

Motivations for Coopetition Strategies: The Case of Banks and Fintechs

Cristina FONSECA

Faculdade de Economia da Universidade do Porto
Rua Dr. Roberto Frias, 4200-464, Porto, Portugal
isabel.cristina.fs@hotmail.com

Raquel MENESES

Faculdade de Economia da Universidade do Porto
Rua Dr. Roberto Frias, 4200-464, Porto, Portugal
up233177@g.uporto.pt

Abstract. *The growing digitalization of the financial sector gives rise to more or less radical changes, partly, carried out by technological companies focused on financial services, named Fintechs. In this context, banks may lose exclusivity and competitive advantage, but Fintechs rely on the banks' client portfolio; from this paradigm comes the need to adopt dynamic measures that could relate competitiveness and cooperation. This type of alliance promotes different types of innovation. Fintech's operations in the financial sector comply with certain European directives that can act as drivers or as obstacles, depending on the economic and social context of the country concerned. The purpose of this paper was to investigate the main motivations to engage in cooperative strategic alliances between competitors, with the main focus on the relationship between Banks and Fintechs; and their impact on financial innovation. For this, a qualitative exploratory analysis was conducted, using semi-structured interviews. After the interviews, a case of a strategic alliance between a Bank and a Fintech was selected to be analyzed. After the triangulation between Literature Review, primary sources (interviews) and secondary sources (news and relevant documents), result analysis was conducted using the Systematic Combining approach. Regarding the main motivations to cooperate with Banks, Fintechs need Bank's stability and credibility as well as their client portfolio. On the other hand, Banks need Fintech's strong technological capabilities and their ability to provide a better, faster and personalized service to customers. Also, it can be concluded, from the data, that the analyzed partnership provided important innovations for the financial sector. In respect to Regulation, the collected data allows the conclusion that this is an open matter, that can still be improved, so that both Banks and Fintechs answer to the same rules and obtain the same benefits. To summarize, this paper concludes that coopetition strategies between Banks and Fintechs can be an important positive driver in the development of the financial sector innovation.*

Keywords: *Financial sector; coopetition; motivations; innovation; financial innovation; banks; Fintech.*

Introduction

In an increasingly global and competitive market, companies use various strategies to gain competitive advantage (Velu, 2016; Zhan, Li, & Chen, 2018). Due to the peculiar characteristics of the current market, one of the possible strategies is the strategic alliance between competitors, also called coopetition, in which organizations cooperate and compete simultaneously (Bengtsson & Kock, 2014).

The financial sector is currently in a paradigm shift process, as a result of customer's new needs of more personalized products and services; and of the changes accelerated by globalization itself.

According to PWC Global FinTech Report 2017¹, 82% of financial institutions expected to increase alliances with Fintech in the following three to five years; and according to another study (Ernst&Young's Global Banking Outlook 2018²), 70% of banking institutions intend to invest in technology in order to gain competitive advantage.

¹ PricewaterhouseCoopers. *PWC Global FinTech Report (2017)*. Available at: <https://www.pwc.com/gx/en/industries/financial-survey/report.html> (Accessed 3 November 2018)

² Ernst & Young. *Global Banking Outlook (2018)*. Available at: <https://www.ey.com/gl/en/industries/financial-services/fso-insights-global-banking-outlook> (Accessed 3 November 2018)

Kraus, Schmid, and Gast (2017) propose more research that relates the concepts of coopetition and innovation, regarding the financial sector. In addition, Schmidt, Drews and Schirmer (2018) suggest further research on the drivers of collaboration between Banks and Fintechs; as well as Holotiuk, Klus, Lohwasser and Moormann (2018) point out the lack of studies that specify the individual motivations of Banks and Fintech to form strategic alliances.

Financial sector contextualization

The financial sector has undergone profound changes, with emphasis on the adoption of new digital technologies, that impact products, services, processes, and business models. In the last decades, new companies have been continuously emerging, focusing on financial services, based on technological solutions. The traditional banking model thus evolves into a segmented model, by the presence of different players with innovative offers, such as the so-called Fintech.

Fintech results from the combination of two concepts: finance and technology: *"Fintech is a new financial industry that applies technology to improve financial activities."* (Schueffel, 2016, p.32). This concept designates the companies that create technological innovations, with application to the financial sector.

