



DIFFERENCES BETWEEN TRADITIONAL BANK MODEL AND FINTECH BASED DIGITAL BANK AND NEOBANKS MODELS

Abstract: The banking landscape had experienced significant changes during the last decade when new types of competitors emerged out of the technological developments and the developments of the fintech industry. The disruption coming from innovations in financial technology has a major impact on the bank business models and consequently, its utilization leads to the creation of technologically advanced bank models. Accordingly, the comfortable position of traditional bank business model has been interrupted with the development of digital bank model and neobank model.

While certain similarities may be found between the digital bank and neobank models, significant differences have been identified between these two models and the traditional banking model. Namely, some of the critical differences are located in the level of operational costs, operating efficiency, client acquisition costs, ability to process data and difference in the organizational design. Hence, it could be said that the fintech related business models may take over a substantial portion of the market share from conventional banks as long as they overcome their limitations.

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1. Introduction

The traditional banking business model was uninterrupted for decades and even centuries, but the 2007/08 financial crises have created a breeding ground for a new form of competitors. The new competitors are enabled and born out of the technological innovations and the changes in the regulatory framework, which eased the banking industry entry barriers.

Consequently, aside of the traditional criteria of categorization of bank business models, the developments and growth of the financial technology (fintech) and its utilization in offering banking services enabled the creation of new bank models such as the digital bank model and the Neobanks model.

A variety of differences exist between the different bank models where the key differences are in their operating efficiency, the ability to swiftly adapt to changes in customer preferences and behaviour and the usage of collected data. Consequently, traditional banks are faced with a high degree of operating costs due to the need to own a network of branches and ATMs, while neobanks eliminated these types of costs as they are a fully online bank. Moreover, since new technology is an integral component of digital bank and neobank business models, these banks can create modern credit scoring techniques used in the process of evaluating their clients. By doing so, they are able to understand better customer needs as well as the behaviour of their clients and modify their products accordingly.

2. Bank functions performed under different business models

Accepting deposits and lending funds are the two main functions of a bank; nevertheless, different factors have caused drastic expansion of the number and variety of products and services offered by the banking institutions. The enhanced creation of new products and services created an environment that promotes the development of new business models implemented by banks in their core operations. Consequently, bank business models may be viewed in terms of the segments or customers they serve, the services offered, sources of funding as well as how they offer their services and the level of technology utilized in their everyday operations. Based on the funding sources or types of customers, three basic bank business models can be defined retail-funded commercial bank, wholesale-funded commercial bank and capital-markets oriented bank (Roengpitya, R. et al., 2014). Of course, a plethora of other business models can be identified in the banking industry based on different indicators such as income sources, funding objectives, primary activities, geographical coverage, volatility in profit levels, degree of risk, and so on.

Furthermore, new business models have evolved under the pressure of factors such as globalization, changes in customer preferences, the desire to achieve economy of scale, diversification of core business activities, changes in the regulatory framework and technological developments. However, one crucial characteristic of the banking sector was the lack of or the limited number of new entrants in the banking industry. It was extremely difficult for new entrants to compete directly with highly developed and well-established banking institutions with a high level of capital and well-developed networks and infrastructure (Hopkinson, G.G. and Klarova, D., 2019).

The favourable position of banks in the financial system was disturbed with the events induced by the financial crises that occurred in 2008, which revealed the major weaknesses in the way traditional banks conduct their operations.

Consequently, four primary drivers brought changes in the business models of traditional banks, these are changes in customer expectations, degree of profit volatility, increased competition and changes in the regulatory framework (European Banking Authority, 2018).

Changes in regulation and the simultaneous technological developments along with the other factors stimulated the birth of new type of competitors which challenged the traditional business models. It can be firmly noted that the banking industry experiences a high degree of digital transformation where financial technology (fintech) innovations have a significant influence on bank business models (Japparova, I. and Rupeika-Apoga, R., 2017). Traditional brick and mortar bank business models with widespread networks of branches are becoming obsolete under the pressure of technological innovations where a new form of competitors emerge. These new competitors are coming from the Fintech sector, which offers financial products and services traditionally provided by the banking institutions (OECD, 2020; BCBS, 2018).

