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(E-Insurance)

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E-Insurance Research

InsurTech and the Digital Transformation Era

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Summery, Introduction

With the dynamic and fast-paced nature of technological advancement, the insurance industry is forced to quickly adapt to changes in order to maintain an optimum level of customer satisfaction and operational efficiency. This research presents the concept of InsurTech and discusses the opportunities and effects of e-insurance on the insurance industry.

I have joined the Insurance industry as a Chief Technical Officer a year and a half ago, after 17 years of leading the Information Technology department of a different field company.

My thorough experience in the information technology has given me a solid understanding of the optimization of industry models through using technological innovations, or in other words, Digital Transformation.

"InsurTech" is an alternative term for Digital Transformation in the Insurance industry; The integration of technology and the current insurance industry model to maximize savings and efficiency. This concept is at the core of my Digital Transformation Strategy and Roadmap during my limited yet insightful experience in the insurance world.

I have started my research looking for the best InsurTech solutions that can help my company moving into the next Digital transformation era, which will lead to the simplification of processes across all products and service offerings, and the enhancement of nonoperational processes, allowing us to become better, faster, and more profitable on the long run.

But as I progressed with my research it became clear that InsurTech is still not mature in the insurance community, meaning it didn't reach the technological development that other firms have achieved, such as 'FinTech' (financial technology) for example.

I have attended the "Mobile World Congress" hosted in Barcelona last year to explore new applicable InsurTech solutions. To my surprise, there was a complete lack of well-established InsurTech providers attending. The conference had a few startup booths which are more closely tied with FinTech, proving the immature level of InsurTech on a global scale.

Digital Transformation & InsurTech

The terms "Digital" & "Transformation" have been used in the industry for quite a while, yet it's still hard to think of any global insurer that is truly transformed itself into a digital insurer in comparison to what's going on with other industries and big companies like "GAFTA"; Google, Apple, Facebook, Twitter & Amazon, as well as Airbnb and Uber.

The good news is that most insurance industry leaders are already in pursuit of transformation due to industrial demands and needs. But transforming an existing business isn't a simple process.

The term digital transformation is often misused and/or misunderstood. Since 'Digital transformation' is an umbrella term covering various digitized processes, categorized to fit the business model of each individual company, forming a platform which can be applied in the company to adapt to the current digital world and to remain flexible with any new application or system that may arise in the future to maintain relevance.

Therefore, many leading companies are formulating Digital Transformation strategies to enable them to exploit the opportunities of the digital economy and to be ahead of the industry by leveraging various types of digital resources.

Digital Transformation is a list of technologically innovative processes adopted by the companies through their strategies, this list may include but is not limited to:

- "Big Data" science, and analyzing customers trends;
  As technology progresses, the way we buy insurance evolves as well. Big data – the huge amount of digital information collected about customers and their trends – is becoming very impactful. Many analytic studies are being developed in this field helping firms analyze trends and make predictions, allowing them to personalize customized services and to provide future real-time pricing.
  Buying insurance is a time-consuming and frustrating process for the consumer, and the use of big data is helping streamline and simplify it. - -
- Companies are starting to utilize "Artificial Intelligence" to help identify gaps in customer insurance, while helping them avoid buying what they actually don't need. According to multiple studies, 2019 will be the year

that existing providers really start to catch up, investing to capture more data, and to engage meaningfully with InsurTech firms.

The three keys AI and machine learning can drive savings for Insurance carriers (Behavioral Policy Pricing through IOT sensors, Seamless automated buying experience, and Faster customized Claims Settlement)

