

STRATEGY OF SWISS BANKING SECTOR TOWARDS DIGITALIZATION TRENDS

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Abstract: *Many fields of management in contemporary banking organizations have flourished due to advancement in engineering and technology particularly, in the IT sector. Innovations which lead to digitalization assisted banks in improving business processes, ensuring competitive advantage, achieving better business results and, finally, gaining higher profits. The process of digitalization in banking requires a simple approach in order to make use of banking services by means of modern technologies easier, faster and cheaper. Digitalization in banking forced modern banks to reassess and change their traditional business methods that are for the most part based on the existence of "bricks-and-mortar" physical locations and to replace them with modern distribution channels, namely modern media, and the banking services based on them.*

Keywords: *banks, banking sector, business models, digitalization, innovation*

1. INTRODUCTION

Digitalization is a process which shall engage all banks in the global market in the future, and banks that had recognized the importance of this process have already begun prospering in the market. The process of digitalization refers to an organized, concise approach in which the services are provided in a far more simple and rapid way due to the implementation of modern technology. The purpose of research paper to analyze the influence that digitalization has on contemporary banks' management and to establish the perspective of this process in the future. Digitalization combined with successful business models could strengthen the position of banks in the market hence the motivation for this paper is reflected in an attempt to present the most important advantages as well as potential drawbacks of digitalization in banking. The main idea is to point out the crucial guidelines that

should be followed by the banks in the process of implementation of digitalization in business in order to make it more successful. I shall strive to demonstrate that digitalization is the future of bank management and that without it the survival of numerous banks around the globe could be brought into question in the recent future.

Information presented in research paper based upon available books and literature about the economy, finance, and other relevant fields. The practical aspect shall be introduced through journals and articles regarding numerous practical examples and research that concern the subject of research paper, along with the information found on the relevant web pages that are to provide a different view on the given subject. The research is predominantly based on the research of theoretical outlooks on business models and digitalization in bank management, along with some examples from bank management for the sake of confirming the business models in practice.

2. LITERATURE REVIEW

This paper considers several business models and strategies that shall, become vital for the future of many companies. Blue Ocean Strategy is a business model that could ensure an intensely profitable growth (Chan Kim & Mauborgne, 2005), while the traditional concept of competitive advantage changes into the innovation value as a primary goal of the companies that aim to win the untapped market (Burke, Van Stel & Thurik, 2009). Open innovation is a concept that refers to the usage of internal and external knowledge, and the contact of inflow and outflow of knowledge is the best way to advance innovations in a company (Cheng & Huizingh, 2014). The Open Innovation Model is a practical tool that requires new strategies and decisions for exploitation of innovative activities in management (Aranha, Prado Garcia & Correa, 2015). Furthermore, the Big Data concept is used in modern companies' management, because nowadays all companies are focused on the implementation of techniques for processing a large amount of data that could be highly useful (Bughin, 2016).

One of the most important processes of today's companies is digitalization which is established upon the application of modern technologies and which could boost every aspect of management (Forest & Rose, 2015). Digitalization in banks has a fundamental impact on the structures and processes in these financial institutions (Korner & Zimmermann, 2000), and is explained in detail in the third chapter of this research paper.

3. DIGITALIZATION IN BANKING SECTOR

3.1. Implementation of digitalization process in banking industry

In the banking sector, specifically in the banking industry, changes that are great in degree and extent occur. These changes are conditioned by technological inventions. Owing to technology, especially inventions and innovations in the IT industry, banks are able to build new infrastructures and advance their services.

In the context of digital services in the banking sector the European commission defines digital services (public or private) as: “services that can be delivered through digital communication, e.g. internet, mobile phone network that might include delivery of digital information (e.g. data, content) and/or transactional services. They can be either public or private, e.g. e-government, digital banking services, e-commerce, music services (e.g. Spotify), film/tv services (e.g. Netflix).” (EU commission 2017)

Digitalization is a type of innovation and therefore a business model for its implementation should be chosen. One of the many business models is matrix familiarity (Roberts and Berry, 1985), according to which different forms of innovational collaboration exist in the context of innovation developed by the bank

Banks are prone to developing radical innovations in collaboration with others, but inside the banks, they opt for incremental innovation. This happens because of the fact that banks often prefer to opt for the innovation they could implement themselves, such as Henderson and Clark framework (Henderson and Clark, 1990). In order to develop radical innovations, banks must acquire new capacities, which would increase the risk of failure. Robert and Berry suggest that the right strategy should be selected for the development of new products. Banks can develop new products on their own using incremental innovation but if the bank is not sufficiently familiar with the technology, in this case with digitalization, it might be better for choice to select a less complex form of innovation implementation that, in this case, digitalization.

