NAUKI O FINANSACH FINANCIAL SCIENCES 2(31) • 2017

ISSN 2080-5993
e-ISSN 2449-9811

Adam Nosowski
Wrocław University of Economics
e-mail: adam.nosowski@ue.wroc.pl

BANK BUSINESS MODEL AS A SUPERVISORY PERSPECTIVE. CONDITIONS AND INFLUENCES

BANKOWY MODEL BIZNESOWY JAKO PERSPEKTYWA NADZORCZA – UWARUNKOWANIA I ODDZIAŁYWANIA

DOI: 10.15611/nof.2017.2.06
JEL Classification: G21, G28

Summary: Analysing the banking business model as a supervisory perspective is a new way of monitoring the actions of supervised institutions, which significantly increases control. An additional analysis of banking business models can supply useful tools for understanding the nature of risks related to a given banking business model, and its influence on systemic risk. These tools are useful to market participants and regulation and supervisory institutions. The main goal of this article is an identification of contexts and conditions of the banking business model as a supervisory perspective. This approach allows to perceive its characteristics, aims, and methodology requirements. The supervisory perspective on business models was also compared to other practical and theoretical approaches, creating analytical context. An analysis of European guidelines for business models as a supplementary supervision practice, and their implementation in Poland was performed as well.

Keywords: bank business model, business model analysis, supervisory review and evaluation process.

Streszczenie: Bankowy model biznesowy, a dokładniej jego analiza traktowana jako perspektywa nadzorcza, to nowy sposób monitorowania działalności nadzorowanych instytucji pozwalający na znaczące rozszerzenie zakresu kontroli. Wspierająca ją analiza bankowych modeli biznesowych może dostarczyć uczestnikom rynku, instytucjom regulacyjnym i nadzorczym użytecznych narzędzi, pozwalających lepiej zrozumieć naturę ryzyka związanego z danym bankowym modelem biznesowym i jego oddziaływanie na ryzyko systemowe. Przedstawiona w artykule wstępna identyfikacja kontekstów oraz uwarunkowań tego podejścia pozwala na uchwycenie jego specyfiki i ukierunkowania oraz uwarunkowań metodycznych. Perspektywę nadzorczą w zakresie modelu biznesowego odniesiono także do innych ujęć badawczo-aplikacyjnych, co pozwoliło na jej osadzenie w kontekście analitycznym. Skupiono się także na analizie wytycznych europejskich w zakresie stosowania modelu biznesowego jako uzupełniającej praktyki nadzorczej oraz ich implementacji w warunkach polskich.

Słowa kluczowe: model biznesowy banku, analiza modelu biznesowego, proces przeglądu i oceny nadzorczej.

1. Introduction

Banks are institutions that act within the critical sector of the economy and the functioning of which relies on financial flow and must, therefore, remain under supervision. The idea of supervision, as well as its overall scope, undergoes constant evolution, and various responsible entities are trying to identify the events and changes of the financial sector and act accordingly, both on a national and international scale. An analysis of the banking sector phenomena, especially after the global crisis, points to a necessity of further supervision, especially on the subject of banking risks, but it also pertains to business conditions that surpass the financial context still influencing the functioning of banks. Any business conditions are, of course, ultimately reflected in the financial aspect, but from the point of view of the supervisory institution (and the banks themselves as well), it is crucial to avoid crisis situations at their earliest possible stage. The business model perspective becomes useful in such cases since it allows to grasp the business characteristics of bank's operations (especially business profile), and the direction of its development, and to confront it with the situation on the market (including competition), and to compare with risk levels.

This article concentrates on the importance of a bank business model both for the bank itself and for the supervisory institution. The main goal is to identify differences in understanding and perceiving the business model by both parties. This comparison avoids potential methodological inconsistencies. It also focuses on the specifics of areas of business model analysis and the analytical tools used in it, and the assumptions around which they are and will be created in the future.

2. Business model in banking – approaches

A business model is a structured characteristic of the ways of value creation by a company, of the ways of keeping that value and of profiting from it. This concerns both the parties involved (clients, partners, contractors), external circumstances (formal, market-related), and a company's business structure (organisation, distribution channels, technology). A business model thus gives a simplified representation of the value creation processes, of the functions and interactions that result in creating value, in competitive advantage and in raising the value of the institution itself.