The digitization of financial services altered the existing business processes. It enabled the emergence of business models heavily relying on a different type of technology in its day to day operations (Gasser, U. et al., 2018). Accordingly, digital transformation is considered to be a viable opportunity for the overall financial sector since it can provide support for processes related to attracting customers, increasing brand loyalty, a better understanding of customer needs, service customizations, enhance revenue sources and decrease the cost levels (Japparova, I. and Rupeika-Apoga, R., 2017).

However, changes in the banking business model didn't result in modifications of the type of functions performed by banks; instead, the transformation was made on the way these functions are executed. Bank functions are intervened with the core functions of the financial system and banks have set in place relevant activities to cover their primary and secondary functions. Table 1 presents the relationship between the core function of the financial system, along with the associated bank activity.

Table 1. Relationship between core functions of banks and the core functions of the financial system

Core functions of the financial system	Core functions of banks	Related activity
Payments	Transactions accounts (redeemable in cash on demand)	Deposit taking
Pooling of funds	Transactions accounts Delegated monitor	Deposit taking Lending
Transfer of resources	Transactions accounts Providing liquidity services Delegated monitor	Deposit taking Lending Lending
Management of risk	Transactions accounts Providing liquidity services Delegated monitor	Deposit taking Lending Lending
Coordinating actions via prices	Delegated monitor Conduits for transmission of monetary policy	Lending Lending
Dealing with asymmetric information	Delegated monitor	Lending

Source: Lumpkin, S. and Schich, S., (2020) Banks, Digital Banking Initiatives and the Financial Safety Net: Theory and Analytical Framework, Journal of Economic Science Research, Vol. 03, Issue 01.

The functions and activities presented in table 1 remain the same regardless of the business model; however, the difference between the business models may be found in the level and number of functions performed. This is in a sense that, in general, traditional banks may perform a vast number of functions while the new and modern banks focus their operations on a limited number of functions. Also, an important distinction can be made between the business models based on the manners in which bank functions are sold and delivered to the end customers.

The creation of digital banking and neobanks and the level of acceptance of the services offered by these models means that the traditional methods for sale and delivery of financial services is gradually becoming obsolete. But although there are crucial differences between the bank business models which may give advantage to the modern models, we are still far from seeing the fall of traditional banking.

3. Overview of fundamental banking business models

The deposit taking and lending function performed by banks give these institutions a crucial role in the economy because they have taken the role of intermediary that ensures efficient allocation of funds. Consequently, the demand for bank products and services comes from a wide number of customers with different characteristics. Hence, throughout the years, the banking industry has witnessed the development of different business models aimed at satisfying certain markets. Nevertheless, the banking business models have begun to change not only under the influence coming from the customers but also under the influence of technological developments.

Alternatively, while banks still maintain their position as a major player in the financial market, they face new types of competition through the creation of new bank business models. Aside from the traditional models, institutions providing financial services using the fintech developments may fall in two broad business model such as the digital bank model or the neobank model.

a. Traditional bank business model

Traditionally banks may operate under different business models and offer a variety of financial products and services where some banks may even be focused on becoming a one-stop-shop (bank) for its customers. Consequently, based on the customers they serve as well as their core products,

traditional banks may be oriented toward retail clients or commercial clients or they may be operating under the universal bank model. Moreover, the primary funding source for traditional banks is their core deposits held by individual savers or by business entities (Chiorazzo, V. et al., 2016). Furthermore, the main income source for traditional banks is their interest income while they also generate non-interest income from their secondary activities and services (DeYoung, R., and Rice, T. (2004). Another important characteristic of the traditional business model is that banks have a developed network of brick-and-mortar branches enabling a face-to-face interaction with their clients (Chiorazzo, V. et al., 2016). Having a widespread branch network means that the traditional banks have high operating costs due to the large number of branches as well as costs associated with the need to maintain a well-established network of ATMs.

b. Digital bank business model

The digitalization of banking services has led toward the modification in the way banks communicate and serve their customers. Hence, the digital banking business model can be considered as the crossover between the traditional and neobanks business model. This model considers potential modifications in the structure of traditional banks with the application of innovative financial technology (Dapp, F.T., 2015). Accordingly, the process of digital transformation considers the modification of internal processes with the objective of their optimization (European Banking Authority, 2018).

