

**Haute Ecole
Groupe ICHEC - ECAM - ISFSC**



Enseignement supérieur de type long de niveau universitaire

E-banking usage and influence it has on customers behaviors and attitude: Case of Albania

Mémoire présenté par
Ildi NEDELKO

pour l'obtention du diplôme de
**Master's degree in Business
Management (MIBM-120)**

Academic year 2020-2021

Promoter:
Madame Aminata Sissoko

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Acknowledgements

First and foremost, I would like to thank my parents and my girlfriend who supported me during this important academic journey of mine.

For her tireless assistance, guidance and advices that helped clear my doubts and uncertainties I had toward my thesis-project, I would like to thank my coordinator, Professor Marie-Lise Heinen. To my promoter, Professor Aminata Sissoko, who shared this important academic journey of my life, assisted me tirelessly and was available whenever I needed her advices, I give her my uttermost gratitude and respect.

I would also like to thank all the professors of ICHEC Brussel Management School, for all their hard work, guidance and assistance given to us during these two years in order to prepare for our professional life.

I would never forget to mention and thank all of the colleagues I made at Shkëmbi-R Sh.p.k, where I conducted my internship, which helped me to conduct my survey analysis with their immense practical and theoretical knowledge. Lastly but not least, I would like to thank all my friends who cheered me from the sidelines.

*I dedicate this work to my grandparents,
Ilo & Theodhora Nedelko.*

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1. Introduction

Nowadays E-Banking is an important part of the modern banking system. With the passing of each year we see a positive growth and an extended usage of E-Banking services in Albania, even though this type of technology is not as developed as in the Western countries. The aim of this study in the banking sector (E-Banking), is to contribute to the banking sector of Albania. This research will study the e-banking usage and its influence on customers behavior and attitude in Albania, a developing country. Furthermore it will be analyze the factors that influence customers to use Online Banking Services.

Therefore, how are the customers in Albania influenced, what are the behaviors shown and attitudes displayed when introduced with a new technology such as Online Banking (OB) (e-banking)?

In the research are presented many viewpoints based on already existing literature by well known researches in the banking system as well as discussions on adoption of E-banking into consumer's life. In order to offer a more complete view on the matter, theoretical frameworks such as TAM, TAM2, UTAUT, TPB, IDT or TRA have been used and have shown another perspective on consumer's behavior. In order to give more significance to the E-banking systems, it was narrowed down to the Albanian case and analyzed how Albanians behave when they are faced with new technology usage and interact with services that only focus on computer based exchange.

The appropriate way to follow is a methodology that will consist with the implementation of questioner-survey. After a statistical analysis of the data collected it came to a conclusion that the Online Banking Services (OBS) acceptance in Albania is influenced by attitude (ATT) perceived usefulness (PU), perceived ease of use (PEOU), trust, security, quality of service, pricing, demographic aspect, awareness, word of mouth, and subjective norm.

With this research study in the banking sector (E - Banking), I want to contribute to the academic field but mostly to the banking sector of the country in Albania. Furthermore it can be used as reference for other countries, all this done by providing facts, statistical data, theoretical framework, and surveys. This research will go over and study the e-banking usage and its influence it has on customers behavior and attitude in

the country of Albania, a low income country. Banks can use this research study in order to improve their services and to know better their clients, what are their needs and in the end increase their customer base. Furthermore what triggers and what influences the customers to choose their bank and use their electronic platform.

1.1 E-Banking Technology

Since their creation, banks have served in order to keep the money of the citizens safe. Meanwhile, during the time when our money is kept safe within the vault of banks, these institutions offer us an interest rate for the money deposited there. Traditional banks have done this since centuries ago and the banks of nowadays are continuing in doing the same, offering us services and products in the traditional way, but delivering in new channels.

E-Banking (IB) is mostly a recent new technology and has not been around for a long time (Bank of Albania, 2015). In its beginnings, this technology was presented around 1980, but in mid 1990 it expanded exponentially and since then it has developed tremendously. During the last decade, bank transactions in electronic ways have exponentially grown (Bank of Albania, 2015).

Nowadays, the term E-banking has been present almost everywhere, covering a large portion of businesses and services and in the most of cases you might have used it in a form or another even without knowing all the necessary details and how it worked. Most of the people in different countries worldwide, even though it may be a developed or developing country, might still use the traditional way of paying the bills of energy, water, taxes and internet. Some might still continue to withdraw and deposit money by going personally in the banks.

Maybe, all of us and I, would like to include myself as well in this type of scenario, are most of the time browsing on the net the interest rates that different banks offer for depositing, the commissions they keep for the maintenance of the accounts or even the conditions that are needed in order to apply for a loan. Even so, when time comes for acting, we still feel more safe and secure if we apply for all what was mentioned above within the walls of the bank, in front of a person who can guide us through and gives advices along the way on what is the most appropriate solution for us.

The further development of information and communication systems, the subsequent growth of the use of personal computer (PC), the ease of internet connectivity, the growth of smart phones, have raised the attention of banks within the possibility of e-

banking. Another reason that made possible the creation of this channel was the need to minimise costs and, on the same time, to raise the efficiency of the services offered by the banks. In this way banks exploited the main use of internet and interactivity by developing this channel's structure of online banking (OB) in a digital platform in order to comply and provide all the needed features to increase their customers base and at the same time to increase their profit margins. Using E-Banking does not necessarily mean to change the way of money usage. On the contrary, with the help of information and communication systems, we can use banks in different time schedules that suit our needs, skip the traditional way of the long bureaucratic paperwork by losing time in waiting lines. All of this technological advancement was done having in mind a simple goal; to provide a faster and more efficient way to administer personal finances.

Nowadays a large number of commercial banks offer different methods of Online Banking (OB) which are known as “online banking” or “electronic banking” (e-banking). The hardest part of implementing this new channel and delivering services to the customer with this kind of technology from the bank's aspect, is to find a way to provide security and trust to its customers by using it. Needless to mention, banks have for decades been trying to win the trust of customers and they cannot risk with an internet platform or a mobile application that is not user-friendly, tiring and most importantly not secure.

In this age of digitalisation that we are living, all banks worldwide have their webpage where can find general information for that specific bank and what they offer. Furthermore, E-Banking goes a step further and it creates a possibility for the clients to enter through the internet into their bank accounts online, 24-hours per day, 7 days per week directly from their homes, smartphones, offices and administer their personal deposits, savings or perform other operational banking procedures.

In other words, we can define e-banking as a remote bank service in distance, offered between the electronic channels of information and communication systems, providing products and services offered in the traditional way. Now all this is done in a digital platform provided by banks of the client choice. Nevertheless, e-banking at least in this phase of its life is not trying to replace the traditional channel of the bank's operations. To archive the so called the multi-channel strategy and to strengthen the relationship with clients-banks, these institutions are trying to combine together the traditional delivery channels (going physically to the bank), together with the automatic ones (ATM, Pos), thus giving to us the Online Banking (OB) platform technology.

1.2 Distribution Channels of Banking Product/Services

The majority of large banks offer bank services in electronic ways, completely safe and completely functional, all this done through a specific price. Some other smaller banks offer less access and functions, like for instance, it can let you control your account balance, but it does not let you complete online transactions.

In this way, the services offered to us by the Online Banking (OB) can be classified in two types; *informative*, it is the case when you are permitted to only check your account balance or the transactions you have done in the past and the second one is *operative*, where you are allowed to make transactions or pay bills. In other words it is possible to do everything that you needed to do when you went personally to the bank itself. All of these are possible to be realized without moving from the house without sparing time while being in line to enter the bank offices.

Some of the services that are the most used and that can be offered in electronic ways are grouped in four types of main categories; 1) Information, 2) Controlling the account balance, 3) Money Transfer, 4) Giving loans and financial consulting (Bank of Albania, 2015).

Information	Account Balance	Money Transfer	Loans	Others
Financial Products	Accessing and checking account	Transfers	Loans Limit	Financial Consulting
Stock Exchange	Checking balance of credit/debit cards	Loan Repayments	Loan Application	Incidents Reporting
Exchange	Checking Balance of Personal Checks	Direct Debit	Approval of Loan	Administration of Personal Finances
		Payments Through Cards	Loan Transfer	Other Financial Products

Table 1-1. Services offered by banks in electronic/digital way
Source: Bank of Albania, (Banks in the Era of Digitalisation, 2015)

1.3 The Future of E-Banking

Online Banking (OB), through the years has gone through tremendous transformation that has created a disrupt in the economy. Starting from 2007, Online Banking (OB) has seen a year by year usage increase. In 2020, it sky-rocked at a 76% (Charlie Barton, 2020). It means that 3 out of 4 people use Online Banking (OB) (Charlie Barton, 2020).

As people are becoming more and more attracted by technology, the use of personal computers and smartphones, we will continue to see a higher increase in the usage of Online Banking (OB). In the United States of America, 7 to every 10 people like to go to a brick and mortar bank, thus leading to a better and more optimised user-friendly level of the mobile banking applications (ConsumerAffairs).

Back in 2018, China banking sector compiled and prepared a statistical report that showed that 168 million of its citizens were users of online banking (TechCrunch).

With a 91% rate, Sweden is the only country in Europe that Online Banking (OB) has penetrated so far. Their goal is to become one of the only countries in the world that do not use cash by 2023 (Statista, European Banking Federation). It is estimated that between 2017 until 2022 an increase of 121% will occur to the banking transaction done by applications or Online Banking (OB), thus this will lead to a decline in the use of ATMs in a lot of developed countries (The Financial Brand, Yahoo Finance UK).

From a questionnaire that Deloitte has done in 2018, it showed that 73% of its customers used the services of Online Banking (OB) at the very least twice in 30 days, while 59% were regular users of OB followed by banking applications (Deloitte).

It is a known fact that every 18 months computing processing doubles. This is the so called Moore's law. If the technology together with the economy evolves with this rhythm, by 2030 we might come to the point that we will not have physical banks anymore. The banking experience might become totally virtual. It is estimated that by this year there will be around 2 billion citizens that will own a digital bank account only (Bill & Melinda Gates Foundation).

After the worldwide pandemic situation that went through, we are seeing that everything can be done remotely nowadays, therefore there will come a point where physical banks will not exist anymore, but they will be virtual. The data will be managed by a powerful cloud, which is a technology that is in use and accessible to everyone. All of this will be put to work and made secure by the use of blockchain technology. Since the future is pointing with hard facts that work and meetings will be

mostly done through distance, customers will need help when trying to get hold of the products/services that the bank has to offer through Online Banking (OB) or banking application. This can be solved by implementing a simple AI to guide and provide fast and accurate FAQ to the dilemmas of the customers. With smartphones and wearables being more and more feasible to be purchased, these devices are equipped with technology to make direct payment without having to use the credit or debit card. By 2030 it is expected that 60% of payment will be directly made by wearables (Denis Novikov, 2020).

1.4 The Alternatives to E-Banking

Personal Computer (PC) Banking;

E-banking and PC banking are nearly the same, what differentiates them is the fact that with PC banking the customer does not need the internet to connect to its account. They can connect through the intranet of the bank from their personal computer (PC), using a designated software provided by their respective bank, together with a special modem and an existing telephone line. In terms of security and speed, PC banking offers a higher reliability than E-banking, but in the end, both services offer the same degree of satisfaction, it just depends on the customer's choice using either one of them.

Telephone Banking;

In order to do bank operations through the telephone, banks offer Telephone Banking services. This services is offered through a software called Interactive Voice Response (IVR) available by most of the banks. There can be cases where a call-centre bank operator can answer instead of IVR software. In order that the bank can offer the highest degree of security toward its clients, whenever this service is used banks ask some security question or a verbal password from the customer/client.

This type of alternative offers everything same as an ATM, except it cannot let the client withdraw cash. It lets the client check its account balance, transactions done (where and when and to whom), payment of bills, loan repayments and money transfers.

Mobile Banking;

Without having the need to be present or to go directly to the bank, this type of alternative technology lets the client use and interact with their account from their

personal phone, using their mobile or by SMS banking. In the recent decade technology has engulfed the world and mostly everyone is taking hold of a mobile device. Banks have always tried to walk the same path as technology advances; offering to their clients ease, user-friendly procedures and security.

Therefore with the types of small texts sent toward the banks, banks inform the client about their account balances, last transactions, the entering or exiting of large sums of cash from their account.

TV Banking;

TV Banking is another alternative way to access your selected bank of choice from your house. By having access to a Smart TV which has an operative system (OS) built inside of it, through a specific button found on the remote controls, you can enter the website of your bank of choice and receive an array of information about the services offered. After going through the registration for this service, the client can check all the necessary information needed. To finalise and enter the personal account, the TV needs to be connected to a special modem, with a telephone line and of course to have internet access.

1.5 Exploring FinTech

In this vast era of giant technological changes we are presented with alternatives toward means that maybe we cannot find useful because of various factors. Some of these factors can be related to demographical, age, internet access, trust and security. ATMs were created during the 60's, then during the 70's debit/credit cards were presented and during the 90's internet/digital banking revolutionised the way of perceiving the bank. The creation of this technology began back in 2008, with the financial crisis occurred and citizens around the world started to distrust the banking system. This new technology is called "Fintech".

Fintech combines finance and technology sectors together, thus being named that way. Fintech tries to make innovative technologies more efficient, secure and user-friendly. What is fuelling Fintech to evolve in such a way is the increased use of smartphones, big data, machine learning algorithms, and blockchain. Through smartphones and personal computers we can connect and easily make purchases and payments in a short amount of time. Furthermore it has the capacity to offer to 3 billion people access to financial services worldwide. This leads to more prosperity, less poverty and higher economic growth.

1.5.1 Evolution of FinTech

Finance and technology have always gotten along with each other and as such you can see that they have a solid symbiotic relationship that has been evolving since day one. The disruptions that have occurred throughout the years have not only affected the technological matters, but finance has gone under different disruption phases as well. In this scope, below you will find a representation of Fintech waves:

Fintech Wave 1.0: The very initial wave of advancements in technology appeared in 1866 when the first invention on transatlantic telegraph cable was developed. In the same time, such disruptive innovation of that time, was also reflected non the financial operations and from analog finance, the phase of digital finance made an appearance, by gradually reflecting the changes in the society and grasping day by day new technological changes.

Fintech Wave 2.0: Technological advancements did not stay on place, instead in 1967 was marked the second phase in bringing new innovation to life when “Automated Teller Machine (ATM) was introduced. The financial services were immediately enhanced with this new novice invention and continues even today to be one the most used financial services.

Fintech Wave 3.0: Marks the current phase that we are experiencing even in the todays world and has been a very long process that not only reflect new technological innovations in finance but is also influencing the emergence of innovations that have not been present so far in the finance world. For instance, the third phase is considered to be very fast paces and inclusive because technological revolution is much more widespread all around the world. Financial organisations and simple individuals as well, are able to grasp the new innovations faster and can quickly adapt them in their daily lifestyle. The incorporation of finance has made it possible for Fintech to grow faster and have a great potential for future technological advancements that will efficiently reflect a better innovative world.

1.5.2 Fintech Drivers: A Supply and Demand View

Fintech might appear to be a complex matter for some but if the technological process is simplified by explaining it from a different point of view, then it will be easier to comprehend its framework. Therefore, Fintech can be easily explained by two sides; supply and demand. First things first, we should initially focus on the supply and

consider for the moment all the reasons why a financial innovation needs to supply the market. After we had the time to ask this question, it would be helpful to pinpoint some factors such as new regulations, macroeconomics updates, advancements in technology and so on. One of the major supply element is regulation because depending on circumstances like financial crisis, regulations are the first approach to be communicated to bank and in most of the cases they are advised to terminate short term funding or renew reforms regarding market funds. Instead banks would go for CCP which stands for “Collateralised Commercial Paper”, futurization swaps or other financial innovations in regard to csh regulation.

Another supply factor that leads to Fintech includes the changes in the macroeconomic environment. For instance, when the US housing market crumbled, the need to have new financial innovations increased immediately and the usual method shifted towards innovative ideas, where banks were owning real estate agencies and therefore the need for a new innovative financial tool to securitise the income from rental activities was needed.

On the other hand, demand for Fintech comes from financial institutions that wish to put in use new technological process because if there is no demand for a certain service, it means that that service will no longer be present for use or will have a relative small usage in the market (recalling the diminish usage of triple decker hybrid bonds). Other than that, the demographics of a certain country are the ones who influence the usage of financial goods because they are the ones who incorporate such services in their daily life like payments via phone or e-banking. As long as people or financial institutions are demanding financial technologies, the longer they will stay around and the better they will be developed for future generations (Schindler, 2016)

Nevertheless the rise in smartphone users in the recent decade, has led to all company's worldwide having a surge in raw big data. Companies use this data in order to better understand their customers and to provide them with the best services and products. Machine learning algorithms help companies to compress all this raw data and give it meaning, therefore leading to a risk assessment situation and ultimately taking a decision. Lastly, blockchain is the same as the internet, it has distributed and given access to everyone who wants to have an information. Blockchain manages and secures all financial services, ownerships or transactions while taking off the middleman.

Fintech tries to give power to the customer by empowering them to reach and taking better financial decision, thus leading to a personal financial growth. Let's take for

instance, someone trying to open a business and in order to do so a loan is needed. Through Fintech you can apply and receive a large loan in order to start running the business. Then after having the loan and a running business, the technology of blockchain can help manage the owner/customer of the business to operate through smart contracts. The supply chain process will run faster and more efficiently. In the end, the customer buys the product in a contactless payment or biometric way through the phone app or a personal computer. The payment will be authenticated by the specific stores and the payment can come from anywhere in the world (Ark Invest, 2016).

Fintech has brought the hope and the necessary technology in the world of people who cannot have a way to get traditional banking services. Studies have shown that an estimated of 2 billion people in the world do not have a bank account.

M-Pesa, is mobile banking system which was created in Kenya. It is not required to have a smartphone in order to have access to this mobile banking system, a simple phone and a sim card is needed in order to put it to work. The citizens in Kenya access their accounts directly from their phone in order to make payment of bills, transfer money, or to take loans. A study done by Michigan Institute of Technology in 2016 showed that 96% of the population uses the mobile banking system of M-Pesa and another study showed that it helped at least 2% of Kenyan households to escape terrible poverty.

To conclude the chapter, after setting the objective and research question, a greater scope of technology in bank's systems is offered. The services offered to us by the Online Banking (OB) can be classified in two types; *informative and operative*, and each one of them facilitates its usage. Further in the chapter, are also discussed alternatives of E-banking which consists of TV banking, Telephone banking, Personal Computer banking and Mobile banking. Another technological boost was FinTech which tries to make innovative technologies more efficient, secure and user-friendly.

2. An Overview of E-Banking

In this chapter will be covered an overview of E-banking benefits and how individuals can gain from its usage, but also what are some of the disadvantages that they might face during the time they try and incorporate this disruptive technology to their routines. Furthermore, a detailed analysis is done regarding the perspective of each party towards internet banking usage and it also narrows down its approach by taking into consideration E-banking security risks and how individuals can be protected.

2.1 Benefits of E-Banking

The power of choice and commodity for clients;

In order for the commercial banks to stay competitive in the market, they always need to bring new channels of delivery, new products and services to their customers. In this day and age banks are trying to achieve this goal with the Online Banking (OB) platforms.

By making use of this platform, cash can be transferred immediately with no time delay to different accounts most of the time, as long as they are from the same bank.

Clients have the commodity and liberty of choice to open and as well close a number of different accounts, all this done throughout the Online Banking (OB) platform. With no time delay, from the commodity of their house, clients can open high interest rate accounts known as recurring deposits or a fixed deposit.

By having the commodity and choice of accessing the home account at all times, 24 hours a day and 7 days per week, clients can feel safe that they can monitor their account whenever they see fit. In case when the client or the bank suspects a fraudulent move in the clients account, by having a detailed history of the movements and time schedules of money transfers or other actions done, the bank, as well the client, can easily be tracked. Thus, this leads to a protective mechanism toward damage and money loss (Frankenfield, 2019).

In order for E-banking to get a higher acceptance range worldwide, it is important it leaves a good first impression on the customer. Clients hold the success key that companies need and the goal of companies is to find what their clients mostly need and present this by securing the latest technology in the market, processing and turning raw

big data is reliable information in order to get to know the end consumers. Consumer's need are in constant change at all times. What customers need is to have traditional banking services combined with internet interactivity on a much stronger personal level (Mohamed Shah, Steve Clark, 2009). Making a purchase or simple payment throughout the push of a button from your house or office without moving an inch, its a business model and a structure that nobody would like to give up. Keeping track of your account through the internet is way more convenient and faster than going physically to the bank. There are other benefits of use from this platform that the client appreciates, like for instance; buying a book (from a third part company/website) from the internet or asking for an electronic ledger from your bank of choice and maybe checking the latest interest rates on different financial products that banks offer (Khan, 2017).

This type of service is paramount even for people with disabilities. From their houses and throughout their smartphone or personal computer (PC) these individuals can access, manage and make movements in real time and easily in their accounts. This saves time and money, because they will not need to ask for help or get a special car to get them personally to the bank. In this case these individuals will not have the need to ask a third party to manage their funds, but instead they would be responsible themselves (Bank of Albania, 2007).

