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ORIGIN AND DEFINITION OF REGTECH

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Abstract

The aim of the paper is to lift the veil of new banking regulation framework. By a bibliometric analysis, we draw conclusions for definition and description of modern regulation techniques. The costs and benefits of RegTech are derived.

The results of the article conclude existence of umbrella of definitions for RegTech. Competent authorities and international organisations introduced the core definitions. Banking regulation is adapting to the New reality through RegTech.

Keywords: *banking regulation, bibliometric analysis, costs and benefits, SSRN*
JEL Codes: *E58, G28, L51*

Introduction

The public interest to measures after the onset of global financial crisis, does not meet to the quantity of articles for technological changes in banking regulation. The alignment of society's views on the transfer of financial burden on taxpayers and the need of a new regulation framework does not lead to a coincidence of authors' views regarding essence of regulation techniques (RegTech). Like other topical issues, such as cybersecurity and eco trends, RegTech has a complex origin – new financial services (FinTech) and new regulatory framework.

Definition for RegTech

Although the term RegTech carries a "beautiful vision", it not has a commonly accepted definition (Yang and Tsang, 2018). We will try to pool definitions for RegTech.

In carrying out an analysis of the diversity of RegTech definitions, we used the SSRN database and identified 15 articles that contain "RegTech" in their headlines for period 2015–2019. Unlike another similar term, FinTech, RegTech is less commonly used in the headlines and more commonly used in keywords to the article, which can be

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explained by its newer origins and closer application, as well as the recommendations of reviewers and publisher requirements (Filipova, 2010).

The carried out bibliometric analysis determines a limited use of introduced definitions in one third of the articles. In 10 out of 15 articles were used definitions introduced by authors themselves. The most commonly used definitions are introduces by Financial Conduct Authority (London)[1] (in three articles), while three articles use more than one definition – by Financial Conduct Authority (London), Banco Bilbao Vizcaya Argentaria (Madrid)[2] and Delloite[3]; by Financial Conduct Authority (London), World Bank (Washington, D.C.)[4] and Bank for International Settlements (Basel)[5]; by Financial Conduct Authority (London), UK Government Chief Scientific Adviser (London)[6] and Financial Stability Board (Basel)[7]. There is one article using the definition by Investopedia[8].

The origin of RegTech is initially linked to the new regulation framework due to the global financial crisis, i.e. after 2008 (Madgerova and Kyurova, 2014). The authors' definitions point to another beginning point – from the 1960s with the introduction of traveler checks and later with the introduction of ATMs (Nedelcheva, 2017). In financial history, the largest user of automated models are rating agencies (Tsvetanova, 2014).

The new element in RegTech is the use of IT for compliance with laws and regulation requirements (Yuleva, 2019). The application of IT as a tool in relationships between banks and banking regulators is due to new IT fields such as analysis techniques for large data and artificial intelligence (Stoimenova, Kirilov and Zaykova, 2019). The use of IT in regulating is a step forward in the interactive evolution of finance and

[1] RegTech is a sub-set of FinTech that focuses on technologies that may facilitate the delivery of regulatory requirements more efficiently and effectively than existing capabilities (Financial Conduct Authority, 2016).

[2] RegTech is the automation of manual processes and the links between steps in analytical/reporting processes (BBVA, 2016).

[3] In the short term, RegTech will help firms to automate the more mundane compliance tasks and reduce operational risks associated with meeting compliance and reporting obligations (Deloitte, 2016).

[4] RegTech is technology used in the context of regulatory monitoring, reporting and compliance to benefit the finance industry. RegTech companies aim on finding solutions that address regulatory compliance challenges through technological innovation. (World Bank, 2017).

[5] RegTech to be innovative technologies that can help financial institutions comply with regulatory requirements and pursue regulatory objectives (Bank for International Settlements, 2017).

[6] RegTech is technologies that can be applied to in regulation, typically to improve efficiency and transparency in regulatory systems (UK Government Chief Scientific Advisers, 2015).

[7] RegTech is any range of applications of FinTech for regulatory and compliance requirements and reporting by regulated financial institutions (Financial Stability Board, 2017).

[8] RegTech is the management of regulatory processes within the financial industry through technology. The main functions of RegTech include regulatory monitoring, reporting, and compliance (Investopedia, 2020).

information technology (Filipova and Yuleva, 2018). The biggest change is made in banking regulators to follow new developments in the banking sector and, above all, in offering new services and tools (Filipova and Nedelcheva, 2020). The digital transformation of the competent authorities can be seen as a synonym for RegTech (Stankovska, Dimitrieska and Stamevska, 2018).