Base on the method in which banks utilize the new technology Denyes, L. (2019) states that distinction can be made between a digital subsidiary and a digital bank. The digital subsidiary is a business model with which an existing bank forms subsidiary which becomes a challenger bank. On the other hand, digital bank model appears with banks that go through a severe digital transformation as a support of the existing bank operations. Therefore, it can be argued that banks exploit digital technologies to augment different aspects related to their products and services and the overall functioning of the institution (Barquin. S. and Vinayak H.V. (2016).

c. Neobanks business model

The essential bank business model that was established with the development of the banking institutions was based on the physical delivery of its services through a network of branches. However, the primary functions of the bank have not been changed, but the way these functions are executed and how products are delivered to clients has gone through some in-depth transformation. It can be said that there are three basic categories of bank business models in terms of the distribution channel and degree of reliance on innovation technology for sales and distribution of the financial products and services. Hence, starting with the basic business model, through the digital bank business model banks can perform activities under the Neobanks business model. These banks may offer their services through cooperation with an incumbent bank or they may obtain a full banking license by going through the relevant application process.

Accordingly, a financial institution operating under the neobank business model may possess a license for offering at least a payment account where its services are available only online (Laloux, G. (2015). Hopkinson, G.G. and Klarova, D., (2019) state that a neobank is a form of bank which is entirely online and provides its products solely through online channels without owning physical branches. It may also be noted that the majority of Neobanks customers are millennials that are confident in using new technology (Hopkinson, G.G. and Klarova, D., 2019).

The popularity of this model increased after the 2008 financial crises when financial products and services offered by traditional banks became available from institutions that didn't rely heavily on a branch network and this business model abandons the need for brick-and-mortar branches. Alternatively, although neobanks offer similar or the same financial products, this model has considerable differences when compared to traditional banks. The neobank model implements a low-cost structure offering feature-rich (and customized) products and services in an easy to access manner from any place throughout the day (Finnovate (2018). Hence, it eliminates the need for clients to use

the services or the need to visit the local branch during working hours. It is also stated that the model of Neobanks is developed to support three crucial areas which are customer experience, user convenience and simplification of associated processes (Finnovate (2018)). Some of the most crucial differences between the traditional banks and technologically advanced bank models are presented in the next section.

4. Comparison of business models characteristics

It is evident that since the inception of the banking industry, the number of products offered by these financial institutions has been broadening. However, during the last decade, the most prominent changes have occurred in terms of how bank products and services are delivered to the end customer and the type of institutions that deliver them. Accordingly, while any major difference in the financial services and products offered by the different banking business models cannot be firmly identified, there are some crucial differences in terms of the way in which they are brought closer to the end-user along with the depth of the product portfolio held under each of the three business models. The primary differences between the traditional business model and digital bank model are presented in table 2. The key differences may be viewed in terms of the period when the products are available, the time it takes to serve a customer, costs, geographical availability of services, and so on.

Table 2. Key differences between traditional and digital models of banking

Distinguishing features	Traditional model	Digital model
Customer service time frame	Limited. Service is carried out only at a clearly defined time	Unlimited. Possibility of round-the-clock access
The speed of customer service	Depends on the qualification and experience of the Bank employee	Immediate
Approach to service	Flexible, however, is limited to a small variety of service channels	Flexible and carried out through any convenient channel for the client
Maintenance cost	High, taking into account the bank's costs for the personnel and maintenance of departments	Low, often services are provided free of charge
Scope of service	Limited branching of the branch network and staffing	Unlimited, can go beyond the geographical location of the banking institution
Status of the operator in the service process	Functions of the operator is performed by an employee of the bank	Functions of the operator are performed by the bank's client
The procedure for learning new services and promotions	Requires time and cost	Carried out quickly, via SMS and e-mail newsletter
Consumable component of the operation of the service system	The key models are articles on the staff and maintenance of departments	The key articles are articles for the purchase and maintenance of servers and software package

Source: Galazova, S.S., and Magomaeva, L.R. (2019) The Transformation of Traditional Banking Activity in Digital, International Journal of Economics and Business Administration, Volume VII, Special Issue 2, pp. 41-51.

Going through the differences shown in table 2, it is evident that customers can use the services provided by the digital bank 24 hours a day while they can access the services of a traditional bank only during defined working hours. Moreover, the speed at which the customer will be served is tightly related to the knowledge and skills of the bank employee when going to a traditional bank, whereas the customer will be served almost instantaneously at the digital bank. Furthermore, the physical presence and the organizational structure of traditional banking means that it has much higher costs for personnel and maintenance compared to the digital bank. Another major difference is in the geographical coverage of the bank, where the traditional bank is able to cover locations where it has

opened a branch while the services offered by the digital bank don't face physical limitations and they are available almost everywhere.