Whether the bank would choose digitalization as a form of innovation implement alone or in collaboration with some other subjects if they find a common interest depends on how complex is the digitalization for the bank of the technology for the implementation of this innovation as well as whether the bank has sufficient human and other resources.

Banks usually opt for the incremental innovations or, in case they have developed some radical innovation, for the collaboration with some scientific institutions

Within Henderson and Clark’s framework, it is indicated that products are systems, and that the systems of groups of components that is well composed perform the right function. This means that if we want to decompose a certain banking product such as opening a current account in a bank we are going to get these components: The opening of a current account: bank, client, request, conditions, risk evaluation, identifying new user, a System is an interaction between these components. Digitalization in banking brings numerous advantages. Firstly, as a result of digitalization, banks have space to expand the portfolio of their banking products and services. Digitalization also creates technological preconditions for better interaction between bank and its clients and their expectations. A long-term improvement in communication with the existing users of banks’ services enhances banks’ performances and has a positive influence on their business results.

Expanding the portfolio of banking services, improving communication and anticipating the needs of the banking product and service users creates the possibility for increasing bank’s profit. Digitalization or digital transformation in management is present in various industries as well as in the whole society. This transformation brings numerous advantages, but unfortunately, it is a double-edged sword. On the other edge, there are certain treats that must be predicted by the persons or banks concerned and treated as known risks through the development of adequate strategies with the same importance as financial risks. (Allen, 2013)

The absence of physical contact leads to automation and dehumanization in the relationship between banks and their clients. In former times, however, clients used to choose their banks based on the locations of their branch offices or the affability of the bank officers.

According to the available information, the significant drop in bank visits, as much as 30 per cent in the period between 2012 and 2015 according to British Banking Association.

According to FDIC, the number of teller transactions in America has decreased by 45 per cent between 1992 and 2013.

Many countries and regions around the globe have recognized the importance of digitalization in banking. The European Commission strives towards creating a Digital Single Market. Based on the European Commission's estimates, DSM could generate the income of €415 billion per year for the EU and create a couple of million jobs. The motivation for creating a DSM lies in the fact that in 2015 only 3 per cent of EU banks' clients used the banking services in a foreignmember country, and only 1% of loans in Euros were granted abroad. (European commission, 2016)

3.2. Effective business models for digitalization in banks

After the global financial crisis, banks were forced to alter their business models in order to recover from it as well as to fulfill strict regulatory requirements. Additionally, pressures to reduce operating costs, boost efficiency and find new sources of growth showed that it is necessary for banks to change their business models.

In theory as well as in practice numerous business models can be found. Gassmann, Frankenberger and Csik make distinction between as many as 55 models (Gassmann, Frankenberger & Csik, 2014): Add-on, Affiliation, Aikido, Auction, Barter, Cash Machine, Cross-selling, Crowdfunding, Crowdsourcing, Customer Loyalty, Digitization, Direct Selling, E-commerce, Experience Selling, Flat Rate, Fractional Ownership, Franchising, Freemium, From Push to Pull, Guaranteed Availability, Hidden Revenue, Ingredient Branding, Integrator, Layer Player, Leverage Customer Data, Licensing, Lock-in, Long Tail, Make More of It, Mass Customization, No Frills, Open Business, Open Source, Orchestrator, Pay Per Use, Pay What You Want, Peer to Peer, Performance-based Contracting, Razor and Blade, Rent Instead of Buy, Revenue Sharing, Reverse Engineering, Reverse Innovation, Robin Hood, Self-service, Shop in Shop, Solution Provider, Subscription, Supermarket, Target the Poor, Trash to Cash, Two-sided Market, Ultimate Luxury, User Design and White Label.

