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The impact of the financial position elements changes on the market capitalization of InsurTech companies: A standard study on a sample of companies operating in the U.S. insurance market using panel models

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Abstract

The present study aims to the modeling of the relationship between the financial position of insurtech companies changes and their market capitalization by using the triple financial statements on a sample of insurtech companies operating in the United States of America during the period (2019-2022) to identify the impact of these elements on the insurtech companies' market capital. Standard analysis was used via the Panel Cross Series Models in this study where it has been concluded that the insurtech companies' sample study market capitalization is influenced by the size of their assets, the balance of net cash flows, and the total afforded costs, However, the total income balance is non-significant and does not affect the market capitalization, in addition to the static relationship between interpretative variables and market capitalization, which is due to the long-term dynamic balance absence between the studied variables.

1. Introduction

The insurance sector, like any other financial sector, is facing profound technological transformations since the growing and varying customer desires have forced the industry to integrate technology into the insurance value chain at various stages to reduce problems associated with information asymmetry, insurance fraud, and inaccurate standard pricing while adopting a new customer-centered approach. Notably, this highlights the insurtech companies' role as a new party in the insurance industry ecosystem. The small size of these companies, as well as their reliance on competencies and innovative technology, are all advantages earned by the flexibility needed to easily breach the insurance value chain however, financing is seen as a barrier to the growth and development of insurtech companies. Accordingly, financing these companies can be done in several rounds and the company's financial performance can affect the investors' opinions either by stimulating or discouraging them to continue providing financial support. Thus, the survival or withdrawal of insurtech companies from markets depends on their market capitalization, which is mainly influenced by their financial position.

In this context, the following question arises: To what extent does the change in the financial position of insurtech companies affect their market capitalization?

Study Hypotheses:

Study hypotheses are presented as follows:

➢ The total volume of insurtech companies' assets affects their market capitalization at a significance level of 5%

➢ The net cash flow balance of insurtech companies affects their market capitalization at a significance level of 5%

➢ Net income collected by insurtech companies affects their market capitalization at a significance level of 5%

➢ Total costs incurred by insurtech companies affect their market capitalization at a significance level of 5%

The current study aims to model the relationship between the changes in the financial position of insurtech companies and their market capitalization by using the insurtech companies operating in the United States of America as a sample to determine the impact of these elements on insurtech companies' market capital based on the companies trilateral data from the first quarter of 2019 until the second quarter of 2022.

The descriptive approach was adopted to present the insurtech conceptual framework, the analytical method to read statistics related to the development of insurtech companies, as well as the standard modeling to study the elements of these companies' financial position impact on their market capitalization.

2. Literature review

InsurTech were the main focus of many researchers and academics interested in the insurance industry, the novelty and complexity of this phenomenon have allowed them to analyze it thoughtfully from different perspectives. Taking into consideration the previous studies, the topic has been dealt with through its fragmentation into 04 subthemes.

➢ The impact of using the fin-tech innovations on the insurance industry: referring to (wang, 2021) research, where a pilot study on modern technologies was examined by relying on China's panel data during the period (2011-2018), in order to quantify the impact of these technologies on the insurance industry. Accordingly, the results showed that there is a significant effect on the assets, liabilities, and risk tolerance of the studied insurance companies, which provides a solid basis for the supervision of the insurance industry development. Additionally, both researchers (Eling & Lehmann, The Impact of Digitalization on the Insurance Value Chain and the Insurability of Risks, 2017) relied on Porter's value chain to analyze 84 research papers based on the digital transformation impact on the insurance sector. Consequently, they reached four main conclusions that include digital transformation enhances the customer experience, improves the business operations of insurance companies, allows the introduction of new products, and enables the insurance industry to compete with other industries. Equally important, the (Abdikerimova & Feng, 2021) study discussed the Peer-to-peer insurance form which was not limited to supporting the current insurance industry, but also provides innovative tools that allow the design of new insurance products. As a result, the work was wrapped up with a comparison between the traditional and the peer-to-peer insurance models, which concluded that the latter supports the insurance industry stability and reduces the insurance companies' costs. Furthermore, the (Zeier Röschmann, Erny, & Wagner, 2022) work addressed the proposal form insurance by introducing it and discussing how it creates value, in addition to the renewal of insurance offers that was identified as a

