banks and other traditional providers are inefficient or suffer from a lack of transparency or information asymmetries. In its analysis of the impact of Fintech companies the British government points out that the business model "allows [companies] to serve a larger volume of consumers low value, rather than what banks do, which is to serve a low volume of high-value consumers." This allows them to present solutions that promote financial inclusion (UK Government, 2015).

Fintech Industry Segments

Next, a description of the main segments where Fintech companies work and some companies are identified to illustrate its operation is offered.

Loans

Platforms include loans from person to person (peer to peer) and companies that make invoice discounting, they give microcredits, trade finance and working capital. Platforms loans person to person contacted investors with borrowers without the presence of a financial institution. Only the investor bears the risk of the loan, which can diversify through fractional investments. It also includes companies that provide risk analysis and business credit information. Examples: Lending Club; Prosper, Afluenta, On Deck; Kabbage; I delete; NoviKap; Affirm; Patch of Land; Avant; Sofi. (Development Bank of Latin America, 2016).

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Payments and Transfers

Electronic Commerce

Companies that provide online payment solutions for e-commerce. (Rojas, 2016).

Sales

Companies offering solutions in retail outlets (stores and portable), rechargeable cards and innovations such as QR code and portable scanners. (Rojas, 2016).

People

Companies that offer solutions to consumers for their digital transactions; includes mobile wallets, aggregators credit card (PayPal style), prepaid cards, and transfers from person to person digitally. Examples: ApplePay; Samsung Wallet; Square; PayPal; M-PESA; Eco-Cash. (Rojas, 2016).

Transfers

Companies that facilitate transfer money in the form of cash or card. Examples: WorldRemit; clip; Kantox; CurrencyFair, Transferwise. (Rojas, 2016).

Administrative Support to Small Business / Non-Profit Organizations

Digital tools that help small and medium enterprises and non-profit organizations to manage their finances - including taxes, payroll, billing, accounting and others. Examples: Payroll; Znetis; Xero, Scred. (Rojas, 2016).

Personal Finance

Tools for individuals to manage their personal finances - including applications for tracking expenses, debt repayment and saving money.

It also includes tools that allow illegal to dispute credit card charges as well as to help optimize the rewards offered by credit cards and compare the prices of goods and services. Examples: Bills & Guard; Credit & Karma, CoverHound. (Rojas, 2016).

Equity Financing

Digital tools for private companies to raise capital through the so-called crowdsourcing platforms, which connect companies with investors in exchange for equity and debt instruments. Examples: Circle Up, Gust, Loyal3, SeedInvest, Seedrs, Crowdcube, OurCrowd. (Rojas, 2016).

Investment Advice

Companies offering financial education tools or help make investment decisions in some cases by using algorithms and artificial intelligence. Examples: E-Toro; Kapital; Future Adviser; nutmeg; betterment; WealthFront. (Rojas, 2016).

Institutional Investment

New ways for administrators and financial operators (traders) optimize the profitability of investment portfolios including tools for predictive analysis of the valuation of stocks and bonds and trading tools based on algorithms. Examples: Kapital, Future Adviser, Stocktwist, Addepar. (Rojas, 2016).

Digital or Online Banking

Without physical infrastructure -offices banks or ATMs-and with a minimum number of staff. Examples: Simple; Cardlike, Atom, Moven. (Rojas, 2016).

Infrastructure

Companies that offer solutions that improve the functioning of the bank, including managing databases, data analysis and predictive modeling, and development of the interface for applications (Application Programming Interface, API) third with the internal system of banks. Examples: Kapital, Future Adviser, DemystData, SeekingAlpha, FINITEC. (Rojas, 2016).

Security, Authentication and Fraud

Includes companies that create products in the area of security, authentication (eg verification of user identity), encryption, detection and prevention of fraud (eg payment fraud, loan fraud). Examples: Ebury, Ewise, Standard Treasury, Riskfied, Dashlane. (Rojas, 2016).

Crowdfunding (Non-Investment)

Platforms for financing products, services, social causes and creative projects through donations or in exchange for benefits such as awards, participation in sales or discounts. Examples: Kikstarter, Indegogo, Tilt. (Rojas, 2016).

DIGITAL CURRENCY

Companies offering alternative currencies. The Bitcoin, and other crypto currency or virtual coins, emerged as an alternative to conventional currencies and the current currency system. The differences in these currencies compared to

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traditional are that they do not belong to any state or country and can be used worldwide alike. They are decentralized: are not controlled by any state, central bank, financial institution or company. No intermediaries: transactions are made directly from person to person. Bitcoins can be changed to euros or other currencies and vice versa as any currency (IEB, 2016). Examples: Bitcoin; Bistamp; Xapo, BitPay.