Features of articles for RegTech definition

– the first article for RegTech from 2015 uses the author’s own definition, and from 2016, definitions by organizations begin to be used;

– most definitions of RegTech are from 2015 and are most commonly cited;

– definitions for RegTech are used in articles by more than one author;

– articles for RegTech have high volume – over 30 pages;

– the dynamics are in the nouns of the individual authors for defining RegTech

– definitions for RegTech are applied to investment banks only;

– in defining RegTech, some authors discuss reducing costs, others – for reducing information asymmetry;

– the authors’ views on the nature of RegTech remain at national or regional level in line to regulation requirements;

– there are no definitions by auditors and rating agencies, as well as by competent authorities.

Lifting the veil of RegTech

Reasons for origin of RegTech

– Ever-increasing regulatory change: compliance officers express regulatory fatigue and overload in the face of snowballing regulations (English Hammond, 2015).

– Regulatory matters are consuming disproportionate amounts of board time, from correcting non-compliance and preventing further sanctions to implementing structural changes to meet new rules (English Hammond, 2015).

– Banks globally have paid USD 321 billion in fines since 2008 for an abundance of regulatory failings from money laundering to market manipulation and terrorist financing (Finch, 2017).

– The cost of managing the regulatory environment is more than 10% of all operational spending of major banks, i.e. around USD 270 billion per year (Citigroup, 2017).

– 61 percent of a compliance officer’s time is spent on “other compliance tasks” such as management of regulatory implementation projects (Thomson Reuters, 2016).

Reasons for applying of RegTech

– Financial innovations are invading the "complex and arcane world" of regulatory compliance (Roberts, 2016).

– Skills shortages with regard to regulatory and compliance staff, particularly software, analytics and regulatory/compliance "talent" (UK Government Chief Scientific Adviser, 2015).

– The pendulum needs to begin to swing back at least in part towards the business itself to allow for business improvement and development rather than having all change capacity and capability taken up by regulatory issues (Hammond, 2016).

– Operating costs spent on compliance increased by over 60% for retail and corporate banks compared to pre-crisis spending levels (Deloitte, 2017).

Description of RegTech

RegTech's innovativeness as well as the large number of expectations of accrued problems can explain the variety of its description:

– an answers to the risks and challenges existing in the financial industry;

– an application of new technologies for regulatory compliance;

– an aspect of fundamental changes;

– a further step in the interactive evolution of finance and information technology;

– a game-changer, given the revolutionary nature of current IT developments;

– a great opportunity for regulation authorities;

– a means to deploy current and emerging technology solutions to reduce the increasing costs of compliance for companies and to improve internal reporting and supervisory capacity for regulators;

– a new approach at the nexus of data, digital identity, and regulation;

– a new concept in financial risk management;

– a response to the huge costs of complying with new institutional demands by regulators and policy makers;

– a sequenced reform that could benefit regulators, industry, and entrepreneurs in the financial sector and other industries;

– a technological solution to facilitate compliance with and monitoring of regulatory requirements;

– a tool that enables companies to automate ordinary compliance tasks.

Benefits of RegTech

Regardless of the material nature of RegTech, most definitions point to expectations for intangible benefits, which are difficult to evaluate:

Financial benefits:

– to decreases claims for damages;
– to frees a capital for more productive uses;
– to offers massive cost savings.

Non-financial benefits:

– to allows integration of big data into an improved compliance process;
– to better access (and assess) data, as well as constantly allowing its reorganization;
– to decreases the overall amount of manual paperwork;
– to enhances internal reporting processes;
– to ensures that banks are up to date with the latest regulatory changes;
– to facilitates compliance with and monitoring of regulatory requirements;
– to helps not only in the set-up, but also in the governance and regulation of a credit register;
– to implements regulations;
– to improves regulatory processes and related compliance;
– to improves quality and efficiency of regulation;
– to improves quality of the service for the client;
– to increases competition by removing a barrier to entry;
– to increases efficiency;
– to increases market integrity;
– to promotes good corporate practices;
– to reduces information asymmetries across business units and provide those in the organization performing data mining and analytics with accurate and reliable data that can be leveraged to correctly automate many operational decisions;
– to reduces risk in the system;
– to reduces risk of administrative or criminal sanctions;
– to reduces risk of human errors;
– to reduces the chances that criminals abuse the financial system for money laundering purposes;
– to reduces the need for human intervention in ensuring compliance with the law.