mean to increase the sector's future efficiency. Similarly, (Revathi, 2020) argues that insurance companies are moving slowly but steadily toward digital transformation and that robotic automation technologies, Artificial intelligence, blockchain, and advanced analysis will enhance the insurance importance. The study suggested that insurers should adopt flexible IT strategies and establish their presence in the innovation ecosystem by partnering with emerging companies. (Eling, Nuessle, & Staubli, The impact of artificial intelligence along the insurance value chain and on the insurability of risks, 2021) the study used 91 research papers to analyze the AI dependence impact on the insurance sector, where the conclusion of cost management efficiencies, revenue improvement in addition to the change in the insurance business model philosophy from compensation to prediction and prevention of loss was reached. Also, (Stoeckli, Dremel, & Uebernickel, 2018) research was based on the grounding theory in building a model that includes empirical data of 208 innovations through market analysis based on Twitter data, in which 52 features and 14 transformative capabilities of these innovations in the insurance industry were discovered. By the same token, (Saeed, Arshed , & Zhang , 2022) work highlighted the challenges of the Indian insurance market embracing IOT technology as it was considered in its beginning In addition to the lack of research, weak governance and legislation, and the absence of awareness and systems to ensure data integrity. Consequently, certain solutions were suggested including the protection of related devices from hacking, the establishment of a high-level advisory committee to develop and design and test connected devices, the inclusion of IoT ideas in secondary schools and universities while providing human resources training programs to develop confidence and awareness of the importance of this technology. Further, the (Lin & Chen, 2019) study referred to the insurance technologies' advantages and risks where they offer many advantages in terms of efficiency, cost reduction for insurance companies and clients; however, they are accompanied by organizational risks that exceed the existing regulations capabilities. Depending on technologies such as artificial intelligence and machine learning have led to new risks associated with ethical issues, accordingly the need to investigate ethical contexts and highlight how customer data is used. Markedly, (Mullins, Holland, & Cunneen, 2021) emphasized the previous point by bringing together insurance experts and AI ethics professionals to better assess and understand some of the ethical foundations related to the employment of big data analytics, artificial intelligence, and machine learning methods in the insurance industry. (Grima, 2019) study was also interested in presenting and analyzing the literature that addressed the reliance on technological innovations effectiveness in the governance of the insurance industry by focusing on processes, internal control, supervision, and decision-making policies to ensure effective governance.

➢ Regulatory sandboxes Establishment for start-ups specializing in insurance technology: taking into consideration (Chen, 2018) work in which the legislative empirical environments in the UK, Australia, and Singapore, were addressed by showcasing and extrapolating these countries' experiences. The researcher considered that the number of Insurtech companies applications to join these environments is relatively low compared to other financial technology branches, also technology supports innovation in the insurance sector but has not affected existing business models. It was believed that the Insurtech innovations are aimed at strengthening and developing the already existing insurance products, coupled with the importance of creating these experimental environments to support companies that provide premium products and services where the current legislation can be seen as an obstacle to their development. Equally important, (Ostrowska, 2021) study considered that the proportionality principle is appropriate, flexible, and sufficient to embrace the activity of Insurtech companies and to address regulatory problems that may arise among stakeholders (insurance companies, regulatory bodies, customers), as this principle spares legislators from making radical changes affecting existing laws.

➢ The relationship Nature between Insurtech companies and traditional insurance companies: referring to (cappiello, 2020) study in which it focused on the digital transformation that would significantly affect the insurance industry and impose a radical change on the insurance companies' culture, products, operations, and relationships with customers and various competitors, by answering three major questions:

    1. Does a startup specializing in Insurtech hinder the traditional brokerage of insurance companies?

    2. How does technology impact traditional insurance brokerages?

    3. How do the new technologies use change customer relations? And how does it affect their loyalty?

Porter's forum was used and relied on to answer the previous questions consequently three findings were reached:

- The relationship between start-ups and traditional insurers tends to be one of partnership rather than competition, where the Insurtech companies are not considered a threat to the existing insurance companies and the latter seek to have partnerships with start-ups to improve and develop each stage of the insurance value chain;

- Innovative technologies offer new options for restructuring traditional systems, as digitization profoundly affects all stages of the value chain and offers several benefits: reducing the asymmetry of information, personal and accurate pricing, and effective claims management, but newbies face several constraints that hinder their entry into the insurance market, as well as the cyber risks associated with these technological innovations.

- Concerning customer relationships, these technologies contribute to enhancing customer satisfaction by allowing them to interact with the insurance company at anytime and anywhere, but the absence of direct "face-to-face" communication might negatively affect customer loyalty.

> ➢ Financing Insurtech companies (Rawat, Rawat, Kumar, & Sai Sabitha, 2021) study considered that despite the multiple advantages offered by Insurtech innovations , Insurtech companies face considerable difficulties in terms of consistency, which raises the question of this model sustainability especially since the funds raised by these companies are used in the distribution of insurance policies rather than investing in the other parts of the insurance value chain and regulatory compliance.