Efficient and fast services;

With innovation of technology, and accessibility of it by mostly everyone, now more than ever, is easier from banks and clients to have access to their respective homepages on the designated platforms of E-banking.

E-banking gives the customer the right to manage their time better and do more efficient daily tasks, the clients do not need to keep long lines in the banks anymore to pay bills or make transfers or repay loans. Furthermore, by having less traffic on the site of the bank, banks can focus their resources and manpower to provide better services and better products for their clients. With the ease of E-banking, clients do not have to keep physical bills anymore because these bills are automatically stored on your bank account and have them all the time. Furthermore, making the payment of these bills through the platform is more than doable (Agarwal, 2019).

Large banks offer services like; financial planning, functional tools for budget forecast, calculation of the principal of a loan, tools for investment analysis and stock exchange access. To summarise, electronic services have made an ease of use on both sides, the banks towards the client and vice versa. Clients can have full access to their banks of choices 24 hours per day with no problem whatsoever.

Attraction of high value clients;

E-banking is a service that is more attractive to a portion of clients that possess high income revenues and usually are educated. Thus, in different studies it has come as a result that these electronic services are used mainly by the type of client mentioned above, then a type of client who has less of income or is less educated (Berger & Gensler, 2007). Most of the time for a typical retail bank, e-banking clients have a more profound interest in financial services and products which are more complex in themselves, sometimes more risky. Most clients use online channels for a lot of reasons and for others it is a hassle to go personally at the banks branch, which in the end is an expensive channel (Mohamed Shah, Steve Clark, 2009).

Increased revenues for banks;

In order to increase their customer base, banks try to offer new electronic channels of delivery. If more individuals are registered at a branch of a bank, these clients will open deposit accounts and in the long run, with the facilitated help of electronic platforms, transactions will be easier, faster and will increase with time. Thus banks profits will increase in return. This has led banks as well, to try to diversify their branches of their profit creation activities. Transitional business banking has changed a lot with the introduction of e-banking, for instance, it is feasible that banks give permission to the production and delivery of financial services as a set of different businesses. Therefore, banks can sell or can manage the offered services from third party banks (foreign banks) to increase their turnover. This is an attractive business model proposal for smaller banks that offer a smaller array of products.

Cost Reduction;

One of the most logical arguments in terms of the economic aspect, is that e-banking has helped tremendously to reduce the cost of other delivery channels. For instance, adding new bank branches, which in return will need a big building that, on the other hand, will have high rent prices. In some cases it will be the need to hire and train a larger number of new staff and each and every one of them will need to be paid. It seems that transactional cost of e-banking decreases faster than traditional banks after a fixed number of clients are registered at their bank of choice. The research for this specific topic in internet-banking is still ongoing, but it can ultimately be said that the fixed costs of Online Banking (OB) are higher than variable costs. In other words, the more clients that a bank has registered in it, the lower the cost per transaction will be. If for

instance we take the above mentioned situation and put it on the perspective of a smaller bank, we will get the reversed situation; which in other words means less clients registered in the bank, the higher the transactional cost would be (Young, 2007).

From the financial aspect the use of Online Banking (OB) technology reduces costs for both sides, bank and client as well. When looked from the perspective of a single client who has an endless possibility to make a choice of a bank, his/her win financial situation is when the bank they choose, offers the possibility to use less and less transportation and offer them lower transactional and commission's costs (Jolly, n/a).

In conclusion, through the Online Banking (OB) technology, banks are offering more to their clients; for instance they can check their account balances, fulfil simple bank transfers which can come from within the bank, a national bank or transferring money internationally. Step by step and with the advance of the technology, banks nowadays offer more to their clients. Using e-banking means doing more things in shorter time and in the end, this is what motivates clients to put the time to learn and use this service.

What most E-banking platforms offer nowadays that benefits the clients:

- Checking accounts balances, financial products like; loans, long or short term deposits;
- Registration of national or international payments/transfers;
- Priority of national transfers and their registration with different seals;
- Payment of premiums;
- More than one authorisation in order to finalise the transfer procedure toward a business for instance;
- Massive payment transfer authorisation;
- Password renewal;
- Profit management;
- Checking the validity of IBAN number;
- E-Bank Inboxing;
- Open of new deposits accounts with different terms;
- Bills payment (taxes, pensions, electricity, water, internet, customs fee etc.);
- Transactional history of payments and transfers by date, time and names; (Shoqata e Bankave të Kosovës, 2016)

2.2 Disadvantages of E-Banking

Since when banks started to implement the E-Banking technology, the life of citizens wherever may be has eased a bit, with increased commodity, efficiency and stress-free time. Needless to say that when trying to adapt a technology of this magnitude, it needs to be well thought out because it requires tremendous work and huge fundings. If seen from the aspect of the banks, to expand its sphere of delivery channels into the Online Banking (OB) sector, it is quite costly. As it can be imagined, the biggest cost to be incurred is the investment to buy the right technology that can make possible the digitalisation of the bank's services.

Firstly, the costs to be incurred are the purchase of hardware and software systems and the need for them to be installed properly in order to function. Secondly, the bank will need to rearrange its internal structure, it will need to hire new staff that is qualified to operate this technology, maintain, provide security and incorporate it with the internal information system (IS) and operation system (OS) of the bank.

Unfortunately, the costs are far from over yet. Technology progresses with an extraordinary speed and in order for banks to stay on top of competition, it is important to constantly update their systems so it can offer better services and security in the long run. Meanwhile, during all the time, banks need to keep in mind a separate budget, for repairs or defects of the system or technical assistance for the internet connection and cyber security, which will be developed more in the upcoming section below.

As it also concerns the clients and what they need to spend in order to gain from this technology, is only an investment in hardware and software (personal computer, smartphone, modems and necessary applications or programs).

Keeping all the cost in mind, there are some other disadvantages toward E-banking:

- To start, fully and extensively use the services will take some time because in order to register into the online program or the application, the client will need to personally go to the closest branch of the bank of choice and fill up a document and in a few days or a week later the bank will send by e-mail the username and the password to access for the first time the bank from its electronic platform.
- Not everyone will find it easy to go from point A to B in the beginning. In some cases older people who do not have general or good knowledge about technology will find it very difficult traversing from the log in step to the point where they will need to use a specific service offered by the platform. Banks provide a full guide and walkthrough on how to use its platform, but still for some groups of people it's challenging.

- Sometimes the client might not be able to see whether the transaction made throughout is successful or not because the server of the bank might not be up to date with the increased number of the customers of the bank, therefore it will slow down the process of all the platform. Servers are very expensive and they require a lot of maintenance.
- By choosing this channel of delivery over the traditional way of going to the bank personally, the client loses the voice of the bank, for instance on how to better invest or how to increase the revenues from a specific investment.
- Through e-banking the client cannot deposit or withdraw cash. The only way for the client to do so is by depositing the money by going to the bank personally and to withdraw cash they will need to use ATMs. If the sum that the client wants to deposit is not large, nowadays ATMs offer the option to deposit directly to the machine.
- With the improvement of the electronic services that banks offer, it has become accustomed that banks more than ever are reducing the staff number on their branches. A lot of considerable work, that until now, was being done by humans, now are being performed by machines and different softwares. All this new technological implementation can offer this and much more to the clients, without having the need to keep a larger staff anymore.

2.3 Banks and Customer Perspective

The E-banking industry is impacted by two main factors; internal and external. Firstly, there are four external factors; disruptive technological environment, political change environment, economic progress environment and social evolution environment (Nellis 1998). As stated in a research study, the significant change for the banking sector will come from the external factors mentioned above (Jayawardhena & Foley, 2000).

The industry of financial services has faced a huge competition in the past years which has also come as a result of increased liberalisation laws. Nowadays society is being faced with a large option of selection of financial products and those who provide it. With an all-time changing and evolving society, banks are starting to have difficulties with the new mature generation of consumers. The changes that frequently occur in the society pass from one generation to the other and include individual's own values and cultural beliefs and how these future customers see and evaluate technology.

With new changes in technology comes a new horizon for new business opportunities. Some technological changes that directly impact the banking sector is the fast growing of technologic information. The main goal for the banking sector is trying to find and

implement new delivery channels in order to achieve client satisfaction. Furthermore, in order to present a novice technology in the market, its developing cost will be considerably high. Nowadays the present mainstream trend is for these competitor companies to try and copy their rivals products and services with a pinch of small changes in functionality and appearance (Karjaluoto, 2002).

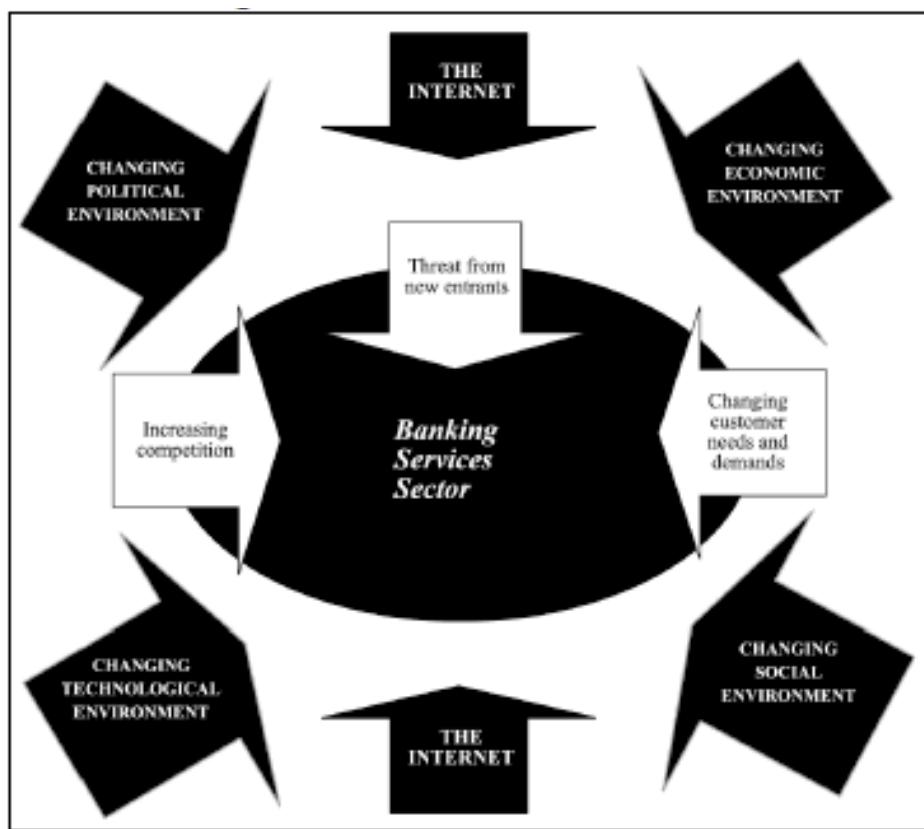


Figure 2.1. Banking sector with the interaction factors

Source: Adaption from Ibbotson and Moran (2003)

2.3.1 Banks Approach

The main reason that the financial institutions have been able to absorb the technology of e-commerce is that it has priority worldwide and it is simple to be adapted and visualised (E-Commerce Beyond, NOIE, 2000).

The goal of any business is to maximise profits and reduce costs, hence, financial institutions and banks like any other business, have always been looking for new alternatives ways to do so. Some of the reasons that rushed banks and other financial institutions to look for new delivery channels were: new rising costs, customers demands were increasing with time and the need to stay ahead of competition and create new competitive advantages. Finding themselves in this type of crossroad, banks had no other choice but to look for new investments translated into delivery channels that would satisfy the clients. Hence, they decided to put money into Online Banking (OB) (Hernandez and Mazzon, 2006). Banks now more than ever have been open to have collaboration such as joints venture with other financial institutions in order to stay ahead of the growing competition and to establish their part e-commerce contribution and increase their market share (Denny, 2000). As technological developments started to evolve, the same occurred with banks and their online services; e-banking, mobile banking or ATMs and their services were offered to the customers.

By introducing a disruptive technology into the market, it goes without a say that it will attract more advanced customers, whose main goal is to try and merge this new disruptive technology in a way that it satisfies their daily life-style and needs. Since the introduction of Online Banking (OB), the life of banks and citizens as well, have become more relaxed and stress-free (SAS Institute AB, 2000). Furthermore, Online Banking (OB) has become a convenient tool that helps banks gather information concerning the market in general. Thus, the processing of this big raw data can help improve banks and the electronic delivery channels, improve in a faster and more efficient way the delivery of services and products to their clients.

In the financial and banking sector there exist two of types Online Banking (OB) models: E-Banks and E-Banches. E-Bank, as the name states and points it out, is a bank establishment that is built and operated only online, meaning it does not have a physical building. In this way the institution can operate without papers, without a fixed address in the map and with no time constrains or time difference for its clients wherever in the world they may be (Nath, Schrick and Parzinger, 2001).

Whilst the other banking model is E-Branch, it is a physical building with a location in the map and it provides Online Banking (OB) to its clients. For instance, it is the case

when a traditional bank begins to provide and sell its products and services via the internet to raise the awareness to new clients and to provide more options to its present clients. In the dimension of economic exchange, E-Banking has absorbed immediately and grown with fast speed, ever since creation. The economic world has become like a small village, where the resources and information it holds are easily acquirable by anyone wherever they may live and this is thanks to the introduction of the E-banking technology (Hwang, 2007).

Below are mentioned some great examples of some well-established and famous E-banks and E-Banches:

- Owned by the Royal Bank of Canada, with more than 150,000 clients the first is the world Online Banking (OB), Security First Network Bank.
- The first with the most turnover is NetBank, an e-bank with at the moment has \$1.6 billion of assets and more than 110,000 clients registered (Rombel, 2000).
- Starting as a virtual Savings and Loan institution, Telebank was purchased on 1999 by E-Trade, later on 1998 it started to offer internet transactions and nowadays it has more than \$1 billion in assets and more than 51,000 active clients.
- A partially owned independent subsidiary bank of Bank One, wingspan.com starting operating on June, 1999 (Hoffman, n/a). From a traditional banking method, Winspan, turned into a financial institution independently for online banking services only. Wingspan, offered it clients referrals to mortgages and presented various offers for insurance companies.
- A leader on nowadays Online Banking (OB) sector, with the most clients registered is Wells Fargo. This financial institution merged with Norwest, a bank it has a separate department that of only Online Banking (OB) and it has more than 1.5 million registered clients (Timewell and Kung, 1999), and with 100,000 registering every month.

2.3.2 Clients Approach

Concluded from several studies done on different banks of the United States of America (USA), it was arrived at the conclusion that the client approach was affected by what was offered by some different electronic channels of distribution such as; convenience, electronic services, continued progress, general knowledge about internet and personal computers including smartphones (Thornton & White, 2001).

Consumer behaviors are daily changing, but what changed the consumer's behavior in the banking sector was that these clients now had less and less time because of other

important obligations (Seitz & Stickel, 1998). Furthermore, mobility freedom of going by your time schedule and to the place close to the client and combined with flexibility has become the new consumer banking. Reduced fees, fewer legal documents, less human error which all this leads to less trial disputes are the most crucial factors that encourage the clients to use or start using online banking (Howcroft, 2002). From a research conducted by Gerrard and Cunningham (2003), it was concluded that there is a linkage between benefit of use and E-Banking. Furthermore, Gerrard and Cunningham (2003), stated that for financial institutions the main advantage is cost saving and from the clients point of view was benefit of use.

The connivence of online banking comes solely from the fact that it can be accessed from anywhere. It gives the possibility to the client to be able to make transactions, check their account, pay different bills and all this can be accessed 24/7. Since the bank it will be on the web it means that it will never close and will be available for immediate access from the clients personal computer, laptop, tablet and even smartphone. Since it returns a huge satisfaction from the clients perspective and that they are able to finish all their needs, this is referred to same as a “one-stop” shop. With all its attributes, E-Banking (EB) is considered as an well organised, structured, quick and effective type of service. The type of transaction done through the web on the platform provided by the bank, generally are way faster then the action that an ATM can perform. Nevertheless, the clients can have and maintain more than one account for different banks, all this done from one place. Clients are no longer stressed about the need to go personally or drive to the bank in order to execute the services it provides.

When considering costs, it is not important only for the financial institutions but for their clients as well. The structure itself permits that by using online banking clients can maximise their savings and other financial profits. It is not always the case, but sometimes clients can profit from the height interest rates on their internet accounts since the cost to operate and maintain this structure from the bank’s side are not tremendously high. Since by using the services of the bank through their platform of Online Banking (OB), it offers speedy asset transaction and time efficiency to clients that are business owners. It gives them the chance that these business owner’s clients, by making faster business agreements and collaborations and try new products and services. Furthermore they can make market researches and inquiries financially with lower costs (Shin, 2008). Customers are predisposed of getting more advantages while following the online transactions because such systems permit it. Of course, in the core of such events, both of the parties of the online bank system offer trusted website services in order for the customers to be able to experience all the online benefits of using e-

banking (Ravi, 2001). Considering the wide scope of online services, customers will be exposed to a larger extent of services by also including credible institution. All the financial information that the customers will generate while doing online transactions or other services, will be easily kept in different programs controlled from their home. Such programs include Microsoft Money, Quicken etc. (Fysh, 1999).

Therefore, the use of these programs will facilitate the bank usage process and customers would no longer need to be physically at the bank, but perform transactions online at home. From several researches done, the online transformation process where all the transactions are performed on the web, will lead in a decreased customer movement from one financial institution to the other (Sheshunoff, 2000).

2.4 E-Banking Global Perspective

Online Banking (OB), is considered quite a useful tool in the world when it comes in the form of low cost delivery channel. From the bank's aspect, Online Banking (OB) has given them a chance to maintain and increase their reach for existing and new customers with no limits to the geographical position of the clients. What preoccupies mostly the financial institutions, is the fact on how the clients will react and whether they would accept this new delivery channel. Like any other things in this world, due to different reasons, the prevalence of E-banking is not the same worldwide. Factors such as economy, internet laws, infrastructure expansion and socio-cultural distinction are the main reasons that prevent E-banking to be present everywhere in the world.

For instance, there exist currently 727 million individuals who use internet in the EU, 323 million individuals situated in North America and 28 million individuals situated in Oceania/Australia. By looking at the table below, we see that this figure is just a bit higher than 1 billion that consists of individuals who use internet in Asia, Middle East and Latin America/Caribbeans. In the last decade, we can see in the table that the growth rate is much more higher for Africa, Middle East and Latin America/Caribbeans. Needless to say from observations, the prevalence of Online Banking (OB) is more likely to be embraced in developed countries. The more developed a country and its financial industry, the faster and wider Online Banking (OB) will spread. This is the main reason that in Chinese or Brazilian families you find less bank accounts compared to countries in the United States of America (USA) or in Europe, France. In a study conducted on how to analyze the spread of Online Banking (OB), it was concluded that the most important factor is the cultural differences that each of the individuals holds (Yuen, Yeow, Lim, Saylani, 2010). The already mentioned study has concluded as well

that the spread of the Online Banking (OB) is way more slower in countries situated in Asia than the countries in the West. For example, in Asian countries it is known for a fact that in their culture to get invested, values that individuals present give a stronger indication towards businesses relations, unlike the Western countries, thus this has created some problems toward E-banking. Top managers located in Hong Kong, China say that human interaction is a tremendous factor in building strong relationship with your clients and having a smooth information exchange (Speece, 2000). If we continue with this logical train of thoughts, it is more than normal that Online Banking (OB) will not be attractive at all for clients. From a study conducted by Srijumpa (2000), the missing factor of human interaction creates a hurdle and was the root of frustration for Thai population in stock exchange companies.

WORLD INTERNET USAGE AND POPULATION STATISTICS						
World Regions	Population (2020 EST.)	Population % of World	Internet Users 30 Sept 2020	Penetration Rate (% Pop.)	Growth 2000-2020	Internet World %
Africa	1,340,598,447	17.2%	631,940,772	47.1%	13,898%	12.8%
Asia	4,294,516,659	55.1%	2,555,636,255	59.5%	2,136%	51.8%
Europe	834, 955,197	10.7%	727,848,547	87.2%	593%	14.8%
Latin America	654,287,232	8.4%	467,817,332	71.5%	2,489%	9.5%
Middle East	260,991,690	3.3%	184,856,813	70.8%	5,527%	3.7%
North America	368,869,647	4.7%	332,908,868	90.3%	208%	6.8%
Oceania/Australia	42,690,838	0.5%	28,917,600	67.7%	279%	0.6%
World Total	7,796,949,710	100.0%	4,929,926,187	63.2%	1,266%	100.0%

Table 2-1. World Internet usage and population statistics

Source: Internet World Stats

2.4.1 Developed Economies

Online Banking (OB) is more advanced and more present in the United States of America (USA), as for Europe its presence is scattered around several countries such as: United Kingdoms (UK), Spain, Italy, France, Belgium and Germany.

Only in the United Kingdoms there are around 23 million users of Online Banking (OB). This is more than 50% of the country's online presence. Back in 2006, in the United Kingdoms (UK) there were 29.3 million of bank clients that signed up for E-banking, only while in 2010 this number went up to 47 million. In Australia there are around 11.2 million users of E-banking. Furthermore 65% of French citizens control their bank accounts throughout Online Banking (OB) platforms (Statista, 2020).

