

# Fintech & The Financial Ecosystem: Model for Sustainability

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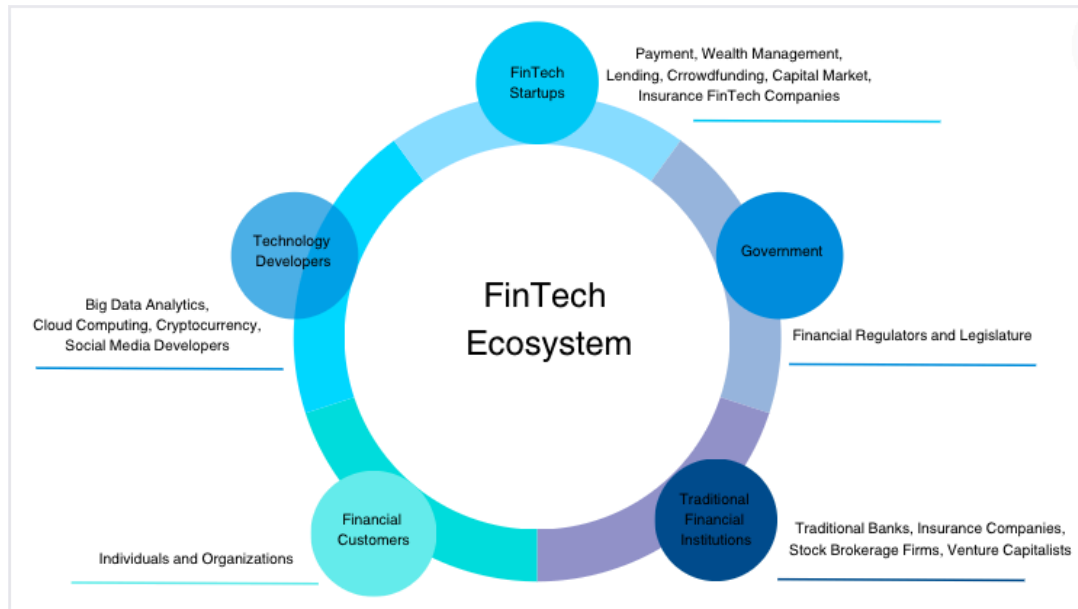
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## Extended abstract

This paper seeks to analyze the emergence of the financial technology industry as an ecosystem that provides and fosters interconnectedness and sustainability. It proposes a discourse on the financial services industry and its evolution. From banks to fintechs, an industry such as the financial services industry illustrates a business model that stems from its systemic nature. Its impact and contribution to society can be felt on a wider scale. As technology continues to develop, the financial services industry presents a new paradigm to people's day-to-day lives.

First, it is suggested to provide a definition of terms. Banks refer to financial institutions involved in the handling of money. Banking refers to the activities associated in the use and handling of money. The activities include deposits, loans, credit and investments. FinTech refers to the innovation and advancement of the use of money and financial services. The call for modernization has accelerated the development of fintech and in the ways people do banking. With the help of the government and regulating bodies, fintech and the proper ways of using fintech can be embodied. Open Finance and Inclusion are main themes of discourse, promoting the use of API (application programming interface) and casting a wider net to the underbanked and underserved, thereby providing wider access to customers from all demographics. Additionally, the proliferation of various FinTech companies can be seen to serve different customer segments and to offer different business lines and services from cryptocurrency, payments, lending, wealth management, etc.

As seen in the diagram by The STOU Academic Journal (2022), the fintech ecosystem is composed of 5 bodies (Lee & Shin 2018, as cited in Pongsakorn & Tanpat, 2022).