The coopetitive strategies have become more frequent in the financial services industry, mainly due to the disruptive digitalization of the sector, carried out by technological companies, namely Fintech (Kawai, 2016; Lee & Shin, 2018). This new strategic relationship is still little explored in the literature, especially the link between coopetitive relationships and innovation, from the perspective of both banks and Fintechs (Holotiuk et al., 2018; Schmidt et al., 2018).

On one hand, banks are characterized by their credibility and security, but also by bureaucracy and slow processes. On the other hand, Fintech represents simplicity and process agility, along with a transparent and digital experience. Holotiuk et al. (2018) conclude that, in this context, Banks provide Fintech with support in regulatory issues and access to customer bases; on the other hand, Fintech promotes a more individualized and informed contact with the customer.

Motivations in forming Strategic Alliances between Banks and Fintech

In this section, the main drivers to form strategic alliances, first from a general perspective, then in the specific case, between Banks and Fintechs, will be presented.

First, the core motivations to form strategic alliances, in a general way, are, among others: the access to resources (Bengtsson & Kock, 2014; Raza-Ullah, Bengtsson, & Kock, 2014); the willingness to develop innovation (Gast, Filser, Gundolf, & Kraus, 2015; Gnyawali & Park, 2011); and the development of new products or new industry standards (Radu, 2010).

Regarding the strategic partnerships between Banks and Fintech, the literature evidences the increasing digital innovation (Holotiuk et al., 2018) as the main motivation of banking institutions. On the other hand, in the case of technological entities, the literature highlights the possibility of economies of scale (Stewart & Jürjens, 2018; Jakšič & Marinc, 2019), as one of the main objectives, for the formation of strategic alliances with banks.

Finally, what also motivates both parties to establish partnerships is the "customer" factor, materialized in the desire to respond to their new needs, by creating value (Holotiuk et al., 2018; Walley, 2007); which is considered a common motivation for Banks and Fintech's.

The current context of digitalization and globalization promotes the adoption of new and differentiating strategies, as well as the establishment of new strategic alliances; that highlight strengths and reduce weaknesses, of each party involved; among which are the strategic alliances between competitors, also called coopetitive strategies.

Coopetition

“You have to compete and cooperate at the same time” (Noorda, 1993)

The concept of coopetition was originally mentioned by Ray Noorda, Novell’s CEO, and developed on the scientific community by Brandenburger and Nalebuff. The paradigm of coopetition had its origin in the combination of the main characteristics of the concepts of competition and cooperation. Bengtsson and Kock (2000) note that there are different types of cooperative alliances between competitors, with different levels of trade-offs between competition and cooperation.

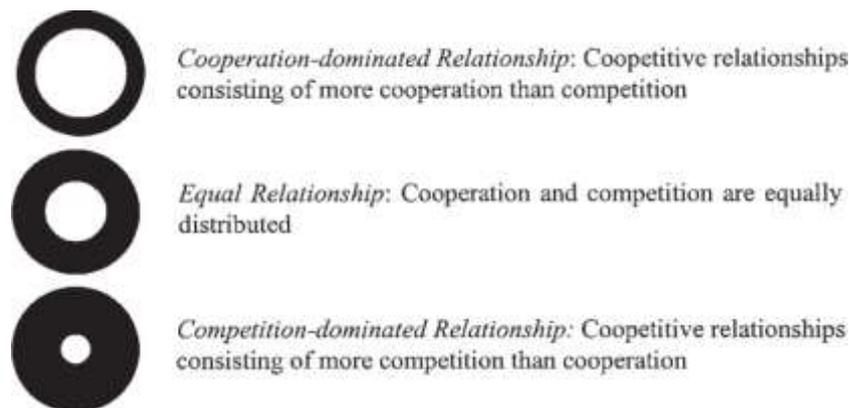


Figure 2. Types of cooperative relationships between competitors (Bengtsson & Kock, 2000, p.416)

Bouncken, Gast, Kraus, and Bogers (2015) refer to coopetition as a paradoxical strategic process in which economic agents create value through cooperation while simultaneously compete to capture part of the value created. The adoption of coopetition strategies allows companies to enhance their competitive advantages (Ritala & Hurmelinna-Laukkanen, 2009), as a result of the development of products or services that, without the participation of the coopetition partner, would be almost impossible to produce (Walley, 2007).

In the context of strategic alliances, and in order to meet the topic under investigation, it is considered relevant to address the collaboration models between Banks and Fintech, presented by Hatami (2018), partner of the consulting company, Pacemakers.io.

