Regtech and Its Impacts

Understanding more about the upcoming technology and its impacts

What is Regtech all about?

Regtech (Regulation Technology) is the management of regulatory processes within the financial industry through technology.[1] The main functions of regtech include regulatory monitoring reporting, and compliance (Frankenfield, 2019). Through this, the businesses can comply with regulations and carry out their operations more efficiently and cost-effectively. It comprises of a group of companies that solve problems that arise due to automation and use of big data and machine learning technology. It is used to identify any irregularities that might occur in real-time like while making payments online. If an outlier is identified, then it is analysed to check for fraudulence.

Regtech companies often use cloud computing, which is a low-cost technology used for sharing data easily and securely, to collaborate with financial institutions.[2] It can then combine huge data for the clients and predict the areas of potential risk based on past trends. Increasing levels of regulations, data-base and need for reporting has led to Regtech becoming more important in the recent present.
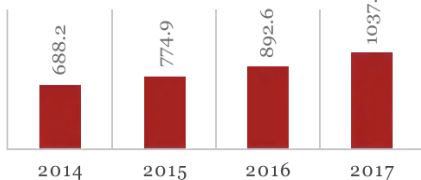

Figure 1: RegTech Investment over the years

The market size of Regtech is swelling at a CAGR of 23.5% and is expected to grow to $12.3 billion by 2023, says a report from Markets and Markets.[3] The key drivers which are influencing the growth of Regtech Market are include rising costs of compliance, adoption of a regulatory sandbox, and greater accessibility to Software-as-a-Service (SaaS)-based offerings. The global Regtech industry attracted $448 million of the investment in 2017 Q4. This was more than double the amount invested in the previous quarter and was equivalent to 43.2% of the total capital invested in the whole year. The industry had a year-on-year growth rate of 102% in 2017.

This enormous rise in investment and growth in the industry for the Regtech companies is because businesses have to cope with increasing levels of regulation that have come into force between 2012 and 2017. These regulations include Anti Money Laundering, Know Your Customer, the second Markets in Financial Instruments Directive (MiFID II), Basel III, the Second Payment Services Directive (PSD2). As the number of regulations is expected to increase in the future, this industry is expected to further grow.

Looking at a case study of New Zealand, the country has spent several years applying the customer experience mindset to improve the G-B experience in the country and reduce compliance costs. The project began with various surveys to identify the areas of dissatisfaction for businesses. These included tax compliance and tax filing, transparency in the patent filing process, difficulty in interacting with multiple organisations and requirements to provide the same information multiple times.

Figure 2: Various tools and their application by the regulators

Even though the project is still going on, it has already achieved some impressive results. The median annual time that businesses spent on meeting their tax obligations reduced by 25%. The compliance cost of dealing with government has reduced by 7% in New Zealand. The Australian Taxation Office created a chatbot named Alex in another effort to improve the customer experience. Alex uses natural language processing and conversational dialogue to answer various tax-related questions from website visitors. Alex, which was launched in 2016, has answered more than a million inquiries with a resolution rate of 80% —significantly higher than the industry benchmark of 65%. Another approach that can be implemented is the risk-weighted approach to regulation. This approach would reduce the burden of compliance on entities that have a low risk of non-compliance. In exchange for providing more data, the companies will get through a more streamlined process.

What are the challenges faced by companies in Regtech Industry?

1. Data Woes: One of the biggest challenges faces by the Regtech industry is data.[4] Efficient results in case of automation can only be produced if the data that has been input it clean, and unbiased, else the results can be off-track Not all data can be used, and it must be processed to get the desired results.

2. Human Resource Requirements: A lot of human resources is required for large companies to improve the quality of data. About 10-15% of the current workforce is dedicated to compliance activities. With the increasing amount of data and compliance activities in the future, the human resource requirement will also continue to increase manifold.

3. Standardization of data: Even though data has been replacing documents, there are no auditors to regulate data as in the case of documents. Moving a step towards standardization, regulators around the world can refer to Standard Business Reporting (SBR) in Australia. The Australian government has made noteworthy efforts to provide a list of data fields and taxonomy for reporting to multiple agencies, while simultaneously working with the software industry to get software built using these data fields. Because of this effort, it has resulted in increased automation, savings of millions of dollars annually, and a data-centric compliance model.

4. Intensified market competition: There are a number of large management consultancy firms that provide expensive solutions to help companies comply and data providers reluctant to provide post-trade transparency data. This competition from large consultancy firms and the unwillingness of data providers to comply creates issues for the Regtech companies.

5. Cybersecurity and privacy: Although cybersecurity is not a new challenge, as new regulations demand increased levels of security around customer data, rules regarding privacy is of greater importance now. Firms must adjust how they manage any customer data, and how they use it for their own commercial purposes. They must also take additional steps to ensure that they are offering the appropriate training for clients to meet best practice on data requirements.

How can we characterise Regtech?

Regtech is characterized by speed, agility, integration, and analytics. It is agile as it is used to quickly declutter and organize large data through extract, transform, load technologies (ETL). It is fast as reports can be generated and configured very quickly. It takes a short time to get the solution and running it, showcasing its characteristics of integration. It also uses analytical tools to mine for important data and use it where relevant. It operates in various financial and regulatory spheres. Regtech will be beneficial to both the corporations striving to be compliant and to the organizations that are tasked with supervising the meeting of requirements. It is imperative to develop robust Fintech solutions with Regtech innovation for sustainable financial products with secure Automation of Regulatory Process. Regtech enables Financial Institutions to have internal control and accountability for risk data, compliance assessment, analysis and effective policy and procedure management.

