




Investigations on business model innovation and company's development

ADAM DYMITROWSKI

Poznań University of Economics and Business, Institute of International Business and Economics,
Department of International Marketing, al. Niepodległości 10, 61-875 Poznań, Poland

✉ adam.dymitrowski@ue.poznan.pl

ORCID  orcid.org/0000-0002-9662-7857

Abstract

Motivation: In the dynamically changing environment companies are looking for new ways to build competitive advantage. One of them could be business model innovation. Despite the rapidly increasing number of research on business model innovation, understanding its role for company's development is still difficult.

Aim: The aim of the paper is to identify the role of business model innovation for company's development.

Results: A map of up-to-date information derived from the literature was delivered. It not only helped to identify the common standpoints within existing research, but determined relationships between business model innovation and company's development. Additionally, identifying directions for future research was possible.

Keywords: *business model innovation; co-occurrence analysis*

JEL: L21; M10; O30

1. Introduction

Innovation is one of the hot topics nowadays. It is so because traditional ways of building competitive position by companies don't seem to be enough neither for companies nor the buyers. In face of fierce competition companies are constantly looking for new methods of building favourable market position and achieving positive performance. However, fashion for innovation may not last forever. With time it will be more and more popular, finally becoming

a standard rather than a way to outperform competitors. Maybe such a situation is taking place already? Therefore, there is a need to identify even more ‘innovative’ tool in order to stay ahead in the market. A phenomenon which is dynamically gaining popularity is business model innovation. It seems to be better than ‘standard’ innovation while it brings novelty to a whole new level. A level which can be described as the manner of doing business.

Although lately business model innovation caught the attention of researchers as well as representatives of business practise its impact on the company remains vague. In the existing literature on business model innovation an ambiguity can be observed. On one hand business model innovation should ensure the company with rapid and unruffled growth. On the other however, it is complicated in terms of implementation and requires a unique set of capabilities and resources. Additionally, there is a limited number of publication which analyse the impact of business model innovation on company in a comprehensive manner. Most of the existing publication focus only on a specific aspect of market activity, neglecting other possible outcomes.

In light of the identified research gap the aim of this paper was to identify the role of business model innovation for company’s development. In order to achieve the aim of the paper an extensive literature review was performed. With the use of a computer program a map of relationships existing between different themes referring to business model innovation and development has been presented and served as the base for analysis.

Paper consist of six sections. The first one (Introduction) justifies the importance of researched problem and explains the motivation for writing the paper. The second section (Literature review) present the results of previous studies and help to position this research among the other. The third section (Methods) in detail explains the stages of the research process as well as characterize the applied method. The following section (Results) contains the outcome of performed analysis and gives information about different themes existing in the literature which are associated with business model innovation and development. The fifth section (Discussion) position the obtained results among existing studies. The following section (Conclusions) sums up the whole paper, presenting its value, implications as well as direction for future studies. Paper finishes with the list of references (References) and a map of keywords referring to the topic of business model innovation and development (Annex).

2. Literature review

In the literature concerning business model innovation there is no single definition which would be generally accepted (Casadesus-Massanell & Ricart, 2009). According to Rask (2014) business model innovation is to discover a fundamentally new business model in a company. Some authors are being more specific and point out certain elements which describe a business model and need to be changed in order to achieve a business model innovation. According to Hao-

Chen et al. (2013) these are: repositioning a customer value proposition, redesigning the profit formula and key resources and processes. Except from these elements Liang et al. (2013) mention also target markets, value chain structure, capabilities as well as position in a business network.

Apart from identification of different elements of business model innovation by researchers there is also no consensus on how many of those elements should be changed in order to achieve an innovation. According to Bojoaga & Petrisor (2013, pp. 38–43) business model innovation requires a change of at least two elements. On the other hand, Rayna & Striukova (2016) believe that modification of at least one element is sufficient in order to innovate a business model. The latter stand seems to be more appropriate since innovation is a change of a qualitative, not quantitative character. However, it should be pointed that the more elements are subjected to change, the more probable is to achieve a radical character of business model innovation. For the purpose of this study business model innovation is defined following the suggestion of Saur-Amaral et al. (2016), who describe it as change of elements (or combination of elements) which characterize the manner of doing business by a company in order to increase the generated value. Such a definition seems to be the most appropriate one, while it not only describe the essence of the studied phenomenon, but also refers to the aspects mentioned by other authors.

Existing literature is also not consistent when describing the role of business model innovation. According to Zott et al. (2010) business models to a great extent explain results obtained by companies. Zalewska-Kurek et al. (2014) even believe that appropriately diversified business model can serve as a tool helpful in building competitive advantage. Bojoaga & Petrisor (2013, pp. 38–43) state that business model innovation can generate profit incomparable higher than product or process innovation. Hao-Chen et al. (2013) suggest that business model innovation not only have a positive impact on company's performance and its survival capability, but also its development potential. The ones who see the positive influence of business model mention specific market performance indicators such as sales, profit, income, market share (Bojoaga & Petrisor, 2013, pp. 38–43) or ROE (Bouncken & Fredrich, 2016).

However, there are also those who point out certain cons of business model innovation. According to Miles et al. (2006) many business models have failed because managers ignore the necessity to develop soft assets which are necessary in the innovation process. 'Business model innovation can be a threat as business model innovation goes along with a high level of complexity and uncertainty. Moreover, business model innovation may cannibalize a firm's extant business model — especially if external pressure forces the firm to innovate' (Laudien & Daxböck, 2015). Therefore, the role of business model innovation in company's development should also be analyzed from perspective of negative market performance indicators such as losses, costs and risk (Bojoaga & Petrisor, 2013, pp. 38–43).