Some of the differences between traditional and digital bank can also be identified between traditional and neobanks. Accordingly, Table 3 shows some of the most important differences between the business models which are found at the opposite end of the spectrum. A comparison can be made based on the focus of each model, the distribution channels, utilization of technology, etc.

Table 3: Main differences between incumbents' model and neo-banks models

Incumbents' Model	Neo-banks' Model
Product-centric	Platform-centric
Branches	Marketplace community
High verticalization of products	High community engagement with the product
No strong communities around the brand/product	Horizontalization of products with best-in-class apps
Large branch/network	Open banking through APIS
High customer acquisition costs	Mobile only (low customer acquisition cost)
Tech infrastructure	Tech infrastructure
Outsourced technology	Open architecture technology stack
Rigid legacy platforms of 1970s–1980s	Ability to 'plug and play' best-in-class tools/services
Non-modular architecture with limited scalability	Low dependency on 3rd party providers
Hard to integrate data from 3rd party providers	Open ecosystem allowing access to external developers
PRODUCT-CENTRIC BUSINESS	DATA-DRIVEN BUSINESS
Banking data divided into silos	Real-time data integration and management
Mix of paper-based and online data	Current accounts generate key data for 3rd parties
Difficulties in reconciling, monitoring data	Data powers business model through 3rd party affiliation fees
ORGANIZATIONAL DESIGN	ORGANIZATIONAL DESIGN
Product-centric organizational design	Customer-centric organizational design
Products and verticals drive organization structure	Customer needs drive data architecture

Source: Finnovate (2018) Neo-Banks: Performance and New Ideas, Finnovate Research – Ideas for financial innovation, October.

From the features presented in the above table, it can be noted that traditional banking models experience a high level of costs due to the need to maintain a widespread network of branches. In comparison, the neobank model is fully online banking model which eliminates the need for high maintenance and employee costs. Also, traditional banking models have higher costs to acquire new customers when compared to the customer acquisition costs related to the neobanks model. Another difference is in the technology used by each model. While neobanks use the latest technological developments, traditional models may use outdated technology or even outsource their technology.

Other crucial differences are the way in which each model and the organizational design utilize data. Neobanks employ the data in a manner that will enable them to understand customer needs better and adapt the existing or create new products and service and they defined themselves as customer-centric banks. On the other hand, traditional banks lack the capability to explore their data fully and they are product-driven as they want to experience an economy of scale and fully utilize their expensive infrastructure and capacities.

Aside from the abovementioned differences between the traditional banking models and the other two general models, also other differences might be acknowledged. For instance, the credit scoring models used by the traditional banks are slowly becoming outdated due to changes in some of the strictly defined variables. Also, the development of new data collection and processing techniques, among others, provides an in-depth understanding of customer behaviour. Accordingly,

technologically advanced banks such as the digital bank or neobanks may utilize this technology to their advantage and modify their products according to the customers' needs.

Based on the differences between the bank business models, it can be noticed that digital banks and neobanks possess some major strengths compared to the traditional models. Nevertheless, the multidecade, even century, long presence of traditional banks made them an integral part of the economy and they are intertwined in every aspect of the markets. Hence, their full replacement is rather hard if not impossible, but future developments will show whether traditional banks will be left behind or they will manage to cope with the new competitors.

5. Conclusion

The banking industry has been faced with a major disruption coming from the fintech industry, which utilizes technological advances to provide financial services traditionally offered by banks. The interesting aspect is that the innovative technology enables institutions to provide financial services in a more efficient manner and with a higher level of flexibility. Consequently, new banking business models have emerged and these banks are gradually strengthening their position in the financial markets and disturbing the comfort of traditional banks.

But even though the new bank business models have the potential to overtake the market share from traditional banks, they are still in their early stage of development and they need to overcome a variety of obstacles. Nevertheless, traditional banks should closely monitor the development of neobanks and consider them to be a serious threat. The reason is that neobanks already have some undisputable strengths such as the low operating costs, the capability to swiftly adapt to changing customer preferences and the ability to offer highly personalized services. The survival of traditional banks will also depend on their ability to keep pace with the technological developments and decrease the level of differences they have with digital banks or neobanks.

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