- Smartphone consumer Apps, providing online policy purchasing & renewals, online claims handling, and transaction history.
- Paperless environments and digital document management systems
- Cloud Datacenter and Infrastructure outsourcing
- Business Intelligence and Smart dashboards providing dynamic reporting tools
- Digital marketing and social-media content management
- IOT, Internet of things devices (health & motor online sensors)
- Online selling and payments through various Customer service Omni channels
- Integration with other existing Fintech technologies
- Autonomous Robotic process automation (unattended Information systems).
- Integration with new Startups & Entrepreneurs disruptive innovations.
- Cloud Sourcing "Uberization"
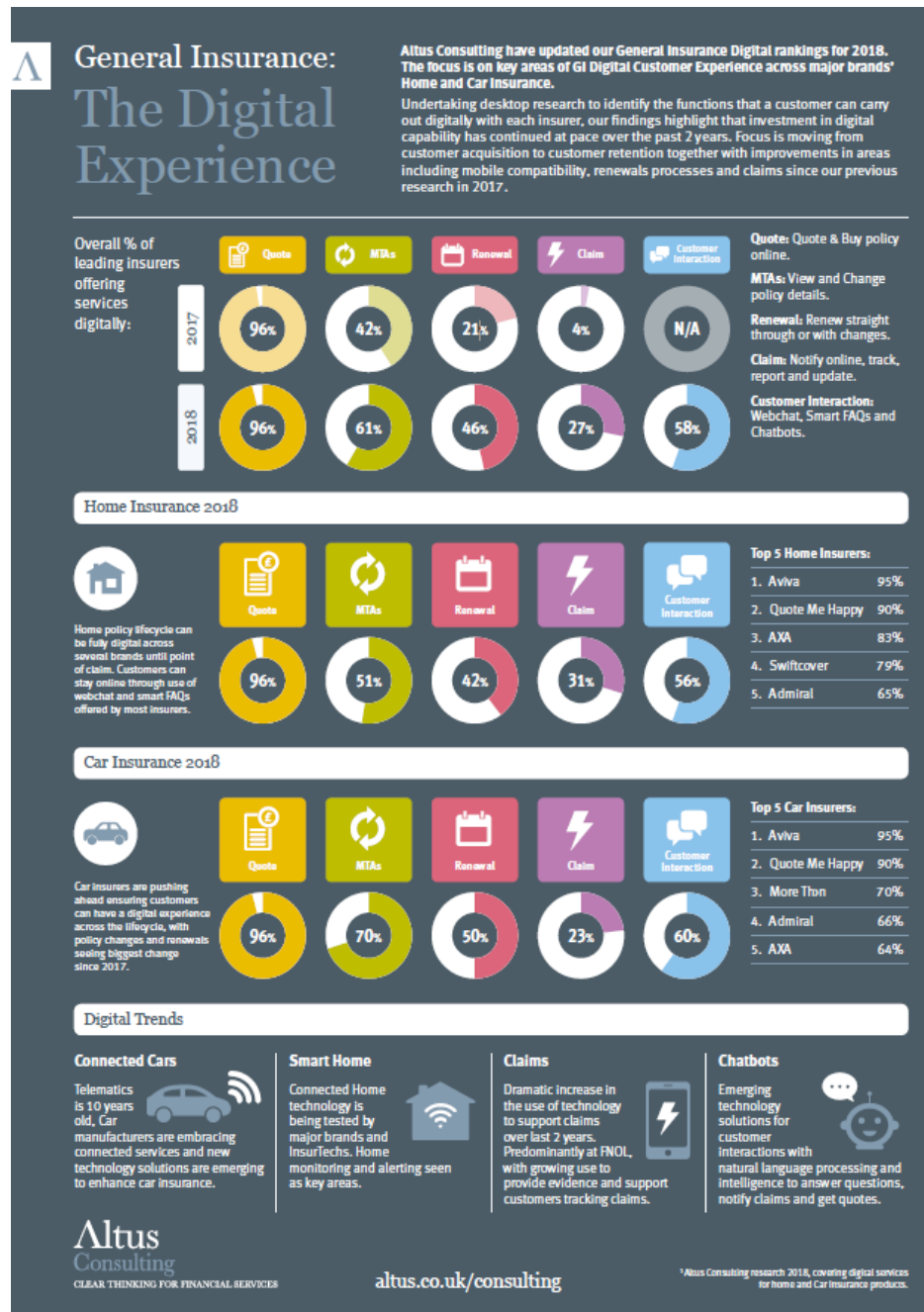- Industrial Internet (Blockchain & Ethereum)

A case of successful Digital transformation example is "FinTech" which is regarded as a very mature initiative in the financial world and is widely applied specifically at banks and financial markets.

The financial services industry has been quickly in adopting new technologies since its early years, and until now all technological developments have been made internally to enhance customers' existing services and functions in financial companies.

Fintech concentrates mainly on the online clients' transactions such as online banking, online payments, e-wallets, and consumer apps; enabling consumers to use financial services that are easily accessible on their mobile devices, leading to a lower number of direct interactions with financial providers meaning consumers are no longer required to go to banks or other financial institutions physically.

But in InsurTech industry on the other hand, according to a latest study by "Insurtechworld organization", only 23% of UK Motor Insurers and 31% of Home Insurers are offering services digitally.

And referring to the General Insurance Digital rankings done by "Altus Consulting" below, we can notice the key areas which Europe's big insurers are currently focusing on:

The customers expect insurance companies to change and bring innovation and technological progress in insurance services and interactions. The insurance companies incapable of making the necessary changes and interact with the customers in the way they expect it, will disappear from the market sooner or later.