Collaboration models between Banks and Fintech

Hatami (2018) says that Banks’ spending on innovation, in order to try to compete with Fintech, hasn’t prevented their development nor the growth of their customer base; on the other hand, Fintech considered that, despite having better technological and innovative capacities, it would be almost impossible to completely eliminate competition from banking institutions. Consequently, according to the same author, both began to consider adopting strategies in which collaboration predominated. Hatami (2018) also distinguished four models of collaboration between Banks and Fintech (Table 1), which show the different ways in which these partnerships take place:

Table 1. Bank & FinTech Collaboration Models (Hatami, 2018)

The Channel	In this model, Banks promote the sale of Fintech products to its customers. Banks benefit from offering an innovative product or service to customers, with low investment, in time and money. Fintech also takes advantage of this partnership, as it has access to bank customers and can increase their credibility. Customers benefit from receiving an innovative offer from their Bank and a guarantee that they can rely on this Fintech.
--------------------	--

The Supplier	In this case, Fintech acts as a supplier of the Bank. In this way, the Bank offers an innovative product/service to the customer, in its own name, where Fintech only contributes as a supplier of the product/service.
The Satellite	In this model, the bank acquires a Fintech but allows it to be independent. Fintech benefits from the invested capital of the Bank and its customer base; already the Bank invests in an innovative area without prejudice to its structure and internal operations.
The Merger	This is the most traditional model of a bank's acquisition of a Fintech, which is fully integrated into the Bank's structure, losing its nominal identity, which allows the Bank to offer innovative products or services, on its own, based on the Fintech's know-how.

Source: Adapted from Hatami (2018)

In the same article, the author considers that all models can be considered before the effective adoption of a strategic alliance between Banks and Fintechs, due to the appearance of a third part of the competitive equation: BigTech (Hatami, 2018). The experts on the topic identify the main BigTech that, at the moment, can threaten the financial system, using an acronym: GAFA (Google, Apple, Facebook, and Amazon); or GAFAA (if the Chinese Alibaba is included).

Strategic partnerships between competitors - cooptation - result in several benefits for the entities involved. One of the main results of Cooptation is, according to several studies, the development of innovation (e.g. Ritala & Hurmelinna-Laukkanen, 2009; Velu, 2016).

Innovation

The Oslo Manual (2005) defines the concept of innovation: *"An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)"* (Oslo Manual, 2005, p.46).

In defining the concept of innovation, the Oslo Manual distinguishes four types of innovation: Product, Process, Marketing and Organizational Innovation (Oslo Manual, 2005, pp.48-51). Regarding the intensity of innovation, Schumpeter distinguishes two types of innovation: radical and incremental. Radical innovations are the source of major disruptive changes, and incremental innovations represent a continuous advance in the process of change (Schumpeter, 1942).

In the context of the theme analyzed, it is also important to define Financial Innovation.

Financial innovation

Frame and White (2004, p.3) define financial innovation as: *"... something new that reduces costs, reduces risks, or provides as improved product/services/instrument that better satisfies financial system participant's demands"*.

Lee & Shin (2018) identified the 5 main elements of the new financial ecosystem:

- Fintech startups (e.g., payment, lending, crowdfunding, and insurance Fintech companies);
- Technology developers (e.g., big data analytics, cryptocurrency);
- Government (e.g., financial regulators and legislature);
- Financial customers (e.g., individuals and organizations); and
- Traditional financial institutions (e.g., traditional banks, insurance companies and venture capitalists).

The interplay between all of these financial ecosystem players is materialized by cooptative strategies; which have to be regulated, in order to maintain financial stability.

Regulation of the financial sector

The financial services industry is characterized by a demanding regulation, however, within the scope of this new dynamic context, there is a need for a more flexible regulation, that can supervise incumbents and new entrants, in an equivalent manner. In order to *"update the regulatory framework for payment services"*,

the "Directive 2015/2366 of the European Parliament and of the Council of 25 November", also known as the revised Payment Services Directive or the Payment Services Directive II (PSD2) was created. This new Directive was officially adopted in the European Union in January 2016, having entered into force only in January 2018.

PSD2 enables non-financial companies to provide technology-based financial services to bank customers upon their authorization (Romanova, Grima, Spiteri, & Kudinska, 2018), such as payments, loans, savings and other services which, as a rule, were provided exclusively by banks.