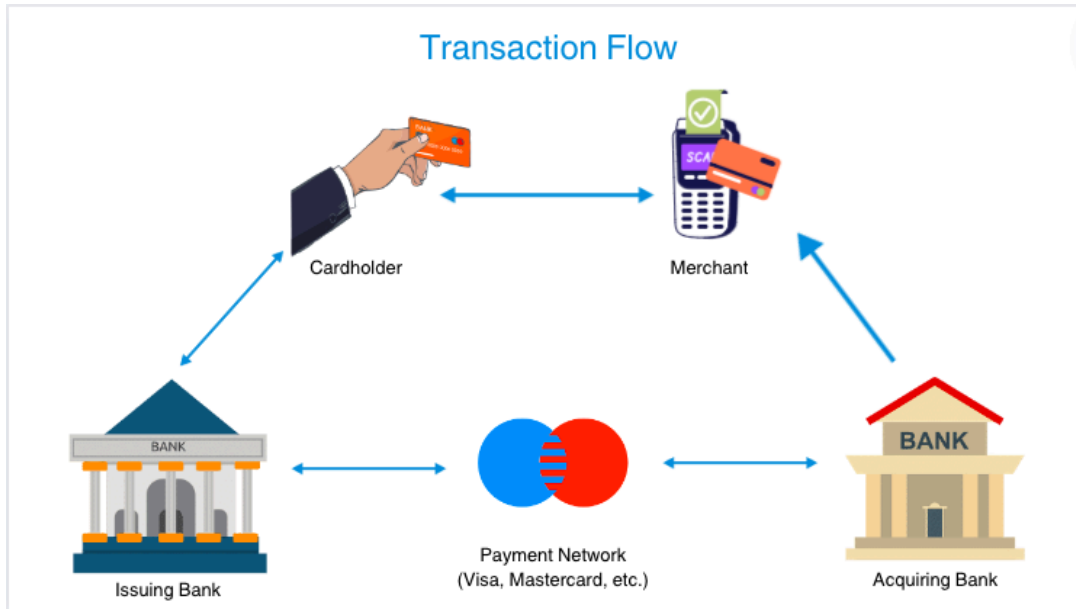


Falling under FinTech Startups is a company called **PayPal**. Niranjanamurthy (2014) describes PayPal as the “world’s most broadly used payment acquirer, processing over \$4 billion in payments in 2011. PayPal payments are made using a user’s existing account or with a credit card. Money can be sent directly to an email address, thus prompting the users to sign up for a new PayPal account. In addition to taking payments, PayPal also allows its users to send money through the service, which is a characteristic that only a few payment solutions provide (p. 671).

To further understand how PayPal operates and how it acts as part of an ecosystem, an end-to-end process of a payments transaction can be illustrated. Please see diagram by Kjos (2007) for reference. Let’s take the example of an e-commerce transaction with the corresponding entities in play. The first step starts with the cardholder/customer and the issuing side. The issuing side is the bank that has issued the card to the customer, for example Citibank. The cardholder attempts to make a purchase on Shopify. Hypothetically, Shopify only accepts PayPal payments. In order to process via PayPal, the cardholder transfers money into his PayPal account to proceed to purchase. He has done this successfully. The issuing side has been completed.

The second part of the process is on the acquiring side or the merchant side. Upon authorization by the payment network normally Visa or Mastercard, the money will be remitted to the payment method registered by the merchant/business owner on Shopify. The payment method can be in the form of PayPal once again or his receiver bank like

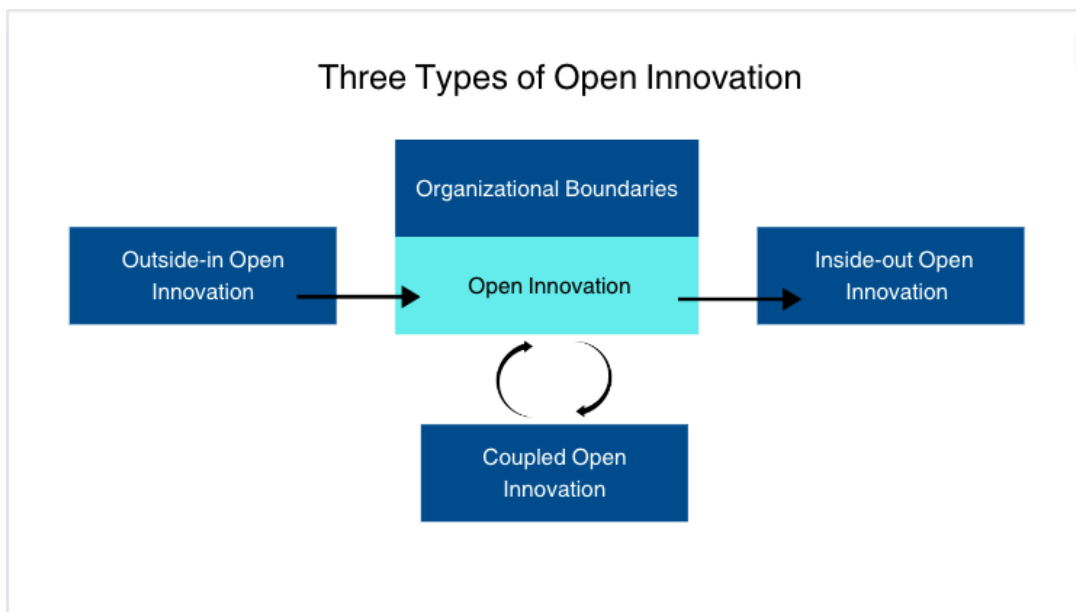
HSBC. The end-to-end process of sending and receiving from both sides is then fully completed. Take note, there may be other FinTech players such as OTP providers, authenticators part of the value chain to enable the transaction.