To begin with, it is crucial to observe the current situation and clearly determine bank's position. This should result in defining the path of development and following the established framework or pattern.

For example, one of the business models, called "Add-on" that affect business model with "why and what" used by Ryanair (1985), SAP (1992), and Sega (1998) finds that priced competitively, is core offering having in mind that final price is driven up by many factors and bank customers must pay something extra, more that they thought would have to pay. On the other side, there are some reasonable benefits for customers based on offers that can be adapted to one's needs. (Gassmann, Frankenberger, Csik 2014)

Grameen Bank, founded in 1976 in Dhaka, Bangladesh (Grameen bank, 2016) has used innovation of business model called "Target the poor", by addressing affect business model with questions "what, how, why and who". In this business model innovation, services and products target lower income customers who, thanks to this model have benefits from prod-

ucts that they can afford. For a bank, small profits are generated with each and every sold product, but it has higher sales number according to how big is base of customers.

In this case, Grameen Bank has predicted the potential of budding markets in lower-income countries, and made model for this markets with practice such as co-signing loans by community members, which made a great deal of pressure for debtors to pay the money bank to that other members of community can that the loan as well. This system was developed by Muhammad Yunus, Nobel Prize winner, former C.E.O. of this bank. The specific thing was that Grameen Bank has issued 98% loans to women based on their reliability. Grameen Bank is a very successful bank with over 8 billion dollar worth microcredits. Grameen Bank is very proud of their motto: Bank for the poor.

When it comes to changing future models and introducing digitalization, it is important to point out that not all banks recognize the importance of digitalization. Some of them perceive digitalization as a quick fix rather than a lasting solution for coping with the financial market. This is the case with many European banks. On the other hand, American banks which have been relying on the traditional banking and manual operations such as cheques are now forced to innovate, conscious that digitalization has been extensively used in other sectors. Moreover, American banking was hit by the financial crisis a lot sooner than the European, hence the banks there were bound to lower their operating cost, and digitalization was a solution for that problem. Certainly, another reason for faster digitalization lies in the fact that the regulations in the USA are far simpler and that American banks spread over a large geographic market. They have realized that because of this they would not have many benefits from individual clients. What they need is a large scale economy so they could cover the considerable development expenses they have and costly software solutions.

Banks can modify their existing strategies and introduce digitalization in their business processes in various ways. However, banks should not abandon the traditional banking services which they have offered to their clients since they were founded. That, of course, does not mean that the traditional banking services cannot be improved. Innovations in the traditional banking services can be introduced through digitalization.

In other words, one possibility for applying digitalization in banks is in the process improving the existing products and services. The other possibility is the very creation of new products and services which would be impossible to achieve without digitalization.

Digitalization should also be applied in the development of other core as well as supporting business processes.

Banks must strategically invest in technology in order to make the access to bank's services more approachable for the clients wherever they are. Digitalization in banking strategies must be combined with the work of banking experts.

The Economist magazine has estimated in 2015 that the universal banks in North America will lose about 35 per cent of their market share to the competition that uses the Fin-tech digital technologies if they do not change their current business model. The competition uses Internet and mobile technologies to create new banking products and services. (Economist, 2013)

Banks must modify their business models so they would rely on digital technologies and operative models based on Asset-Light, electronic and mobile management, eCRM and the social media. In this way, banks will improve their business positions and establish bet-

ter connections with the users of their services while reducing the operational costs.

The benefits of digital transformation of the traditional business models are caused by the three changes that occur due to digitalization (Moreno, Pichler, Starrs 2014):

- The business models are operationally efficient
- Gaining new user segments
- New services generate more profit.

Banks that need to change their business models, i.e. traditional banks, must balance between financial innovation and regulations.

Traditional banks that are changing their business models by using digital communication channels are faced with numerous problems. In this process they usually assign the innovation teams which are not connected to the other organizational parts of the bank. As a consequence, the changes occur quite slowly since the organizational structures of the banks are often ponderous. Banks use outdated performance measures to estimate the innovation effectiveness, such as customer lifetime value, which makes the effect seem much less significant. Since changing the mindset is the hardest change of all, banks often perceive everything that is new as risky and do not venture to experience the benefits of the change, in this case of digitalization. Furthermore, when analyzing the competition, banks rarely include the indirect competition, which gives them a false image of the market.