Romanova et al. (2018) therefore consider that in this scenario of continuous technological progress and competitive intensification, banks are encouraged to focus their strategies on the needs of customers, increasing the quality of the services provided, through collaboration with technological companies, thus remaining competitive and innovative.

Methodology

The main focus of the present study was to analyze:

- The motivations to form cooperative alliances between banks and Fintechs, and;
- How it influences the development of innovation, in the financial sector.

This investigation used a qualitative and exploratory analysis, by the Literature Review; primary sources materialized in semi-structured interviews with collaborators of both organizations; and secondary sources, such as news and relevant documentation. The approach used was Systematic Combining (Dubois & Gadde, 2002). This type of analysis (qualitative and exploratory), according to Babbie (1986) is applied, mainly, in the situations in which the object of study is relatively new and still understudied, which allows a greater flexibility and creativity, during the research (Aaker, Kumar, & Day, 1995). The Systematic Combining method allows to confront the theory with the empirical results, continuously, throughout the investigation; being useful in the development of new theories (Dubois & Gadde, 2002). The authors point out that Systematic Combining was initially related to the inductive approach, in which the theory is continuously generated from the data; and, also, to the deductive approach, that develops hypotheses from theory and tests them empirically. The authors propose a third one: the abductive approach, through which they intend to generate and develop new concepts and new theoretical models, in addition to refining existing theory, rather than just trying to confirm it (Dubois & Gadde, 2002).

For Eisenhardt and Graebner (2007), the case selection is an important process of qualitative analysis; since it is a method mostly applied to a recent theme or a new area of research (Eisenhardt, 1989); therefore, a case of a partnership between a Bank and a Fintech was analyzed.

Data collection

In order to collect data, interviews were conducted in a semi-structured format, which corresponds to a set of open questions about a specific topic. The script for the interviews was based on the Literature Review.

The respondents were selected because they fit the purpose of the ongoing investigation. The interviews were conducted in the Portuguese language, they had an average duration of approximately 20 minutes and they were recorded, with previous permission from the interviewees and later transcribed, in order to preserve the quality of the content (Gibbert, Ruigrok, & Wicki, 2008).

Cases

This study focuses on the partnership between a Portuguese bank, BNI Europa and a Portuguese Fintech, Parcela Já, having been interviewed, the Bank's Chairman and CEO, Mr. Pedro Pinto Coelho and the Fintech's CEO, Mr. Miguel Quintas.

BNI Europa: *"Banco BNI Europa is today the digital bank in Portugal with the highest growth rate. BNI Europa Bank aims to challenge the traditional banking ecosystem by collaborating with Fintechs to launch new*

products allowing the use of the most advanced technology in terms of risk analysis, consumer experience and rapid entry into the market. This strategic orientation allows Banco BNI Europa to affirm itself as a "Challenger Bank", based on the logic of open architecture and differentiation."³

Parcela Já: "The company allows customers, who want to consume products or services, at their selling point, on stores or online, to be able to buy such products or services, in installments of 2 to 12 times, without any type of cost or bureaucracy. What we do is facilitate access to credit at the selling point, in a matter of seconds."⁴

Their partnership enables retailers to make available to customers' payment installments of any purchase.

Data Analysis

To analyze the collected data in the interviews, the NVivo software was used; through which the data was coded in categories, based on the Literature Review. The procedures used allowed the triangulation between the Literature Review and the two types of sources: primary (interviews) and secondary (news and other relevant documents).

Discussion

Motivations in forming Strategic Alliances between Banks and Fintech

Based on the interviews, it can be concluded that this partnership allows them, therefore, to overcome common obstacles in the financial market. The main motivations for them to partner with each other in a strategic alliance are presented, in Table 2. It includes the theoretical categories, presented in the Literature Review, as well as the emerging categories, that were mentioned, during both interviews and taken from other relevant documentation, such as news and press releases, about this partnership and other general Bank-Fintech partnerships.

