

Chapter 1

Financial Technologies: Concept, Application, and Challenges

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ABSTRACT

This chapter explores the concept of Financial Technology (FinTech) and how it has progressed to where it is today. This understanding is further supplemented with the applications of FinTech and the challenges it has to tackle in order to continue to evolve in a favourable manner. Being a key player in the FinTech sector, this chapter also delves into the concept of blockchain technology (BCT) to comprehend how it holds the power to impact society through revolutionary applications. As the world heralds an era of FinTech, this chapter aims to give insights on the potential of FinTech and how it cross borders to change the lives of many.

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THE CONCEPT OF FINTECH

Based on Google Trends (2018), the search term 'FinTech' has grown worldwide by more than 5000% over the past five years, gaining it the status of a 'Breakout' query. FinTech, which denotes 'Financial Technology', is the intertwinement between technological innovation and finance in which it improves the delivery of financial and banking services through the application of Information Technology (IT) (Gai, Qiu, & Sun, 2018; Ozili, 2018). In other words, FinTech is an industry consisting of companies that make financial systems and the delivery of financial services more efficient through the use of technology (CB Insights, 2015).

The growing interest in FinTech is not surprising as not only is it shifting paradigms in many areas of the finance industry, but it is also transforming everyday lives as a third of consumers worldwide use FinTech services regularly, with 84% of them aware of their use of FinTech (Ernest & Young FinTech Global Network, 2017). Examples of FinTech application in everyday life include easy payment services such as Paypal, mobile payment services like Apple Pay or simply purchasing items online via credit card.

With this, it is clear that FinTech is no longer a hype but has become a major gamechanger in the field of finance, with 83% of financial firms believing that FinTech start-ups are posing a threat to various aspects of their business (PwC, 2016). This leads to an inevitable need in financial institutions to re-evaluate their existing business models and embrace FinTech in order to remain relevant in this field while gaining a competitive edge (Lee & Shin, 2018) as the emergence of cloud computing, open software, easier access to computing power and data servers mean that even small, innovative technology start-ups can quickly turn their ideas into marketable products.

The global FinTech sector continues to thrive as it raised \$41.7 billion in investments during first half of 2018, which surpasses the record total for the whole of 2017 (FinTech Global, 2018). Investments in FinTech are in an all-time high compared to previous years as it was reported that global investment in FinTech companies totaled \$19.1 billion in 2015, and it was \$13.8 billion in the United States alone (Ancrì, 2016).

Much like how the saying goes 'if you can't beat them, join them', much of this growth in investment comes from traditional financial institutions investing in external FinTech start-ups in the form of joint ventures as well as from their own internal FinTech projects (Lee & Shin, 2018). The banks have

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