Accordingly, if they want to transform their business models successfully, banks need to have an innovation team that is closely linked to the other organizational parts of the bank and to include the bank's top management into the process in order to make the necessary decisions as fast as possible. Before anything else, banks must perform a situational analysis in order to determine their position in the market and to clearly define their direct and indirect competition. Only after these requirements are fulfilled, a bank can successfully transform its business model.

Within the transformation of its business model, banks must create a few digital strategies concerning their clients, their management and the way they gather and use the useful information they receive from the digital channels to make business decisions. When selecting the digital strategy for the users of their services, it is necessary to offer them the omnichannel experience as well as to incorporate personalized service and easy access in the customer journey, i.e. to make it user-friendly. When they are about to change the entire way of managing a business, banks must change everything from their organizational culture, processes and procedures they use to their way of thinking.

While changing their business model, banks must replace the current technology they use with the one that supports digitalization. In order to use the data gathered through digitalization and to make good business decisions it is necessary to introduce systems such as eCRM and to use the Big Data in their management.

Accenture Technology Vision 2015 predicts a trend where digital devices will enable new business models that shift the focus from selling products and services to selling results within the Outcome Economy. In this study, it is also pointed out that through a new digital business strategy it is possible to start designing new industrial platform with three basic components: the business model, technical architecture, and governance model.

According to the study that A. T. Kearny conducted with EFMA (A.T. Kearny, 2014) in 2014 most banks are now accelerating their digital strategies. Their path is shown in the figure below. This study is based upon the interviews that were carried out in the period from

June to September 2014 with more than 25 executives in charge of digital or multichannel strategies in the retail banking divisions of 22 leading banks.

The abovementioned A.T. Kearney and EFMA research from 2014 states that digitalization in retail banking is not an entirely new system since banks are using online platforms for a long while. For this reason, Internet is being widely used by the multichannel strategies.

Figure 1: Approaches to digitalization in the retail banking

Followers (26%) Digital is a project	Advanced (42%) Digital is a business	Boosted (32%) Digital is a core value
<ul style="list-style-type: none"> • Project-by-project basis • Pilots and gradual deployment • Long-term planning 	<ul style="list-style-type: none"> • Clear, long-term vision and ambition with client-centric focus and open innovation • Cross-functional teams mixing IT, distribution, and marketing • Test-and-learn approach: options tested in parallel, with big-bang full deployment • Flexible and agile execution, with twice-yearly reviews • Abundant internal communication 	<ul style="list-style-type: none"> • Pure digital business model • Use subsidiaries to accelerate digital • Pure-player model that accelerates learning for digital transformation • Dissemination of digital in the company, culture, and innovation • Dedicated "lean" IT

Source: A.T. Kearney analysis

Source: A.T. Kearney

This research recognized that there are three approaches in the retail banking digitalization. These approaches are shown at the figure above.

Banks are divided into three groups according to these results. Some consider digitalization to be only a process, some business, and some even a core value.

According to the mentioned study that A.T. Kearny conducted along with EFMA in 2014, it is not enough to only change the management system, but digitalization in banking requires a new type of CEO. It is crucial for the key people to adopt a new way of thinking and doing business or to replace them with new leaders that are entirely in the "digital sphere".

Because of the arguments mentioned above, the second attributive hypothesis which refers to the idea that digitalization in banking combined with the implementation of a suitable business model brings numerous advantages, i. e. that the process of digitalization in banks is more effective if accompanied by the transformation of the business model, is confirmed.

The question is how can banks innovate their business model? We have already mentioned that they must change their entire business and their organization culture. Also, there are a few pieces of advice that they can use, according to the theoretical business model frameworks that can be observed in the available literature. First, a bank must make the situational analysis and analyze its current position regarding its position in the market and among the competition and customers.

A bank must define who are its target customers and divide them into separate groups according to their characteristics if it is targeting more than one group of customers. For each group of customers, bank must develop a different approach.