Various studies were conducted in order to see the differences among countries toward the usage of Online Banking (OB). From the results of the study that analyzed 15 European countries, it revealed that Nordic countries and Middle-Europe had a higher rate of acceptance of Online Banking Services (OBS) than Southern-European Countries. Furthermore, it was concluded that factors that increase the acceptability of OBS are: age, profession and demography. Some important factors for countries in the United States of America (USA) and Australia included attitude toward internet usage, perceived credibility and performance (Yuen, 2010). Perceived credibility is the only differentiation in the mids of developed and emerging countries (Yuen *et al.*, 2010). Based on the different beliefs and culture of respective countries, perceived credibility is a prediction of usage intent toward Online Banking (OB).

In developed countries, citizens/clients primary concern is related with perceived credibility toward the use of internet banking platforms, because they are scared of falling trap to phishing or theft of personal bank information and leading to being misused or sold to third parties. Furthermore, in the developed countries they have the tendency to trust a bit less the Online Banking (OB) expert to offer them protection from theft and fraud and this is because these cultures are highly individualistic and have short power distance. At least 60% of Italian individuals who use internet facilities believe that E-banking is crucial or very crucial (The Economist, 2011). Sharing the same opinion as Italians, Frenchmen think E-banking is 50% crucial or very crucial (The Economist, 2011). Even though Online Banking (OB) is way more advanced and more spread in the developed countries, in front of emerging economic countries, developed countries have much lower behavior intent toward using Online Banking (OB) service (Australia Bankers Association, 2008). To sum it up, a lot of citizens or clients in the developed country might have an E-banking account for their

personal use, however, have come to not use it a lot or persistently, compared with the emerging countries. The only explanation to this type of situation is the cultural distance with regard to perceived credibility (Yuen *et al.*, 2010).

Regulation and law is the other side of the coin when considering Online Banking (OB). When talking in terms of security and privacy regulation for Online Banking (OB), in the developed countries this is an important matter and all respective governments try to do their best to become a safe shield to their citizens. In the United States of America (USA), in order to inform and protect their citizens for all the transactions they make, the government has created a special agency called Office of the Comptroller of the Currency (OCC). In emerging economies, these types of agencies do not exist as of yet and the Electronic Commerce laws are not complete yet.

2.4.2 Emerging Economies

In order to become acquainted and learn about the usability and efficiency of Online Banking (OB), financial institutions in emerging countries have decided to carry out something called the “Internet Policy”. In countries such as Africa and South Asia, which are considered as low income nations the implementation, user acceptance and its usage is low (Gao an Owolabi, 2009). Comparing this with countries that are economic world leaders, but still considered new developing countries such as South Korea and China, during the last decade, Online Banking (OB) has advanced and its usability and acceptance is considerably high (Gao an Owolabi, 2009).

During the course of the years, a lot of scholars have been trying to study the factors that take place in emerging nations toward the acceptance of E-banking. The conclusion that all the researchers have in common is performance expectancy. What this means is that all users of Online Banking (OB), value the functionality of this technology that comes to accept it and therefore in the end become users of it.

In a nutshell, the benefits that this technology gives back to its users, is what it becomes as a katalysator for clients to use Online Banking (OB) in the first place.

Unlike the Western nations, Asian nations are defined for having a lower level of individualism. In the developed countries because of high individualism and low power distance, we saw that citizens were less likely to put their full trust on the banks experts, but in the emerging nations we are presented with contrary elements, thus making the banks a trusted source of information and having the best interest for its clients. It means that in these countries, citizens believe the opinion of the expert and do not ask questions, but all this depend on each country and it depends on their respective culture,

beliefs and values. Based on studies that have taken place on different countries, developed or undeveloped, conclusion has shown that citizen have to feel secure in order to start using a new technology; in this case Online Banking (OB). For instance, less than 10 years ago in Saudi Arabia, since E-banking was still a novel technology, it was not being used at its full potential like a saving strategy or to create better customer relations (Al-Somlai, Gholami and Clegg, 2009). Looking at the bigger picture, from all the emerging economies in the Asian nation, Hong-Kong was pioneering the development and acceptance of E-banking (Shih and Fang, 2004).

From exploratory research performed in India, it showed that a wide variety of advanced Online Banking (OB) were offered by both private and foreign financial institutions (Malhotra and Singh, 2010).

It was also noted, that in order for such advanced Online Banking (OB) to be offered, the financial institutions who provided it, needed to be of a medium to big size, have a lot of years in market experience, previous experience in E-banking technology and financing matters (Malhotra and Singh, 2010). In the Chinese population, the majority of e-banking users were males (from all ages and educational background), a contrasting view from the population in the West countries. With time, their online presence for e-banking services increased because they saw that the security matter was well maintained and adopted in the online process, therefore they trusted the system (Laforet and Li, 2005). In other developing countries such as in Brazil, the rate of growth for e-banking has doubled in the last few years and quoting Febraban (2004), the inscribed number for e-banking processes in 2002 passed from 8,3 million to 18,3 million in only two years. Also, the majority of these numbers are in the ownership of personal accounts and not for business.

2.5 E-Banking Security Risk

Despite all the positive and benefits that come from the use of E-banking technology, this industry like every other one, suffers from cyber threats when connected online on the web. Online Banking (OB) is faced with an extensive use of information technology (IT) software and programs in order to run, maintain and at the same time provide security to the E-banking platform. Furthermore, with the extended use of electronic security, banks become vulnerable to cyber attacks (Hussain, Das, Bhutto, Talpur, Hammad-u-Salam, 2017). From the breach in the system, the attacker can get hold of private data messages of the user, attack the profile of the user, embezzlement, log of the users transactions (Hussain, Das, Bhutto, Talpur, Hammad-u-Salam, 2017).

There exist many dimensions, forms and types of cyber attacks and with the contributes of researches, there is a lot of evidence of these attacks. On 2016, SANS survey, a company that is specialised in analysing risk and security in banking industry, concluded that the financial sector is on a daily threat of cyber attack and with time they increase (Mark, 2016). From an article that came out in 2016, Symantech found that in 2015, 430 million of new malware were identified and that it was 36 % higher than the previous year. Experts of Symantech have come across a new Android Phishing Trojan. This type of new malware can make users believe that they are accessing the authentic bank webpage but in truth it is only a perfect replica in order for the attackers to steal the users credential and banking information (Symantech, 2016).

Another cyber threat is called “Dridex”, its functionality is to send spam e-mails via real financial organisations names in order to make it as credible as possible and the moment the users receive it, they will interact with it (Bambra, 2015).

From another study it was concluded that 60% of bank managers were aware that their client's user identification was stolen. The mode of theft was done through a malicious code or denial of service. The fact that the attacks that were directed to the financial institutions and banks were increasing, was unfortunately thanks to the attack done by Wikileaks toward e-commerce webpages. It has been reported by banks that the number of hacking or credit card information stolen through an ATM was increasing.

Furthermore 75% of banking institutions have confirmed that the modes of attack toward them have been through phishing, vishing or spoof attacks. Some of the main difficulties for the banks nowadays is the prevention of phishing attacks or online identity falsification (Bambra, 2015).

2.5.1 Types of Cyber Attacks

For financial institutions to put a stop to the increasing cyber attack they need to create new solution models. Firstly it is needed to specify the modes of attacks, on what technical principles are they based and to offer a better understanding of them.

Secondly, they need to come up with a good counter-measure with the vulnerabilities discovered (Bambra, 2015).

There exist three types of cyber attack security threats toward Online Banking (OB) platform: illegitimate use, denial of services and repudiation (Abu-Shanab, Matalaq, 2015). To continue, Attack Weapon Model (AWM), is a malicious model attack that impersonates bank softwares and their official webpages by creating duplicates. By using social engineering and phishing model of attacks, the hacker steal the legitimate identity of the original user. This is one of the most frequent models of attack used by

hackers to attack Online Banking (OB) platforms. The objectives that hackers target can be so many. Their main goal is to exploit the weaknesses of the operating system (OS) so that they can make it difficult for the user to not be able to reach the bank webpage and not log into their account and resulting in denial of service model of attack (Brar, Sharma, Khurmi, 2012).

Below are listed some of the attacks modes and their respective description:

Attack Type	Description
DOS Attack	Making the user unable to access network resources for an undefined period of time, the hacker tempts with the machine or the network of the user by denying them use of a service, thus leading to the acronym DOS Attack. This type of attack sends numerous of request to the server thus it creates an overload leading to malfunction of the overall system (McDowell, 2004).
Ransomware Attack	As the name suggest, this type of cyber attack is targeted to the user having their content locked and kept for a ransom. The user is supposed to pay the attackers in order to gain access again (Paytal, Sampalli, Ye, Rahman, n/a).
Phishing	Phishing is the most used method of hacker in order to steal information from users. It is easily to be detected even by a normal person with general knowledge of IT. Phishing can be archived through fake e-mail by impersonating banks or other individuals and tricking the user to fill it out with their personal info but the webpage the user is directed is a replica and managed by the attacker, thus the user getting their credential stolen (Arachchilage, Love, 2013).

Spoofing	It is the case when the hacker is trying to impersonate the real user and is spreading false confidential information or it can be the case where they try to impersonate the financial institution and spread false news (Xiong, Liang, Steinbart, 2012).
Trojans	Trojan horse or simply Trojan is a type of malware or virus that can come from a code or a camouflaged software that has the goal to take control of the users device. Trojan malware can destroy systems, damage them or make action without the user consent or it can steal users information over the network (Chakraborty, Narasimhan, Bhunia, 2009).
Password Cracking	It is the process of hacking someone's account by trying multiple times different passwords until they have the right guess. The hackers don't give up until they have tried any type of pass-phrases (Veras, Collins, Throphe, 2014)
Pharming	Pharming cyber attack occurs when the attacker direct the legitimate user to a wrong website. These sites called "spoofed sites" steal the users private information such as passwords, usernames, put malware on the machine of the user and even steal credit/debit card information (Gaudin, 2007).

Table 2-2. Cyberattack Modes

2.5.2 Security Managing Approach

If users/clients would feel insecure about their safety and privacy during the time browsing the web, they would feel less secure and trusting to do their bank financial transactions through it. Nevertheless, if the user is using internet services or just browsing on the web, he/she is presented with security threats on a daily basis. Some of these cyber threats are theft of confidential information and privacy invasion. Since financial institutions and banks are aware of the risk presented on the web they have build a high level of security such as: identification, two-step authentication, firewall tool and encryption.

The online banks webpage is confirmed through the Uniform Resource Locator (URL), while the user is verified by their unique ID (identification number) and password in order to enter into their accounts. Furthermore, on the other hand, all communications between the E-banking platform and their clients are encrypted, meaning that no other person or entity can access and read the content of the messages. Nowadays, most browsers are using the standard of encryption which is called Secure Socket Layer (SSL) (Vrinciany and Popa, 2010).

In order to provide security for their services, banks, including all financial institutions and most likely every other company in existence, have installed firewall tools which in itself are a set of related softwares found at the network gateway. This tool provides security and protects the data of the bank and that of the clients from other networks. The servers collaborating with the firewall analyze all the traffic and decide whether to permit or deny entry, it encrypts or decrypts messages through the platform and the user.

The security standard that banks need to possess now is based on a multi-level architecture, giving an ultimate level of security to ensure its clients that their information is secured from unauthorised third party users who may try to access it. The multi-level architecture is made of multiple firewalls, encryption, route filtering and digital certification. In order to strengthen the security standards many banks are improving the existing transaction authentication number (TAN) technology.

Transaction Authentication Number represents a code that is used once while performing a transaction. This code gives further protection when securely processing an online order. With this technology, the moment the user has logged in into the Online Banking (OB) platform, in order to unblock all the functions and make transactions, they will receive a SMS with a TAN code. This code will need to be inserted and validated by the system in order to authenticate the user/client. It is stipulated that the attacker can only be in contact with only one device of the user which most probably will be the personal computer (PC) and will be less likely that they will have access over the phone as well, making this type of authentication very secure (Mohr, 2009). Another secure alternative way the financial institution proposes to their clients is the Home Banking Computer Interface (HBCI), which is a simple chip card. This is one of the most secure methods, thus giving the user a highly secure connection. The only thing the user needs to be in possession of a card reader and the software which is built and provided by the bank itself. After you complete a transaction online, on your chosen device will be displayed a TAN code which is also referred to as a Smart

TAN because after a while it will no longer be available. Since everything is done digitally, the moment the customer enters the code, it is sent to the bank reader device and confirmed when they match. Thus, all the process is concluded by providing the customer's card details in connection with his or her bank and all the transaction is valued with high security. Errors with TAN codes are very rare, the only inconvenience is the fact that the customer has to automatically type the number via the card reader and can incorrectly write a number. All he/she has to do in this case is to write it again until the code matches.

Some European countries such as Estonia, Luxemburg and Sweden have adopted a new tool that helps strengthen the security of authentication of the original user and reduces the possibility of hacking attacks. This tool is called Electronic Identity (eID). With electronic identification users can make proof of their identity. It is the equivalent of a physical ID, but now in electronic form and it is a highly mode of security. In the above mentioned countries, the data and information of the citizens is closely handled by the respective government and banks. Recently some banks in Europe have adopted the biometry mode of authentication and it has shown that it is highly accepted by users. For banks worldwide, biometrics authentication is the next-gen identification method. It puts a stop to fraud and makes transactions very highly secure (Alacriti, 2019).

To conclude, the usage of E-banking in developed economies is much more advanced and adopted to daily usage, whereas in the low income nations the contrary exist. This occurs due to people's culture, behaviour and attitude toward new technologies. As already mentioned above, the key point for banks is to offer to their clients highest levels of protection for all the electronic services that they use. Hence security is key for an ongoing trusted relationship between the banks and the clients. Therefore, a maximised protection is in the interest of such institutions. Depending on the banks, each step of security and shared information goes through different steps of checkpoints via the banks servers and other technologies in order to increase the protection toward its clients.

Some of the common regulations that E-banking platforms ensure, that affect the clients protection, as well as his/her security, are as follows:

- Clients confidentiality, regarding information and its security.
- The outermost protection from different types of cyber attack threats.
- Safe keeping approaches towards unauthorised third-parties access, that might pose harm or disruption toward the authentic user.

3. Theoretical Frameworks

This research thesis reviews in closed details E-banking and the journey it has gone through the years, since the first day of introduction to the market, with all its benefits, challenges or doubts and continuing the road to transitioning, evolving and customer acceptance. The writing gives evidence on the motivational reasons why E-banking is a promising technological service that not only serves the banks, but also facilitates the way people do business, interact with e-commerce or simply to conclude financial transactions in a timely manner.

In order to give more significance to the E-banking systems, I narrowed down my viewpoint to the Albanian case and analyzed how Albanians behave when they are faced with new technology usage and how ready are they to grasp the new changes and interact with services that only focus on computer based exchange.

3.1 Theory of Planned Behavior

This theory which initially was introduced for study in 1980 has in its focus to give a prediction over the intention that an individual is about to be engaged in under certain circumstances. Theory of Planned Behavior (TPB) gives indications to the researchers how people's behavior can be affected from outside which would also conclude in a changed behavior. According to Ajzen the Theory of Planned Behavior (TPB) has actually been thought out by the individual beforehand, therefore an intentional behavior is foreseen (Ajzen, 1991). In this case, whenever an individual is about to act his/her behavior, he or she are lead by three main elements which include:

- **Behavioral Beliefs:** refers to a subjective chance that a certain behavior that an individual performs will show a given experience and the upcoming consequences are probable to happen. This approach assumes that behavioral belief is an instant response given a prior situation and the individual's attitude will reflect on how he or she perceives the situation and how it is linked to his or her behavior.
- **Normative Beliefs:** reflects someone's beliefs in regard to other people that are very close to them and what they would or would not partake given a certain situation. In this particular case, researchers also check how motivated are individuals to comply with the beliefs of their important people and how they wish to act. For example,

according to LeBon's research study it turned out that people who are together in a crowd are more likely to inherit emotions, attitudes and behaviors of other people that are part of the crowd (LeBon, 1895). It is interesting that normative beliefs approaches are used to predict people's behavior and sometimes even to influence them.

- **Control Beliefs:** refer to all the elements or attributes that an individual sees present in the situation that in his or her eyes can facilitate or hold back their behavior. With controlled belief individuals express their ability towards future events and in regard to that they influence what they want to happen (Pintrich & Zusho, 2002). Since control beliefs represent a learned action, they can be perceived as a changeable life function or they can change depending on the situation.

According to this method (TPB) the majority of behaviors that an individual partakes are actually goal directed and individuals use their logical rationale in order to influence their decisions and the main reason why specific actions are performed. Based on internal and external factors are taken into consideration in order to give a clear contexts over the situation that is occurring and it includes elements such as educational background, hobbies, beliefs, professional life or experience. The more detailed the background is the more accurate will be the determinants of an influenced behavior.

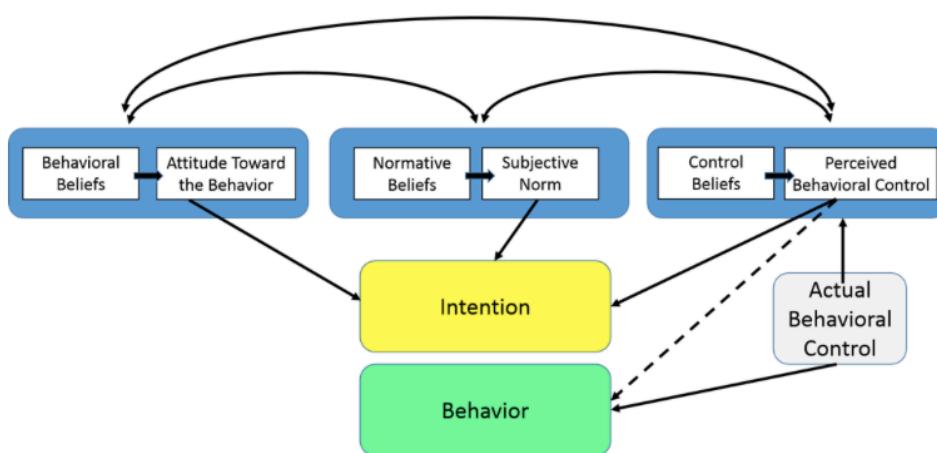


Figure 3.1 Theory of Planned Behavior

Source: (LaMorte, 2019)

As seen from the Fig 3.1. There exist six important compounds that show what it takes for an individual to control his or her behavior. All these elements serve as mechanisms to perceive what would be the behavior of an individual. Thus, their meaning is as follows:

- **Attitudes:** based on the person's interests, he or she decides what to favour or not. Therefore their evaluation is to be made upon preferential consideration.
- **Behavioral Intention:** shows how motivated an individual is to perform a certain behavior and if his or her intentions to perform a certain behavior are strong than it is more likely that that specific behavior will be achieved.
- **Subjective Norms:** reflects how the people's belief is divided; whether they approve it or are against the behavior at all.
- **Social Norms:** are a composition of what customary elements individuals need to have when performing a behavior based on their cultural attributes.
- **Perceived Behavioral Control:** shows how an individual values the performed behavior based on his/her interests and according to it he or she gives a perception on the difficulty level it can be to reach that behavior.
- **Perceived Power:** includes all the factors that contribute to behavior performance, whether it can be facilitated or held back and what the individual can do to achieve it.

3.1.1 Several Limitations of Theory of Planned Behavior

- The theory of Planned Behavior does not clearly address the timespan among what the individual "intends" to do with what his or her "behavioral action" is.
- It presumes over the theory that behavior does not change when time passes, but instead it is a composition of elements that lead to the decision making process.
- There is a lack of explanation over "actual control" towards the performed behavior which creates a gap of what it really is performed, even though the perceived behavioral control gives a well understanding reasoning to it (LaMorte, 2019).
- Many essential behavioral factors that trigger a certain action are not taken into account. Such factors include fear, different emotional moods, threats, or previous experiences.
- Economic or environmental components are also not reflected in the group of elements that can clearly influence the behavioral action of an individual. Their

economical background can influence their next move in their behavior that is why it is important to include it in the theory.

3.2 Theory of Reasoned Action

Theory of Reasoned Action (TRA) gives an assumption that people's behavior fall under volitional control and as such people think that they can perform a certain behavior anytime they want or they feel like behaving that certain way. However, the most frequent use of TRA is seen towards behavioral studies that have as an indication variable control. This is why TRA includes in its method "perceived behavioral control" which also acts as a complement of TRA (Fishbein & Ajzen, 2000).

In regard to this component it is shown the extent to which individuals are convinced that they can perform a certain behavior believing that they own the right features and capabilities to do so. The good thing about this model is that individuals know that specific behaviors require such application because they require skills or certain expertise that cannot be performed by any individual.