InsurTech Constrains and Risks

The current implication impacting both insurers and consumers is to find the "silver bullet" to enable fast and suitable automated platform for a seamless insurance footmark.

Lee Wood, CEO of MetLife Hong Kong said, "With advanced technologies, we are not just giving them one more channel to buy insurance but providing a new experience that we could not offer before. InsurTech allows insurers to extend coverage to those who were previously uninsurable". The employment of technology to rebuild insurance operational framework is beneficial.

Below are some of the Factors and Barriers that are limiting and preventing the progress and fast growth of InsurTech diffusion in the Arab world, specifically in Jordan:

- Regulations:
  The Insurance industry has a complex regulatory setup, varying across regions. InsurTech firms in general, lack the expertise to navigate through governmental restrictions and regulations which slows down a quick scale-up. Regulatory compliance also adds a significant capital burden.
  In Jordan, the regulations regarding selling online Insurance services are still vague, and some of the existing rules that are related to applying digital signatures or moving financial transactions to the cloud, for example, are still not accurately defined
  The insurance federation is sometimes limiting the application of new insurance technologies due to some old existing centralization rules and limited integration capabilities.
- Cyber Security challenges and balance:

According to the Insurance Information Institute, cyber incidents have become the third largest risk to businesses worldwide, leading many businesses to seek for insurance protection against cyber risks. PricewaterhouseCoopers estimates that annual gross written premiums for cybersecurity insurance are set to grow from around $2.5 billion today up to $7.5 billion by the end of the decade. Even though cybersecurity insurance is becoming more popular, insurers still face numerous challenges in this growing area.

- Integration with the existing Core Insurance Systems:
  Many of the existing Core Insurance systems are using old technology with limited capabilities of integration with newer InsurTech platforms which is a huge barrier for moving on.
- Customers mentality in resisting online transactions in general and in insurance in specific, especially in the Arab world.
- Customers' lack of trust in online and in-application insurance transactions and through mobile Apps, especially the older age groups.
  Finding the right IT resources and knowledge:
  As companies move to catch up with the digital future, they are taking a close look at what kind of executive they need to lead the way. That executive is more frequently being referred to as the chief digital officer (CDO).
  The CDO's task is to define the company's digital InsurTech strategy and execute its cross-functional transformation into a fully digital enterprise. But since insurance companies are considered to be closed communities, they struggle to find the executive resource who best fits their strategic goals, digital business model, and digital capabilities and operations. It is a long process, and the executive must step into this newly created position with the needed experience, skills, and proactivity to carry out the necessary digital transformation process.
- Cost impacts:
  Of course, having all the above needed resources and capital will require more financial investments and dedicated budgets that may be rejected by the stakeholders sometimes.
- Limited number of available vendors and core insurance solutions is a challenge for the insurance companies

- Existing infrastructure:
  The existence of old hardware and installed infrastructures, and the need for renewing it to integrate with the various surrounding ecosystems is also a challenge.
- ICD and CPT International coding system:
  Applying the International Medical Codes for defined Diagnostic & related Procedural services and mapping them together is a dilemma, but fortunately, some governmental initiatives are appearing in the Jordanian market to have this international coding system applied by the medical sector to digitally link the insurance companies with the various medical providers (hospitals and doctors).
- Geographical barriers:
  Due to different geography, regulations, economy and politics, the same solutions installed in the advanced countries such as Europe and US, cannot be applied in the Jordan and Arab world. There, they can provide simpler and more customizable insurance plans and packages for their clients.
- Migration Barriers:
  Migrating the old historical and archived Database and preserving it when moving from an old system to a new InsurTech solution is a real pain, as the old data is usually structured and formatted in a totally different way, and the time needed to manually migrate it is hard and will consume time and resources.
- Fast Speed of Technology evolution:
  Most of the companies are not able to cope with the acceleration and fast changing of technology evolutions, which is causing high instability in the market.
- International Financial Reporting Standard:
  New International Financial Reporting Standards that are issued by the "International Accounting Standards Board (IASB)" such as IFRS 9 and IFRS 17 are still vague and are confusing the financial markets. Many insurance organizations have written to the IASB calling for a delay in applying them. In IFRS 17 for example, insurance companies must consider expenses for their revenues from day one, so insurance contract liabilities will be calculated as the present value of future insurance cash flows with a provision for risk.

In other words, "you are audited before you are audited"!

- High Customers Experience and Expectations:
  The high expectations and new demands from Insurance customers, require continuous efforts from the management.
  As per "Gartner" latest Customer Experience Survey, "Marketing leaders responsible for customer experience face growing expectations from business leaders. They must validate the business value of Customer Experience (CX) and lead through collaboration or risk losing budget and influence over the drivers of customer satisfaction, loyalty and advocacy."