As has been noted, the previous studies focus mainly on the adoption of Insurtech 's impact on the insurance industry and the nature of the relationship between Insurtech companies on the one hand and traditional insurance companies on the other, as well as the lack of studies that have addressed the issues associated with financing Insurtech companies. Consequently, the present study's main idea evolved based on linking the companies' financial position to their market capitalization, which reflects the financing segment.

3. Conceptual framework

Before the provision of Insurtech companies' definition, it is important to highlight the popular concept of insurance technology "Insurtech".

3.1. Insurtech definition:

Previous Academic studies have not agreed on a unified concept of Insurtech, but it can be presented through three main points:

i. Insurtech from a reliable technical perspective: refers to "using technological innovations and digital processes to generate new jobs and increase quality, savings, and efficiency in various value-added steps in the insurance industry model." (PUERTAS, et al., 2017, p. 14)

ii. Insurtech from a technical provider perspective: refers to "an insurance company, broker or insurance value chain sector specialist that uses technology either to compete or to provide value-added benefits to the insurance industry".

iii. Insurtech from both perspectives technical and provider: the term Insurtech is used to describe the use of new technology to enhance efficiency at different points of the insurance value chain, and it is also used as a synonym for startups that offer new products or provide more traditional coverage quickly and efficiently than can be provided by existing insurers. (Mandiri capital, 2020, p. 03)

In short, it can be argued that the concept of Insurtech covers different concepts beyond the idea of combining insurance and technology to include the original customer-centered approach as well as the potential of technology to enable the value chain to disrupt existing insurance business models (VanderLinden, Millie, Anderson, & Chishti, 2018, p. 06)

3.2. Insurtech companies (concept, origin, and development):

Insurtech companies are the main provider of Insurtech innovations, and below is a presentation of some definitions associated with Insurtech companies :

> ➢ Insurtech companies are defined as "institutions that use technology to add value to the insurance industry's production chain" (ENDEAVOR MEXICO, 2021, p. 05)

> ➢ It is also defined as "emerging companies that offer innovative new insurance products and sometimes offer the same products as traditional enterprises but very quickly and efficiently due to their technology-heavy reliance." (Insurance information institute, 2020)

Thus, it can be said that Insurtech companies are small and dependent on high technology making them flexible and can easily break through the insurance value chain. In Fact, the emergence of Insurtech companies dates back to 2010, as Berlin-based Friendsurance that is one of the first startups to transform the global insurance market. To clarify, This company's business model is based on peer-to-peer insurance where social media relies upon (Facebook, Linkedin..) to encourage users to invite relatives and friends and form mutual support groups where they make contributions to a common fund, part of which is to pay insurance to a third party (insurance company). In case of an accident, an individual will be compensated from the collected contributions. The overflow recorded at the end of the year will be redistributed to the contributing parties; Thus, according to this model, the insurance institution intervenes only if the compensation value exceeds the capacity of the joint fund (Abdikerimova & Feng, 2021, p. 04). Notably, 2015 was considered the Insurtech actual zig in which The world's first Insurtech accelerator was launched in London under the name "startup boot camp". (Startupbootcamp, 2015)

Furthermore Insurtech companies can be classified into 03 main categories (KPMG, 2020):

o Enables: This category provides solutions for corporation business models (B2B) that are designed to improve some of the value chain aspects of traditional insurers, such as using algorithms to improve subscription processes and helping companies understand and identify the real risks associated with insurance policies.

o Partners: This category interacts with traditional companies through platforms through which insurers can offer their products. Unlike the first category, which merely provides solutions to traditional insurers, this category is in partnership with these companies;

