Colombian Companies of Insurtech and their Risk Management

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Abstract. In Colombia, a new trend of technology businesses has emerged, generating significant challenges to the traditional sales schemes of insurers called Insurtech, becoming an exciting aspect to investigate. This new model is increasing, so in the present paper, it presents a characterization of the companies, focusing on the management of risk management. The methodology proposed to develop the present work consists of i.) analysis of the official information and, ii.) it applied different surveys to companies, evaluating quantitative and qualitative aspects.

1. Introduction

Insurtech was born from the union of the words in English: Insurance and Technology. This sector is characterized by technological tools such as big data and machine learning techniques to create new forms of offering and selling traditional insurance online [1]. This sector has had exceptional growth in the insurance sector [2]. Considering the particular aspects of Insurtech, a diagnosis of the sector is carried out in terms of the possibilities and risks generated by rapid growth, the change in the business environment, and the increase in startup capacities.

A large body of research focused on methodologies of risk management in project settings, but none focused on Insurtech. It is interesting to note that all the scientific articles studied analyze, test, develop, evaluate, and propose risk management methodologies from each sector or project's experience, but none based on the previous identification of the characteristics and needs of this particular sector. For authors such as Puschmann, 2017 [3], because it is a growing market and the scarcity of scientific literature on Insurtech, the previous research found in the literature on this emerging phenomenon lacks structured empirical evaluations. Following the above, this article shows the Insurtech sector's characterization in Colombia and its risk management. First, it is presented the background, then methodology, and finally, the results are shown.

2. Insurtech in Colombia and its Risk Management

Insurtech sector is related to the technology put at the service of insurance [4], which uses technology and big data as fundamental elements. This new model challenges the traditional insurance sales model. It offers technological innovations that promise to increase the coverage of the insurance business [5], providing faster, more agile, transparent, and competitive services. This industry is considered young, due to they have been called “startups” [6], born in the Colombian market less than ten years ago.

Up to now, there are only 10 companies (see Figure 1 and Figure 2) that are part of the Insurtech sector in Colombia [7], which are imposed as a challenge for competition, making the insurance
industry more and more attractive. The Financial Superintendent of Colombia, shows that technology investors see great potential in the insurance industry due to various factors, among them, "the possibility of using a large number of analytical tools that allow them to better understand users to develop campaigns and customized products "[5].

**Figure 1.** Insurtech Business Model

The majority of Insurtech companies' business has focused on developing more productive and profitable business lines through technology [8], considering investments and funds representing inconspicuous but latent risks, most importantly, related to governmental policies.

|                       | BUSQD | Compara | Segurocanguro.com | SU Seguro Fácil | Seguroapp SAS | OK Finanzas LTDA |
|-----------------------|-------|---------|-------------------|----------------|---------------|-----------------|
| Has an organizational | ✓     | ✓       | ✓                 | ✓              | ✓             | ✓               |
| structure             |       |         |                   |                |               |                 |
| Are management        | ✓     | ✓       | ✓                 | ✓              | ✓             | ✓               |
| methodologies         |       |         |                   |                |               |                 |
| important to your     |       |         |                   |                |               |                 |
| processes for a       |       |         |                   |                |               |                 |
| company?              |       |         |                   |                |               |                 |
| Do you know at least  | ✓     | ✓       | ✓                 | ✓              | ✓             | ✓               |
| one Project           |       |         |                   |                |               |                 |
| Management            |       |         |                   |                |               |                 |
| methodology?          |       |         |                   |                |               |                 |
| What Project          | Agil  | Scrum   | Gantt Diagram     | Scrum          | X             | X               |
| Management methodology| Kanban| Kanban |                   |                |               |                 |
| do you apply in your  |       |         |                   |                |               |                 |
| company?              |       |         |                   |                |               |                 |

**Figure 2.** Insurtech Management Project
3. Characterization of Insurtech Sector in Colombia and its Risks

3.1. Methodology
Characterization of the Insurtech field in Colombia was initially addressed using documentary information, after that ten enterprises of the same area, registered in Colombia Fintech by Jun 2018, were polled. As a result, an exploratory study of management methodologies was carried out to identify the strengths and weaknesses of the Insurtech sector.

A research poll was proposed, aiming to determine the characteristics of companies and the most current risk associated with Insurtech projects. The survey contains seven open questions and ten questions about the enterprises’ qualitative characterization, which is carried out through the gathering of socio-demographic information, experience in the market, organizational structure risk, and project management.