The segmentation of the market itself is based on the assumption of different consumer motivation which results in the difference in demand for products and services. Hence it is necessary for a bank to identify the key consumer dimensions and seek for what motivates their choices or, in other words, what kind perception do they have and what do they like about the choice of certain banks service package. It is crucial to conduct a market research and gain needed information.

When banks are determining their position, they should make a distinction between their brand and competition's brand, and try to gain advantage from normal usage without trying to change.

It is important to initially determine the level of strategy formulation, and after that to proceed with further diversification of information.

The second step in the business model innovation is to give the answer to one important question regarding banks offer to its customers. The bank must (re)shape its offering strategies for business model innovation, and offer for example better, faster and safer communication with bank, scope IT platforms for everyday procedures, etc.

Thanks to rapid development of technology, a bank can within its business model innovation implement: various online strategies for communication with the users of its services while keeping the traditional models of communication, automatic search for the adequate business and offer for the clients, adequate risk evaluation for every potential investment, giving advice to the bank's clients in a timely matter, etc.

The next step in the business model innovation is to strive to find a way for creating an additional value for the clients. It is, of course, necessary to implement the informational technologies and the adequate software and hardware solutions such as hybrid cloud, advanced analytics, mobile and social networks, etc. into the bank's management.

The further step in the process of innovation is determining what generates profit within the business. Banks receive their incomes through taxing their offers. What digitalization can offer are the significant changes in the tax implementation. Banks charge the integrated tax which covers all the expenses but as a result of digitalization it is easier to monitor expenses, in other words, it is easier to determine the location where the expenses occur in order to make them more transparent and give a clear picture of how much profit does each segment generate (A.T. Kearny, 2012). This way, banks are addressing the buyers' needs for more transparent expenses and comply with the regulations, while at the same time the transparent taxes can secure the competitive advantage for the banks. (A.T. Kearny, 2012). This means that transparent pricing schemes can attract new users and thus generate more profit.

Furthermore, it is necessary for the banks to reduce operational costs. This is achieved through the digitalization of their business processes and the entire management. If the artificial intelligence is used, the need for the workforce is significantly reduced and with it the marginal expenses.

4. DIGITALIZATION OF SWISS BANKS

Banking in Switzerland is under the administration of the Swiss Financial Market Supervisory Authority (FINMA), whose authority is based on various federal statutes. Banking discretion is known since the middle ages and is now confirmed by the Federal Act on

Banks and Savings Banks, the banking regulation from 1934. This banking law was changed in 2009 in order to prevent potential tax evasions of the Swiss banks' clients who are foreign citizens.

Table 1: Total assets and profits of banks in 2013

Total assets and profits of banks, 2013						
Bank categories	No. institutions		Total assets		Annual profits	Annual losses
	1990	2013	CHF million	Change ¹	CHF million	CHF million
Total	625	283	2 849 167	2.6	11 927	1 411
Cantonal banks	29	24	495 555	2.8	2 300	–
Major banks	4	2	1 322 279	–3.1	3 818	–
Regional and savings banks	204	64	106 426	2.0	349	–
"Raiffeisen" banks	2	1	173 619	5.4	699	–
Other banks	218	154	607 008	19.9	4 354	1 209
Branches of foreign banks	16	27	78 643	–16.4	224	199
Private banking	22	11	65 636	6.3	183	2

¹ % change over previous year

Source: Swiss Financial Market Supervisory Authority <https://www.finma.ch/en/> 29/01/2017

The table above shows total assets and profits of Swiss banks in 2013 for various bank categories according to Swiss Federal Statistical Office (FSO).

In 2013 there were 283 different bank institutions with total asset value of CHF 2.849.167 million. Those banks totaled CHF 11.927 million of annual profits in 2013. The total GDP in 2013 was CHF 635 billion. (BFS, 2016)

According to UBS, Swiss banking sector has grown twice as fast as the overall economy over past two decades generating one third of overall GDP growth.

The same source states that the financial sector creates one tenth of the Swiss economic value and contributes two to three times as much to the national value creation in comparison to financial sectors in other European countries.