The business model idea that has matured over the last ten years or so was influenced by four main ideas; each focused on a chosen aspect. In the organisation model approach, the business model was an abstract representation of the company's business structure and allowed to analyse and understand its functioning. The strategic approach that emerged gradually argued for including elements of external influence, and for more attention to market and resource aspects to be included[1].

[1] More on the relations between institution strategy and business model in [Falencikowski 2012, pp. 80-93].

The business model became a frame, a set of base ideas for the business strategy of a given company. The technological approach focused on representing various aspects of company functioning and their inter-relations (mostly from the point of view of the structure, information and processes), and on expressing those in a formal manner that allowed for effective implementation and supported chosen IT solutions or process improvements[2].

The financial approach, which was the last to influence the business model theories, focused on representing the financial aspect, both the cost-income aspect and the real profit aspect, as well as the risk factors, included therein. The financial approach to business models emerged due to frequent bankruptcies in the new technology sector, where the business models of innovative companies paid no need to economic calculation. The current approach to business models is an integrated sum of all these approaches, using their ideas and methodology[3]. This gives a chance to reflect the structural complexity of a business model and to monitor the scope and strength of its influence at the same time.

Both in business practice (especially banking) and in scientific research, there are two main trends in applying business models. The structural-conceptual trend is an approach where the business model is a tool to conceptualise the ways of value creation and the mechanisms that support it. The classification (typology) trend, on the other hand, is an approach where the business model is an analytical tool allowing to categorise the ways of value creation and to analyse and compare the entities that use the same models, as well as some form of benchmarking.

From the business point of view, the structural-conceptual approach is more applicable, since it focuses on identification and diagnosis (identifying the relations and interactions between the elements of the business model, diagnosing mismatches and weak points) and on projects (creating premises for planned business actions, innovative ways of creating or supplying value). This approach is far more individualised. Its key point is proper structuring of the business model and choosing the method of its creating and changing. The expectations of business entities, and the potential use of business modelling for advice and consulting, emphasise the need for effective methodology, especially applicable idea patterns (framework). Scientific challenges in this field are mostly concentrated on creating this framework, and on including the specifics of a given business sector (such as banking), as well as on developing project methodologies, for instance, the ones that include the individual case of services[4].

The classification approach focuses on identifying certain types of business models, and on grouping business entities according to the similarities in their business models. In this approach, a business model is closer to, or indeed identical with, the company's profile, and does not usually accentuate the unique means of

[2] More on these three approaches in [Wirtz 2011].

[3] More on ideas and conditions of banking business models in [Nosowski et al. 2016, pp. 101-107].

[4] More on this subject in [Nosowski 2014, pp. 165-175].

value creation or their innovativeness. This approach is great for analysing a specific sector of the economy or of the market, as well as for positioning a given entity among its competition. This includes the banking sector, where the most typical division into retail banks, wholesale banks and investment banks is a good enough distinction of their business models as well. The classification approach is present in many research projects, especially concerning the banking sector, which is partly due to its more formalised methodology (such as the use of data clustering).

The existing characteristic of business models shows that they are not only a conceptual or analytical tool – they can be an integrated perspective on the bank's activities, identifying the relationship and the strength and scope of the impact of various factors and elements, linked synergetically. A structural representation of some such relations is shown in Figure 1.