Table 2. Motivations to form Strategic Alliances (Banks & Fintechs)

General Drivers	Author(s)	Times Mentioned	Interviews
Access to resources	Bengtsson & Kock (2014); Raza-Ullah et al. (2014)	8	"We used Fintechs, who had knowledge in some parts of the value chain, of this project..." (Mr. Pedro Pinto Coelho - Banco BNI Europa)
Development of new products or new industry standards	Radu (2010)	6	"...we were able to broaden the product spectrum and do other things that would otherwise be very complicated." (Bank BNI Europa)
Willingness to develop Innovation	Gast et al. (2015); Gnyawali & Park (2011)	6	"...our solution is disruptive, deep down is breaking with an existing tradition in the financial market" (Mr. Miguel Quintas - Parcela Já)
Bank drivers	Author(s)	Times Mentioned	Interviews
Theoretical categories			
Digital innovation	Holotiuik et al. (2018)	2	"We were the 1st institution in Portugal, and one of the firsts, in Europe, which managed to do every customer-related processes ... in a digital way."
Emerging categories			
Fintech's technology know-how		4	"we have already taken advantage of existing technology... therefore, we had several partnerships, with some Fintech"

³ Directly translated from BNI Europa website. Available at: <https://bnieuropa.pt/o-banco-bni-europa/sobre-%20nos/> (Accessed 30 May 2019)

⁴ Directly translated from the interview with Mr. Miguel Quintas (CEO of Parcela Já) (9 April 2019)

Lower costs		1	"... for this reason, we have done all of this (partnerships) because if we did it internally, we would have to have higher investment capacity... we were able to do other things that would otherwise be very complicated."
Process Agility ⁵		1	"... some Fintech's will also try to make themselves a part of the Banks business themselves, more quickly."
Fintech Drivers	Author(s)	Times Mentioned	Interviews
Theoretical categories			
Economies of Scale	Stewart & Jürjens (2018); Jakšič & Marinc (2019)	1	"The Bank that partners with us is chosen because of this... it is a Bank that wants to put all its products and services on online platforms and hence reach its target market..."
Emerging categories			
Partnerships with Disruptive Banks		1	"The Bank that partners with us is chosen precisely because of this: it is a challenger himself..."
Bank's Market Knowledge		2	"... and the Bank contributed with traditional knowledge about the financial sector."
Easier Regulatory Compliance		2	"... to overcome compliance, with a Bank that had these characteristics completely covered ..."
Common Motivation – Banks & Fintechs			
Motivation	Author(s)	Times Mentioned	Interviews
Customer	Holotiuk et al. (2018); Walley (2007)	10	"It must promote innovation and competition in the industry to increase and improve the quality of products and services for customers." (BNI Europa) "... it is a challenging bank that understands, within its strategy ... added-value products or services, for the customer and we were able to combine their interest with our interest." (Parcela Já)

Coopetition

Also, concerning the Types of Coopetition model (Bengtsson & Kock, 2000), they both affirm that their coopetitive relationship is balanced (Equal Relationship) since they can offer a similar service, but they can only obtain the most advantageous result when they use each other's singular capacities:

"With us acting in technology and marketing and the Bank acting in a more traditional section, we both have managed to overcome all the obstacles that have been placed, to reach customers, and to place our product in the market, together." (Mr. Miguel Quintas – Parcela Já)

Collaboration Models between Banks and Fintech

This alliance can also be connected with The Supplier model, described by Hatami (2018), in his article, regarding collaboration models between Banks and Fintechs, since, in this case study, the Bank offers an innovative product, supplied by the partner Fintech.

Innovation

Regarding the impact on financial sector innovation, the interviewed Bank has listed various product and process innovations, accomplished by partnering with several Fintech's, on many market segments, which shows a lot of interest in the matter, as well as it indicates a huge willingness to improve financial innovation. When it comes to innovation intensity, this Bank has tried to disrupt what is established and has, already, put in the market new products that resemble the characteristics of radical innovations; also, they affirm that, in the partnership, here, analyzed, the more important innovation, besides product

⁵ Expresso (2018). *Parcerias entre bancos e fintech são essenciais para o futuro dos serviços financeiros*. Available at: <https://expresso.pt/economia/2018-03-07-Parcerias-entre-bancos-e-fintech-sao-essenciais-para-o-futuro-dos-servicos-financeiros> (Accessed 24 May 2019)

innovation is the way they approached the customer: *"The big innovation here wasn't the financial product itself, but the way to approach the customer."* (BNI Europa)

On their side, the interviewed Fintech contributes, to this alliance, with product innovation, materialized in the purchase's installment payment solution; that was the main innovative result of this partnership.