o Challengers: These companies are introducing new business models into the insurance sector and are seeking a license, making them a real threat to traditional insurers.
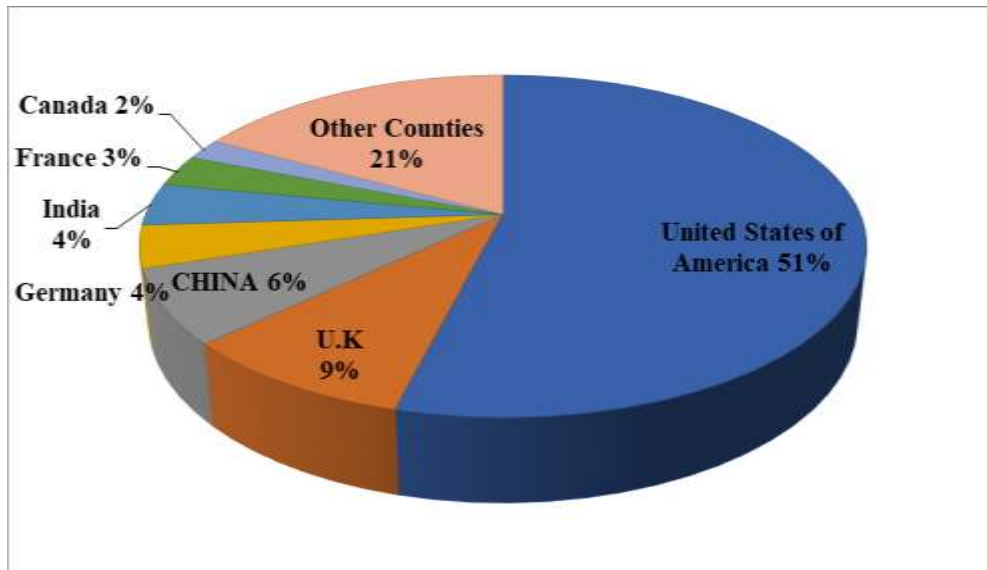
The transaction volume in Insurtech companies has been a positively rising trend since 2012, As of the third quarter of 2021,421, the number of transactions exceeding the transactions annual number of 2018 and the years before. According to a 2022 Drake Star report, the number of unicorn Insurtech companies was 28 companies worldwide (United States of America, United Kingdom, France, Germany, Asia and the Pacific) with a market value of between US $01 billion and US $9.3 billion. (Ostertag, Metzger, Morvan, & Levy, 2022, p. 14)
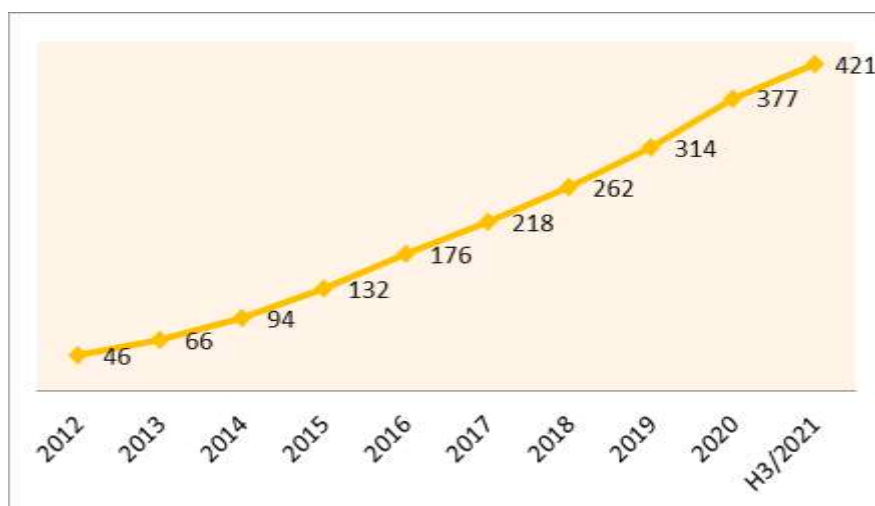
Figure 1. Number of transactions in Insurtech companies from 2012 to the third quarter of 2021

Source : (Willis Towers watson, Willis Re, & CBINSIGHTS, 2021, p. 07)

The United States of America accounts for 51% of total deals from 2012 to the third quarter of 2021, followed by the United Kingdom and China, successively.

Figure 2. Countries' share of total transactions in Insurtech companies up to the third quarter of 2021

Source : (Willis Towers watson, Willis Re, & CBINSIGHTS, 2021, p. 61)

It can be noticed that the newly established companies have benefited from 37% of the world's total deals because they need funding to launch. Additionally, It is noted that the funding volume decreases with the increase in maturity.
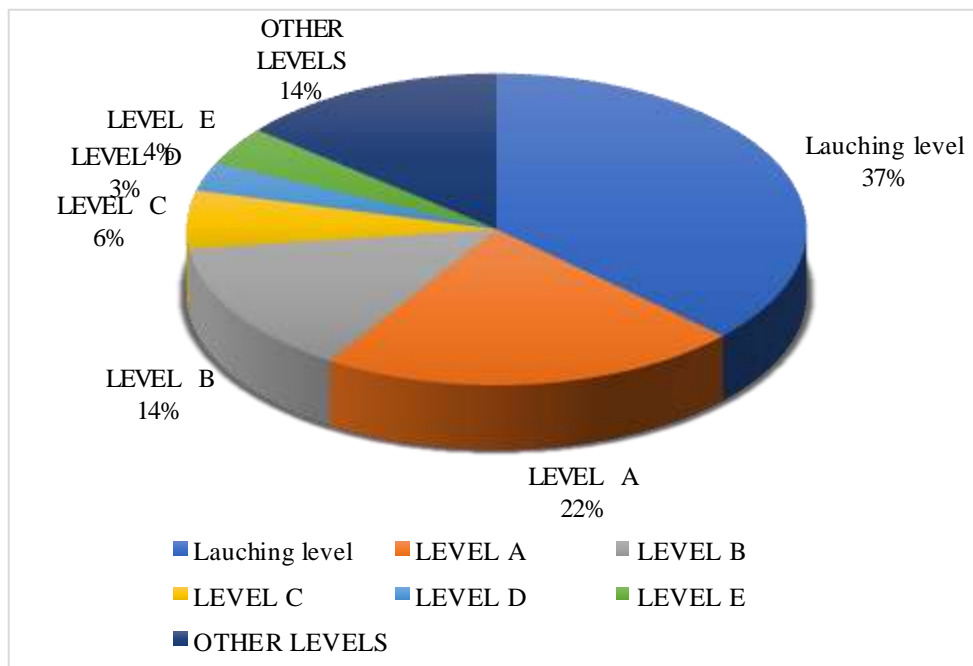
Figure 3. Insurtech companies' share of funding according to the maturity level up to the third quarter of 2021