The CX Pyramid: A Framework for Powerful Experiences

- Make me better, safer, or more powerful
- Provide what I need without me asking
- Resolve my needs when I ask
- Solve *your* problem when I ask
- Furnish information I can use

Source: Gartner
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Gartner.

Values and Benefits of InsurTech:

1. Profitability and Savings, a digital insurer gets solid competitive advantages over the traditional insurers. According to "BCG" consulting group in the US, the disruptive technologies allow for saving up to 10 percent in premium costs and 8 percent in claims expenses. Selling over the internet platforms and OMNI channels allows for cutting delivery cost and achieving

better communication with customers through social media, emails, mobile apps, and e-portals

2. Better risk management, InsurTech model enables better risk management and helps in preventing insured events when it comes to driving assistance or health and lifestyle monitoring.

3. Better customer experience, the use of OMNI channels (mobile apps and social networks integration) enables better understanding of a customer and ensures 24/7 availability of the systems. Thus, analyzing customer trends and taking immediate decisions becomes easier

4. Move from reactive to proactive decision-making, Insurance is a data-driven business that rely on many factors and statistics about customers and their trends. However, the industry still depends on historical rather than real-time data. Various IOT devices such as wearables and sensors are yet to reach their potential of online data capturing and remote personalization.

5. Insurers become more secured against scammers, as APIs and mobile channels shorten the time it takes for fraud detection and makes the assessment process harder, especially when applying artificial intelligence.

InsurTech Risks Management

The increasing number of threats warrants an evolution of insurers' risk management skills to allow policy holders to cope with threats and educate them about loss control and prevention.

Privacy and security are priority concerns for all companies. Customers continue to distrust their insurer's access to private data due to security and hacking concerns even when incentivized with discounted premiums. Insurers will need to earn their customers' trust allowing for enhanced levels of security procedures to be applied.

The main concern is with the storage, application and protection of the data collected. Data privacy international laws such as (GDPR) will strive to protect this data. More problems arise when collected data is used to evaluate consumers, insurers will become capable of refusing to provide specific services or cover based on the data collected from IoT and other data technologies. Hence,

regulators will have to moderate the use of this data in underwriting to ensure the fair treatment of customers.

In new evolving technologies like "Blockchain", the related risks are not yet fully understood the regulation of this complex structure is difficult as the database is not stored in any single location, but rather across multiple jurisdictions and chains. This remains a concern amongst global financial regulators. If blockchain is to be employed in the management of insurance policies, regulators will need to be totally satisfied such that multiple-jurisdictions structures are not harmed.

Finding the right CIS (Core Insurance System):

Selecting the right core system is critical for insurers. The implementation requires a huge investment and resources, it often puts the organization on hold for months and sometimes years.

Choosing the wrong supplier can seriously prevent the continuation of the business. which is why insurers go for extensive POC's & RFP's 'Proof of Concepts & Requests for Proposals'. The process depletes time and resources for all stakeholders, and unfortunately ends with limited certainty.

Below are some of the evaluation key factors and questions which will allow the companies to future-proof their operations when selecting the Vendor for a new core insurance system:

- Does the vendor have a support team in each region in which the company will be doing business over its distributed jurisdictions?
- Does the vendor have resources to invest in future innovative technologies &processes to adapt to the new digital transformation changes?
- What is the initial licensing and implementation costs and for how long will they be valid?
- Will the agreement with the vendor cover all the future integrations, modifications, and security breaches?
- How easy will it be for the company to obtain future technical assistance and CR's (change request)?

- How easily can the company train its users and IT administration staff? And how frequently?
- Does the solution support current and future needs?
- Is there a need to hire a third party project management consultant to help smooth the transformation and guarantee expected deliverables?

According to a recent local study, below are some of the most reputable CIS in the middle east market:

Local Initiatives and riders

Looking at the bright side, listed below are some local initiatives that are progressing to help thriving the InsurTech industry in Jordan market:

- JIF (Jordan Insurance Federation)

This association cooperates with the Insurance Commission to represent the Insurance companies in Jordan, they are the leaders in this sector and are applying and developing many InsurTech initiatives.

They sponsor and promotes International events that encourage and award insurance companies to keep developing their digital transformation strategies and adaptation such as this Conference in Aqaba

- Hakeem Auto e-claiming systems

  In October 2009, Electronic Health Solutions (EHS) launched its flagship program, Hakeem, the first national initiative of its kind, to automate the public healthcare sector in Jordan, under the patronage of his Majesty King Abdullah II Bin Al Hussein. The program aims to facilitate efficient, high-quality healthcare in the Kingdom through the nationwide implementation of an Electronic Health Record solution (EHR). In effect, physicians, pharmacists, medical technologists and other clinicians can electronically access medical records of patients within participating health facilities in Jordan simply by entering the patient's national ID number through a shared platform.