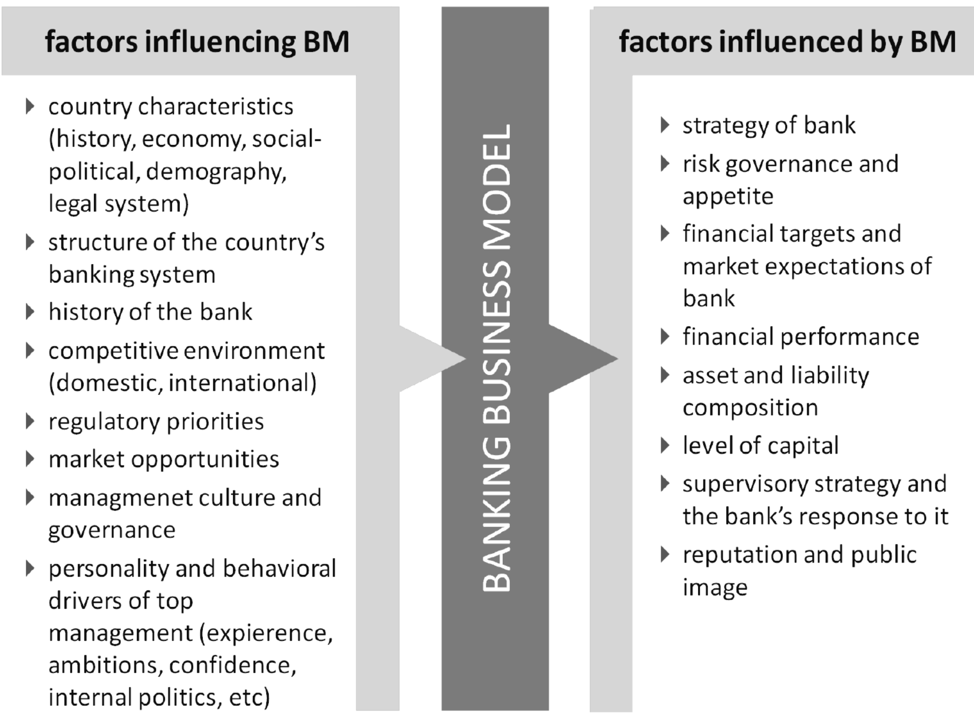

Figure 1. Banking business model – influences

Source: [Theodore, Villalobos 2015].

This approach to the influences of a business model allows to perceive its importance, but also to go past the direct, value-centric dimension (by including the influence of the business model of banking risk management or reputation, for instance). It is this aspect of the influence that drew the attention of supervisory institutions to the business model as a way of perceiving an institution in its proper reality context and made the business model into a necessary complement of the existing supervisory practices. Thus, the understanding of this approach by all involved parties becomes more important, as is developing analytical competences in the matter. An analysis of business models can give the necessary tools to understand the risk inherent in a given banking business model, and its influence on the systemic risk – an understanding useful to market participants, regulation and supervision institutions.

3. Banking business models – conditions and supervisory challenges

Implementing business models as a supplementary perspective in supervision mechanisms was related to numerous research projects – concerning identification and methodology – that were undertaken by both the institutions concerned and by academics. These research projects mostly aimed to recognise the types of business models present in the banking sector and their characteristic traits and to align banks with model categories thus identified[5]. This classification approach to banking business models corresponds well with supervision, which requires identifying a subject and its activities and referring its status and position to other entities of the same sector or market (comparative analysis)[6]. It also requires establishing some reference, such as the required levels of supervisory indicators for a given group (grouped, for instance, by their profile/business model).

When treating the business model as a supervisory perspective, certain limitations and directions established by accepted assumptions must be remembered, including definitions, which may differ from definitions and methods accepted in other perspectives (approaches). In Polish implementation of SREP, BION methodology (ways of examination and supervisory evaluation of commercial and cooperative banks), the business model is defined as the means and methods used by an institution to function, to generate revenue, and to develop. This definition does not stress value generation (a distinguishing mark of the business model in structural approach, and an idea present in literature and most analytical and consulting approaches), but its meaning is similar. Nevertheless, the level of structural detail of business model in supervisory approach distinguishes it from conceptual and classificational models. The supervisory perspective can be called a synthesis of these two approaches, strongly anchored in financial conditions (profitability of the current model, or

[5] Scientific papers belonging to the classification approach can be found, among others sources, in: [Roengpitya et al. 2014, pp. 55-65; Vagizova et al. 2014, pp. 83-93; Ayadi et al. 2011; Miklaszewska, Kil 2014, 50-64].

[6] One such an interesting initiative is the annual report dedicated to bank business models and their classification according to accepted methodology [Ayadi et al. 2014] and further.

the influence of changes in the model on the institution's financial plans). A more detailed analysis of this approach will be undertaken in a subsequent part of this article.