Source : (Willis Towers watson, Willis Re, & CBINSIGHTS, 2021, p. 61)

Traditional insurers and reinsurers, as well as venture capitals, are among the most prominent financiers of Insurtech companies, according to the "Juniper Research" study. As a matter of fact, Ping An, Axa, Munich Re, Humana, and Allianz are among the largest insurers and traditional reinsurers committed to investing in Insurtech companies, some of which can be referred to as: (Atlas magazine, 2021)

o   The insurance company "Generali France" has strengthened its relationship with the Insurtech company "Advize" in order to digitize life insurance services.

o   Hollard Insurance (South Africa) and Yellowwoods, a European-based private investment group, jointly invested $1,4 million in Naked Insurance.

o   In March 2021, Allianz invested $75 million in WELAB, a Hong Kong lending platform that brings together lenders and borrowers in China and Indonesia.

o   The Spanish branch of AXA Complex in Feffrey 2021 entered into a partnership with the French Insurtech company "Akur 8", which will enable the branch to improve its pricing processes.

o   At the end of 2019, Covéa, a French cooperative group, launched the Insurtech company Appenin, focusing on digital home insurance.

o   Munich Re Complex in Feffrey 2021 announced a partnership with Sun Capital Partners to launch Insurtech specialist Abacai, where the new entity initially focuses on the UK automotive insurance market.
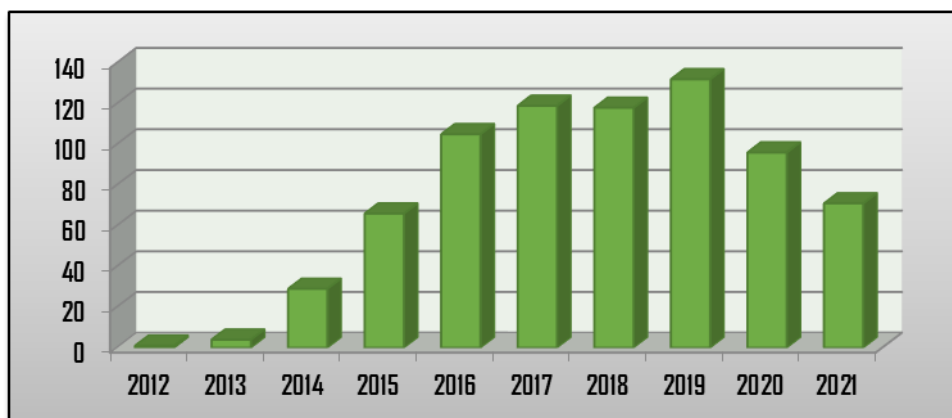
Figure 4. Number of insurance and reinsurance companies' transactions Insurtech companies evolved from 2012 to the third trio of 2021
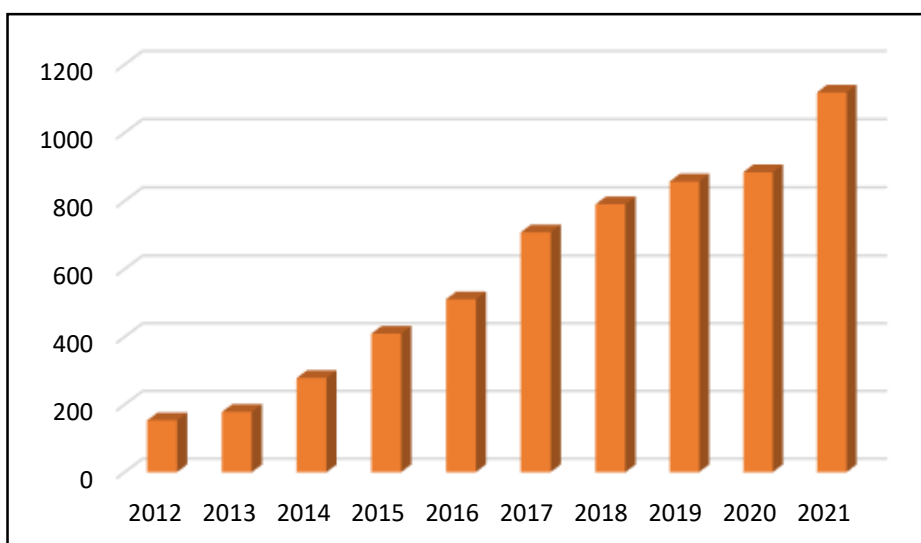
Source : (Willis Towers watson, Willis Re, & CBINSIGHTS, 2021, p. 81)