- e-wallets and e-payment gateways

  eFAWATEERcom is the most well-established e-payment platform in Jordan, it's an electronic bill presentment and payment system that is owned by the Central Bank of Jordan and aims at providing this service to its customers through different banking & Insurance channels and payment service providers. All new online purchasing that are bring developed are expected to integrate with this platform

  The E-wallet market is becoming very mature in Jordan, it's led by (Zain-cash and Dinarak), providing another option for online payments and purchasing in addition to eFAWATEERcom.

- Some local initiatives are encouraging Insurance companies to apply automatic integration with the governmental sector, the Ministry of Tourism for example is instructing insurance companies to auto transfer new insurance policies for restaurants and hotels digitally to the ministry system.

- Some third-party vendors are offering standalone PBM solutions (Pharmacy Benefit Manager; an intermediary between insurers and Pharmacies to automate the medicine purchase procedures)

- Startups and entrepreneurs:
  As per Gartner, almost $6 billion has been invested globally in insurance technology startups (InsurTechs) in the last five years, particularly in digital customer engagement, mobile insurance management and analytics. In Australia, a new InsurTech industry association was launched last month, dedicated to the advancement of insurance innovation and startups.

InsurTech and social responsibility

InsurTech can help the insurance industry with supporting the community better than ever before. New technologies are playing bigger part taking away the existing obstacles that the community is facing.

There are already various areas where InsurTech innovations are applying these new technologies resulting in extensive social and economic impacts, below are three examples:

1- Financial impact:

There are millions of low-income families in the world, living on less than $3 a day. These families mainly depend on agricultural activities to survive, their financial situation is unsustainable and leads to a deterioration in physical health.

Until recently, it was difficult for medical insurers to offer protection plans for these low-income families. The geographical distribution makes it too costly to serve this population. And it's known that risk assessment is usually based on formal information, which is not available in their case.

But due to technological advancements, this is beginning to change. Thanks to all sorts of digital innovation there are opportunities to make insurance more accessible to these underpaid populations using revamped business models. The spread of mobile phones in these unreachable areas and the use of online platforms are essential in these new business models to reach these customers in a cost-efficient way.

2- Decreased health costs and improving insurer services with aged populations:

Everyone agrees that in most developed markets current health systems are not sustainable due to the rapidly-ageing population and rising healthcare insurance costs. Traditionally, healthcare delivery has been focused on face-to-face interactions, resulting in high costs. But, connecting IOT and healthcare devices allow healthcare and insurance providers to extend their reach and interactions with patients remotely. Sharing data among all parties and the optimal use of this data could allow healthcare firms to remotely monitor patient which can change the business model completely by keeping medical insurance efficient, affordable and accessible everywhere.

For example, Chunyu Doctor is the largest online telemedicine platform in China with more than 100 million registered users. It's a Chinese smartphone app that lets users remotely consult with physicians to diagnose their illnesses, Chunyu offers a built-in medical decision rules that can automatically alert the medical provide if the patient appears to be at risk in their health status. The use of these medical decision rules not only helps provide efficient and high-quality healthcare, but also decreases costs for insurers as these immediate notifications can help to prevent complications of the patient's condition through immediate medication and help.

3- Elimination of the damage caused by natural disasters

Last year, insurers had to pay billions of dollars to cover losses from natural disasters, hurricanes and floods, according to Munich Re. Including uninsured damage the total loss amounted to $330 billion. Typically, the role of insurers is limited to be the payer after the catastrophe has occurred. But the available data on disasters and the specific risk management expertise and new predicting technologies, the insurers will play a much more important role in reducing the vulnerability to disaster risk of every client segment they serve and other stakeholders as well. This may vary from using insurance data (Big data science), the right knowledge and tools to enhance prediction before a disaster happens, to offering the needed warnings before the disaster occurs and the right protection during the disaster. This of course required a lot of collaboration between all stakeholders including the governmental, healthcare and medical insurance sectors.

Finally, we understand that both the structure of the insurance world and the external factors influencing this sector won't allow the insurance companies to prevent InsurTech from moving forward and unleash their potentials to become the main Influencer in this field.

Therefore; <u>we must disrupt ourselves before someone else does</u>!

I hope that I was able to clarify and summarize what Digital Transformation in the insurance world (InsurTech) looks like for both Technical and non-Technical audience.

Thank you…