The fact that supervisory authorities have judged the banking business model as a supervisory tool on par with evaluating capital, fluidity, and bank management, is the best proof of its usefulness to supervision. The importance of business model and its analysis is stressed by European supervisory institutions, as seen in the supervisory priorities for the year 2016, concerning the Single Supervisory Mechanism, where the business model risk, and the profitability loss risk, were considered crucial risks. Although conclusions from business model analysis cannot be the reason to implement a supervisory measure of additional capital requirements, they should nevertheless be taken into account when evaluating the quality of managing specific risk types. Any anomalies thus detected can result in additional capital requirements. A regular analysis of a bank's business model is supposed to allow the supervisors to evaluate its business and strategic risk, by examining [Metodyka… 2016, p. 27]:

- the current business model of the supervised bank, including its capacity to generate acceptable returns over a period of up to 12 months,
- potential direction of changes in the business model of the institution regarding its strategic decisions, or the influence of business environment, over a period of up to 3 years.

An important aspect of this supervisory approach is pro-active monitoring of the changes in business model/strategy which can cause negative changes for the market position and financial situation of the bank over time. Supervision has become more forward-looking. Institutions' business models and their corporate culture and decision-making processes (which are factors that can have a major bearing on long-term soundness) now form an integral part of supervision [DNB... p. 14]. The result of an evaluation of the business model can allow the supervisors to identify key risks to the development and effectiveness of the bank in short- and long-term perspective. This may include [Metodyka… 2016, p. 29]:

- the expected financial result (loss-generating activities, profitability drop, ROE below capital costs over the planning period),
- the bank's strategy and the actual ability to implement it,
- excessive focus or variability of income (relying on one source of financing or profitability),
- excessive risk exposure,
- financing structure (problems with accessing financial market),
- important external factors (difficulties in implementing regulation requirements).

The effectiveness of business model analysis, not only as a supervisory tool, depends on the method of its structuring and the dedicated analysis process. Established frameworks and conceptual templates are used for this purpose, although the analytical approach encourages supervisory institutions to favour individualised solutions (which may, at least partly, refer to the established, universal solutions)[7]. According to the guidelines for European supervisory institutions, an analysis of a business model of a given entity (bank) should follow these generic phases [Guidelines… 2014, pp. 34-35].

- preliminary assessment,
- identification of the areas of focus,
- assessment of the business environment,
- quantitative analysis of the current business model,
- qualitative analysis of the current business model,
- analysis of the forward-looking strategy and financial plans (including planned changes to the business model),
- assessment of business model viability,
- assessment of the sustainability of the strategy,
- identification of key vulnerabilities to which the institution's business model and strategy expose it or may expose it,
- summarising of the findings and scoring.

There are some key ideas of this procedure that are worth noting. Firstly, it entails both quantitative and qualitative analysis. There is also a link between the business model and business strategy (especially development strategy), and the dynamic character of these interdependent categories is noticed. One of the fundamental precepts is evaluating the viability and sustainability of the business model, and these two terms are used in a defined, financial context. Competent authorities should conduct regular business model analysis (BMA) to assess business and strategic risks and define [Guidelines… 2014, p. 34]:

- the viability of the institution's current business model on the basis of its ability to generate acceptable returns over the following 12 months; and
- the sustainability of the institution's strategy on the basis of its ability to generate acceptable returns over a forward-looking period of at least 3 years, based on its strategic plans and financial forecasts.

Such a distinction between viability and sustainability draws attention to the timing aspect of the analysis (one year/three years), and to the necessity of pro-active monitoring of the bank's situation, in order to allow the supervision to react with sufficient speed. It should also be remembered that the terms of viability and sustainability have a defined financial context and are a part of the financial perspective on business models, so to remove any ambiguity the terms financial viability/financial sustainability should, in fact, be used[8]. This is due to the fact that

[7] An introductory comparison between supervisory approach to business model analysis, and a more universal conceptual frameworks (Business Model Canvas) was described by [Hansen 2016, pp. 144-145].

[8] The problem with ambiguous meanings of viability and sustainability is reflected in Polish translations of the terms and in European guidelines implementations. Viability becomes *rentowność* (profitability) and sustainability becomes "reality of the business model" (Polish translations of the [Guidelines… 2014] or "stability of the business model" (Polish translation of the COMMISSION IM-

business modelling uses these terms in other contexts, not necessarily supervisory, as well. For instance, a business model is viable in terms of technology when the underlying physical technologies can support the business model and when the ICT infrastructure can support the information services required by the business model to work. This can be achieved by considering which type of information services (and, therefore, the ICT infrastructure) and physical technology infrastructure is needed to support the business model [D'Souza et al. 2015, p. 459]. A business model is viable in terms of value when all the participating organisations/stakeholders are able to capture value and so they are committed to the business model.