It is interesting that Theory of Reasoned Action represents the intention of an individual to perform a behavior, but also takes into consideration the fact that there might exist some certain factors that can stop a behavior from happening. For instance, in the e-banking sector, an individual wants to make a payment online for a good he or she purchased but the transaction cannot be completed because he or she does not have internet connection for the moment. Thus, the initial behavioral intention is stopped due to specific factors that interfere with the attitude of the employee. Since TRA includes norms and attitudes in its composition, individuals will always be between decision; to behave on behalf of what his or her attitude suggests or to go for the suggested norms by the close family and friends.

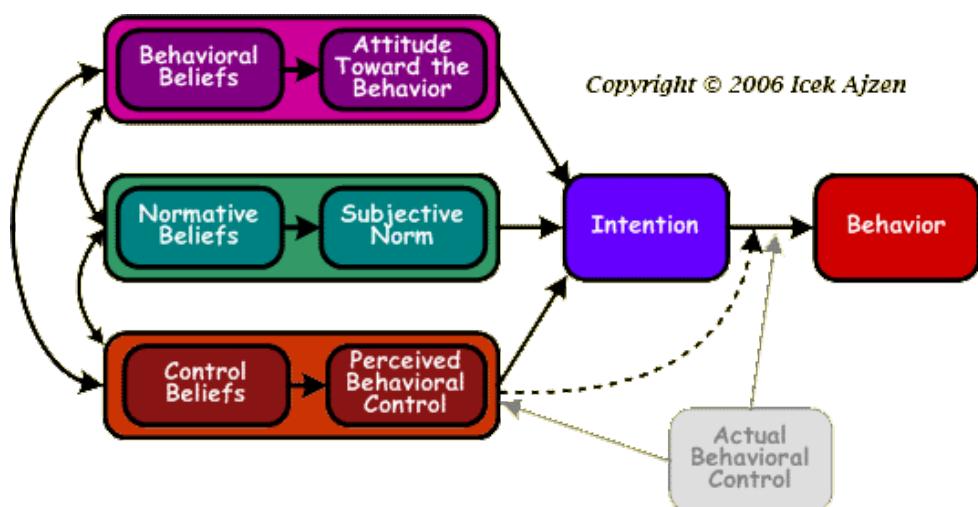


Figure 3.2 Theory of Reasoned Action

Source: (Ajzen, 2006)

The Fig 3.2 reflects a presentation of the TRA model in which every behavioral element is linked with one another in a way to show if an individual will act based on the perceptions that others expect him or her to act or it is the actual behavior in which an individual is motivated to perform. Attitudes of an individual can vary depending on the given situation the the strength of the attitude and researchers define its strength on a scale level starting with very important or not important at all. Based on the importance of the attitude, the individual will also decide on the behavior he or she will take actions. On the other hand, evaluation is another component for behavioral intention and it can be a positive evaluation or a negative one. For instance, the extent of control that an individual believes he or she has over a particular behavior, will influence the individual's attitude without it being biased.

3.3 Technology of Acceptance Model

Technology of Acceptance Model, shortly referred to as TAM was firstly introduced in 1989 by Davis and so far is considered to be one of the highly influential approaches towards technology embracing by individuals (Davis, 1989). The very two main elements that impact the intention of people to initiate the use of new technological usage are “Perceived Ease of Use” and “Perceived Usefulness”.

- **Perceived Usefulness (PU):** as explained by Davis, PU reflects the extent in which individuals trust in the new technology and believe that adapting it to their lifestyle will enhance their work and overall job performance. Thus, PU depends on what people value as useful for their particular task.
- **Perceived Ease of Use (PEOU):** reflects the extent in which individuals link the usage of technology as free from effort and considering this, if a system is practical and not very difficult to be used, then it will be easier for people to understand and adapt it. In the other hand, if the technological process is difficult to use and understand, then people would not consider even try to learn it, therefore their attitude towards such technology is not positive.

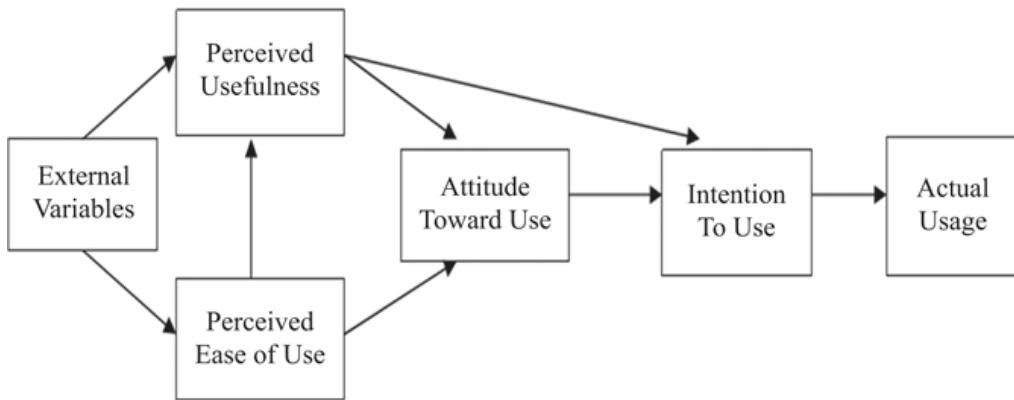


Figure 3.3 Technology of Acceptance Model

Source: (Davis, 1989)

Since people have different views on technology and as for some appears to be an easy use and are ready to adapt it to their routine, for some others it is difficult to adapt or they simply perceive it as useless to their daily life. People are influenced by their behavioral intention to use a new technology and to incorporate it in their routine and based on their attitude on technological advancements, they will decide to accept this new innovation or not. However, the Technology Acceptance Model (TAM) is also influenced by some external variables that, depending on the situation, change attitude. As such, some of these variables include gender, age of the user or personal preferences of the individual. Since people are different from each other, their attitudes would also be different and based on what they believe is best for them, would change their intention to grasp the new technology and hence, how ready are they to accept it.

In order to give a broader perspective on the initial original model, Davis extended his research studies and introduced TAM2 which is basically TAM explained through social influence variables and what are people's intentions to use technology (Davis, 2000). Therefore, some of the supported elements to be taken into consideration through TAM2 are the following:

- **Voluntariness:** refers to the degree that individuals perceive the process of adopting new technologies or taking adoptive choices as non obligatory. Instead they see them as a personal choice and decide on everything based on their freewill.
- **Subjective Norm:** as already mentioned above in the TRA method, this approach is based on the perception of other individuals of what they would think about you performing a certain behavior. In this case the behavior of an individual would be

influence by them and it can have different outcomes depending on the situation they would be in.

- **Image:** reflects the extent on which innovation of goods and services are perceived as a good thing when it comes to status recognition in the social organisation (Moore & Benbasat, 1991). Therefore, based on the image created the individual will be exposed to better opportunities since he or she has already created a status.
- **Output Quality:** refers to how individuals perceive the ability of the technological system to be able to perform certain work tasks. In this case when the quality received is desirable the output will be positive.
- **Job Relevance:** Davis describes this as the individual's perspective towards the degree of job suitability and how the technology will be helpful to target the required knowledge based on the individual's skills.
- **Result demonstrability:** the extent to which the technological system reflects usefulness and drives results based on the needed inputs.

In the end, all the above mentioned perspectives give a significant attribute towards the quality of the service being used and adds innovativeness in the consumer's daily life in order to facilitate as much as possible their apprehension on technological innovations and to be ready to accept change.

3.4 Diffusion of Innovation Theory

This is one of the oldest theories to be performed on social sciences to explain how a product or a service can, over time passing, to be very important and become a driving power in the society and then diffuse towards a specific part of the population. In other words, what E.M. Rogers (1976) expresses, is that individuals learn how to adapt to a new product or idea that they had not been used before. In order for the individual to adopt a new perspective, it means that he or she should perceive the product or service as new and consequently adapt a new behavior towards it (Rogers, 1976). Some of the main elements that contribute to the process of diffusion are innovation itself, time of adoption, change measurement and the speed of adoption. In most of the cases the Diffusion of Innovation (DOI) model is used when companies introduce a new service, facility or products and to understand how clients or customers will engage with this new approach and fast they will adopt it (Hanlon, 2013).

DIFFUSION OF INNOVATION MODEL

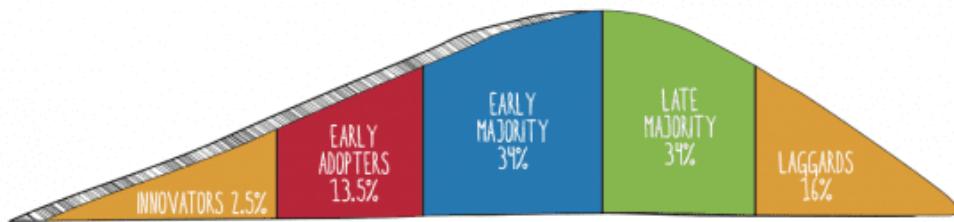


Figure 3.4 Diffusion of Innovation Model

Source: (Hanlon, 2013)

The above Fig. 3.4 represents the degree of how individuals are categorised when they engage with a new technology and which makes the majority of the group. There exist particularly five main groups of innovation adopters which are as following:

- **Innovators:** include the group of people who are enthusiastic about new innovations and are willing to try them as soon as they are out. They are characterised by the good will of trying new ideas and are open to accept the difficulties that might come with a new innovation. Hence, even though this group includes only 2,5% of people, they are risk lovers and are willing to explore the novice technology.
- **Early Adopters:** are the ones who embrace change and like to share their opinion as a leader once they have opportunities that represent change in the community. This comes as a result of being aware that change is needed and it is time to embrace it, therefore the innovations that come to them are welcomed and immediately put into work. This group of people counts as 13,5% and they do not need a pep talk to be convinced because they already want to try the new innovation.
- **Early Majority:** This group reflects the majority of people into the innovation scope and they count about 34%. Even though they do not show leadership models, they are ready to try new innovations before an average individual. But different from “Early Adopters” they need to gather information from previous users or from success stories that the innovation is worth a try and works before they adopt and incorporate it to their lifestyle.

- **Late Majority:** includes a moderate percentage of individuals (about 34%) and they fall under the skeptical category who do not believe in technology and change that much but are willing to adopt it only if the majority of people have used it previously and it has been a successful experience.
- **Laggards:** the people who fall under this category amount to 16% and the ones who follow traditions and refuse to change their lifestyle, especially by including technology to it. Since they are very skeptical and conservative, it is very difficult to include them into the process of innovation and change adoption. The only way they can be approached is by including lots of statistics or pressure from other individuals who are part of other adopters.

Though the process of accepting and adopting a new innovation or behavior depends on the individual's personal character and it is not an instant approach, instead it takes time and goes through different steps. For instance, depending on the individual, some are quick adapters and grasp innovation right away and some others are slow. According to some studies, it was found out that individuals who accept innovation quickly and adapt it easier in their daily lifestyle, have different attribute characteristics than others and their aim is to face development faster and make it a norm in the social group they are part of.

3.5 The Decomposed Theory of Planned Behavior

The decomposed theory of planned behavior has shown more attributes and powerful elements when it is compared to the theory of planned behavior which I have explained previously. This occurs because it can be more predictive and is better to be used when companies and business want to understand their clients and see their adoptability elements towards new innovations such as is E-banking in our case (Taylor & Todd, 1995). Another advantage of this method is the flexibility it offers when it comes to finding the right beliefs which could be easily applicable to multiple settings. Therefore in the case of E-banking, explaining the innovation it would require a satisfactory justification in order to adopt the new innovation.

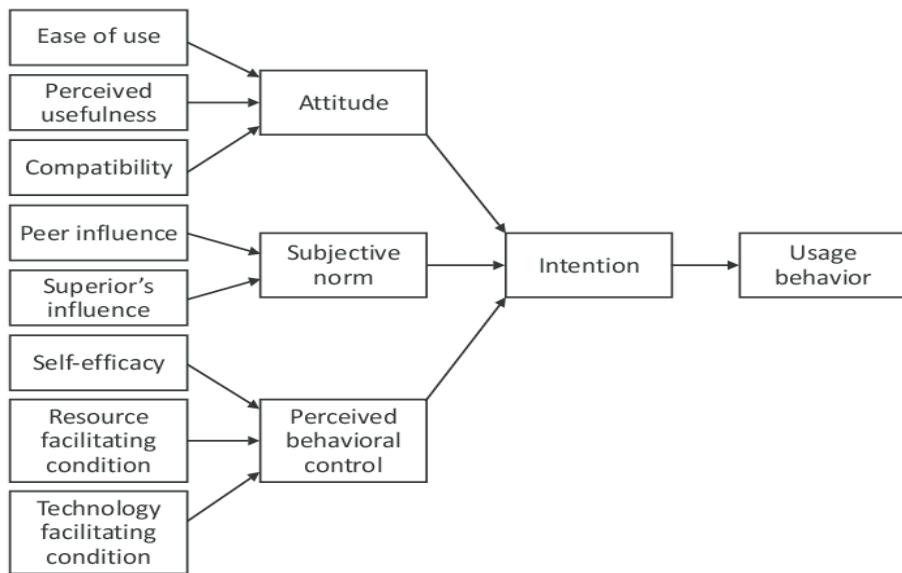


Figure 3.5 The Decomposed Theory of Planned Behavior

Source: (Taylor & Todd, 1995)

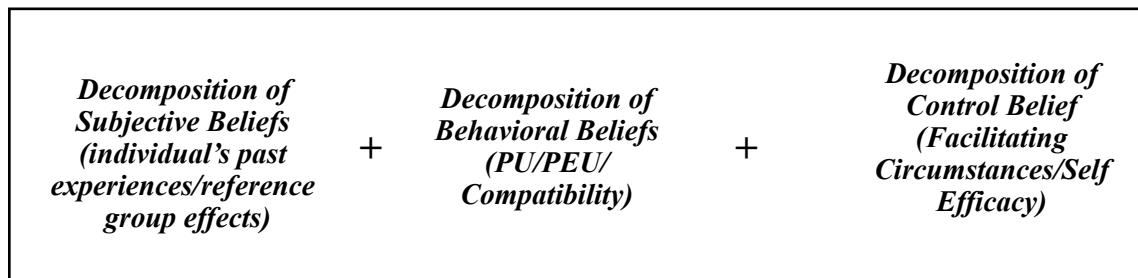
In order to have a better overview of the individual's attention it was suggested by the researchers that the relationship among decomposition of behavioral beliefs and belief structures should work together and to relate the approach with other dimensions from intention antecedents in the field (Bagozzi, 1981). Based on Taylor and Todd's theory, it was explained that attitude was gradually represented by other elements of behavior and was decomposed into *complexity, relative advantage and compatibility*:

- **Relative Advantage:** is used to reflect the extent of how the new innovation that is introduced in the market will give its users more benefits when it is compared to other innovations in the past years. In this scope the actual innovation is views as more valuable and a better idea and individuals are the ones who decide on which element to be labelled as objective advantage and satisfactory. Therefore, the innovation is perceived to be impactful if the rate of adopting the innovation is high.
- **Compatibility:** reflects the degree on how compatible the innovation is with what the user is looking for, including here his/her values, the already existing attributes, previous experience with such innovation and finally by checking their actual needs. If the users find the new innovation a good idea they will adopt them very quickly and will also replace old products and use the good attributes that come with the new innovations.

- **Complexity:** reflects the degree of how difficult is the innovation to be grasped by the user. With “Perceived Ease Of Use” individuals see the innovation as a complex task and very difficult to comprehend and therefore might refuse to use it, while “Perceived Usefulness” reflects more the benefits and the good attributes that come with a new innovation.

If the “Behavioral Intention” of an individual would be summarised in a simple math equation it would be as followed:

Behavioral Intention



3.6 Unified Theory of Acceptance and Use of Technology

In today's world it is very important to be aware of how important it is to include technology and its attributes in almost any kind of service and administration section. The electronic platform of E-banking not only provides many facilities towards its customers, therefore communicating to them new technological aspects and providing such facilities is done via “Unified Theory of Acceptance Use of Technology (UTAUT). This method is used to examine the degree to how ready are customers to accept new technological systems in regard to what they had in the past. UTAUT is also a good indicator that is used to give an estimate percentage regarding how successful this new innovation or technology is and the extent of adoption of technological features in their daily tasks. This is a very popular model theory and so far it has been implemented in many research studies related to E-Banking, E-Learning or E-Commerce (Venkatesh & Morris & Davis, 2003).

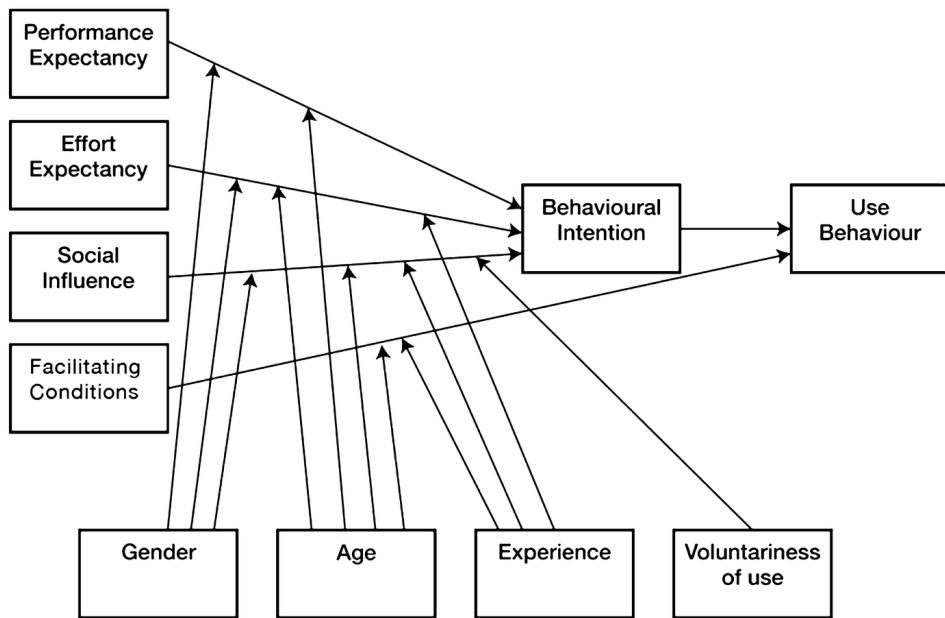


Figure 3.6 Unified Theory of Acceptance and Use of Technology

Source: (Taylor & Todd, 1995)

The main idea of the UTAUT model is to offer to the user a clear explanation in the moment they intent to use a technological service or product and therefore it also reflects the usage behavior in this aspect.

As seen from the Fig. 3.6 there exist four main key elements that construct this theory and will be explained as below:

1. Performance Expectancy (PE)

Performance Expectancy is a factor that has been researched by many researchers and is the main element to construct the theory model because it has direct connection with adoption of technological systems and determines how the customer perceives the usefulness of this new product or service and how fast it can adapt. More specifically, performance expectancy will reflect how fast an individual can increase his or her job performance while using technological systems (Venkatesh, 2003).

To give an example, PE can be used to reflect the degree in which a student just graduated from university perceives the usage of smartphones as an effective solution to improve their academic performance for all the activities he or she will be engaged in. This happens because graduated students use their smartphones anytime and rely to

them to find the right information in the right time in order to perform activities that rely on their academic output. Hence, if individuals perceive the use of technological systems as very contributing to what they are doing, it is wise to say that they are prone to favour its usage.

2. Effort Expectancy (EE)

As being part of UTAUT theory, this element is engaged in measuring how easy it is for a customer or individual to use technology systems and shows the amount of effort that each one of them will partake in engaging with a certain process. Effort expectancy also refers to the degree an individual expects that the level of mental efforts attached to the usage of the technology is not characterised by difficulties. In this scope, it is expected that this element of UTAUT is correlated among the effort that individuals put into work, the already achieved work performance so far that derives from the individual's effort and the reward obtained that also comes from the already mentioned effort (Ghalandari, 2012).

3. Facilitating Conditions (FC)

Facilitating conditions are another key elements that take part in a well performed UTAUT theory model because it reflects the degree of how individuals view the company or organisation as a positive element that would facilitate the process of making technological systems available and ready to be used. Some probable conditions that are included in the facilitating the process include support from managers and senior leaders of the company that provide the technological systems, the right knowledge, good working condition, selected user manuals and directives or simplified practices (Ghalandari, 2012). In order for these facilitating factors to be coherent with other elements that compose the used methodology, many indicators that determine the good attributes of the technology include also compatibility and the individual's perceived behavioral control. If the technology systems are used effectively in order to make use of what they offer, then appropriate measures will exist to support the process and help users integrate with it easily.

4. Social Influence (SI)

Social influence refers to all the people who are close to the individual and believe they are important enough to have an impact in their decision when they are about to try a new technological system. However, social influence can come by influential

individuals on social media and by reaching out to the people, they network and influence their belief on new technology (Wooley, 2013). In this case they act as advisors and the individual trusts their words over the new system and are willing to give it a try just because they value their opinion. Of course the opinions of a social influence depends on other circumstances as well and when it is a voluntary use of the product or service the social influence would not have any effect. Contrary to this situation, in situations where using a technology process is mandatory, the social influence factor would be much more effective because the opinion of the influencer would be very much in need (Venkatesh, 2003).