Since its creation, PayPal has been able to process millions of transactions, within vicinity or across borders. It is only recently that companies such as Google Wallet and ApplePay have entered and sought to compete in the market. Kazan (2015) explains Apple Pay as a mobile payment service that uses Near-Field-Communication (NFC) that enables biometric (fingerprint and pulse). Apple has also partnered with payment networks such as MasterCard, Visa and AmEx to help process the transaction while for Google, he explains that it is also a mobile payment service and has named it Google Wallet. It allows contactless payments along with the NFC chip and partnership with various payment networks, ultimately serving as “a proxy and mediator between cardholders’ (card issuer) and merchants’ (acquirer) bank accounts, thereby supporting and enforcing the existing roles and business models of financial firms in the current payment ecosystem” much like PayPal (p. 8) .

It therefore begs the question on competition and how these entities can co-exist with competing products and services. A new term in the industry has emerged and that is coopetition. Coopetition refers to cooperation and collaboration amidst competition. The principle seeks to achieve and promote mutually beneficial results for the entirety of the industry, reaping benefits for all in the process. “The future of finance implies cooperation between players on this market” as stated by Chesneau (p. 1). We then bring to the forefront in the aspect of digital inclusion and sustainability - the principles of open finance and open innovation.

Open innovation is the use and leverage of external and internal ideas to create new products and services (Chesbrough 2003, as cited in Kazan, 2015). Studies on open innovation have identified three distinct modes in which firms practice open innovation within and across their organizational boundaries (Gassmann et al. 2004; West et al. 2014, as cited in Kazan, 2015): (1) outside-in, (2) inside-out, and (3) coupled innovation. Outside-in open innovation is the integration of external resources (e.g., knowledge) into organizations to enhance the value propositions of their products and services, whereas inside-out open innovation is the reversed approach of externalizing internally developed resources (e.g., patents) to the market, which may translate to adoption and profitability. Lastly, coupled open innovation has a dual approach, as it represents a combination of the aforementioned open innovation concepts, where value is co-created in a reciprocal, cooperative, and complementary manner (Gassmann et al. 2004, as cited in Kazan, 2015). The interplay can be seen in the diagram below:



As seen in the diagram, open innovation can happen in many forms, inwardly, outwardly or amongst players. With a focus on bridging API's, employing viable cloud strategies to foster openness and inclusion, collaboration and coepetition can remain and continue to be an integral part of a functioning and progressive ecosystem. Learning to co-exist and adapting to the needs of the market are key. Whereas before we refer to a value chain, we now refer to a value network. Collaboration is required. Even in the case of banks versus FinTechs, banks would look to FinTechs for their modern strategies and FinTechs would still look to banks for their capacity and time-tested and proven techniques.

Finally, to bring about this change in sustainability and innovation, financial institutions (whether traditional or non-traditional) would sequentially require the participation of the

government and other regulating bodies. According to Restoy (2022), “authorities need to help bring the potential benefits of technological developments to fruition, for the good of the economy and the financial system” (p. 2). If this were to happen, we can now transition from operating through a place of modularity to a place of interoperability. In such a digital age, this is precisely what we need.

## Keywords

FinTech, Banks, Open Innovation, Payments, Coopetition

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