Fintech Companies and SMEs

Digital technology and other innovations have enabled Fintech companies efficiently serve areas traditionally underserved by banks as SMEs. Three innovations in particular are being used to benefit this segment: financing platforms, electronic markets and invoice discounting services. (Development Bank of Latin America, 2016).

Platforms Financing (Loans and Credit Lines)

In general, companies lend small amounts and loans do not require collateral. They use proprietary and non-traditional methodologies for analyzing the credit risk of the applicant and set interest rates on loans and credit lines. For years, government agencies and development banks tried that banks lend to SMEs small amounts, adjusted to the size of the business. (Development Bank of Latin America, 2016).

They also discussed the credit assessment was not based solely on financial and accounting data, but used "soft" information, this is one that derives from the knowledge of the customer, its business and its environment, but that is expensive and is not profitable to do under the traditional model of production and distribution of a bank.

However, for Fintech both are possible: first, because being models of fully digital business are lighter in costs and secondly because alternative methods of credit analysis based on large data allow us to collect and analyze very quickly multiple data on the life of the owner, your credit history, the business sector and its customers and suppliers. (Torres, 2008).

Among the countries with the highest number of transactions in these platforms include the United States, Britain and China. As in many other areas of the Fintech services, China has experienced exponential growth in this segment, growing to about 1,500 platforms in 2014, when there were 20 of them in 2011. In Africa, lending platforms are growing in countries such as Kenya, Tanzania and Ghana (WEF, 2015). Some names in this space are WeChat, OnDeck,

Lending Club, ZenCap and Afluenta. The latter is a platform loans to people who was born in Argentina and recently received US \$ 8 million investment by the IFC and the fund Raising Equity to expand in Latin America. (Development Bank of Latin America, 2016).

Companies have emerged that specialize in risk analysis to banks in emerging markets. Lenndo, a Singapore company, uses algorithms that analyze risk based on behavior patterns and take data of the individual in social networks-Facebook, Twitter and other networks- to prove identity and its ability to predict and payment behavior.

This benefits to millions of potential consumers, especially young people, who have stable salaries but have no bank account.

Lenndo has a permanent presence in India and the Philippines and is incipiently in Colombia. In Latin America, Destácame, a Chilean company, uses a similar methodology but based on the individual's behavior with service providers such as utilities,

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Other solutions for small businesses have emerged from electronic markets. In 2012, Amazon, eBay and Alibaba began offering certain customers financing to cover working capital needs.

Two years later payment processors like PayPal, Square and SumUp and telecommunications companies such as Telmex and Safaricom decided to do the same (Development Bank of Latin America, 2016).

According to the World Economic Forum, this market segment is destined for great growth given the large volume of information that non-financial companies have their customers near future and therefore the ease with which they can assess credit risk same (WEF, 2015).

Financing Bills

Traditionally, invoice discounting allows large companies a relatively inexpensive form of bank financing, but has been out of reach for a small business for its low billing volumes. Companies in Fintech as MarketInvoice (England) and NoviCap (Spain) processed within 24 hours and online application based on the value of loans bills.

Credit risk models are based on the frequency of use of the service and repayment of loans. (Development Bank of Latin America, 2016).

CROWD FUNDING

Definition of the Concept

"Crowdfunding is based on the "collective finance "and thanks to internet technology has developed in the world from 2009" (MOLINA, 2016) In many countries Crowdfunding is the revolution when financing projects (MOLINA, 2016), it emerges as a new alternative other than traditional credit financing, virtual platforms on the internet where the idea presented and projects in order to be used obtain funds from third parties, campaigns last for several days, platforms charge a fee for the broadcasting service, whether it is a network to get money or other resources (BUTZBACH, 2012). Crowdfunding is defined "an open call, essentially through the Internet, for the provision of financial resources either in the form of donation or in exchange for some form of reward" (Schwienbacher and Larralde, 2010).