Other factors that are closely related with social influence include the age, gender or user experience of the individual and based on these elements, is reflected in the degree of the influencing level. Therefore, taking into consideration the UTAUT model and the opinions given by social influencers, the adoption of new technological or innovative processes would be easier to implemented. In this case the intention to use a novice good has a great impact even in the user's behavior.

The three main processes that determine a social influence include:

Compliance refers to the moment when the individual accepts to go for the influence's opinion and adapt to it.

Identification is the phase where the user accepts the induced behavior because he or she wants to be identified with that certain group of people who influenced their behavior towards a certain product.

Internalisation refers to the situation in which the user accepts the social influence opinion after he or she has perceived the rewards that relies in the content of the good. In this case, after they see that the product complies with their values they can say that they are satisfied and accept the influenced opinion.

To conclude, in the above research are presented many view points based on already existing literature by well known researches in the banking system as well as discussions on adoption of E-banking into consumers life. Hence, in order to offer a more complete view on the matter, theoretical frameworks such as TAM, TAM2, UTAUT, TPB, IDT or TRA have been used and have shown another perspective on consumer's behavior. These methods have been used to explain the hypothesis further in the paper.

4. The Albanian Case

The development of the banking system of a country is like an important piece of cog in the function of a larger and complex machine. Nevertheless, in order to understand this machine as a whole it is key to learn about the other important pieces of cogs such as the historical point of view, political atmosphere and the economical environment.

The last nation that overthrew the communism regime in Europe, Albania is a fairly small developing country located in the South-East in the Balkans. Since the collapse of the communist regime back in the 1990 and the creation of the new government, the leaders of the country took strong economic reforms in order to move forward like its neighbour countries of Europe back at that time. After a short period of time of implementing the new reform the country started to see their positive sides. Albania saw an increase in rates, low inflation and better fiscal debt.

4.1 The Development of the Banking System

Nevertheless, with the overflowing problems of the country prior to 1990, the banking system in Albania was nonexistent and lacked its main function. In 1992 with a major win of national elections held, the Democratic Party came into power and in its agenda a top priority was the creation of a new democratic government system and the creation of the banking and economic system. Continuing in chronological and right timeline of events the new democratic government that was in power, constructed a free market economy and gave the opportunity to the population of Albania to operate and have ownership of their business (private businesses).

With all this fast pacing momentum that the situation was moving for the country, the leaders of that time saw as paramount the creation of a banking system, thus after the 1990, the new Bank of Albania which was reformed from top to bottom was reintroduced. The National Bank of Albania was the only known and legal banking institution in national scale and it operated central and commercial activities.

Unfortunately for the country, since cutting ties and changing regimes, the switch was fast but the backlash was harder than the country could endure at the moment, thus it led for the national bank to perform poorly. Being an undeveloped country with a renewed banking and economical system the population was faced with extreme poverty due to various reasons. One of the major reasons was that the country started to allow private businesses, but the people who owned them did not understand the market or

how it worked, the financial institutions appeared to be a difficult notion and they have limited knowledge on how the operations worked. Thus they were faced with poverty and economic problems (Gjergji, 2008).

In the nearly last two decades, the Balkans (Albania included) faced a transformation of banking systems and they have changed due to three types of movements which are: bank consolidations and privatisation, as well as the penetration in large numbers of foreign banks (Turner, 2006). During 1992, a period where the country faced more troubles, adjusting the operations of the commercial banks and the market as a whole started and the government initiated adequate legislation and monetary policies in order to escape the situation the country was plagued with. Furthermore, during the same year the government took an important approach and reformed the whole banking system of the country of Albania, in what came to be known as a two-level banking system.

The main goal of this reform was to create a two-level banking system which was the following;

- The National Bank of Albania was classified as a first-level type of bank. This bank is the highest financial institution whose main duty is to plan, direct and carry monetary laws and oversee the national banking system.
- Commercial Banks were and are known as second-level type of financial institutions. All the commercial banks are to be supervised by the national bank of the country which is a first-level financial institution, by following worldwide accepted standards. Second-level financial institution operations mainly consisted in taking deposits and giving loans to the citizens of the country. Nevertheless, these types of banks can perform national/international money transfers, transactions and international investments (Uruci and Gedeshi, 2003).

Initially, only three types of banks were created: Savings Bank (SB), National Commercial Bank (NCB) and Bank for Agriculture Development (BAD). The function of each bank was respectively as follows: deposits of households, transactions with commercial industries and giving incentives and support to agricultural industries. After these three main banks were installed in the system and were performing their daily operations, the same year Bank of Albania joined the International Monetary Fund (IMF). This suggested years of strong relationships and new facilities in the banking system. Furthermore, another bank joined the former three existing ones; Rural Commercial Bank (RCB) whose main aim was to facilitate and help entrepreneurs and farmers in their journey.

In the beginning of 1996 until 1997, Albania took again a step back and fell under civil war and anarchy. What led to this massive destruction and the collapse of the entire system, were due to the pyramid schemes or else called Ponzi schemes. Pyramid schemes are companies or people who pretend to be inventors and through the promises they convinced the citizen to invest the money to them. According to their say, this money would then return double or triple thanks to the high rates promised. The end of life for a Ponzi scheme comes when it starts to become hard to get new investors in line or when a sum of people want to cash their money right away.

In order for the schemers to steal more money, they needed to allure new people to invest at them by promising more high rates in return, consequently this would lead to having large interests to pay to the investors in the other hand, so the schemers continue to raise more and more their interest rates (Uruci and Gadeshi, 2003).

During a short period, several pyramidal schemes companies promised citizens to make them very rich very fast, started to emerge one after the other in Albania. Looking the legal aspect these so called companies, in the eyes of the law were illegal, furthermore they were not authorised by the National Bank of Albania in order to exercise this type of activity. The capital of these scheme companies was composed by private loans. More specifically, it means that it was borrowed money from immigrant workers living overseas and then lent to their families. The total face value of the pyramidal schemes on November 1996 was estimated to be around \$1.3 billion US, this reflected almost 50% of the GDP in the Albania of that time (Uruci and Gadeshi, 2003).

In march 1997 the situation in the Albanian banking system has reached the lowest level and chaos was everywhere; people started to sell their belongings and houses in order to put more money in this pyramid, remittances that came from emigrants went being funded into these pyramid schemes and farmers put up for sale all their livestock in order to have enough money to live for the month. Situation was far from normal and it can be said that the government had no power to control the state. Massive inconveniences occurred and the depreciation by 40% of Albanian Lek was one of them. This was followed by a 28% increase in prices and temporarily shut down of production in many industries. All these economic harms interfered with trade and unfortunately put a ban on it (Uruci and Gedeshi, 2003).

The consequences made from such illegal schemes, caused the country of Albania to look for an alternative solution to regulate its banking sector. After the civil war that ended in 1997, Albania was found ruled by chaos and anarchy, therefore the new elected government tried to reform all sectors in order to regulate the national economy

situation. Considering the chaotic situation, the banks in Albania went through other macroeconomic problems such as privatisation, liquidation of bank activities. After Rural Central Bank (RCB) was liquidated in 1997, the government's resolution was to restructure by privatising the state banks that were still functioning.

As this was seen as a strategic investment, in year 2000, National Commercial Bank (NCB) went under the privatisation process and after that in 2004, Savings Banks went under the ownership of an Austrian financial institution "Raiffeisen Bank". As years passed, the number of private banks in Albania was increasing at a fast pace.

In early 2002, another turmoil happened in the banking system, but this time related to deposits. To make the population more secure, the solution was to collect all savings from the banks and find security by stashing them into their private properties. People lost trust and faith in the banking system and what this meant was that the Albanian banks were still not ready and continued to be under a delicate situation for the time being.

The two episodes consisting of the pyramidal scheme companies and the large deposits withdrawal mentioned above, are known in the Albanian history with the terminology of "Albanian Paradox". This terminology comes as such because, during the time period when the country of Albania was performing at its best and was having an impactful economic growth in national scale, the pyramidal scheme companies failed and collapsed, thus leading to the economical destruction of the country (IMF and World Bank, 2003). Until this moment the reforms put forth by the government were implemented and executed in a smooth and successful manner (IMF and World Bank, 2003). While on the contrary, during the time period April until May 2002, the banking system was at its highest performing capacity of its operations when the large deposit withdrawal happened because people lost the faith to trust banks their savings (Uruci *et.al.*, 2003).

In the Balkan region, Albania is the country that has the highest market share for foreign banks investing their capital there. By welcoming foreign financial institutions it was believed that they would bring with them the know-hows, financial services/operations and apply their rules and standards, this leading to a greatly improved and bring up to date the banking system in Albania. The first foreign bank which decided to invest capital and operate in Albania was Banca di Roma. After Banca di Roma, the trend continued and other international banks started to follow suit. Some of the renowned banks were; Raiffeisen Bank, National Bank of Greece (NBG), Bank of Piraeus, Bank of San Paolo.

A few years later, Credins Bank and Popular Banks were the first two Albanian capital owned banks and with their establishment, the competitiveness for market share grew considerably. Both these banks were eager to penetrate the market and increased their market share by following competitive strategies. Competition is what drives the market and the economy forward and these two banks were doing exactly that.

On the other hand, it helped in changing the citizen's perceptiveness and distrust toward banks. In 2004, Raiffeisen Bank joined the scene and it contributed further to it by increasing competition on the market and it helped bring new and better products and services in the banking sector. Recently, the financial institution sector in Albania has been mostly identified by following a growth pattern, simultaneously in bank numbers, its activity and service growth. These patterns are followed by having growth in lending, expansion of operations and products provided by such financial institutions.

When the financial crisis happened back in 2008, the banking system of Albania was not directly affected. From the results conducted by a national study there existed several motives why the country was not directly hit but instead slipped right through this crisis.

According to the study authors, the main reasons were the low financial involvement of the national banking system with more up to date international financial markets, well capitalised position of international banks located and fully operational in the territory of Albania, strict regulations by the National Bank of Albania in order to intercept this crisis and the absence of the National Bank of Albania in stock exchange markets (Bahiti, Shkruti, Babasuli, n/a).

Nevertheless, even if indirectly, the crisis was present in the everyday life of Albanian population. The national banking system was hit indirectly by lowering the received income per household, bankrupting small business and slowing down the overall financial institution's operational functionality. This matter was passed on throughout the international financial markets (Bahiti, Shkruti, Babasuli, n/a).

4.2 Evolution of E-Banking

4.2.1 Internet Access

An important element that evaluates the economical progression of a nation is Internet access. We need to keep in mind that internet access falls under the category of infrastructure development of the country. This is not only valuable but it also offers benefits to the whole society and small/medium businesses. The number one benefit that the internet gives to its users is the ability of saving more money in the long run. With the ability to process information at a higher rate, it can definitely become an advantage for businesses, either save more or increase their profits. Furthermore, it can lead to further merging of business association models.

In 1991 Soros Foundation was the first philanthropist to facilitate the internet in Albania which was used to communicate with other banks situated in United States of America, as well as East Europe. After the political situation in 1997 was settled down, internet users increased in number and were spread across all the country gradually. However, in the beginning there were some problems that came with it such as slow speed, poor connection, very pricy, many interruptions due to power undercut and not too many people who would buy it. At that time the price per month would be around 15\$ up to 40\$, differently counted as 18 to 45% of Albanian's average income on a monthly basis. As years passed and infrastructure got better, the usage of internet also got better and covered a larger part of the population.

Year	Internet Users	Penetration (% of Population)	Total Population
2016	1,823,233	62.8%	2,903,700
2015	1,794,798	62%	2,896,679
2014	1,736,695	60.1%	2,889,676
2013	1,649,237	57.2%	2,883,281
2012	1,574,456	54.7%	2,880,667
2011	1,414,145	49%	2,886,010
2010	1,305,847	45%	2,901,883
2009	1,207,113	41.2%	2,929,886
2008	708,171	23.9%	2,968,026

Year	Internet Users	Penetration (% of Population)	Total Population
2007	452,715	15%	3,010,849
2006	293,176	9.6%	3,050,741
2005	186,283	6%	3,082,172
2004	75,123	2.4%	3,103,758
2003	30,295	1%	3,117,045
2002	12,183	0.4%	3,123,112
2001	10,178	0.3%	3,124,093
2000	3,562	0.1%	3,121,965

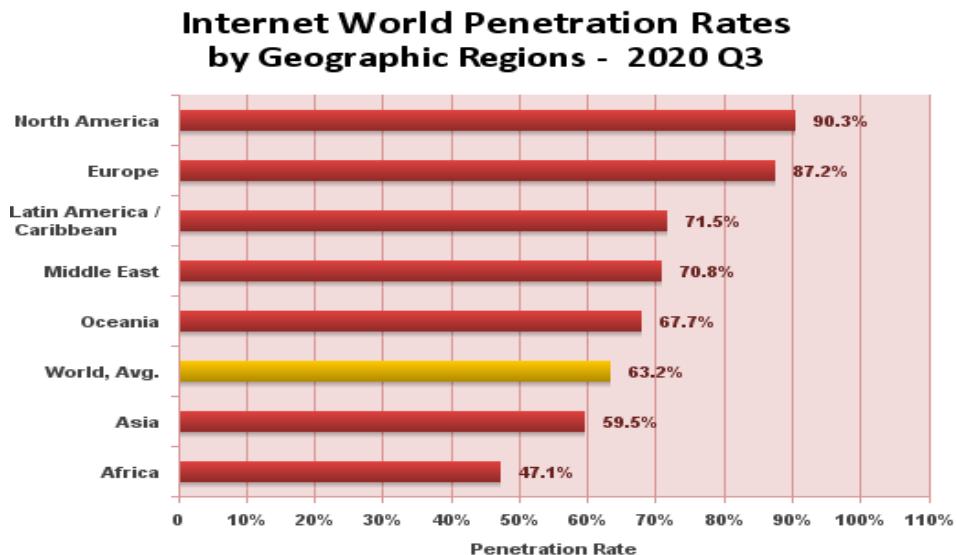
Table 4-1. Albania Internet Usage

Source: Internet Live Stats

Published by Internet Live Stats in 2016, Albania has 1,823,233 active internet users as of 2016. The penetration of internet usage in Albania (% of population) as of 2016 was 62.8% and it is nearly at the same percentile of 63.2% of the world average internet penetration rate as stated in the graph underneath. Nevertheless, the rate is still lower than the countries in the EU with 87.2%.

In order for Online Banking Services (OBS) to function, having internet access is a must, therefore banks in Albania started to take action. With the progression of communication and information technologies, the usage of smartphones and personal computers (PC), started to increase in the daily life of the Albanian citizens. This led to banks investing into E-Banking platform technologies.

Internet and computer technology, also known as ICT, was facilitated by the Albanian government. Other non-profit organisations (NGO) or governmental sites made sure to take initiatives in order to serve the Albanian population by providing internet not only to commercial sellers but also to the rest of people that would make good use of the internet for schools or for people that lived in countryside, where internet was difficult to reach. With the new innovations and investment being made, Wi-Fi and other public internet coverage area became available to the population in a wide range of areas.



Source: Internet World Stats - www.internetworldstats.com/stats.htm
 Penetration Rates are based on a world population of 7,796,615,710
 and 4,929,926,187 estimated Internet users in October 27, 2020.
 Copyright © 2020, Miniwatts Marketing Group

Figure 4.1. Internet World Penetration Rate

Source: Internet World Stats

4.2.2 E-Banking Growth and Performance

E-Banking came to be known during the 90s in most developed countries, but only after a decade in Albania. American Bank of America (ABA) was the first bank in Albania that in 2002 started to offer Online Banking (OB) called *ABA Flex*. Since the introduction of *ABA Flex* the number of users who became clients of American Bank of Albania and started using Online Banking (OB) substantially grew and in 2006 the client base more than doubled increased. Hence, *ABA Flex* became the most successful delivery channel soon after its initial release and resulted with a 85% increase in client base (ABA Annual Report, 2006). After the revolutionary technology introduction that the American Bank of Albania did, other fellow competitor banks started to invest heavily in this type of technology as well. In the end it resulted that majority of banks today in Albania, started to provide this kind of financial service. Later on, the American Bank of Albania changed its name to Intesa Sanpaolo Bank.

In 2003 Albania started using electronic money. The first step that banks took was implementing ATMs. Automated Teller Machine or known better with the abbreviation of ATMs, are massive electronic devices which provide clients of a specific financial institution with the possibility to check, withdraw and deposit money into their accounts

without the need of them in the first place to be present within the walls of the banks. The client will be then recognised by the ATM with the use of a special card that contains 16 digits provided by the bank of choice of the client. The ATM can work with either a credit or debit type of card. As soon as the client enters their credit/debit card into the ATM, the device will read the card and will prompt the user with a security pin known only by the user of the card. Upon typing and sending for verification the pin, it will be taken and be verified on the server. As soon as the pin and card information is accepted then the server decrypts the information and gives permission to the user to start going through the services provided by the ATM.

In the schematic below are presented the main components that make up an ATM;

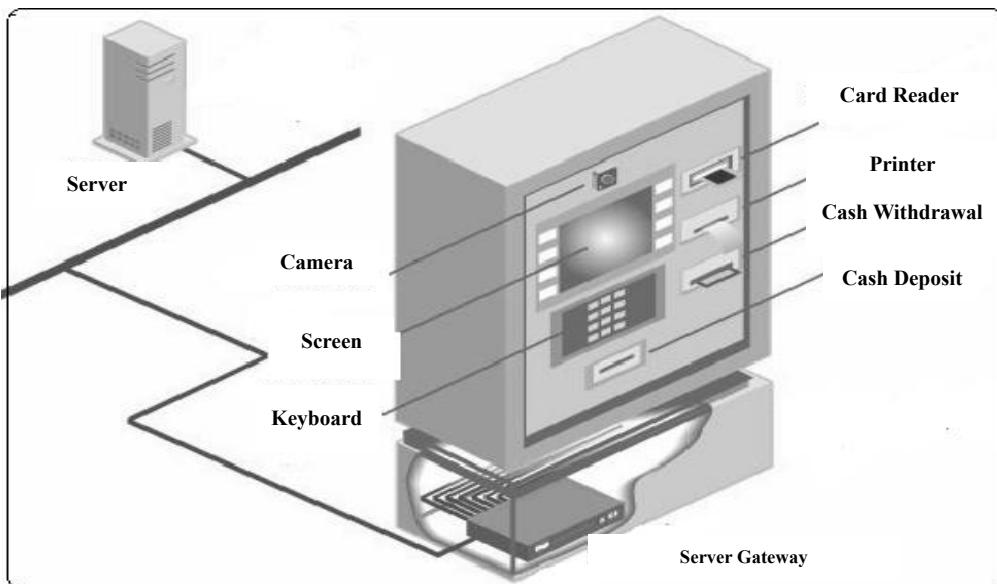


Figure 4.2. ATMs Components

Source: Elona Krastafilaku (PhD., 2014)

Unlike the broader internet access and penetration that with each passing year it increases, the implementation of ATMs has not grown as it was expected. Albania has 30 ATM per 100,000 of population. This sum is 6 times lower than in Austria, the country that has the highest record in Europe with 170 ATM per 100,000 people (International Monetary Fund, 2018).

Furthermore, in the region the lowest number of ATM follows in Kosovo with 35 machines per 100,000 people, Serbia with 49 machines, North Macedonia with 60 machines and Montenegro with 87 machines.

Surprisingly, Albania is one of the only countries in the Europe that has the highest physical cash usage. As interesting as it can get, Albania shares a similarity with countries like Norway, Sweden or Finland in regards of having low ATM coverage per

100,000 people. Norway has 35 machines per 100,000 people, followed by Finland with 34 and lastly Sweden with 40 machines (International Monetary Fund, 2018). What the Nordic countries are trying to achieve is to take out the use of physical cash, therefore these countries are trying to lower the need for ATMs. In Sweden people between ages 18-24 make 95% of purchases with debit cards or with mobile bank applications. In the last few years, Albania has shown that it is following suit of Nordic countries approach, a cashless society. There has been great integration of Point of Sale (POS) in shops, supermarkets, bar, restaurants, parking, retails etc.

From statistics concluded by the National Bank of Albania, the incorporation of Online Banking (OB) in the daily life of individuals and businesses is increasing tremendously. Only in 2019 it was recorded a number higher than 120,000 individuals and businesses that are using Online Banking (OB), this number has tripled since 2015. The National Bank of Albania added further that from 220,000 OBS transactions done in 2018, worth amounted to more than 98.2 billion ALL, 21% higher than the previous year. Compared with the year 2002, when the Online Banking (OB) was firstly presented in the market the increase in usage is more than ten times over compared to recent years.

In 2019, the National Bank of Albania disclosed that 225,000 OBS bank transactions with a worth of 100.1 billion ALL.

A study led by Mersini and Teliti (2012) showed some interesting outcomes regarding why E-banking was used. Thus, according to the data gathered in the market, it concluded that 50% of the Albanian banks offered this service to increase their competitive advantage in the market, 40% of banks were to fulfil the bank's objectives and finally, 10% came as a request by customers. Furthermore in this research, 80% of the service of E-banking was offered to corporate customers, SME and individuals and lastly, only 20% of services were available for corporate clients. As E-banking became more present in the bank chain, more specifically in 60% of them, the relationship and what banks provided to them was facilitated and improved at an increased level. On the contrary, 40% of these financial institutions still are not adopting this new technology and thus far, improvements have been very slow regarding client well-being.