The details of specific phases contain references to peer groups. Competent authorities should determine the relevant peer group for the institution; to conducting a BMA, the competent authority should determine the peer group on the basis of the rival product/business lines targeting the same source of profits/customers (e.g. the credit-card businesses of different institutions targeting credit card users in country X) [Guidelines… 2014, p. 36]. Placing an institution in its peer group allows the supervisor to note unusual results and behaviours (and possibly examining them closer), to understand macroeconomic and market trends, as well as strategic intentions of banks in a given group, and to determine the fields in which a bank has a competitive advantage.

Implementing the directives of the European Parliament and the European Council, as well as the ordinances of the Commission and the SREP guidelines, in combination with Polish conditions, resulted in the analytical procedure of supervisory sequence, the phases of which are detailed in Table 1.

An analysis of bank business model implemented as part of BION methods naturally respects the European guidelines, but some nuance and small disparities can be observed. Activity profiling appears as part of the introductory business model analysis – identifying crucial elements of the business model. During this identification, a profile of a bank is determined by examining:

- specialisation level – business activity concentrated on chosen forms of services, such as financing foreign commerce, real estate market (mortgage banking), as opposed to a varied array of services (universal banking);
- activity scope and related financing sources – business activity concentrated on handling securities, guaranteeing issuance, and advising (investment banks), as opposed to traditional credit-deposit banking (commercial banks);
- a specific segment of the market – business activity concentrated on chosen market segments, such as financing the automobile industry (automobile banks), or a specific segment of clients (retail banks), a segment of business entities (corporate banks);

PLEMENTING REGULATION (EU) No 710/2014 of 23 June 2014 laying down implementing technical standards with regard to conditions of application of the joint decision process for institution-specific prudential requirements according to Directive 2013/36/EU of the European Parliament and of the Council). A detailed semantic analysis of these terms is not, however, the subject of this article.

Table 1. Analysis of the business model in a procedural approach

Procedure stages			
1. Initial analysis of the business model			
1.1. Identification of the key elements/spheres of the business model			
1.1.1. Importance of the business field	1.1.2. Result of the previous BION process	1.1.3. Influence on strategy implementation	1.1.4. Situation when compared to peer group
1.2. Influence on the business environment			
2. Analysis of the business model			
2.1. Quantitative analysis of the business model			
2.1.1. Profit and loss account	2.1.2. Balance	2.1.3. Risk appetite	
2.2. Qualitative analysis of the business model			
2.2.1. Internal dependencies	2.2.2. External dependencies	2.2.3. Fields of competitive advantage	2.2.4. Franchise
2.3. Strategy analysis			
2.3.1. Projections of financial situation	2.3.2. Strategy precepts	2.3.3. Management capacity	2.3.4. Success factors
3. Results of the business model analysis			
3.1. Supervisory analysis			
3.1.1. Effectiveness of business model	3.1.2. Strategy stability	3.1.3. Key risks	3.1.4. BION grading
3.2. Supervisory actions			

Source: original research basing on instructions for BION methodology.

- service distribution channels – banks using a narrow set of distribution channels, for instance online banking only with no physical representation and actual agencies (Internet banks);
- ownership structure (legal form).

A profile of a bank is one of its more important factors for determining its risk profile, and profiling itself is a part of classification approach (described in the first part of this article), and a reason for the importance of identifying peer groups. Due to the individual traits of the Polish financial sector, basic profiles of banking activity (retail, corporate, universal, automobile, mortgage and others) were established for the BION process, as well as the option to create composite profiles (e.g. universal retail banking).

Quantitative analysis of the business model uses data from a bank's financial reports, mandatory status reports, and financial projections. This analysis is performed individually for each bank by the supervision institution, and it contains references to the peer group as well – this, in turn, focusing on financial results and the main factors influencing these results both for the bank and the peer group [Metodyka… 2016, p. 33].