3.2. Qualitative characterization of Insurtech companies in Colombia
General characteristics of the chosen population, gathered from the opinion poll, are described in the following: presence in the market less than ten years, 70% located in Bogotá while 30% scattered in Cali, Medellin, and Pereira. According to the number of employees, the companies’ size is small; none of these companies have employees or departments in charge of risk management or internal oversight. On the other hand, the main activity 70% of the startups have is insurance brokering services, 20% are focused on negotiating services and management of insurance policies, and the last 10% are dedicated to the development of technologic systems e.g., CMR for agencies, brokers, and insurance agents, see Table 1.

Table 1. Details of Insurtech companies' services

| Companies \ Services offered | Online Sales | Insurance Comparator | Vehicle Insurance | Other Insurance | Technological Services for Intermediaries | Other Services |
|------------------------------|--------------|----------------------|-------------------|-----------------|-----------------------------------------|--------------|
| Grupo R5                     | ✓            | X                    | ✓                 | X               | X                                       | ✓            |
| Comparaonline                | ✓            | ✓                    | ✓                 | ✓               | X                                       | X            |
| Busqo                        | ✓            | ✓                    | ✓                 | ✓               | X                                       | X            |
| Seguro Canguro               | ✓            | ✓                    | ✓                 | X               | X                                       | X            |
| OK seguro                    | ✓            | ✓                    | ✓                 | ✓               | X                                       | X            |
| Seguros Fácil                | ✓            | ✓                    | ✓                 | ✓               | X                                       | X            |
| Tuseguro.com                 | ✓            | ✓                    | ✓                 | X               | X                                       | X            |
| Agentemotor                  | ✓            | X                    | X                 | X               | ✓                                       | X            |
| Segurapp                     | ✓            | X                    | X                 | X               | ✓                                       | X            |
| Softseguros                  | ✓            | X                    | X                 | X               | ✓                                       | X            |

3.3. Characterization of Insurtech companies' risk Management
Gathered information, from the seven pools applied in Bogota, was used to identify the use of methodologies and tools for risks and projects management. It became evident that none of the polled startups had implemented any methodology and did not have a spot in charge of risk and project management. The most common vulnerabilities for startups are presented in figure 2.
4. Conclusions
Considering that the studied sector has a growing potential, there is a reduced number of information sources, and companies restrict data sharing. Nevertheless, it was identified that none of the studied companies have enough knowledge regarding risk management. Moreover, none of the studied Insurtech companies was certified in risk management and its implementation. Consequently, the standpoint of insurance companies, regarding the sector behavior in Colombia, is justified.

5. References
[1] FINTECH, C., 2017, Federico Malek: “El mayor desafío que tiene las insurtech es la inclusión aseguradora”. Recuperado el 08 de 11 de 2017, de https://www.colombiafintech.co/post/queson-las-insurtech-y-por-que-hacen-temblar-al-negocio-global-de-seguros.
[2] FINTECH, C., 2017. Insurtech: innovación tecnológica para la inclusión financiera en seguros, de https://www.colombiafintech.co/post/queson-las-insurtech-y-por-que-hacen-temblar-al-negocio-global-de-seguros.
[3] Puschmann, 2017, T. Fintech. Business & Information Systems Engineering, 59, Issue 1, pp 69–76. Obtenido de https://doi-org.czproxy.unm.edu.co/10.1007/s12599-017-0464-6.
[4] FASECOLDA. 2017, Federación de Aseguradores Colombianos. Obtenido de http://www.fasecolda.com/index.php?cID=2174.
[5] DINERO, R., 2017. ¿Qué son las Insurtech y por qué hacen temblar al negocio global de seguros?. Revista Dinero.
[6] ADMIN. Fintech Radar Colombia, 2016. Finnovista. Recuperado de: https://www.finnovista.com/Fintech-radar-colombia/.
[7] OLIVA, Fernando; Flores, Mauro, 2017. La transformación de las compañías de seguros en la era digital. Revista Visión Deloitte S.C. Reino Unido.
[8] Bodner, I., 2018, The State of InsurTech in 2018: insurtech is now moving rapidly into commercial lines, where attention and intent are focused on impactful solutions. Property & Casualty 360, Vol. 122 Issue 3, p36-37. 2p.