The United States of America accounted for 58% of the total number of transactions during this period, followed by France (09%), China (08%), the United Kingdom (06%), Germany (04%), and Canada (03%), while it included the share of other countries combined (12%). In like manner, the number of risk capital institutions investing in Insurtech has seen a record increase from 153 investors in 2012 to 1,118 until the end of 2021 third trimester, an estimated 630 percent increase, reflecting the risk importance that the enterprises' place on the Insurtech sector.

Figure 5. Number of risk capital institutions invested in the Insurtech sector evolved from 2012 to the third trio of 2021

Source : (Willis Towers watson, Willis Re, & CBINSIGHTS, 2021, p. 09)

4. Data and Methodology

The present study data was collected from Insurtech companies operating in the United States of America, including the 07 Insurtech companies (Table No. 1). In fact, The US insurance market is selected because it is holding more than 50% of the total transactions in Insurtech companies globally. Thereupon, The study sample was determined based on the availability of its financial statements. The companies' tripartite data were compiled from the first quarter of 2019 to the second quarter of 2022. That is, (T = 12) based on the Yahoo Finance database, which is available on the financial information issued by the New York Stock Exchange (NYSE) and the Nasdaq, which are the exchanges on which the shares of the studied Insurtech companies.

Table 1. Insurtech Companies Sample Study

Company name	Founding date	Field	Workers number
Root Inc	2015	Car and Home Insurance	1 571
Gohealth	2001	Health insurance	5 448
Duck creek technologies	2016	Cloud computing services in the insurance industry	1 653
Clover health investments	2014	Health insurance	680
Oscar health	2012	Health insurance	2 621
Lemonade	2015	Property Insurance and Civil Liability	1119
Bright health group	2015	Health insurance	3203

Source: by study researchers based on (Yahoo finance)

Before the estimation of the study model, the multicollinearity test was conducted to detect the existence of a multicollinearity problem or not, and to do so the Variance Inflation Factor for each of the independent variables was used. (Akinwande, Garba Dikko, & Samson, 2015, p. 756)

The study was based on the three models of the Panel Methodology: Random Effects Model (REM), Fixed Effects Model (FEM), Pooled Regression Model (PRM), and the differentiation between models took place in two stages:

-   ❖ **First Phase:** The differentiation between the Pooled Regression Model (PRM), and the Fixed Effects Model has been based on the Likelihood Ratio test, which includes the results of the restricted Fisher test and the Kai Square test.

-   ❖ **Second Phase:** The Differentiation between the Fixed Effects Model and the Random Effects Model was done based on the (Husman, 1978) test.

    -   ➕ **Study Model:** To study the financial position element's impact on the capitalization of Insurtech companies, the following model has been relied upon:

Capitalization = F (assets ,Freecashflow,Totalexp,Totalrevenue)

Notably, The model can be drafted mathematically as follows:

Capitalization $_{it}$ = a_0 + a_1 Assets $_{it}$ + a_2 Freecashflow $_{it}$ + a_3 Totalexp $_{it}$ +Totalrevenue $_{it}$ + ^{ε}t

Where:

- Capitalization: refers to the total capital of Insurtech companies (market price per share * Number of shares in circulation) in thousands of dollars

- Assets: refers to the total assets of Insurtech companies in the thousands of dollars;

- Free cash flow: refers to The balance of net cash flows from operational investment and financing activities in the thousands of dollars;

- Total revenue: refers to the total income collected by companies in thousands of dollars