UBS estimates that the financial sector itself is responsible for generating around CHF 20 billion additional value in 2014. Furthermore, UBS states that the financial sector contributed CHF 81 billion are around 13% Swiss GDP. It is an interesting fact is that five Swiss banks found their place among the 20 biggest financial institutions with largest resources. In 2015 Swiss banks have managed total resource value of CHF 6,628 billion.

UBS has over the course of 2014 invested significant financial means in the process of digitalization believing that digitalization and innovation should be its strategic priorities. In 2014, UBS launched new innovative offerings in the Asian region with the "UBS Wealth Management in Asia" app and improved the UBS e-banking system with the UBS Advice tool for the investment portfolio client advising.

Furthermore, by the middle of 2015 UBS launched EVOLVE – UBS Centre for Design Thinking and Innovation in Singapore as a part of its offer. Being one of the three global innovation labs, this center in Singapore is assigned to create the never before seen experiences for their clients with the solutions which are the best in its class.

UBS believes that through digitalization they are not only adopting the technology, but it has also become their way of thinking which helps them deepen their relationship with the clients.

UBS digitalization strategy consists of two basic components: digitalization of the existing business and processes and including new products and services in their offer which are facilitated by digitalization.

With data collected thanks to digitalization, UBS consultants can access any client's portfolio and give more useful advice based on their competency and experience.

FINMA, (Finma, 2014) an independent supervisory authority of the Swiss financial system, supports digitalization of the Swiss banking system. The Swiss Financial Market Supervisory Authority FINMA has reduced the number of unnecessary regulatory obstacles and in addition supports the introduction of new financial innovation licenses for the start-up companies.

FINMA has approved the digital identification of clients which provides the framework of the new rules in making new business relations - onboarding through digital channels.

In case they satisfy certain requirements, financial intermediaries can use video transmission to identify clients as well as in face-to-face identification. Aside from video identification, FINMA allows other forms of online identification using different onboarding methods and procedures through digital channels. Additionally, regulatory changes concerning the Circular video online identification affects the applications for managing assets digitally and crowdfunding platforms.

Furthermore, FINMA encourages the development of fintech companies and innovation which is a major step towards the general globalization of the Swiss banking sector.

Credit-Suisse believes that digitalization causes the biggest changes and transformations in the history of banking. Digital Private Banks is this bank's offer that has been fully digitalized.

Credite-Suisse Bank has gradually introduced digitalization into its management in a few key steps. In order to achieve fundamental changes they have changed both their way of business management and their approach to business in general. They have formed a team for innovation and digitalization implementation consisting of experts from different fields, some of which are not familiar with digitalization and some which have considerable experience with this process. The bank transformed all its activities in order to increase its efficiency through creating of few teams in charge of development. As a result, they have achieved considerable measurable results. This bank management plans to introduce the project of innovation labs by the year 2020 with other interfaces in society, economy and science as well as technology. The task of these laboratories would be to create the projects which will shape the future of this bank as well as banking business in general. They believe that the labs will completely redefine their banking processes and business models and add value for their clients.

5. CONCLUSION

As it was already indicated in the paper, it is the technology that shapes the whole society as well as the management of numerous within it. Banks themselves are not the exception. Digitalization in banking is important to such a degree that those who have not digitalized

their business sufficiently or at all or they do not have the adequate strategy for digitalization are bound to fail in the hypercompetitive banking or financial market.

While in some countries, especially those with the underdeveloped financial market, digitalization is perceived as the strategy of banks in future, for a great number of European and non-European banks this future has already come. The digital age brings a plethora of new challenges and not all countries' banking systems can grapple with it.

Regulations and institutions monitoring the banking and financial system were preventing or at least hindering digitalization in certain countries including Switzerland. However, recently the Swiss regulatory organizations have authorized banks to digitalize their products and services which might boost the already significantly firm banking system in Switzerland. The Swiss regulatory institution FINMA has moderated its regulations regarding digitalization in banking business processes, which has fueled innovations such as on-line video identification of clients. The analytics of the Swiss market conditions believe this concession along with other concessions that have been granted to be a huge step in the Swiss financial system.

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