RegTech vs FinTech

International organizations defined RegTech as a subcategory of FinTech. A frequently used explanation for such an assertion is the dynamics of the two categories in three stages of historical development.

There are number of authors who define RegTech as separate phenomenon:

– FinTech describes the evolution of banks while RegTech – the revolutionary adaptation of banking relationships to the new reality. FinTech's dynamics can describe the emergence of crisis conditions by offering new financial services while RegTech – banking measures to reduce risk of regulation fines and court cases.

– Another difference are driving forces for development (Nedeltchev, 2002). FinTech's rapid growth is driven by a number of startups and outsourced IT firms outside the scope of regulation. The reported organic growth of FinTech's application can be explained by institutional demand to preserve competitiveness by offering new financial services. At the other extreme is RegTech, which arises due to regulation requirements and increased compliance costs, i.e. top-down (Institute of International Finance, 2015) and outside-inwards. The directions for RegTech's emergence result in resistance in its application and changes in organizational structures.

– FinTech has universal applicability and is of global nature. In contrast, RegTech has the potential to be applied in a limited number of countries and regions. Our point of view is most relevant to global banking groups and can explain their great interest in RegTech.

– The dynamics of RegTech is reflected in new fields. For example, the introduction of technology solutions for regulators (RegTech2) and supervisors (SupTech). The explanation for this dynamics is the adaptation of the competent authorities to digitization and globalization of banking as well as a response to the public interest and stakeholders for a sustainable economic growth.

– FinTech is focused on business processes for offering new services and generating profits. Each bank is unique in these processes, given the available resources and their efficient use. While with the other phenomenon, RegTech, the processes are focused on relationships with competent authorities to reduce the risk of sanctions and the imposition of fines. Individual banks have similar interest when implementing RegTech, given the convergence of national legislations for a stable banking system.

Ever since its origin, the term „RegTech" has been defined as a subcategory of FinTech, which fact largely determines the diversity and dynamics of their definitions. While for FinTech the definitions are relatively similar and there is a consensus about the time of occurrence and the scope of its application, the definitions for RegTech are determine by a number of factors (nationality; profession; number of authors):

– The nationality of the authors, as well as the journals, greatly influences the definitions. In countries where competent authorities have ruled on the nature of RegTech, a low level of diversity is laid down, as in most cases, the authority's definition is quoted letter by letter which reduces the contribution of the particular author.

– The professional affiliation of the authors also leads to a variety of definitions for RegTech. Lawyers have interest to the origin of the term „RegTech" given their point of view for a dynamics only in regulation policy, but not in the financial system. According to their view, RegTech is more in the competence of regulators than financial intermediaries are. Another part of the authors, the financiers, separated RegTech as a new phenomenon or subcategory of FinTech. These views exist more frequently in recent articles. According to these authors, RegTech's subordination to FinTech reduces the potential of regulation relationships and transform it to a tool of efficiency where is lost the evolution of the financial system and the lessons from the global financial crisis. It is common practice for financiers to use the definitions of bank entities leading in the research fields – for example, the Banco Bilbao Vizcaya Argentaria, Madrid and the Financial Stability Board. The third group of definitions depending on the profession is that of business administration experts. Each author has his own definition for RegTech and the variety is highest. Their definitions should be considered depending on the organizational structure of the banking group and the status of the author. The views gravitate around definition of Investopedia.

– The number of authors has an impact on RegTech's definitions. In articles with more than one author is quoted a definition which has been imposed by previous authors or development periods. In most cases, these are definitions by international organizations. While in articles by one author, the definitions are individual and create discussions in the scientific fields.

Conclusion

Perhaps the term "RegTech" is new, but RegTech systems have existed for years. Analyzes for the full scope of RegTech definitions have failed due to its dimensions. The nexus of interests is reflect in an umbrella of definitions. In the analysis of the definitions, it was found that the basis for introducing RegTech – stability of the banking system, remains in the background.

We define RegTech as a new generation of relationship banks-banking regulation. In order to continue financial innovations, regulation should be adapted as a mirror image of banking services. The new relationship is a form of freedom of movement – data from the periphery to the center, i.e. the responsibilities between the home country and host country are balanced. We can assume that the new relationship is the homepage of Basel 4. Adopting the idea of the new relationship will show whether the regulation authorities are ready for the New Reality.

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