Regulation of the financial sector

On the subject of regulation, the Bank says it should balance rules for both of them, but it should, also, promote innovation and competition: *"I believe that the Regulator should ensure that there is an adequate level of competition and that the rules are respected by both, but it should also promote innovation and competition in the industry to increase and improve the quality of products and services to the clients."*; on the other side, the Fintech affirms that the new Payment Services Directive should benefit the customer, in the first place and not the incumbents: *"The goal is clearly to benefit customers ... but I believe that what has been done, at this point, will only benefit the incumbents ..."*. Then, it can be concluded that both worry about the regulation's impact on the customer.

Conclusions

Coopetition strategies are being widely adopted and represent a means for the creation of innovations, however, there are still few studies that investigate the adoption of cooperative strategies within the financial sector. It is therefore important to increase research on the subject and, above all, on the real motivations that lead Banks and Fintech to strategically merge in a context of digital and financial innovation. Results show that both the Bank and Fintech interviewed are very receptive to establishing partnerships with Fintech's and Banks, respectively.

Regarding the general cooperative motivations, the results show that both bank and Fintech mentioned the Access to Resources as the main motivation to form strategic alliances with one another; which relates to one of the principal drivers for cooperative alliances, according to the Literature (Bengtsson & Kock, 2014; Raza-Ullah et al., 2014).

Regarding Banks' individual motivations, BNI Europa emphasized the Fintech's technology know-how and the growing digital innovation as the main drivers to form an alliance with the interviewed Fintech. On their side, Parcela Já highlighted the access to BNI Europa's knowledge about the financial market and the easier Regulatory compliance, as the main motivations to establish a partnership with the interviewed Bank.

Finally, the common motivation – the customer – was mentioned by both interviewed, more times than all of the other motivations, thus confirming it as the main motivation to this analyzed partnership.

In the analyzed case, it was concluded that this strategic partnership established, resulted in the creation of innovations, mainly product and process innovations, as well as some innovations of more radical intensity.

This study added to general knowledge about cooperative strategies with findings about the principal drivers for Banks and Fintech to cooperate. The interviews showed that both Bank and Fintech were very predisposed to the formation of the analyzed cooperative alliance and to the formation of future strategic partnerships. In addition, it was concluded, from the interviews, that the main motivation for establishing this and other partnerships was the "customer" factor, materialized in the desire to create value in order to answer to their new needs, arising from the increasing digitalization of the financial sector. However, this study has some limitations, especially regarding generalization of results.

The next Table 3 concludes this case study analysis by schematizing the Motivations, taken from Literature, the categories of motivations that emerged during the interviews, and finally the main results of the partnership. Even though data was triangulated, future investigations could make hypothesis based on these results and test them quantitatively or by using larger samples.

Table 3. Conclusions of the case study

Theoretical motivations	Case study motivations	Case study outcomes
Access to resources	Bank	Product innovation
Development of new products or new industry standards	Fintech's technology know-how	
Willingness to develop Innovation	Lower costs	
Banks	Process Agility	Process innovation
Digital innovation	Fintechs	
Fintechs	Bank's Market Knowledge	
Economies of scale	Easier Regulatory Compliance	Radical innovation
Common Factor (Banks & Fintechs)	Partnerships with Disruptive Banks	
	Customer	