Another aspect in the study that was examined, was the tool to further encourage Online Banking (OB) for marketing reasons and it was found out that 60% of financial institutions incorporated in their advertising method pamphlets, 20% apparently used the power of media and the remaining 20% included not only media and pamphlets, but also advertisements displayed via internet websites as they become more trendy and people were taking more notice of them.

To conclude, the banking system in Albania is working day by day to move forward and adapt the usage of E-banking on their operations. Since the rough start that Albania experienced during the 1990 under a communist regime, it has proven to be flexible to changes and adoptions. Since the introduction of *ABA Flex*, the very first bank in Albania, the number of users who became clients of American Bank of Albania and started using Online Banking (OB) substantially grew. This growth rate continued year by year, today the number of banks who promote E-Banking usage has expanded. E-banking has served as a positive attribute to the Albanian financial institutions because Albanian banks offered this service to increase their competitive advantage in the market, to fulfil bank's objectives or customer's request for providing new technology.

5. Hypothesis

Considering the research and literature review conducted on the above chapters, several hypothesis are formulated. The hypothesis are influenced based on the research question and are listed below to give an answer to the main question of this research: *How are the customers in Albania influenced, what are the behaviors shown and attitudes displayed when introduced with a new E-Banking technology?*

Therefore, during this study I find myself standing in the same crossroad. Albania and the acceptance of Online Banking (OB) is influenced by a lot of factors that in order to understand them better, it is of great importance to first analyze the customer's attitude towards this new technology. All these factors will be evaluated in details in the below section, where each one of the factors will reflect a hypothesis.

Hypothesis 1: Client's perceived usefulness (PU) positively affects the user's viewpoint regarding E-banking platforms.

Perceived Usefulness (PU), is what the new usage ought to deliver to the user in a way that will give him/her a higher degree of enhanced performance function-wise. When discussing about E-Banking, the enhanced performance function-wise could be translated to zero constrains with regards to accessing the bank at your time-schedule and managing your accounts without going physically to the bank yourself. Furthermore, a lot of research done from Information Systems (IS) perspective has shown that there exists a correlation with perceived usefulness and the intention for the users that triggers them to use whatever new technology presented, in this case Online Banking (OB) (Davis, 1989, Morris, 2000, Venkatesh, 2000).

With regards to perceived usefulness being considered as the main trigger that gives intent to the user to try out new information technology, a lot of studies conducted have supported this statement (Davis, 1989), (Igbara, 1997), (Venkatesh, 2000), (Hsu, 2004), (Lu, 2004). Based on the Technology Acceptance Model, perceived usefulness (PU) triggers the users into using novel technology in two ways, either being it voluntarily or compulsory wise (Venkatesh, 2003).

Hypothesis 2(X): Client's perceived ease of use (PEOU) positively affects user's perceived usefulness of E-banking platforms.

Hypothesis 2(Y): Client's perceived ease of use (PEOU) positively affects user's viewpoint regarding E-banking platforms.

The user's general evaluation which makes them believe that by using a specific information system technology grants them psychological effortless use, is called perceived ease of use (PEOU) (Davis, 1989). The main factor that gives the ease of use to the customer with the usage of Online Banking (OB) technology is that it is a self-service procedure. In order to give to their clients a smooth and effortless navigation throughout Online Banking (OB), the financial institution has designed easy to navigate websites to simplify the use by the clients with fast and easy transaction procedures in an efficient manner. Perceived ease of use (PEOU) is divided in two ways (direct triggering and indirect triggering combined with perceived usefulness) that triggers behavioral intent to use the OBS platform.

Hypothesis 3: Client's perceived behavioral control (PBC) positively affects user's viewpoint regarding E-banking platforms.

As the Theory of Planned Behavior states, the individual's visualisation of how difficult a task ought to be carried out, is scientifically known as perceived behavioral control. Perceived Behavioral Control (PBC), most of the time depends on the situation or actions taken by the user (Ajzen 1991). From a study conducted it revealed that perceived behavioral control is the most important factor that serves as a trigger for the acceptance of a technology (Mathieson, 1991).

Perceived Behavioral Control (PBC), is formed based on the background of the user, meaning that it is dependent on the users economy, lifestyle, experience and a fairly degree of skills in using technology. In order to create the clients intention and behavior, factors such as internal and external triggers points are very essential because they serve as an imaginary scale for individuals to weight the difficulty of the task, for instance adoption of OBS technology into their lifestyle, thus leading into accepting this particular technological advancement in the long run (Venkatesh, 2000) (Davis, 1989). Individuals which have a higher self-control, most of the time are way more confident and will purchase more online as a result of strong beliefs in their skill (Bobbitt and Dabholkar, 2001). Furthermore, based on the literature research conducted, it is concluded that Perceived Behavioral Control (PBC), leads to faster adoptions of OBS.

Hypothesis 4: Client's perceived security and trust (PST) positively affects user's viewpoint regarding E-banking platforms.

When often purchasing an item online, there does not exist any form of physical interaction with the retailer or the purchaser. This form of distance creates trust issues for the consumers since it is a fact that clients create a form of trust when they see physical objects in the room or observe the salesperson, their manner of speak or how they address with an explanation to whatever issues the customer may have encountered (Reicheld, 2000)(Schefter, 2000). The risk of security for individuals is linked with theft of cash or theft of monetary funds from their credit/debit cards. From studies conducted in different countries with different degree of OBS adoption, has shown that security risk is a hurdle that needs to be tackled in order for the mass to accept it.

From a survey conducted in Singapore it showed that security risk of OBS is a delicate matter that concerns both high acceptors and non-acceptors (Gerrard & Cunningham, 2003). When discussing all the aspects of Online Banking (OB), another hurdle to tackle is the fear or anger that the clients feel if their privacy is threatened or attacked. Clients are worried that the information that they share with the financial institutions may be sold to third parties that can use this type of sensitive data to sell them other products (Gerrard & Cunningham, 2003). Nevertheless, to maintain a continued use of Online Banking (OB) service, financial institution's priority is to build up a strong base of trust in order to reassure their clients for the safety of this technology (Suh & Han, 2002) (Rexha, 2003). Trust is mostly emphasised when performing online banking transactions more than offline banking. This happens because during the time a user is performing OBS, sensitive data are shared by the servers directly to the internet in order to conclude securely and successfully the transaction (Suh, 2002). In order to create a long lasting partnership it is important to build a strong foundation of trust to begin with. Sometimes the business partners might be far away in distant locations which can have different laws and directives and sometimes they might not be acquainted personally and this can lead to less and less control for when they perform OBS and the data is exposed online (Roy, Dewit & Aubert, 2011).

Hypothesis 5(X): Client's subjective norms (SN) positively affects user's perceived usefulness of E-banking platforms.

Hypothesis 5(Y): Client's subjective norms (SN) positively affects the user's viewpoint regarding E-banking platforms.

Subjective Norm (SN) is the belief that an individual or a larger number of people will accept and support a certain behavior displayed (Fishbein & Ajzen, 1975). Furthermore, based on the Social Influence Theory, a person will try to comply with the social norms set by the masses in order to build and create relationships with other individuals or groups of society in order to avoid rejection.

According to the Technology Acceptance Model (TAM), subjective norm (SN) impacts the judgment of perceived usefulness (PU). From a study conducted by Lewis, he was able to come up with an hypothesis which concluded that subjective norm (SN), contributes with the individual's perceived ease of use (PEOU) (Lewis, 2003). If Online Banking (OB) is displayed as a difficult and hard service to be used on a daily basis, then society will not accept this type of technology in the long run. As the Diffusion of Innovation Theory suggests, other things equal, the masses understanding of how useful and efficient a technology is, will always be persuaded by the judgments of the society (Venkatesh & Davis, 2000). The main goal is to find out if society influence is an essential factor in the aim of accepting E-Banking in the country of Albania.

Hypothesis 6: Client's awareness (AW) regarding E-banking platforms positively affects user's perceived usefulness.

Awareness: Indicates a process which shows that individuals are conscious that a certain type of system is available. According to an analysis made by Sathye (1999) who has researched on the Australian banking system and their customers, found that the absence of awareness had appeared to be one of the main reasons why customers have difficulties to adopt new systems. She also added that the reason why the level of awareness was low came as a result of customers not using online services that often and are not fully acknowledged of its attributes.

Therefore, they did not realize the benefits of online banking services, nor the disadvantages. This matter would lead to customers reducing the usage of e-banking and because they lack so much information and are not aware of its attributes, therefore using it less would suit them better (Howcroft, 2002).

On the other hand, bank's customers are the ones who decide to get informed and how to use this kind of information in order to easily adopt the facilities that e-banking offers (Pikkarainen, 2004). This means that if they are aware of the benefits offered and know how to make better use of it, they will take advantage and would be easy for them.

Taking this into account, I would like to explore at what extent Albanian consumers are informed about e-banking advantages to what services they mostly use.

Hypothesis 7: Word of mouth (WOM) positively affects user's perceived usefulness regarding E-banking platforms.

Word of Mouth (WOM), is classified as a special-grade factor in terms of power that it has on the market and how heavily consumers count on it in order to gather more interpersonal opinions regarding the company/s they are planning to make an important buying in the near future. Despite how thorough the advertising campaign is and what the company might do in order to answer all the questions about their products, the customers will not make important purchase decisions on the information provided by the company's side. Several well-known scholars/authors define Word of Mouth (WOM) as an informal type of communication among non-connected individuals in a society that share between themselves ratings and opinions about goods and services (Ditcher, 1996), (Fornell, 1982), (Westbrook, 1987).

Word of Mouth (WOM) exists in three types of forms; positive, negative or unbiased. The original opinion of a customer who has bought a good or service from a company and after a period of time that they have used it, they conclude that this product or service was worth the money or it was a scam (Arndt, 1967), (Dicher, 1966). This type of opinion is considered as the main source of power for WOM (Reicheld, 1990), (Sasser, 1990). From a lot of studies conducted it was concluded that clients were happy with the products or services and spread a good word of mouth regarding the respective companies, therefore these clients will promote and talk well about this company and will advocate and suggest to the others as well. Needlessly, sometimes the opinion of the masses will not always be positive, instead they will be negative and people will be twice more on their guard than when they hear a positive opinion (Tesser, 1975), (Rosen, 1975). Furthermore from the studies, it was concluded that individuals who have negative opinions will partake in conversation and share their bad experiences two times more than a satisfied client (Coca Cola Research, N/a), (TARP, 1981).

Hypothesis 8: E-banking platform's service quality (SQ) positively affects user's satisfaction.

The way in which a financial institution builds a website that can satisfy the needs of the clients in a time-efficient, user-friendly and high security is defined as a service quality (SQ) (Zeithaml, Pg. 133-135). In the scientific community service quality (SQ) is known as security, courtesy, access and trustworthiness (Parasuraman, 1985), (Berry, 1985) (Zeithaml, 1985).

With the feedback given by the client-user who regularly uses the website that the bank has build, it can lead and help the financial institution to update and to further upgrade their Online Banking (OB) (Ganapathy, 2004). In full synchronisation, E-Banking platform together with service quality (SQ) are needed to give an estimation on the overall transactional status based on cognitive and affective basis (Flo, 2006).

Hypothesis 9(X): Client's overall satisfaction (OS) positively affects user's perceived usefulness regarding E-banking platforms.

Hypothesis 9(Y): Client's overall satisfaction (OS) positively affects the user's interaction ease of the E-banking platforms.

The definition of satisfaction is described as a result of a previous choice made by a detailed opinion of how it made the individual feel (Oliver, 1979). It is the most debated argument, not only for the fact that satisfaction is made up by all previous experiences of the individual but rather than what it comes from purchase itself.(Anderson, 1994), (Bayaus, 1992).

Technology Acceptance Model (TAM) argues that service quality (SQ) and overall satisfaction (OS) with regard to Online Banking (OB) relies on how the individual sees it in terms of being a useful tool and easy to use platform. Furthermore, from a survey it was concluded that more than 80% of satisfied clients shall buy again from online webpages within the fist couple of months, whereas no more than 95% of the consumers shall make recommendations of the webpage they previously made purchases to the mass.

Santouridis argues that there is no real and strong correlation with service quality (SQ) and overall satisfaction (OS), but the debate even nowadays is still in progress and it is still trying to verify whether there is a real connection between (SQ) and (OS) (Santouridis, 2009). As the literature explains, service quality (SQ) has to do with the assessment and rating for a long period about a product or service whereas overall satisfaction is connected with the element of how user-friendly the purchase process is. Furthermore, by numerous studies it came to a conclusion that service quality (SQ) is a precursor of the user overall satisfaction (OS) (Cronin & Taylor, 1992), (McKoy, 1996), (Spreng, 1996).

The behaviors shown by the clients are strongly related with the post-purchase outcome being fulfilled or disappointment with the related product or service acquired. Customers who are fulfilled and happy with their purchase will talk to their close family

and friends in a good way about the company and will trigger the others to become clients of this company as well. Some of these customers may become loyal clients of a brand, which for the brand they are holders of a lot of power since they can influence (Word of Mouth) the mass very fast and easily since they are expert on a certain specific brand and can differentiate all the good or the bad with regard to a lot of other renowned brands who are present on the market (Bearden, 1983), (Teel, 1983).

Hypothesis 10: Client's price sensitivity (PS) will positively affect the user's viewpoint regarding E-banking platforms.

The level of price responsiveness is what triggers the buying pattern of the client to decrease or increase toward specific products and services. The literature reviewed this factor which labeled it as Price Sensitivity (PS). The leverage that Online Banking Services (OBS) holds is that it is low cost or even free to the end user nowadays. Despite this fact, in the end, price is what is not permitting the enlarged adoption of this technology (Sathye, 1999).

According to Venkatesh, 1999 there exist two aspects regarding price sensitivity (PS); the first is price importance and the second is price search. Price importance is the price that the product or service carries and this is what triggers the buying behavior of the client (Venkatesh, 1999). Price search is the campaign that the client embarks when they are trying to search for price alternatives regarding the primary product or service they were searching in the first place (Venkatesh, 1999). Other scholars have used other labelings such as price importance and willingness to pay in order to describe Price Sensitives (PS) (Karla, 1998), (Goodstein, 1998).

Furthermore, there exist other types of clients who are not dissuaded by the high prices. For instance, they do not even conduct market research to find the best price the market has to offer (Winer, 1986). Even though we are presented with two pricing sensitivity scenarios, in the end they are fundamentally distinct and opposed toward each-other. In this research we will be more focused on the price importance aspect and try to observe the client's behavior regarding Online Banking (OB).

6. Methodology

In this section the approach of methodology is discussed and it would be appropriate to follow a methodology that will consist on a survey questionnaire combined with a quantitative analysis. In order to give a proper conclusion, the empirical data gathered will be analyzed and refined. Furthermore, on how these steps will be conducted, more details will be given onto the next section of the paper below.

6.1 Instruments Used

The main goal of this research is to study the E-Banking usage and the influence it has on customer's behavior and attitude in the country of Albania, a lower income country. This research is a quantitative type of study and as such it is based on empirical data that are gathered through a special designed survey questioner that contains 23 elaborated questions.

The hypothesis factors that were mentioned on the upper section are translated in the native Albanian language and are included in the survey by translating it. But for the international readers the 18 survey questions are translated in English in order to facilitate the understanding of it and are included in the Annex section for further reading.

The design of this survey was divided in two distinctive parts. Basically, on the first part of the survey, the surveyor will share information such as their gender, age, type of education, approximately the residential area where he/she lives, type of work they do, which bank they use (not mandatory, but will be insightful if more surveyor takes the time to respond to this question) and what level of experience do they have with Online Banking (OB). Furthermore, included in this survey questioner will also be questions regarding behaviors shown by the individuals toward the delivery channel used from their bank of choice and how much they use them.

For types of question that indicate how much individuals use the Online Banking Services (OBS), the frequency used will vary from never to very often. The first part of the survey was designed to gather data in order to know better the Albanian consumer.

As well, in the second part of the questioner, the data gathered will continue to reflect the Albanian consumer. In the second part the survey will be composed of 11 question complemented with 42 items in total. The main idea for this part of the survey is to

gather data about the accordance of the statements proposed to the surveyor. For this part of the survey, Likert scales composed with five points, will be used. They will consist on; 1 = Strongly Disagree, 2. = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. In order to gather reliable data, the surveyor will not be presented with a simple agree or disagree at this part of the survey.

6.2 Data Gathering

Since the internship is done in my home country in Albania, it has given me a great opportunity to study from close and gather important data in order to observe the adoption level of the E-Banking technology in my country. Thus, in order to gather reliable empirical data, the primary source where the survey will be distributed, will be to the population of Albania. The people who participated in this survey are random individuals who, may be or not, adaptors of the E-Banking technology.

In order to be transparent and to ensure an unbiased approach to this study the survey would use a random sampling technique. I choose to use a random sampling technique because from the results obtained in the end it will give us an approximate overview that would be possible only if the entire population had taken the survey (Shadish, 2002).

In the end there were dispensed 200 survey questioner which were shared via the internet and e-mails. Furthermore, I decided to produce some printed copy survey questioner and decided to hand them out myself. An appropriate description was posted online and was shared via e-mails along with the survey questioner to give some more explanation to the individual who wanted to participate in it.

The survey questioner was created in both versions; Albanian and English. Since in Albania there are many foreign companies and a lot of expatriates, who might want to participate as well, they have both options to choose from.

In the end 125 survey questioner were accumulated back and only 80 survey questioner were kept for this study who fully checked all the required values completed.

7. Data Gathering and Analysis

7.1 Individuals Description

Finally, when the survey questioner was collected to be analyzed it showed that the majority who partook in it were mostly males with 53.4% followed by 46.6% who were females. Furthermore, the results of the survey showed that 74.2% of the surveyors were aged between 20-30 years old and 17.2% were aged between 31-40 years old. The surveyors were mostly individuals who have finished a high education and a small part of them had even finished a master. 65% of the surveyors had finished a university bachelor degree and 32.3% were holders of a scientific masters degree. Concerning the profession of the surveyors, it was observed that most of them were professionals in their daily life and this group made up 70.1% followed by 29.9% who identified as being students. During this survey the partakers were mostly residents of Albania who lived in the capital Tirana and the second largest city of Albania called Durrës. 83.4% of the respondents were residents who lived in the capital, Tirana.

In the table below there will be a sum up regarding the description of the surveyors.

Variable	Category	Frequency	Percentage
Gender	Male	87	53.4%
	Female	82	46.6%
Age	Below 19	5	2.4%
	20-30	129	74.2%
	31-40	28	17.2%
	41-50	8	5.4%
	Above 50	1	0.8%
Education	High School	3	1.4%
	University Degree	110	65%
	MSc Degree	56	32.3%
	PhD Degree	2	1.3%

Variable	Category	Frequency	Percentage
Profession	Professional	119	70.1%
	Student	50	29.9%
Residence	Less than 50,000 ppl.	14	8.5%
	51,000-90,000 ppl.	5	3.3%
	91,000-110,000 ppl.	7	4.8%
	More than 170,000 ppl.	143	83.4%

Table 7-1. Individual's Description Data

Following with the results, 79.3% were surveyors who were aware that their bank of choice offered Online Banking (OB) and 20.7% were surveyors were not aware if their banks offered any Online Banking (OB). In the survey questioner it was also asked that if you do not know that your bank of choice offers Online Banking (OB), please write down the bank you are a client of. The results showed that the clients of BKT, Intesa Sanpaolo, ABA and Credins Bank had no idea that their bank of choice offered Online Banking (OB).

For the surveyors who knew that their bank of choice offered Online Banking (OB), it was asked of them if they knew the following E-Banking services. The results follow; Overview of Account Balance (58.6%), E-Payment (bill payment) (40.2%), Transaction History (42.7%), Investment Tools (11.3%), International Transactions (25.9%), E-Bank Statement (22.4%), Domestic Transfers (37.4%), request for loan, payment of principal and savings deposit (30.2%).

When posed with the question if clients want to go personally to the bank or rather they can use the E-Banking platforms the financial institution provided in order to access their banks, accounts the results were the following; 74.5% of the surveyors stated that they wanted to use Online Banking (OB) rather than go to the bank themselves.

The next question of the survey was to understand how often the online banks services were used by the clients. The results showed that 31.2% of the surveyors answered all the time and 25.6% answered very often and 19.3% said that they never used online banking services. Previously the surveyors were asked about the form of the Online Banking (OB) they knew better and the other question asked was which of these E-

Banking services do they mostly use on a regular bases. The results showed the following; Checking Account Balance (51.8%), E-Payment (bill payment) (30.2%) and Domestic/International Transfers (21.2%). As the last question for the first part of the survey questioner, I decide to ask the surveyors if they would recommend their family their friends and acquaintances to use E-Banking platforms. The purpose of this question was to estimate the power that the Word of Mouth (WOM) has in the larger adoption of this technology. The results showed that 61% of the surveyor said that they would more than definitely recommend this technology to their peers. The results of this question will be presented below in the from of a pie chart.