- Totalexp: refers to the Total corporate costs of thousands of dollars

- ^{ε}**t** Random Error Limit.
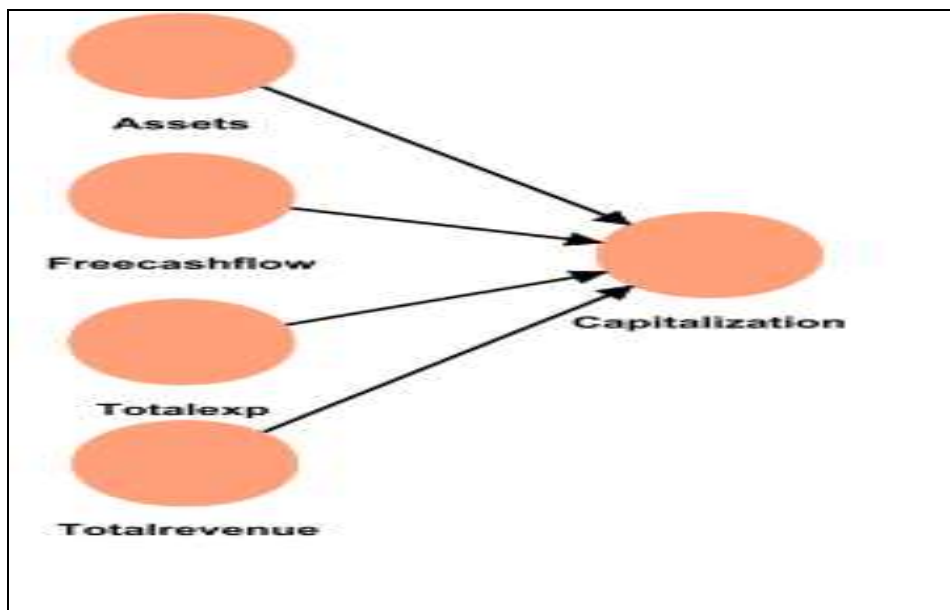
Figure 6. Applied study model

Source: study researchers

5. Applied research Study Results

Variable inflation factor results showed that the VIF value per variable did not exceed the value of 10, which indicates the freedom of the model from the multiple correlation problem.

Table 2. Results of the variable inflation factor

Variables	Total revenue	Totalexp	Freechashflow	Assets
Variable inflation factor (VIF)	3.70	3.70	1.14	2.43

Source: study author

The estimation results reached the significance of the three models, which is proven by Fisher's test probability.

Table3. Estimated Study Model Parameters Using the Three Ways of Panel Methodology

Study variables	Pooled Regression Model (PRM)	Fixed Effects Model (FEM)	Random Effects ModelModel (REM)
Assets	0.643442**	0.740578**	0.693316**
Free cash flow	-0.6879626*	-0.605445*	-0.648250*
Total revenue	-0.192929	-0.262342	-0.224353
Total exp	-0.952541**	-0.891304**	-0.956260**
R^2	0.621901	0.750774	0.673955
Fisher test	38.24	26.20	48.05
Prob(F)	(0.0000)	(0.0000)	(0.0000)

Source: Author's calculation using EVIEWS

Note :

- (*) indicates significance at a 5% level,
- (**) indicates significance at a 1% level.
- Values in parentheses are P value.
- The results of the Likelihood Ratio test showed that the Fixed Effects Model (FEM) was accepted and the Pooled Regression Model (PRM) was rejected, due to the probability value of both tests being less than a 5% significance level.

Table4. Likelihood Ratio Test Results

Test	Statistical value	Freedom degree	P value
Cross-section F	7.497813	(6,87)	0.0000
Cross-section Chi-Square	40.845848	6	0.0000

Source: Author's calculation using EVIEWS

- The results of the Hausman test show acceptance of the Fixed Effects Model and rejection of the Random Effects Model, as the probability value is below the significance level of 5%.

Table 5. Hausman Test Results

Test	Statistical value	Freedom degree	P value
Cross-section F Random		21.707905	0.0002

Source: Author's calculation using EVIEWS

Table 3 results show that the total assets variable is significant at a 1% level which positively affects the capitalization of Insurtech companies, and the net cash flow balance variable is significant at 5%, Positively affecting their capital (the negative indication refers to Insurtech companies inability surveyed to achieve a positive balance throughout the study period)

The total costs variable is significant at a 1% level affecting negatively the capital of Insurtech companies, but the total income variable is immoral as its probability (0.2570) which is higher than the significance level of 5%, While the model explanatory power as a whole is estimated at 75%, confirming that the capitalization of Insurtech companies is greatly interpreted by the studied interpretative variables.

After ascertaining the model significance, the possibility of a long-term balanced dynamic relationship between the variables of the selected Fixed Effects Model was examined by conducting unit root tests, where the tests of LLC, Breitung, IPS, Fisher-ADF, PP were used taking into consideration all test equations included a fixed limit and a general direction where the selection of the delay periods number was automated according to the AIC standard.