"In simple terms, the crowdfunding is the funding of a project or a company by a group of individuals rather than by professionals (for example, banks, investors, venture capital or business angels)". In theory, individuals and finance investments indirectly through their savings, as banks act as intermediaries between those who have and those who need money. By contrast, the crowdfunding occurs without any intermediary: entrepreneurs "take advantage of the crowd," anchored money directly from individuals. The typical mode of communication is through the Internet. "(Schwienbacher, Larralde)

Crowdfunding Type

The Crowdfunding refers to collective finance, where a group of people support or invest financially in a project, use platforms on the Internet for seeking financial resources in all its forms as: I.) Donation II) Reward III.) Investment and IV.) The loan (SCHWIENBACHER & LARRALDE, 2010), which divide the time in non-financial and financial crowdfunding.

Crowdfunding Non-Financial

It is divided in two:

Crowdfunding Donation

Widely used by non-profit organizations, such as NGOs, the donor receives nothing just the satisfaction of having supported a project or social cause or idea that was of interest (MOLINA, 2016). Many NGOs use CF for

specific campaigns, with a total share of 29% and a spectacular growth of 529%. It is a faster and more convenient than traditional forms and appeals to feeling more directly (Fundraise.com; Causebox; Fundly). (Financial Disclosure Observatory, 2014)

Crowdfunding Reward

Here if there is a provision for those who donate to the project, for example, in the presale delivering something, a book, a magazine, a disco, free tickets for the artist who supported, etc. (MOLINA, 2016).

Financial Crowdfunding

It is divided in two:

Crowdfunding Loan

Known as P2P (person to person loan), here it is offered an interest rate on the money received as consideration, this method is most often used and fastest growing in the world (MOLINA, 2016).

Direct loans to companies or individuals (P2B or P2P, direct loans to businesses or individuals). Globally it is growing more slowly, but in some countries such as USA and UK, is the true motor. Its current share is 13%, with growth in 2013 of 71%. However, if we compare the total loans with loan assets of banks, their size is still very small. There are a different type of discounting bills platforms, operating under the trade legislation (Financial Disclosure Observatory, 2014).

Crowdfunding Investment Crowdequity

It invests directly in the equity of companies, startups and medium companies increasing their capital. The platforms can be focused professionals, who benefit from the advantages of the Internet, or to retail investors, enabling access to a type of investment that was previously within reach. Its current share is 15%, with growth of 114% per annum (Financial Disclosure Observatory, 2014). It provides for the sale of shares known as Equity Crowdfunding or as a stake in society, there are modalities based on selling bonds (crowdfunded Lending) in Colombia legislation does not allow (MOLINA, 2016).

Applications

The first Crowdfunding using the web was conducted by the British band "Marillion" in 1997 he financed his tour of the United States, offered the presale of tickets event collection hit \$60 thousand dollars, they are usually considered them as the pioneers of modern

Crowdfunding (UP GLOBAL, 2015). Born in 2005 Kiva.org platform, the first website microcredit for entrepreneurs and low-income students, has provided credit to more than one million people, after Kiva would follow others Prosper.com (2006) platforms and LendingClub.com (2007), born in 2008 Indiegogo which was used to finance the Sundance Film Festival in 2009, Kickstarter, the world's most important platform born, as of April 2017 had raised 2.980.169.711 millions of dollars, with more than 123,067 funded projects successfully since 2017 there are more than 2,000 crowdfunding platforms worldwide (LAUNCH, 2017).

Platforms on the Web allow you to present ideas and make them public, the aim is to make other people make contributions, either for a social cause or to finance an idea or business project, it has a set time days or months, donations are made through electronic payment, credit card or other forms such as bank transfer, remittances or payments PayPal, Payoner (OTERO, 2015), with the process comes three actors, who seeks and needs funding for the idea or project, the financier and the interaction platform for facilitating communication among key actors (OTERO, 2015).

Historical Review

Crowdfunding is very old dating from the first century. C., in Rome Cayo Clinio Macenas patronized artists and poets, its name the word emerged *mecenazgo*, later in the 17th century the model was used subscription to finance the printing of books, as retribution the donor was mentioned on the cover (BRUNTJE & Gajda, 2015); in 1883 and 1884 Joseph Pulitzer used his newspaper to finish the Statue of Liberty in New York, gave donors a replica of the statue, managed to raise in six months 100,000 today to this mode is known as Crowdfunding and a formula for financing projects and ideas that use the Internet as a communication channel in order to raise funds (VELASCO, 2013).