The conceptual approach is visible in the core phase of the business model analysis, especially in strategy analysis and qualitative business model analysis. This last element is a broad category, somewhat imprecise. Guidelines on the common procedures and methods of supervision processes state that qualitative analysis should pay attention to:

- key external dependencies: competent authorities should determine the main exogenous factors that influence the success of the business model; these may include third-party providers, intermediaries and specific regulatory drivers;
- key internal dependencies: competent authorities should determine the main endogenous factors that influence the success of the business model; these may include the quality of IT platforms and operational and resource capacity;
- franchise: competent authorities should determine the strength of relationships with customers, suppliers and partners; this may include the institution's reliance upon its reputation, the effectiveness of branches, the loyalty of customers and the effectiveness of partnerships; and
- areas of competitive advantage: competent authorities should determine the areas in which the institution has a competitive advantage over its peers; these may include any of the above, such as the quality of the institution's IT platforms, or other factors such as the institution's global network, the scale of its business or its product proposition.

The term "franchise" requires some defining since in this context it does not refer to the idea of franchising, but to franchise value. Franchise value itself has several definitions[9], and its place in finance and banking theory[10], but in this context, the basic definition fits best: franchise value is the present value of the future profits that a firm is expected to earn as a going concern [Demsetz et al. 1996, p. 2]. What is important is the set of factors that influence the franchise value (especially from the point of view of the business model) and why the franchise value matters for supervision. The factors determining franchise value can be divided into market/ external factors (including regulation factors), and individual/internal factors. The latter group encompasses the factors that the bank creates on purpose, as well as those that are caused by its functioning (including its business model and effectiveness)[11]. Thus, the category includes problems of operational effectiveness, quality, diversity and loyalty of the client base, and factors influencing reputation. A high franchise value of a bank allows it to maintain profitability, but should also protect from taking risky decisions (including moral hazard), specifically by discouraging them, since

[9] The term charter value is also used sometimes.

[10] One of the fundamental publications referring to this idea is [Keeley 1990, p. 1183-1200].

[11] Interesting results of research into this matter can be found in [De Jonghe, Vennet 2008, pp. 1820-1835].

they could result in losing the high value rapidly. Reputation loss is disastrous for franchise value[12] and this means the bank would struggle to stay in the market. For these reasons, supervisory institutions and BMA (Business Model Analysis) strive to take the factors building/destroying franchise value into account. The quality and lucidity of these references are not, however, entirely satisfying.

In Polish practice (BION), the question of qualitative analysis of the business model is not determined clearly, and not entirely consistent (meaning both inconsistent implementation, and being inconsistent with guidelines). The methodology does not explain the elements of all types of analysis satisfactorily: there are no detailed references for the phases of the analytical procedure, and the updated version (2015 compared to 2016) introduced general, aggregated theme blocks which have obscured the idea of the business model, strategy, and their relationship. This resulted in further obscuring of the question of franchise value, for example, and of its relevance to business model analysis.

When evaluating the effectiveness of a business model, the supervisory institution should check if it ensures acceptable results, such as sufficient level of capital return compared to capital costs, or income surpassing expenditure. This is also the place for checking if the financing structure matches the business model and strategy, and whether it is stable or not. Examining the extent to which the strategy and the business model rely on risk appetite to ensure revenue is also required.

4. Conclusions

The banking business model, and its analysis used as a supervision tool is a new method of monitoring the activities of supervised institutions, allowing far broader control. This article shows certain contexts and conditions of this perspective, showing its characteristic traits, relating to individual subjects (taking into account the characteristic traits of the banking sector entities, and their business models) and to specific problems (analysis focused on financial aspects and risk). Including the analysis of the bank business model gives a more integrated insight into the situation of the bank under supervision, as well as its environment, including strategic concepts and projects of the bank, their market context and potential effects (both in terms of finance and risk). Conclusions drawn from business model analysis should allow evaluating the implementation of a bank's business plans in relation to financing structure, profitability and risk appetite. It should also answer the questions as to the real feasibility of the strategy adopted for a given business model, especially the capability of a bank to implement planned projects and initiatives, in relation to the business environment dynamics.

[12] On the value of reputation for financial institutions, see, among others [Walter 2013, pp. 205--219].

Implementing the bank business model analysis gives better understanding as to why a bank functions the way it does, what its reactions and behaviours are on the market, and how all this will influence current and future results. The typological approach allows the supervision institutions to perceive some sector-wide dangers generated by certain bank business models and the banks that use those, as well. This approach, therefore, gives a chance to notice anomalies in banks that follow the same business model type.