References

- Aaker, D., Kumar, U., & Day, G. (1995). *Marketing research*. 5th ed. New York, NY: John Wiley.
- Babbie, E. (1986). *The practice of social research*. 4th ed. Belmont: Wadsworth Publ.
- Bengtsson, M., & Kock, S. (2000). "Coopetition" in Business Networks—to Cooperate and Compete Simultaneously. *Industrial Marketing Management*, 29(5), 411-426.
- Bengtsson, M., & Kock, S. (2014). Coopetition-Quo vadis? Past accomplishments and future challenges. *Industrial Marketing Management*, 43(2), 180-188. doi:10.1016/j.indmarman.2014.02.015.
- Bouncken, R., Gast, J., Kraus, S., & Bogers, M. (2015). Coopetition: a systematic review, synthesis, and future research directions. *Review of Managerial Science*, 9(3), 577-601. doi:10.1007/s11846-015-0168-6.
- Brandenburger, A., & Nalebuff, B. (1996). *Co-opetition*. London, UK: Harper Collins.
- Dubois, A., & Gadde, L. (2002). Systematic Combining: An Abductive Approach to Case Research. *Journal of Business Research*. 55(7), 553-560. doi:10.1016/S0148-2963(00)00195-8.
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K., & Graebner, M. (2007). Theory Building from Cases: Opportunities and Challenges. *Academy of Management Journal*, 50, 25-32. doi:10.5465/AMJ.2007.24160888.
- Frame, W.S., & White, L.J. (2004). Empirical Studies of Financial Innovation: Lots of Talk, Little Action? *Journal of Economic Literature*, 42(1), 116-144. doi: 10.1257/002205104773558065.
- Gast, J., Filser, M., Gundolf, K., & Kraus, S. (2015). Coopetition research: Towards a better understanding of past trends and future directions. *International Journal of Entrepreneurship and Small Business*, 24(4), 492-521. doi: 10.1504/IJESB.2015.068637
- Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What Passes as a Rigorous Case Study?. *Strategic Management Journal*, 29(13), 1465-1474. doi:10.1002/smj.722.
- Gnyawali, D., & Park, B. (2011). Co-opetition between giants: Collaboration with competitors for technological innovation. *Research Policy*, 40(5), 650-663. doi: 10.1016/j.respol.2011.01.009.
- Hatami, A. (2018). How Big Banks Could Stand Up to the Big Tech Challenge. Available at: https://medium.com/@a_hatami/bank-fintech-collaborations-how-big-banks-plan-to-stand-up-to-the-big-tech-challenge-24eea57db095 (Accessed May 19, 2019)
- Holotiuk, F., Klus, M., Lohwasser, T., & Moormann, J. (2018). Motives to Form Alliances for Digital Innovation: The Case of Banks and Fintechs. In *31th Bled eConference: Digital Transformation - Meeting the Challenges*. doi:10.18690/978-961-286-170-4.20.
- Kawai, Y. (2016). FinTech. *IAIS International Association of Insurance Supervisors*, 53(2).
- Jakšič, M., & Marinc, M. (2019). Relationship Banking and Information Technology: The Role of Artificial Intelligence and Fintech. *Risk Management*. 21(1), 1-18.
- Kraus, S., Schmid, J., & Gast, J. (2017). Innovation through coopetition: An analysis of small-and medium-sized trust companies operating in the Liechtenstein financial centre. *International Journal of Business Science and Applied Management*, 12(1), 44-60.
- Lee, I., & Shin, Y.J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35-46. doi: 10.1016/j.bushor.2017.09.003.

- Noorda R. (1993). Co-opetition. *Electronic Business Buyer*, 8-12.
- Radu, C. (2010). Need and potential risks of strategic alliances for competing successfully. *Economia. Seria Management*, 13(1), 165-169.
- Raza-Ullah, T., Bengtsson, M., & Kock, S. (2014). The coopetition paradox and tension in coopetition at multiple levels. *Industrial Marketing Management*, 43(2), 189-198. doi: 10.1016/j.indmarman.2013.11.001.
- Ritala, P., & Hurmelinna-Laukkanen, P. (2009). What's in it for me? Creating and appropriating value in innovation-related coopetition, *Technovation*, 29(12), 819-828.
- Romanova, I., Grima, S., Spiteri, J., & Kudinska, M. (2018). The payment services Directive II and competitiveness: The perspective of European fintech companies. *European Research Studies Journal*, 21(2), 3-22.
- Schmidt, J., Drews, P., & Schirmer, I. (2018). Charting the Emerging Financial Services Ecosystem of Fintechs and Banks: Six Types of Data-Driven Business Models in the Fintech Sector. *Hawaii International Conference on System Sciences*. doi:10.24251/HICSS.2018.625.
- Schueffel, P. (2016). Taming the Beast: A Scientific Definition of Fintech. *Journal of Innovation Management*, 4, 32-54.
- Schumpeter, J. (1942). *Capitalism, Socialism, and Democracy*. New York, NY: Harper and Brothers.
- Velu, C. (2016). Evolutionary or revolutionary business model innovation through coopetition? The role of dominance in network markets. *Industrial Marketing Management*, 53, 124-135. doi:10.1016/j.indmarman.2015.11.007.
- Walley, K. (2007). Coopetition: An Introduction to the Subject and an Agenda for Research. *International Studies of Management & Organization*, 37, 11-31. doi:10.2753/IMO0020-8825370201.
- Zhan, J., Li, S., & Chen, X. (2018). The impact of financing mechanism on supply chain sustainability and efficiency. *Journal of Cleaner Production*, 205, 407-418. doi:10.1016/j.jclepro.2018.08.347