Ethan Mollick, who in 1997 conducted the first studies on the Crowdfunding phenomenon and regarded him as an opportunity to finance companies (Mollick, 2014); Gutiérrez explains the Crowdfunding as project financing among several people who want to support him (Gutiérrez, 2010). Ariño, it expresses that the Crowdfunding is successful thanks to new technologies (Ariño, 2009) to Mollick Crowdfunding success is due to the low rate of fraud, the entrepreneur is honored and this helps

the system work (Mollick, 2014). The Crowdfunding helps finance dreams and aspirations of the community (BOTTIGLIA & Pichler, 2016) is a solution to the problem of financing because banks do not pay easy and has many requirements to the allocation of credit, SMEs in Colombia face serious difficulties in accessing credit; Crowdfunding is a collective financing tool available to advance ideas or for business expansion (ROSA, 2015), because bank credit is a constraint that SMEs have to develop their economic activities (Perry, 2007).

Crowd Blending Platforms

Crowdlending platforms applying for registration of investors and companies or individuals, firms providing financial data.

Those platforms that provide individuals act very quickly, requesting personal data of borrowers who rely on quick credit analysis. It is possible to invest in different segments of loans, both credit rating and target loan (reforms, aggregation, etc.).

Platforms focused on lending to companies usually have their own model of risk analysis and classification, also using public ratings companies like Experian or Informa. The loans are usually approved with collateral and, subsequently, the information consult the investor / donor is drawn future.

Some platforms discounted notes or other effects, in the short term, using it as collateral for the recovery.

The interest rate can be set directly by the platform as a result of the classification, or let investors to bid as an auction, thus facilitating also more risky for the company but a more transparent market.

There is diversity of models on how the shares are managed on the loan, some platforms receive the amount to invest and they assign it to the requested loan.

Even some platform has an option which is invested in all loans that have a certain classification, thus diversifying the risk automatically. Others, on the contrary, exert mere intermediary. Revenues platforms tend to come from a success fee on the amount financed, between 2-7% and an annual fee by the lenders. The platform also is responsible for certifying that the collateral (real, personal, or effect) is correct, and to carry out all legal matters (registration of mortgage loan signing),

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tracking the loan until maturity, even in case of default (Financial Disclosure Observatory, 2014).

Crowd Equity Platform

Some of these platforms are aimed at professionals, who generally invest hand promoter / platform, others focus on the retail investor. Both require the registration of investors to access information projects or companies seeking capital.

Companies provide financial information and information about your business plan, the market competition. Some platforms, especially those aimed at retail investors, exercise some sort of due diligence (Torres, 2014).

Regarding accessible information; professional investors, who invest a significant minimum of the total requested by the company are provided with access to the company and the presentation of its managers.

In the standard case, more investors, the information published on the web and those questions that investors can make is limited. (Financial Disclosure Observatory, 2014).

This business model is focused on the development of new risk models, reducing operating costs (through automation and digital distribution) in the use of so-called big data and special attention to improving the experience of the clients.

From another perspective, technology has advanced so much in recent years¹² the time when complex algorithms replace human operators in the market looms nearby (Antonakes, 2015).

Financial robots, such as High Frequency Trading (HFT) and made 55% of stock trades in the US and 40% in Europe, which for many is a systemic risk considerable¹³.

In addition, the latest generation of these cyber mills is based on systems of cognitive computing enabling functionality as investment advisers (roboadvisors) given their capacity for learning, testing of information and exploitation of big data (Chishti and Baberis, 2016), credit cooperatives face the challenges of the financial sector [...] | Ricardo Palomo-Mediterranean Economic Lefty 2017 29 | ISSN: 1698-3726 | ISBN-13: 978-84-95531-84-1 | [289-310]

CRYPTOCURRENCY OR COINS ENCRYPTED

Definition and Concept

The European Central Bank (ECB) defined in 2012 'virtual currency' as "a kind of money unregulated, digital, broadcast and usually

controlled by its developers, and used and accepted among members of a specific virtual community

Digital currency, however, is a form of virtual currency that is created and stored electronically. The crypto currency are a type of digital currency, but not unique.

The crypto currency are therefore a subset of digital currencies based on cryptography.

According to the online newspaper Oro and Finance (2014), TheOxford Dictionary, It included the definition of its translation (cryptocurrency) last May:

"A digital currency that uses encryption techniques to regulate the generation of currency units and verify the transfer of funds, and operates independently of a central bank."

TheCambridge Dictionary, meanwhile, has defined this word as:

"A digital currency produced by a public network instead of by any government that uses cryptography to ensure that payments are sent and received safely" Taken from: <https://dictionary.cambridge.org/dictionary/english/cryptocurrency>

Historical Overview

Crypto prefix comes from the Greek word *kryptos*, which means hidden, secret. Cryptography is the study of methods of data encryption, mainly used to send a message safely and privately, and for security and data authentication.