Table 6. Unit Root Test Results at the Level of Panel Variables

Tests	LLC	Breitung test	IPS test	ADF test	PP test
Study variables	Prob	Prob	Prob	Prob	**Prob**
Capitalization	3.72788**	4.31938**	0.87114	17.7985	**22.9078**
Assets	4.23800**	0.45797	1.01004	20.6901	**50.7696**
Free cash flow	5.27143**	1.14740	2.80065**	32.3300**	**31.5982**
Total revenue	2.96142**	1.03359	0.22707	13.5682	**20.7893**
Totalexp	5.31234**	1.47621	1.92565*	25.1759*	**27.7302***

Source: Author's calculation using EVIEWS

Note :

- (*) indicates significance at a 5% level,
- (**) indicates significance at a 1% level.

Most of stationarity tests show that Free cash flow and Totalexp are stationary at the level while the rest of the variables are not stationary at the level.

All variables stabilized at the first discrepancies, making them top-notch integral.

Table 7. Unit Root Test Results at First Difference of Panel Variables

Test	LLC	Breitung test	IPS test	ADF test	PP test
Study variables	**Prob**	**Prob**	**Prob**	**Prob**	**Prob**
Capitalization	5.78750**	4.99773**	1.96616*	25.2535*	**77.4604****
Assets	7.61105**	6.38382**	4.57900**	46.7157**	**125.819****
Total revenue	4.39253**	3.76121**	2.80065**	32.3300**	**75.2288****

Source: Author's calculation using EVIEWS

Note :

- (*) indicates significance at a 5% level,
- (**) indicates significance at a 1% level.

The (Pedroni, 1999) tests were used to study the possibility of a long-term balance between interpretative variables and the capitalization of Insurtech companies. To clarify, the following table shows the results.

Table 8. Cointegration Test for Panel Variables Based on Pedroni Tests

Test	Probability
Panel V-Statistic	**0.7131**
Panel rho-Statistic	**0.9000**
Panel PP-Statistic	**0.3039**
Panel ADF-Statistic	**0.8150**
Group rho-Statistic	**0.9941**
Group PP-Statistic	**0.0653**

Source: Author's calculation using EVIEWS

The table results show that the reliable tests probability is higher than the significance level of 5%; therefore the nihilistic hypothesis stating that there is no cointegration between interpretive variables and the variable capitalization of Insurtech companies cannot be dismissed, i.e. the relationship between variables is static and not dynamic in the long term.

6. Discussion of the Findings

The results of the Panel methodology show that the total assets variable of Insurtech companies is significant and positively affects their capital, to clarify, an increase in the volume of these companies' assets would motivate potential investors to subscribe to their shares. Accordingly, Increasing the volume of assets by 01 USD would increase their capital by USD 0.74 USD, and the net cash flow balance variable is significant and positively

affects its capital (the negative indication that the Insurtech companies studied are unable to achieve a positive balance throughout the study period),

For this reason, the decline in this balance of 01USD results in the value of its capital deterioration by 0.6 USD due to its negative impacts on investors and its implications for the market value of companies' shares. In addition, the capital of Insurtech companies is influenced by the balance of total costs. Where the increase of this balance by 01 USD results in a decrease in these companies' capital by 0.89 USD and the company's inability to manage and control costs negatively affects the size of its capital.

However, the total income variable is non-significant and does not affect Insurtech companies' market capitalization. Additionally, the cointegration tests were not confirmed which reflected in assuming that the relationship between interpretative variables and market capitalization is characterized by stillness, due to the absence of a long-term dynamic balance between the studied variables.

Table 9. Results of the Study Hypotheses Test

Hypothesis	P value	Tests results
The total volume of Insurtech companies' assets affects their market capitalization	0.0000	Confirmed
The net cash flow balance of Insurtech companies affects their market capitalization	0.0442	Confirmed
Net income collected by Insurtech companies affects their market capitalization	0.2570	Not confirmed
Total costs incurred by Insurtech companies affect their market capitalization	0.0053	Confirmed

Source: Author's

7. Conclusion

Taking into consideration the study results and study findings, the following suggestions can be used in future research:

- Enhancing the activity of Insurtech companies is subject to the availability of experimental regulatory sandboxes that help these companies gradually integrate into the insurance sector. This is reflected in the granting of temporary accreditation for the exercise of the activity, which is subsequently confirmed after ensuring the effectiveness of the products offered by these companies, the reduction in the restrictions associated with the precautionary rules (minimum capital, solvency standards;..);

- When designing and pricing the products, Insurtech companies must take into account aspects of data privacy, customer knowledge policies, money laundering, and terrorist financing;

- Building relationships based on a partnership between Insurtech companies and traditional insurance companies would reflect positively on the insurance sector as a whole. The first is flexible and innovative, while the second has a large base, expertise in the field, and the ability to comply with precautionary rules.

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