At what level would you recommend the usage of E-Banking services to you family, friends and peers?

● Definitely would ● Probably would ● Might not ● Maybe would not ● Absolutely not

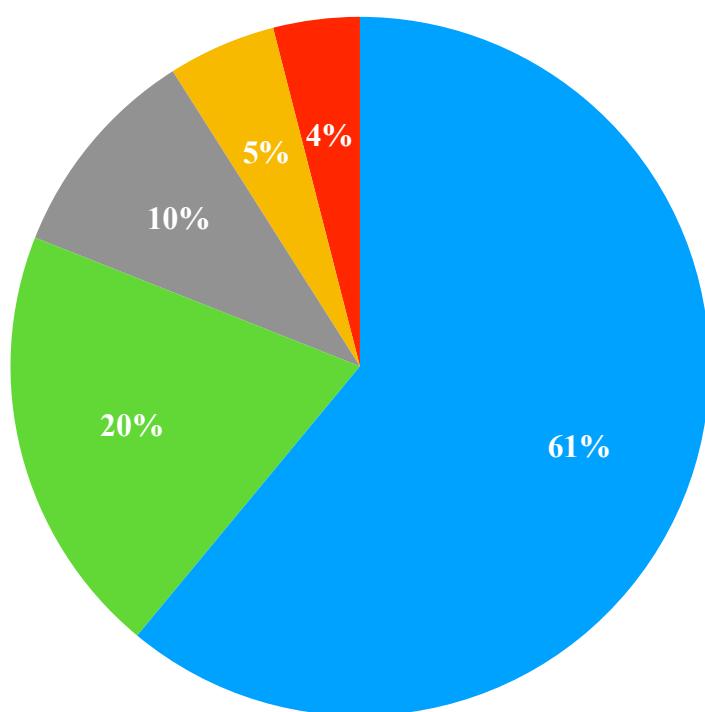


Table 7-2. Level of recommendation for E-Banking

7.2 Verification of Research Hypothesis

In order to verify the posed hypothesis that were explained in more details in Chapter 5, a Regression Statistical Model was used during this research study. The hypothesis are built with a dependency way in mind, with the help of the Linear Regression Statistical Model. This model explains the relationship that is formed among two variables; dependent and independent one, by analyzing the gathered data. The equation used for this model is $Y=a+bX$ (X =independent variable or explanatory and Y = dependent variable). For instance, independent variable indicates the cause of the matter being analyzed and dependent variable indicates the effect. Linear Regression Model is fourthly used to analyze the coefficient path beta (β). The coefficient path beta (β) will analyze how concrete the relation with the independent and dependent variable is. With the assistance of R squared (R^2) value, it will be able to see the accumulated variance from the independent variable. R squared (R^2) or coefficient of determination value will determine the foresight accuracy of this model. Thus, the values will be explained as the (R^2) shows. With the assistance of both coefficient path beta (β) and R squared (R^2) value it will be able to see the statistical model is progressing.

The software that will be used for this research study will be SPSS. Below will be explained the results accompanied by a table where all the final data results will be available in order to help during the read of this chapter and its understanding.

After testing all the factors in the hypothesis, the end results showed that only one of the presented hypothesis was rejected, while the others were accepted. We see that perceived usefulness (PU) immediately acts as a trigger toward the attitude (ATT) variable, with a coefficient path beta (β) of 0.215. On the other hand when analysing perceived ease of use (PEOU) it was found that there was not a strong connection toward attitude (ATT) variable. Thus, we are left with Hypothesis 1 which is approved and Hypothesis 2(Y) which will be rejected.

Furthermore, regarding Hypothesis 3 and 4, with main factors Perceived Behavioral Control (PBC) and Perceived Security and Trust (PST) are the couple of hypothesis which have the toughest build. Regarding Perceived Behavioral Control (PBC), it has a coefficient path beta (β) of 0.142 and a variance of 11.3% and it is supported. Perceived Security and Trust (PST) has a coefficient path beta (β) of 0.161 and a variance of 34.7%, thus it begin supported. Moving on to the Hypothesis 5(Y), where it states that subjective norm (SN) directly has an influence toward attitude (ATT). Hypothesis 5(Y)

has a coefficient path beta (β) of 0.173 and a variance of 3.91%, thus being accepted. In this model exists 5 variables which have a direct impact toward perceived usefulness (PU). Starting with the first variable, perceived ease of use (PEOU) consisting with a coefficient path beta (β) of 0.384 and a variance of 19.7%. To continue, the other variable who has again a direct influence toward perceived usefulness (PU) is overall satisfaction (OS) which has a coefficient path beta (β) of 0.361 and explains a variance of 15.3%. The two of them; word of mouth (WOM), accompanied by subjective norm (SN), have a beneficial impact toward perceived usefulness (PU), having coefficient path beta (β) of 0.342 and 0.355, individually. Lastly but not least, the last variable awareness (AW) displayed toward Online Banking (OB) revealed to have link with perceived usefulness by having a coefficient path beta (β) of 0.275. Therefore, from the results obtained, Hypothesis with number 2(X), 5(X) 6, 7, (9X) are approved.

Regarding Hypothesis number 8, concluded that service quality (SQ) has an indirect impact toward perceived usefulness via overall satisfaction by having a coefficient path beta (β) of 0.234, which approves Hypothesis 8. Despite Hypothesis 9(X) having a direct impact on perceived usefulness (PU), overall satisfaction has a great impact toward perceived ease of use (PEOU) by having a coefficient path beta (β) of 0.478. Thus, Hypothesis 9(Y) is accepted. When analyzed further and separated from the other existing variables, it was found that price sensitivity has a good impact toward attitude (ATT) by having a coefficient path beta (β) of 0.202 and a variance of 4.75%, thus approving Hypothesis 10.

In conclusion, verification of research hypothesis, from the Linear Regression Model incorporated in SPSS, concluded that all the hypothesis are accepted by assessing the p-Value. In the end only Hypothesis 2Y was rejected by having a p-Value of 0.1212***.

From the Table 7-3 below you can see that Perceived Usefulness is an independent variable and Attitude is a dependent variable. This explanation goes the same also for the other 9 hypothesis presented in the table. The dependent variables are created by the literature research conducted whereas the independent variables are used in the Hypothesis found in Chapter 5.

Nr.	Hypothesis Dependencies	R ²	Coef. Path	p-Value	Accepted / Rejected
Hyp. 1	Perceived Usefulness => Attitude	0.0710	0 .215	0.0147**	A

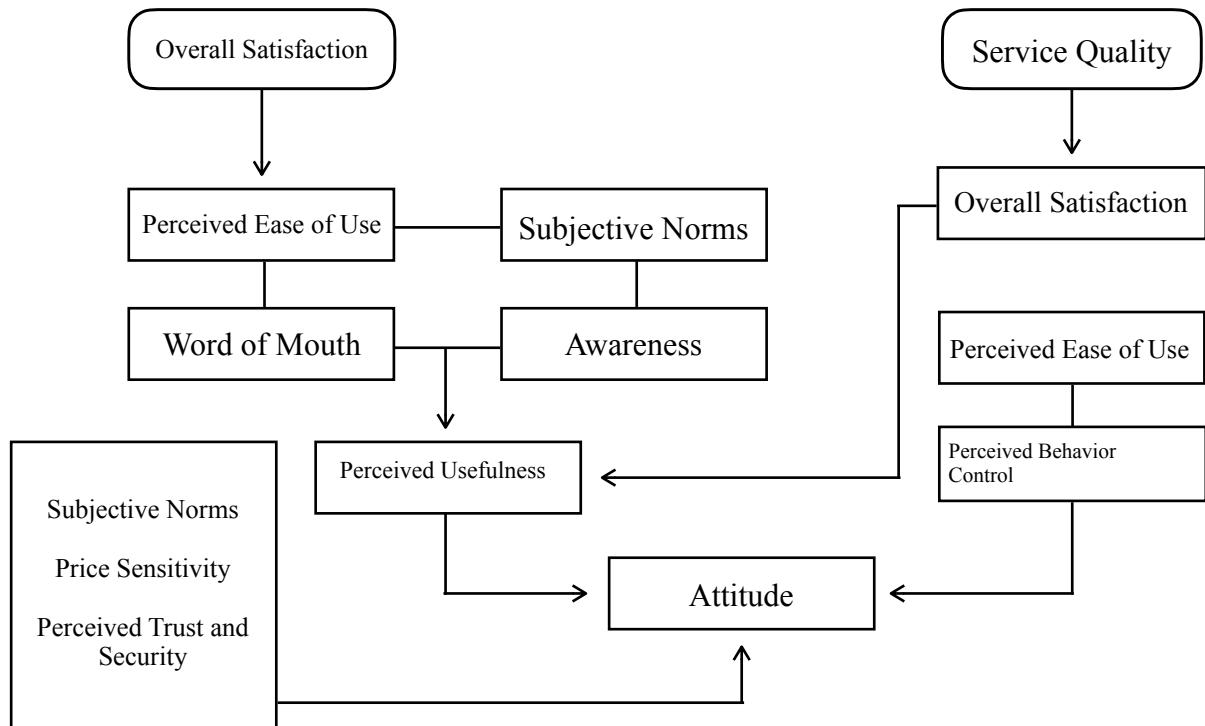
Nr.	Hypothesis Dependencies	R ²	Coef. Path	p-Value	Accepted / Rejected
Hyp. 2x	<i>Perceived Ease Of Use => Perceived Usefulness</i>	0.0197	0 .384	0.000045*	A
Hyp. 2y	<i>Perceived Ease Of Use => Attitude</i>	0.0313	0 .127	0.1212***	R
Hyp. 3	<i>Perceived Behavioral Control => Attitude</i>	0.1134	0 .142	0.00321*	A
Hyp. 4	<i>Perceived Security Trust => Attitude</i>	0 .347	0 .161	0.00012*	A
Hyp. 5x	<i>Subjective Norms => Perceived Usefulness</i>	0.1442	0 .355	0.000734*	A
Hyp. 5y	<i>Subjective Norm => Attitude</i>	0.0391	0 .173	0.00013*	A
Hyp. 6	<i>Awareness => Perceived Usefulness</i>	0.0945	0 .275	0.004532*	A
Hyp. 7	<i>Word Of Mouth => Perceived Usefulness</i>	0.1582	0 .342	0.00004*	A
Hyp. 8	<i>Service Quality => Overall Satisfaction</i>	0.0373	0 .234	0.0125**	A
Hyp. 9x	<i>Overall Satisfaction => Perceived Usefulness</i>	0.1531	0 .361	0.000169*	A
Hyp. 9y	<i>Overall Satisfaction => Perceived Ease of Use</i>	0.1652	0 .478	0.000101*	A
Hyp. 10	<i>Price Sensitivity => Attitude</i>	0.0475	0 .202	0.0132**	A

Note: *** Significance at $p < 0.01$, ** Significance at $p < 0.05$, * Significance at $p < 0.0001$.

Table 7-3. Verification of Research Hypothesis

8. Recommendations

Below will be provided the structural model of the research in order to have a better visual understanding regarding the hypothesis variables and their multi-directional relation; (Source: author's own work)



Fred Davis, the creator of the Technology Acceptance Model did find a concrete connection in perceived usefulness (PU) than from perceived ease of use (PEOU) in the United States of America (USA) (Davis, 1989). Nearly the same results derived from the research study conducted in Albania. It was found that perceived usefulness (PU) directly affects the attitude (ATT) variable, only if we are to examine this variable remotely from the rest of the variables. These results can be interpreted under the fact that E-Banking technology is still in its early phases in Albania. Furthermore, the group who interact the most Online Banking (OB) are individuals aged between 20-30 and this group makes up (74.2%). As observed, this group reflects a younger generation to use this type of technology to its full extent and is not fully aware about the benefits and how useful of a tool it can become in the daily lifestyle of a person. What this group of

individuals use the most from Online Banking (OB) is the Checking Account Balance and E-Payment (bill payment). From the array of services that an individual can get from Online Banking (OB) this is the bare minimum of what this technology is able to offer.

The main reason why individuals try to accept a new technology in their life is solely because of the features this technology brings, and secondly because it is easy to use and by using it, the benefits will be immense (Davis, 1989). Looking at the situation from another angle, using Online Banking (OB) nowadays is easier than ever since these platforms have become widely user-friendly. What has contributed to this aspect is that now more than ever individuals are floating by the amount of technology they posses and how easy and affordable it is to obtain them. This has helped the population of Albania to become more used to new technology and more capable in handling and interacting with it. Thus, it is to be said that individuals in Albania are triggered more by their emotions in the same way as explained by perceived behavior control (PBC).

From a lot of other studies conducted with regards to a broader Online Banking (OB) adoption, in a research conducted by Pearson and Nor in 2006 they concluded that an important factor that pushed individuals toward Online Banking (OB) adoption was the positive opinion of family, peers and friends. Subjective norms (SN), when taken aside from the other variables in the model directly impacts attitude (ATT) acting as a trigger regarding the acceptance and usage of Online Banking (OB) in Albania.

In order to raise more awareness and prestige toward a higher customer base financial institutions, through the assistance of campaigns, they can try and appeal to the masses regarding what new technological innovation they are offering.

Decision making regarding financial aspects such as for instance when applying for a loan or trying to choose which bank offers the best deposit interest in the long run are decisions that need time, information and evaluations which in itself are complex things to do alone. In every important decision, a responsible individual has to gather all the needed information of third-party options that exist in the market, in order to further analyze them and to see what profits more their interest in the long run.

When taking important decision regarding the type of financial product to go for, information is of paramount and in order to obtain this information, extended research is needed (Perry, 2005) (Morris, 2005) (Lee, 2005) (Choo, 2005) (Heaney, 1999) (Goldsmith, 1999). Financial institutions in Albania need to take in heavy consideration that word of mouth (WOM) serves as a tool and as an evaluation grading toward its clients in order to attract a new customer base. In the end clients that are glad with the

products or services in return spread a good word of mouth regarding the respective companies. Thus, it was concluded that word of mouth (WOM) and overall satisfaction (OS) are impacted by perceived usefulness (PU).

In order to build an enriched positive attitude environment toward their clients, financial institutions need to display and encourage perceived ease of use (PEOU) combined with perceived behavioral control (PBC) and perceived security and trust (PST). Hence, individuals in Albania need to get used to Online Banking (OB), in order for them to rely on it rigorously. For this to happen, these individuals will need trials, provided by the financial institutions free of charge. With this type of strategy banks can provide to their existing clients and new ones a revamped experience who is enjoy-full, convenient and useful. With the aid and walkthrough of the banks operator, the client can observe carefully, interact with the platform and all the services that the financial institutions provide compressed in one screen and a click away and try to conclude whether Online Banking (OB) is useful as the banks supposes, or its a loss of time.

In order for anything to flourish in this society while getting the deserved attention and time, it will need awareness. In Albania, a post communist country, Online Banking (OB) is still new and people are uneducated enough about this technology that has changed the lifestyle perception of the westerners. Online services are new in Albania and as such they need to be treated slowly and gently. Financial institutions with the assistance of the internet, social media and marketing campaigns can raise the needed awareness toward the masses on how this technology works and why it is so useful. In all this massive campaign that banks will embark on they will need to highlight two main words; self-control and independence. They will also need to focus on how convenient, efficient and effective Online Banking (OB) is.

Of course the marketing campaign should contain promotional messages in it, but we need not to forget that people will not start using a new technology unless it is trustworthy and very secure.

As it can be imagined, it is for a fact that perceived security and trust (PST) acts as an important factor into the acceptance of Online Banking (OB). On the other hand perceived security and trust (PST) is the factor that when translated into a simpler clients language, means website reliability and this is directly linked with the financial institutions security measures. Website reliability is divided in two important security layers; cash fraud and personal data theft. In order for this not to occur, financial institutions worldwide have taken measures which consist on two-step authorisation

access and end-to-end encryption technology in order to stop the threats mentioned above.

Not all bank branches offer Online Banking (OB) due to different reasons, but for those who do provide this type of service they need to come up with a plan to decrease security breaches and in return creates a high confidence environment in order to attract new potential client base. Basically, in this research study, it is emphasised and underlined the need that bank's main attention needs to be focused on giving to their clients the latest and highest technological security in order to intercept cash fraud and personal data theft. In order to increase the clients trust, financial institutions can offer to their clients a receipt for any service used while being into the Online Banking (OB) platform. In cases where banks take new cyber-security measurements they need to notify each client that is involved with their Online Banking (OB) platform. Thus, by doing this banks will create a closer connection with their clients and give them more trust and confidence. Always financial institution constantly needs to send e-mail reminders or publish on their official website instruction on and why its important to always keep up to date their devices, to insert the latest anti-virus advised from the bank, enable firewalls and never click untrusted emails where it directs the user to interact with it by entering sensitive personal data. By following this type of strategy, the financial institutions can become way more trustworthy in the eyes of the client and it will push them further into adoption of this new technology with full confidence. The security guidelines published by the financial institutions on their official websites always need to be written in a simple formulated language that can be understood by everyone, furthermore they are always to be checked by accredited security quotations.

Online Banking (OB) is not a separate operational part of a financial institution, but it is a form of traditional banking continuance; accessed and operated remotely. Online Banking (OB) together with traditional banking complete each other, thus creating a completely new user-experience enhanced on a whole new level. For individuals who consider themselves as new users on the Online Banking (OB) platform, they can depend on the bank branch specialist in order to walk them through this new service offered online. The help they can receive from the banks specialists are the following: creating a new account, setting a new password, detailed instruction on how to use the platform and all the services provided, simplification of processes that users may need to have explained, the appropriate measures to take or which safe bank number to call in cases of emergency. If this plan of action is followed by the banks that provide Online Banking (OB) platform to clients who do not have the right knowledge to use their online services, the trustworthiness of the client will increase and it will lead

to faster acceptance of this technology. In the case of Albanian users, the financial institutions need to offer this as their best service quality (SQ) so that the clients can use their Online Banking Services (OBS) with full confidence and trust.

On the other side of this discussion, if a good service quality (SQ) is displayed toward the client when he/she is in the banks branch, it can benefit the bank as well. This is because the client will be pushed to believe that this good service quality (SQ) shown toward them on site will be offered again when they access the Online Banking (OB) platform and thus creating overall satisfaction (OS) toward the online platform. Nevertheless, it will push the clients toward using and relying more on the online platform. A happy client will come over again and this time around he or she has created awareness and it means that they will explore more about the other services offered by the Online Banking (OB) platform and take advantage of using them.

Perceived Security and Trust (PST) combined with Perceived Behavior Control show a positive impact toward attitude (ATT) variance. It is a result more than expected when we factor in the age of the samples collected. Nowadays most youngsters want to feel independent by wanting to have their life in their own hands and this feeling in today's society is translated into economic independence. Online Banking (OB) offers this experience of independence. Nowadays, everyone has the chance to control their own finances from the palm of their hand only by touching a screen. Regarding the banks that operate in Albanian territory, their main focus should be towards first time clients who will register. While focusing on this target group, their priority is to introduce them to the Online Banking (OB) platform via the use of video tutorials or incentive projects in order to encourage them to give it a try if they have not done so.

The main goal of this strategy is to have the users feeling comfortable while using Online Banking (OB) platform. The benefits will be immense. The users will start having higher self-esteem and efficacy. They will appreciate how amazing and how practical the use of this technology is. At the same time, the population of Albania will start creating awareness toward Online Banking (OB) and its practicality.

Practicality is the number one factor that pushes people to shift from a traditional banking method to an Online Banking (OB) service. In order for financial institutions to push their clients toward Online Banking (OB) platform, the user incentives would be a smart move. A typical form of incentive is to offer discounted rate for some services if clients use the Online Banking (OB) platform instead. This form of incentive can be welcomed as a form of economic value and can be used as a form of bond created with the client of the bank. Nevertheless, it can strengthen the acceptance of the clients

toward the adoption and further usage of this technology. In the meantime, financial institutions can work on bringing to the customer more and more services accessed by the Online Banking (OB) platform.

Price Sensitiveness (PS) has not displayed a great impact toward attitude (ATT) variance. The first reason why this happened is because E-Banking is still at an early stage in Albania. The second reason why this happened is that users do not use the full potential of the Online Banking (OB) platform. Individuals mostly use Checking Account Balance and E-Payment (bill payment) and this is the minimum that E-Banking is capable of. In the future individuals will be better acquainted over what E-Banking stands for and this technology will be more welcomed in Albania, however the results that this research presented can be used to help the Albanian financial institutions to get better and improve their operations in the banking system and try to tailor the services as best as they can to provide clients with a better user experience.

This research will be better addressed in the future if the data will be gathered from a larger pool of diversified individuals, where the results might be different 5 years from now. Furthermore, other explanatory extensions could be added to the research in order to enhance the quality of E-banking in Albania comparing it with other developed countries. For instance, Point of Sale (POS) would be an interesting pathway to research since its availability in the Albanian market is very limited and individuals are not presented with the benefits it offers.