The crypto currency are backed by mathematics, which means it can not be set by a single group or person. Criptocurrency are not linked to the availability of physical assets, as in the case of gold.

Criptocurrency use a distributed network to enable payment P2P - peer-to-peer (entre pares, in Spanish), a system transaction verification without third parties. In order to maintain this security, crypto currency uses mathematical algorithms and a record of public accounting (called blockchain or cadenas de bloques, in Spanish) so to ensure that every transaction that takes place is legitimate and prevent fraud.

They are based on algorithms which is defined as a orderly systematic group that measures and allows a calculation and finds the solution of problems. In math, logic, computer science and related disciplines, an algorithm (Greek and Latin, *dixit arithmos* algorithms and eastern Greek, which means 'number')

Some Types of Cryptocurrency

In international financial markets, exists a variety of crypto currencies, which in the real world is considered circulating more than US \$ 90 billion equivalent, some of them are:

BITCOIN. It's a virtual currency pioneer in the world of crypto currency, 48It is already used to buy products in many companies. The price of a bitcoin is more than US \$ 2,612. It is the most valuable and popular cryptocurrency. There are 16.4 million units in circulation. Total market value is \$ 42,888,341. Notably, there is a total limit of 21 million Bitcoin and then cannot make more.

RIPPLE. Created in 2012. It is now the largest and most popular in the world. In total there are the equivalent of \$ 9,753,505,715. It's last contribution was only \$ 0.25.

Ripple is both a payment network (Ripple Net) as a cryptocurrency (XRP).Ripple Net connects banks and other large institution, Which offers a number of advantages and it allows them to transfer money and other assets through the network, and this way, banks skip all kinds of government controls for their transactions. It is used by more than 75 financial institutions worldwide. All transactions are recorded in the ledger XRP decentralized so that banks have easy access to external financing and reducing the time and money associated with cross-border payments.

Each transaction through the system is processed in just four seconds. By comparison, ethereum takes more than two minutes, Bitcoin more than an hour, whereas traditional systems can take three to five days.

NEM.(XEM) is a criptodivisa peer-to-peer launched in 2015. Unlike other crypto currencies, NEM has its own original source, which has introduced new technology featuring blockchain as its important test algorithm (POI), accounts multifirm, encrypted messages and a reputation system Eigen trust ++. The NEM software is used in a string of commercial blocks called Mijin, which is being tested by financial institutions and private companies in Japan and internationally. In 2016, NEM rose to be one of the largest criptomonedas by market capitalization. **BURNING.** It is another project which aims to bring technology to the masses blockchain. Its beginnings date back to the community and Adel project, which later developed the Nxt technology and, ultimately, the Ardor ecosystem is only one member of a family of projects that are related

technologically and in charge of the company Jelurida. Ardor is a coveted asset in Chinese stocks. And this can be a big boost in the price, because the fiat money as Chinese Yuan is injected into this tab.

LITECOIN. It is the sixth largest cryptocurrency by oldest market capitalization and third, with a global network of payments and open source fully decentralized without central authorities, set up by former engineer Google Charles Lee in 2011, is the daughter of the software community free MIT as an alternative to Bit coin, litecoin comes from the source code, unit price is US \$ 51.3. Total market must US \$ 2,664,903,463. Litecoin supply has a limit of 84 million coins, compared to 21 million bitcoin.**STELLAR LUMENS.** Founded in early 2014 by Jed McCaleb and Joyce Kim, Stellar was originally a hard fork in the Ripple protocol. After making some changes in the important consensus code, the network led to the creation of "Stellar-core". Lumen Stellar team wants to make money transactions cheaper, faster and more reliable than current systems. In addition, the protocol would connect people around the world by allowing more efficient cross-border payments. The original asset on the network Stellar called "stellars" (released with 100 billion units in 2014); the name was changed to Lumens (XLM) after an update 2015XLM is backed by a strong team of developers, entrepreneurs and venture capitalists. If you check the list of board members and advisors, you will find big names of people like WordPress, Y-Combinator, Microsoft, Apache, Stripe, Google and many others.**DASH.**Formly known as Darkcoin is a cryptocurrency open source peer-to-peer-based Bitcoin software that aims to be fast, easy to use and scalable. Dash began in 2014 and is now the world's tenth largest by market capitalization cryptocurrency, a total of US \$ 1,588,211,952. Their unit value is high, is around \$ 214.31. Two of the biggest advantages of Dash are speed and low rates. You can send money to anyone in the world for less than \$ 0.4 in four seconds; which is almost impossible to do through a bank. Another benefit is anonymity. While all transactions are public, you do not have to share personal information like your name and address.Compared to the SHA-256 algorithm Bitcoin, Dash incorporates a total of 11 algorithms, collectively referred to as X11. This makes it much more difficult to get or hack the network and a payment method safer than Bitcoin cryptocurrency. **ETHEREUM.** Designed