It should also be noted that the business model of a given bank, seen from the supervisory point of view (a certain type of activities), is not necessarily the same as the business model as seen and created by the bank itself (a certain idea of business practice). This is due to the fact that the supervisory perspective concentrates on some chosen contexts, important from the safety/risk point of view, while marginalising – though not omitting – other aspects of the business model.

References

Auge-Dickhut S., Koye B, Liebetrau A., 2016, *Customer Value Generation in Banking. The Zurich Model of Customer-Centricity*, Springer International Publishing, Cham.

Ayadi R., Arbak E, de Groen W.P., 2011, *Business Models in European Banking. A Pre- and Post-Crisis Screening*, Centre for European Policy Studies, Brussels.

Ayadi R., de Groen P.W., 2014 (and next), *Banking business models monitor Europe*, International Observatory on Financial Services Cooperatives (HEC Montréal)

D'Souza A., van Beest N.R.T.P., Huitema G.B., Wortmann J.C., Velthuijsen H., 2015, *A Review and Evaluation of Business Model Ontologies: A Viability Perspective*, [in:] J. Cordeiro, S. Hammoudi, L. Maciaszek, O. Camp, J. Filipe (eds), *Enterprise Information Systems. ICEIS 2014. Lecture Notes in Business Information Processing*, vol. 227, Springer, Cham, p. 459.

De Jonghe O., Vennet R.V., 2008, *Competition versus efficiency: What drives franchise values in European banking?*, Journal of Banking & Finance, vol. 32, Issue 9, September, pp. 1820-1835.

Demsetz R.S., Saidenberg M.R., Strahan, P.E., 1996, *Banks with something to lose: The disciplinary role of franchise value*, Economic Policy Review, vol. 2, no. 2, 1996, pp. 1-14.

DNB Supervisory Strategy 2014-2018, https://www.dnb.nl/en/binaries/Supervisory_tcm47-307508.pdf.

Falencikowski T., 2012, *Strategia a model biznesu – podobieństwa i różnice. Zarządzanie strategiczne w praktyce i teorii*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 260, pp. 80-93.

Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP), 2014, European Banking Authority/GL/13.

Hansen S., 2016, *The Financial Sector in a State of Flux. Changes to the Business Model of European Banks as a Major Focus for European Supervisory Authorities*, [in:] J.T. Karlovitz (ed.), *Some Studies of Economics Changes*, International Research Institute s.r.o., pp. 144-145.

Keeley M. C., 1990, *Deposit insurance, risk, and market power in banking*, The American Economic Review, vol. 80, no. 5, pp. 1183-1200.

Metodyka BION, 2016, Komisja Nadzoru Finansowego, Warszawa.

Miklaszewska E., Kil K., 2014, *The role of diversity of banking models: positions and propositions of Polish cooperative banks*, Bezpieczny Bank 2(55)/2014, pp. 50-64.

Nosowski A., 2014, *Rola projektowania w tworzeniu usług finansowych*, „Annales Universitatis Mariae Curie-Skłodowska”, Sectio H, Oeconomia, vol. 48, no. 4, pp. 165-175.
Nosowski A., Wawrzyniak D., Woźniewska G. (eds.), 2016, *Oblicza bankowości*, PWE, Warszawa.
Roengpitya R., Tarashev N., Tsatsaronis K., 2014, *Bank business models*, BIS Quarterly Review, December, pp. 55-65.
Theodore S., Villalobos J., 2015, *A Bird's-eye View on European Banks' Business Models: Six Analytical Themes*, www.scoperatings.com (access 11.05).
Vagizova V., Lurie K., Ivasiv I., 2014, *Clustering of Russian banks: business models of interaction of the banking sector and the real economy*, Problems and Perspectives in Management, vol. 12, issue 1, pp. 83-93.
Walter I., 2013, *The value of reputational capital and risk in banking and finance*, International Journal of Banking, Accounting and Finance, vol. 5, issue 1-2, pp. 205-219.
Wirtz B.W., 2011, *Business Model Management. Design – Instruments – Success Factors*, Gabler Verlag – Springer Fachmedien Wiesbaden GmbH, Wiesbaden.