9. Conclusion

The Moore's Law states that during each 18 months the processing power of processors doubles. With this rate of technological advancement, the market as a whole, together with financial institutions are impacted directly and greatly. This creates a lot of complication especially for the financial institutions regarding their marketing presentation plans and distribution channels since they have a direct impact with respect toward their customer/clients. This matter was also viewed within the Albanian banking systems. With the assistance of Diffusion of Innovation Theory and the comprehensions of its element, the right market circumstances can be recognised (Rogers, 1995). If Online Banking (OB) are not widely accepted by the larger (population), then it will not make an investment-wise sense for financial institution to further spend money investing in a technology not wanted. In order for Online Banking (OB) to be successfully accepted by the mass it is of importance to point out the main factors which in return will tremendously support the financial institutions maximise their profits and lower the cost of this ambitious investment. This will assist banks and financial institutions in creating a great competitive advantage which in return will differentiates them from other competitors present in market (Dauda, 2007).

To conclude this research thesis, many important findings were discussed in order to give a meaning to the E-banking usage and what behaviours and attitudes are reflected when individuals or customers make use of it. Besides that, the study introduced a wide and detailed understanding regarding E-banking concepts by including not only the importance of incorporating into the daily lifestyle as a way to be more efficient but also what are some of the most common risks to be attentive about.

By putting in use the right models and literature review, factors that reflect a certain attitude of the users were analyzed. In this context, behavior refers to all the actions an individual partakes towards E-banking systems and attitude reflects the extent of individual's beliefs and opinions over this matter. The study shows that both attitude and behaviour of individuals are influenced by several factors that reflect the engagement with E-banking technologies and services. For instance, the study revealed that within Albanian users, word of mouth, perceived ease of use, usefulness, behavioral control, security trust, subjective norms, awareness, service quality, satisfaction and price sensitivity are the main factors that affect the behavior and attitude of E-banking users and customers. Furthermore, these factors also contribute to the adoption of this technology to the Albanian individuals.

Bibliography

A. G. Arachchilage and S. Love, (2013) “A game design framework for avoiding phishing attacks,” *Comput. Hum. Behav.*, vol. 29, no. 3, pp. 701–720.

Abukhzam, M. and Lee, A. (2010). “Factors affecting bank staff attitude towards E-banking adoption in Lybia”. *The Electronic Journal on Information Systems in Developing Countries*, Vol. 42.

Abu-Shanab and S. Matalqa, (2015) “Security and Fraud Issues of E-banking,” *Proc. Int. J. Comput. Netw. Appl.*, vol. 2, no. 4, pp. 156–182.

Agarwal, A. (2019). Advantages and Disadvantages of Internet Banking. <https://toughnickel.com/personal-finance/Advantages-and-Disadvantages-of-Internet-Banking>

Ajzen, I. (1988). Attitudes, personality, and behavior. Chicago: The Dorsey Press.

Albanian Association of Banks – Annual Report 2015.

Al-Somali, S.A., Gholami, R. and Clegg, B. (2009). “An investigation into the acceptance of online banking in Saudi Arabia”. Operations and Information Management Group, Aston Business School, Birmingham B47ET, UK. *Technovation* 29, pp. 135-149.

Al-Somali, S.A., Gholami, R. and Clegg, B. “Internet Banking Acceptance in the Context of Developing Countries: An Extension of the Technology Acceptance Model”. *Working paper*. Operations and Information Management Group, Aston Business School, Birmingham B47ET, UK.

Anderson, E. (1998). “Customers satisfaction and Word of Mouth”. *Journal of Service Research*, Vol. 1.

ARK Invest. (2016, December 16). ARK Invest Explains Fintech: The Financial Revolution Has Just Begun. YouTube. <https://www.youtube.com/watch?v=zsMDKGJOJS0>

Bahiti, R., Shkurti, R. and Babasuli, J. (2011). "Impact of the Latest Financial Crises on a Bank-Based Financial System: Case of Albania". *The Romanian Economic Journal*, Year XIV, No. 39, pp. 10-45.

Bamrara, (2015). "Evaluating database security and cyber attacks: A relational approach," *J. Internet Bank. Commer.*, vol. 20, no. 2, p. 22.

Banka e Shqipërisë. (2007). Bankat në epokën e internetit. Tiranë: Banka e Shqipërisë.

Banka e Shqipërisë. (2007). Paraja elektronike: E ardhmja e parasë? Tiranë. https://www.bankofalbania.org/Botime/Botime_edukative/Paraja_elektronike_Eardhmja_e_parase.html

Banka Kombëtare Tregtare. (2019). Mobile Banking. Banka Kombëtare Tregtare: <https://bkt-ks.com/>

Banka Qendrore Evropiane. (1998). Raport mbi paranë elektronike. Frankfurt: Banka Qendrore Evropiane. <https://www.ecb.europa.eu/pub/pdf/other/emoneyen.pdf>

Basel Committee Report on Banking Supervision (1998). Risk Management for Electronic Banking and Electronic Money Activities, Switzerland: Bank of International Settlements.

Basel Committee Report on Banking Supervision (1998). Risk Management for Electronic Banking and Electronic Money Activities, Switzerland: Bank of International Settlements.

Beqiri, E. (2016). Biznesi Elektronik. Prishtine.

Berisha, M. (2011). Biznesi elektronik (skript). Prishtine.

Branca, A. (2008). "Demographic influences on Behavior. An update to the adoption of bank delivery channels". *International Journal of Bank Marketing*, Vol. 26, No. 4, pp. 255-265.

Bushati, M. (2008). "Evolution of the Albanian Banking System". *Honors College Theses*. Paper 85.

Caldwell, M. (a.d.). What is a debit card. https://www.thebalance.com/what-is-a-debit-card-2385853?utm_source=pinterest&utm_medium=social&utm_campaign=shareurlbuttons

Canaj, E. (2018, April 3). Internet banking në Shqipëri, sfidat dhe përshtatja me rregullat europianë. Gazeta Mapo. <https://gazetamapo.al/internet-banking-ne-shqiperi-sfidat-dhe-pershtatja-me-rregullat-europiane/>

Charlie Barton. (2021, February 8). Digital banking statistics 2021. Finder. <https://www.finder.com/uk/digital-banking-statistics>

CNBC International. (2018, June 7). What is fintech? | CNBC Explains. YouTube. https://www.youtube.com/watch?v=-EoNrg_DR3s

Cronbach, L. (1951). “Coefficient alpha and the internal structure of tests”. *Psychometrika*, Vol. 16, pp. 292-340.

Dauda, Y., and Santhapparaj, A.S. (2007), “The Impact of E-commerce Security, and National Environment on Consumer Adoption of Internet Banking in Malaysia and Singapore”. *Journal of Internet Banking and Commerce*, Vol.12, No.2.

Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 325-359. doi:10.2307/249008

Davis, F. (1989). “Perceived usefulness, perceived ease of use, and user acceptance of information technology”. *MIS Quarterly*. Vol. 13 (3), pp. 325-359.

Dritor Mehmeti. (2020, May 8). Sherbimet Elektornike Bankare Dhe Përdorimi I Tyre Në Kosovë. Anyflip.Com. <http://anyflip.com/uguso/cmws/basic>

Fishbein, M. and Ajzen,I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Flier, B., Van den Bosch, A.J. and Volberda, H.W. (2003). “Co-evolution in strategic renewal behavior of British, Dutch and French financial incumbents: interaction of environmental selection, institutional effects and managerial intentionality”. *Journal of Management Studies*, Vol. 40, No. 8, pp. 2190-2217.

Fjala e Zëvendës guvernatores së Dytë Ahmetaj në konferencën “Balancimi i mundësive dhe rreziqeve FinTech – zbatimi i “Akhendës së Balit.” (2019, January 29). <https://>

www.bankofalbania.org/. https://www.bankofalbania.org/Shtypi/Njoftimet_per_shtyp/Fjala_e_Zevendesguernatores_se_Dyte_Ahmetaj_ne_konferencen_Balancimi_i_mundesive_dhe_irreziqeve_FinTech_zbatimi_i_Axhendes_se_Balit.html

Floh, A. and Treiblmaier, H. (2006). "What Keeps The E-Banking Customer loyal? A multi-group analysis of the moderating role of consumer characteristics on E-loyalty in the financial service industry". *Journal of Electronic Commerce Research*, Vol. 7, No. 2, pp. 101- 111.

Fontinelle, A. (2020). Debit Card. Investopedia: <https://www.investopedia.com/terms/d/debitcard.asp>

Frankenfield, J. (2019). Online Banking. Investopedia: <https://www.investopedia.com/terms/o/onlinebanking.asp>

Gates, B. A. M. (2015, January 21). A big bet for 2030. Gatesnotes.Com. <https://www.gatesnotes.com/2015-annual-letter>

Gerrard, P., Cunningham, J.B. and Devlin, J.F. (2006). "Why consumers are not using internet banking: a qualitative study". *Journal of Services Marketing*, Vol. 20, No. 3, pp. 144-164.

Ghalandari, K. (2012). The effect of performance expectancy, effort expectancy, social influence and facilitating conditions on acceptance of e-banking services in Iran: The moderating role of age and gender. *Middle East Journal of Scientific Research*, pp.115-125.

Gjergji, A. (2008). "Supervision on the financial system in Albania. Reforming and improving the supervision over non-banking sector." *Discussion paper*.

Gjergji, A (2006). "Does Albania Have a Developed Financial Market?!. Non-banking sector, not functioning pillar of the system". *Final Working Paper*. University of Bologna and Institute for Central Oriental Europe.

H. G. Mark, "SANS Institute Survey Reveals 2016's Biggest Cyber Security Threats and Risks in the Financial Sector," Dec-2016.

Hanlon, A. (2019, October 25). What is The Diffusion of Innovation model? Smart Insights. <https://www.smartinsights.com/marketing-planning/marketing-models/diffusion-innovation-model/>

Hernandez, J.M.C. and Mazzon, J.A. (2007). "Adoption of internet banking: proposition and implementation of an integrated methodology approach". *International Journal of Bank Marketing*, Vol. 25, No. 2, pp. 70-90

Hoffman, Thomas. "Are Online Banks Profitable?" Computerworld (34), 1999a, p. 43.

Hoffman, Thomas. "Bank One's Woes May Clip Wingspan," Computerworld (33), 1999b, p. 39.

Hoffman, Thomas. "WingspanBank.com Counts on Simplicity," Computerworld (33), 1999c, p. 29–40.

Howcroft, B., Hamilton R., and Hewer, P. (2002). "Consumer attitude and the usage and adoption of home-based banking in the United Kingdom". *The International Journal of Bank Marketing*, Vol. 20 (3), pp. 119–128.

Hoxha, B. (2019, October 3). Me kartë dhe pa para në xhep?! Shqipëria, me numrin më të ulët të ATM-ve në Europë |. Revista Monitor. <https://www.monitor.al/me-karte-dhe-pa-para-ne-xhep-shqiperia-me-numrin-me-te-ulet-te-atm-ve-ne-europe/>

Jayawardhena, Ch. and Foley, P. (2000) "Changes in the banking sector – the case of Internet banking in the UK". *Internet Research*, Vol. 10.

Jolly, V. (n/a). The influence of internet banking on the efficiency and cost savings for banks' costumers. *International Journal of Social Sciences and Management*, pp.76-90.

Kappel, M. (2017). What is an EFT Payment. Patriot software: <https://www.patriotsoftware.com/blog/accounting/what-is-electronic-funds-transfer-eft/>

Karjaluoto, H. (2002). Electronic banking in Finland: Consumer Beliefs, Attitudes, Intentions, and Behaviors. Publishing Unit, University Library of Jyväskylä.

Khan, H. F. (2017). E-Banking: Benefits and Issues. *American Research Journal of Business and Management*.

Krastafilaku, E. (2014). Modele Të Reja Të Shërbimeve Bankare, Bazuar Në Teknologjitet E Informacionit Dhe Komunikimit. Tezë e Doktoraturës, Tiranë. <https://dokumen.tips/documents/doktoratura-elona-xhina-fakulteti-i-shkencave-i-natyrore-.html>

Kristine Kirakosyan, Doina Danaiata. (2013). Communication management in electronic banking. Better communication for better relationships. Procedia (social and behavioral sciences, p.p. 10.

LaMorte, W. W. L. (2019, September 9). The Theory of Planned Behavior. Sphweb.Bumc.Bu.Edu. <https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/BehavioralChangeTheories3.html>

M. PATYAL, S. SAMPALLI, Q. YE, and M. RAHMAN, “Multi-layered defense architecture against ransomware.”

Marinela Vrîncianu and Liana Anica Popa. (2010, June). Considerations Regarding The Security And Protection Of E-Banking Services Consumers’ Interests. Core.Ac.Uk. <https://core.ac.uk/download/pdf/6492899.pdf>

McDowell, “Understanding denial-of-service attacks,” Natl. Cyber Alert Syst. Cyber Secur. Tip ST04-0152004, 2004.

Mihalcescu, C., Ciolacu, B., Pavel, F. and Titrade, C, (). “Risk and Innovation in E-Banking”. *Working Paper*. Romanian – American University, Bucharest, Romania.

Mohamed Shah, Steve Clarke. (2009). E-Banking Management: Issues, Solutions and Strategies. New York: Information Science Reference.

Mohr, E., 2009. Security is decisive. Beitrag für IT Banken & Versicherungen, 5 Oct. [Online] Available at <http://www.gemalto.com/financial/ebanking/security/>

Moore, G.C. and Benbasat, I. (1991) ‘Development of an Instrument to Measure the Perceptions of Adopting and Information Technology Innovation’. *Information Systems Research*, 2(3), 188-225.

Nath, R., Schrick, P. and Parzinger, M. (2001) “Bankers’ Perspectives on Internet Banking”. *e- Service Journal*, Vol. 1.

Nor, K.M., Abu Shanab, E.A. and Pearson, J.M. (2008). “Internet banking acceptance in Malaysia based on the Theory of Reasoned Action”. *Journal of Information Systems and Technology Management*, Vol. 5, No. 1, pp. 8-20.

Novikov, D. (2020, February 16). Benefits Of Using IoT Technology In Banking | Experfy.com. Experfy Insights. <https://www.experfy.com/blog/iot/connected-finances-part-4-top-benefits-of-using-iot-technology-in-banking/>

Nuthan K, Nagarathna B M, Sumana Nayaka R L, Vidya Rathna B. (2015). An Automated Teller Machine. *International Journal of Novel Research in Computer Science and Software Engineering*, 2(1), pp. 49.

Parasuraman, A., Zeithaml, V.A. and Berry, L.L (1985). “A Conceptual Model of Service Quality and Its Implications for Further Research”. *The Journal of Marketing*, Vol. 49, No. 4, pp. 45-58.

Pintrich & Zusho (2002). The development of academic self-regulation: The role of cognitive and motivational factors. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation*. San Diego, CA: Academic.

Q. Xiong, Y.-C. Liang, K. H. Li, Y. Gong, and S. Han, “Secure transmission against pilot spoofing attack: A two-way training-based scheme,” *IEEE Trans. Inf. Forensics Secur.*, vol. 11, no. 5, pp. 1117–1040, 2016.

R. S. Chakraborty, S. Narasimhan, and S. Bhunia, “Hardware Trojan: Threats and emerging solutions,” in *High Level Design Validation and Test Workshop*, 2009. HLDVT 2009. IEEE International, 2009, pp. 173–184.

R. Veras, C. Collins, and J. Thorpe, “On Semantic Patterns of Passwords and their Security Impact.,” in *NDSS*, 2014.

Reichheld, F.F. and Schefter, P. (2000). “E-loyalty: your secret weapon on the web”. *Harvard Business Review*, Vol. 78, No. 4, pp. 100-132.

Rexha, N., Kingshot, R.P.J and Aw, A.S.S. (2003). “The impact of the relational plan on adoption of electronic banking”. *Journal of Service Marketing*, Vol. 17, No. 1, pp. 55-78.

RIIVARI J., Mobile banking: a powerful new marketing and CRM tool for financial services companies all over Europe, in “Journal of Financial Services Marketing”, n. 10/05 hq 15-21.

Rogers, E. M., (1962). “Diffusion of Innovations”. The Free Press of Glencoe, New York.

Rogers, E.M. (1976). New Product Adoption and Diffusion. *Journal of Consumer Research*. (March).

Rombel, Adam, (2000). “World’s Best Internet Banks,” *Global Finance* (14), pp. 17–41.

Rotchanakitumnuai, S. and Speece, M. (2003). “Barriers to Internet banking adoption: a qualitative study among corporate customers in Thailand”. *International Journal of Bank Marketing*, Vol. 21, No. 6, pp. 331-353.

S. Gaudin, “Pharming attack slams 65 financial targets,” *InformationWeek*, 2007.

Sadiku, A. (2010). Customer’s Attitudes and Behaviors in E-Banking.

Salamah, N. H. (2017). Impact of Electronic Banking Services on Bank Transactions. Canadian Center of Science and Education.

Santouridis, I., Trivellas, P. and Reklitis, P. (2009). “Internet service quality and customer satisfaction: Examining internet banking in Greece”. *Total Quality Management*, Vol. 20, No. 2, pp. 225–246.

Sathye, M. (1999). "Adoption of Internet banking by Australian consumers: an empirical investigation". *International Journal of Bank Marketing*, Vol. 17, Issue 7, pp. 329 – 338.

Shapiro, J. (1999). “Innovation in financial services case study: home banking”. MIT IPC *Working Paper 99-004*, Massachusetts Institute of Technology, Boston, MA, March.

Schindler, John W., Fintech and Financial Innovation: Drivers and Depth (2017-08-10). FEDS Working Paper No. 2017-081, Available at SSRN: <https://ssrn.com/abstract=3029731> or <http://dx.doi.org/10.17016/FEDS.2017.081>

Shih, Y-Y. and Fang, K. (2004). “The use of a decomposed theory of planned behavior to study Internet banking in Taiwan”, *Internet Research*, Vol. 14, No. 3, pp. 202–220.

Shoqata e Bankave të Kosovës. (2016). Shërbimet digjitale bankare në Kosovë. Prishtinë. file:///C:/Users/blacksn0w/Downloads/STRAS_DIGITAL_BANKING_ALB1511995187.pdf

Shoqata Shqiptare e Bankave. (2017). Kartat Bankare. fv. pp. 2-7.

Stevanovic, I. (2020, December 14). 43 Useful Online Banking Statistics - All About Mobile Money! KommandoTech. <https://kommandotech.com/statistics/online-banking-statistics/>

Suh, B. and Han, I. (2002). “Effect of trust on consumer acceptance of internet banking”. *Electronic Commerce Research and Applications*, Vol. 1, No. 3, pp. 250-262.

Symantec, “Internet Security Threat Report Internet Report »VOLUME 21,” Apr-2016.

T. P. S. Brar, D. Sharma, and S. S. Khurmi, “Vulnerabilities in e-banking: A study of various security aspects in e-banking,” Int. J. Comput. Bus. Res. 6 127, vol. 132, 2012.

Taylor, S. and Todd, P. (1995), “Decomposition and Crossover Effects in the Theory of Planned Behavior: A Study of Consumer Adoption Intentions”, International Journal of Research in Marketing, 12, pp. 131 - 152.

Teliti, E. and Mersini, R. (2012). “Assessment of E-Banking Services and Legal Framework in Albania”. *Mediterranean Journal of Social Sciences*, Vol. 3 (1), pp. 240-278.

Timewell, Stephen and Kung, Young. “How the Internet Redefines Banking,” The Banker 149, 1999, p. 22–35.

Uruci, E. and Gedeshi, I. (2003). “Remittances management in Albania”. *Working Paper*. Centro Studi di Politica Internazionale (CeSPI).

Van Hoek, R (2001) "E-supply chains – virtually non-existing". *Supply Chain Management: An International Journal*, Vol. 6, Issue 1

Vankatesh, V., Morris, M., Davis, G. and Davis, F. (2003). "User Acceptance of Information Technology: Toward a Unified View". *MIS Quarterly*, Vol. 27, No. 3, pp. 415-490.

Vankatesh, V. and Davis, F.D. (2000). "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies". *Management Science*, Vol. 46, No. 2, pp. 189-208.

Venkatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 420-470.

Wong, D.H., Rexha, N. and Phau, I. (2008). "Re-examining traditional service quality in an e- banking era". *International Journal of Bank Marketing*, Vol. 26, No. 7, pp. 522-535.

Young. R. D., Lang, W. W., Nolle, D. L., (2007), How the Internet affects output and performance at community banks. *Journal of Banking & Finance*, 31, 1010-1069.

Yuen, Y.Y, Yeow, P.H.P, Lim, N. and Saylani, N. (2010). "Internet banking adoption: comparing developed and developing countries". *Journal of Computer Information Systems*, pp. 45-66.

Z. Hussain, D. Das, Z. A. Bhutto, M. Hammad-u-Salam, F. Talpur, and G. Rai, "E-Banking Challenges in Pakistan: An Empirical Study," *J. Comput. Commun.*, vol. 5, no. 02, p. 1, 2017.

Zenga, F., Hub, Z., Chenb, R. and Yangc, Zh. (2009). "Determinants of online service satisfaction and their impacts on behavioral intentions". *Total Quality Management*, Vol. 20.