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by Russian programmer Vitalik Buterin, ethereum works in a completely different way than Bitcoin. Although can do many of the same things that Bitcoin can do, its main purpose is to act as a platform for creating distributed applications. The biggest difference between Bitcoin and ethereum is the use of blockchains. While Bitcoin Blockchain contracts records showing how digital funds have moved from one place to another, Ethereum has expanded this concept. The blockchain of ethereum uses a scripting language much more complex and intelligent contracts can be complex applications that have a wide range of potential uses. These contracts can be open source for wide variety of services, which include: voting systems, financial exchanges, crowdfunding platforms, intellectual property and autonomous decentralized organizations.

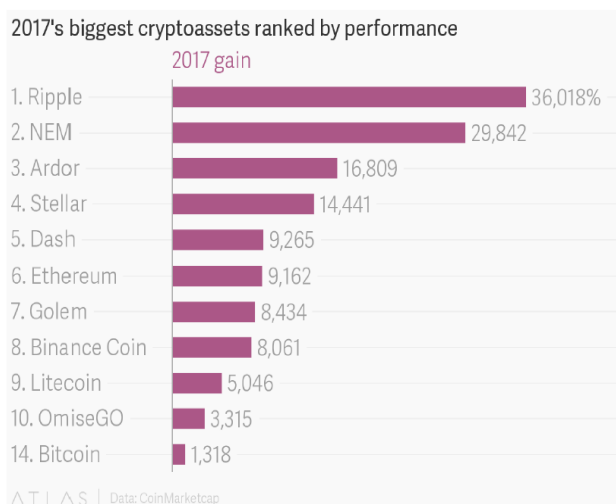
GOLEM. It's an innovative piece of technology that works for the decentralization of computing power. Although Golem is still in its infancy, if successful, would be a global supercomputer distributed and accessible to all. It is currently in development, but aims to redistribute power of computing. Incentivized by financial reward, taxpayers donate their 'CPU cycles' a golem carrying out delegated by network users tasks. Computers around the world can benefit financially by using downtime to perform calculations for network Golem.

BINANCE COIN (BNB). It is the crypto currency exchange platform Chinese Binance. The token is created during the fundraising event (ICO) to finance the development of the exchange. Currently, the cryptocurrency has a market capital of US \$ 180 to 218 million, of which between USD 18 and 35 million sold daily. BinanceItis one of the newest exchanges

in the industry. The company based in Hong Kong raised about \$ 15 million in its initial coin offering in July 2017 and immediately acquired 20,000 registered as part of the collection users. Changpeng Zhao, CEO of Binance, has an impressive resume with years of experience in cryptocurrency. He was Director of Development at Blockchain, Co-founder and Chief Technology Officer OK Coin, and Founder and CEO of BijieTech before working on Binance.

OMISEGO (OMG). Founded in 2013, Omise is a payment services company backed capital operating in Thailand, Japan, Singapore and Indonesia. OmiseGO (OMG) is an intelligent platform contract and token ERC-20 (the standard ethereum code). OMG uses an algorithm test participation (PoS) and has a total of 140,245,398 million supply a circulating current supply of 102,042,552 million tokens.

According to the World Economic Forum (2018), the number of people worldwide who have no access to bank accounts amounting to more than two (2) billion. This number represents about 35% of the world population. Omise Go can solve this problem, especially in economically developing countries, and aim to use the blockchain technology to carry it out. At the end of 2017, there were nearly 1,400 outstanding crypto currencies, a combined market cap of about \$ 610 billion. Earlier this year, the total market limit was only \$ 18 billion, representing a gain of almost 3,300%. In trading in crypto currencies 2018 it was a year of growth, being the biggest winners were Ripple, which is touted as a new type of payment system for banks, along with lesser known names like NEM, Ardor and Dash.



Source: Coin Market cap

The crypto actives include independent crypto currency and tokens issued in ethereum block chain, the above classification is based on a comparison of a year gains made by the 10 most valuable crypto actives until January 1, 2018.

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