Chapter 3
An Overview of International Fintech Instruments Using Innovation Diffusion Theory Adoption Strategies

Ebru Saygili
Yasar University, Turkey

Tuncay Ercan
Yasar University, Turkey

ABSTRACT

The aim of this chapter is to evaluate and predict the future of international fintech instruments in the domain of innovation diffusion theory (IDT) adoption strategies. Further, the consequences of the new payments system directive (PSD2) in Europe and blockchain applications are discussed. For instance, money transfer and payments have the highest rate of adoption (ROA) while insurance services have the highest speed of growing ROA due to relative advantages, high compatibility and trialability levels, and low level of complexity and uncertainty. Cross country comparisons include descriptive statistics about fintech deal value and volume, innovation rank, B2C commerce market, ROA and internet penetration. Germany is the only country listed in all of the top 10 ranking lists, followed by the U.S., the U.K., and France. Also, China, India, and Canada have distinguished success in terms of fintech indicators while the growth in Japan is expected to be slow. Accordingly, ROA in five emerging markets is much higher than some of the developed countries which can be explained by the Cancian Theory.

INTRODUCTION

Financial technologies, such as ATMs, POS machines, payment and transaction systems, have been used since the 1960s. New financial technologies (fintech) have led to the growth of decentralized financial solutions and innovative new business startups. Currently, financial and non-financial businesses and individuals are trying to keep up with the accelerating number of fintech innovations. While new instruments are being formed, leading to further innovations, some existing business models are expected to disappear. Initial research indicates that some fintech innovations are challenged by rapid growth while the future of others remains uncertain. This chapter aims to evaluate fintech instruments in terms of innovation diffusion theory (IDT) strategies, developed by Rogers (1995) summarized in Figure 1.

Fintech startups are at the center of the fintech ecosystem (Lee and Shin, 2018). Based on prior research (Ernest and Young, 2017; Lee and Shin, 2018, CB Insights, 2018), the different fintech business models operating in various hubs are money transfer and payment, financial planning, savings and investments, borrowing, insurance, blockchain/crypto and regulation technologies (regtech). The chapter aims to provide a theoretical discussion of why the rate of adoption (ROA) of different fintech business models in a social system varies, and why the ROA of a single fintech instrument varies across different social systems. This study helps to understand the indicators related to ROA to predict the future of fintech instruments. Further discussions about block-chain applications and a revised directive on payment service (PSD2) in Europe are included. The research stream about fintech business models is accelerating so another aim of this study is to provide new research areas related to this.

Rogers (1962) in his book which holds the second most cited second book in the social sciences (blogs.lse.ac.uk, 2016), argued that innovation diffusion was a general process displaying patterns and regularities, determined by the adopters, places and/or cultures. Diffusion is a process where innovation is communicated through certain channels over time among the members of a social system (Rogers, 1995). This requires communication to exchange messages and information about a new idea to reduce uncertainty. The results of the invention, diffusion and adoption of innovation lead to social change. In the first part of the chapter, the IDT framework is summarized in five stages, adapted from Rogers' book "Diffusion of Innovations". The stages are explained with current examples from the international fintech instruments. The second part of the chapter evaluates and discusses the developments in the international fintech industry using IDT components. The discussion includes adoption rates of various innovative technologies, cross country comparisons, new payments system directive in Europe and blockchain applications.

FINTECH IMPLEMENTATIONS USING IDT ADOPTION STRATEGIES

IDT, developed by Rogers, covers a wide range of issues about the adoption strategies of innovations. This process is summarized in five stages in Figure 1. The stages, variables, assumptions, and explanations are adapted from his book "Diffusion of Innovations" to discuss different fintech instruments. Accordingly, an innovation is an idea, practice or object that is perceived as new by an individual or other units of adoption. Innovation development process starts with recognizing a problem or need by the innovator and ends with adoption of a commercial product to satisfy that need by the users (adopters). During the diffusion, the variables determining the rate of adoption affects the innovation decision process of the

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/an-overview-of-international-fintech-instruments-using-innovation-diffusion-theory-adoption-strategies/260362

Related Content

Non-Financial Reporting Initiatives
 (2018). *Accountancy and the Changing Landscape of Integrated Reporting (pp. 10-15).*
www.irma-international.org/chapter/non-financial-reporting-initiatives/195384

Financial Distress and Bankruptcy Costs
Ben Jabeur Sami (2015). *Banking, Finance, and Accounting: Concepts, Methodologies, Tools, and Applications (pp. 236-246).*
www.irma-international.org/chapter/financial-distress-and-bankruptcy-costs/115332

Correlates of Budgetary Participation in the Nigerian Public Sector
Oyewo Babajide Michael (2015). *International Journal of Corporate Finance and Accounting (pp. 25-49).*
www.irma-international.org/article/correlates-of-budgetary-participation-in-the-nigerian-public-sector/134862

The Impact of Firm Specific Factors on Capital Structure: Empirical Evidence from Turkey
Mehtap Öner (2014). *International Journal of Corporate Finance and Accounting (pp. 1-21).*
www.irma-international.org/article/the-impact-of-firm-specific-factors-on-capital-structure/119399

Determinants of IFRS Compliance by Canadian Companies
Gaurav Kumarand Jagjit S. Saini (2016). *International Journal of Corporate Finance and Accounting (pp. 42-57).*
www.irma-international.org/article/determinants-of-ifrs-compliance-by-canadian-companies/174420