What are the main technologies supporting Regtech?

It is imperative to develop robust Fintech solutions with Regtech innovation for sustainable financial products with security. Regtech is supported by multiple sets of technologies including biometrics, blockchains, data analytics. These technologies are then used to supplement processes in onboarding, monitoring, detection, and reporting.

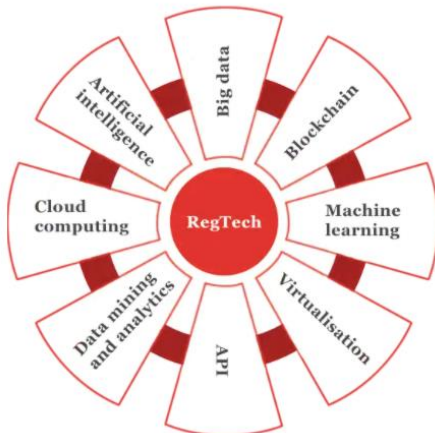The various areas of technologies commonly used are:

Figure 3: Various technologies used in Regtech

The key difference between Traditional solution and Regtech?

The main and most important difference is agility. The main job of the Regtech providers is to provide clarity and efficiency in the interpretation of regulations, management of compliances and automation of reporting. It helps the companies understand not only the explicit meanings of regulations.

What are the uses of Regtech technology?

Regtech helps Financial Institution to better comply with regulations more effectively and efficiently. They are constantly working with new and evolving regulations and understanding what-if situations, helping their users in the following areas:

1 Remain compliant with regulations
2 Simplifies data management and reporting
3 Real time reporting
4 Data analytics and decision making
5 Regulations reframing
6 Fraud and risk management

Figure 4: Uses of Regtech Technology

Real time reporting through Regtech?

Regtech has the technology and dynamics to completely change the efforts in compliance to help do real time analysis of the data for various financial institutions.[5] Advanced analytics allows Regtech to not only perform basic analysis of the data but also in various other ways like scenario analysis, regulatory ecosystem analysis, and real time user engagement analysis across the globe, helping them to identify risks, issues and opportunities.

Another analysis done by Regtech includes predictive analysis.[6] This can help identify the root cause of a regulatory breach. Regtech, for the first time, has been able to identify 'one to many relationships', that is how by one control several regulations and compliances can be met or a single regulatory requires various controls. It also provides the senior executives of the company opportunities to implement new capabilities which are designed to leverage existing systems and data to produce regulatory data and reporting in a cost-effective, flexible and timely manner without taking the risk of replacing/updating legacy systems.

The traditional methods are robust and are designed to deliver solutions for specified and 'locked down' requirements, these solutions are often inflexible, and require development or changes in configuration or enhancements or changes.[7] Many Regtech companies are using agility and exploring the ways in which advanced analytics and assessment techniques can 'learn' and support in accelerating the assessment of new and emerging regulations based on what previously has been interpreted.

Another defining feature of Regtech is Cloud-based solutions. This means that data is remotely maintained, managed, and backed up. The major advantages of using cloud-based solutions are shown in the figure:

Figure 5: Advantages of using cloud-based solutions

Who are the major players in Regtech?

The demand for regulatory technology in the fintech sector is so popular, in fact, that Regtech is projected to become a nearly $120 billion industry by 2020.[8] Major Regtech companies currently include Chainalysis (US), ComplyAdvantage (UK), Ascent Regtech (US), Forter, Hummingbird, Trunomi, Ayasdi, IdentiyMind (US), Elliptic, and BehavioSec.[9]

Various platforms like Hadoop, Tableau, and Pentaho organise data and allow making a customised report, which makes it flexible enough to meet various regulatory requirements over time. Also, these platforms enable analytics to be applied to big data. Another app which is based in London called FundApps is a great example of a Regtech company. The CEO of the company had two very simple aims, that is making it cloud-based and maintaining a team of compliance experts who can update the platform as new regulations emerge.

How can governments use Regtech?

Regtech can be used to improve the government and business experience. By adopting the customer experience mindset, government can simplify the compliance process, which will boost the voluntary compliance rate in the country.
to further predict areas of risk and compliance issues. It is also very useful in risk modelling. Advancement in areas like cloud computing and artificial intelligence a further enhance the usefulness of Regtech.

How can Regtech reduce fraud?

Regtech provides a solution to reduce fraud without hiring an additional number of inspectors. Many regulatory companies have started using AI and analytics to identify fraud.

For example, in the United States, US Securities and Exchange Commission (SEC) uses machine learning to identify patterns in the text of SEC filings. These patterns can be compared to past examination outcomes to find areas of concern in investment manager filings. SEC claims these techniques are five times more effective than the random selection at finding language that merits referral to enforcement. Similarly, the Danish Business authority also uses AI to identify fraud and highlight mistakes in financial statements. It conducts comprehensive analysis of more than 23,000 financial documents every year using machine learning.

What should be done now?

Regtech has a very promising future, with a lot of opportunities for development of new technology to automate and enable more efficient management of regulations and control, which will help bring clarity and control to an area of the businesses that are very important but time-consuming and redundant.

As we move forward with Regtech, companies must ensure that they make the most of their data and constantly conduct research which will enable them to understand their existing regulatory technology. They must also leverage their existing technology investment and not discount the capabilities of powerful solutions. They should understand their upcoming regulatory data and reporting requirements in line with the next set of regulations that will affect their company. Finally, they must embrace technology and plan for their future.

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