Taking into consideration two contradictory stands described above an ambiguity existing in the literature was identified. Moreover, many authors consider the phenomenon of business model innovation as still unexplored. According to Schneider & Spieth (2013) the concept remains vague and practitioners seek guidance in this matter. Guo et al. (2013) believes that scholars need to take greater efforts to advance research in this area. Breuer & Ludeke-Freund (2014, pp. 1–17) also mention that the problem-solving potential of business model innovation is still unexplored. Additionally, Saur-Amaral et al. (2016) points out that no cumulative effects of gathering knowledge among existing publications on business model innovation can be seen.

Taking this fact into consideration a substantial research gap existing in the literature on the role of business model innovation for company's development was identified.

3. Methods

In order to achieve the aim of the paper, which was to identify the role of business model innovation for company's development, a thoroughful literature review has been conducted. Such a type of analysis is useful in case of researching complex scientific phenomenon which have recently emerged and there is no agreement among the researchers on the nature of the problem. Business model innovation represents such a phenomenon, while it is a relatively new and yet undiscovered issue, encompassing variety of company's fields of activity (Dymitrowski, 2016, pp. 19–28).

For the purpose of analysis, the data was extracted from the Web of Science Core Collection database. Web of Science has been chosen as a source of data for its scientific reliability and richness in terms of number of publications. In order to find the appropriate publications specific criterions were applied. The first one was to search for publications using the filter 'topic'. The filter 'topic' was used instead of 'title', because it provided more results. The second criterion was to search for publications referring simultaneously to both topics 'business model innovation' and 'development' which corresponds with the aim of the paper. The third one was a time span which included years from 1900 (which is the earliest possible date) to 2019. In result 279 different publications were found. The list of publications has been narrowed only to the ones from the field of management and business. The refined list provided 136 different publications which served as the basis for analysis.

The data of 136 publications (including full bibliometric record and cited references) was exported into a tab-delimited text file. A tab-delimited text file was then imported to VOSviewer which is a computer program useful when performing a literature review analysis in a professional manner. It is so, because VOSviewer enables to identify the relationships occurring between different publications. While each publication is described by some bibliographic parameters (such as authors, title, keywords, etc.), these parameters can be used in or-

der to check for possible relationship existing between different publications. Moreover, VOSviewer enables also to create a map of such relationships. In order to use this option a type of analysis in the VOSviewer program has been set to ‘co-occurrence’. The co-occurrence analysis is used to identify key research themes in a specific knowledge area by measuring the co-occurrence of pairs of elements (Liu et al., 2015).

The unit of analysis has been specified as author keywords, while they refer to the essence of each publication. In result 375 keywords describing 136 different publications were identified. For the purpose of creating a map of relationships between the identified keywords a threshold for the minimum number of occurrences of a keyword has been set up as three. Such a decision has been made taking into account purely practical matters. If the threshold was defined as lower it would deliver too many keywords and made the map unreadable (e.g. in case of threshold defined as two program delivered 42 keywords at the same time making the map almost impossible to comprehend). Therefore, threshold defined as three was the first acceptable option. On the other hand, higher thresholds (e.g. four, five, six, etc.) would make the map too simple at the same time reducing its value. In result of defining the threshold for the minimum number of occurrences of a keyword as three, 14 keywords have been identified.

Then two operations were performed on the previously identified 14 keywords. Firstly, the keyword ‘case study’ was removed from the list while it referred to a scientific method instead of a specific field of science (in contrast to the other identified keywords). Secondly, keywords ‘business model’ and ‘business models’ were merged into one keyword, because they referred to the same issue. The new keyword which resulted from the merge was labeled ‘business model’. In result of performed operations a map of interlinks existing between different keywords describing publications referring to business model innovation and development was created.

4. Results

Results of performed analysis are presented in scheme 1. It shows a map of relationships occurring between different keywords referring to the topic of business model innovation and development. The map illustrates not only the up-to-date status of knowledge in the researched area, but also identifies the key research themes. Taking into account their number and diverse character one could acknowledge the complex nature of business model innovation and its important role in company’s development.

Taking into consideration the co-occurrence of keywords the research themes presented in scheme 1 have been grouped (by the VOSviewer program) into seven clusters. The first cluster includes themes such as business model and innovation strategy. The second cluster includes themes such as entrepreneurship and innovation management. The third cluster includes such themes as big data and innovation. The fourth cluster includes such themes as business

model innovation and servitization. The fifth cluster includes such themes as open innovation and sustainability. The sixth cluster refers to circular economy. The seventh cluster refers to competitive advantage. Each of the seven clusters provide a different perspective on the role of business model innovation in company's development.

When taking into account the first cluster, which refers to themes such as business model and innovation strategy, one should notice a few interesting facts. Firstly, many authors (e.g. Lu & Liu, 2016; Zheng & Xinsheng, 2014) perceive the Internet as a factor boosting the development of new business models by imposing the necessity to change company's strategy. Exemplifications of such situation can be seen in different industries where companies are adopting the manner of operating in the market to requirements of e-trade. Going online not only enables companies to access new market segments, but to save costs as well.

Secondly, according to Zheng & Xinsheng (2014) new business model is the result of well executed innovation strategy. Authors have analyzed the existing business model of Xiami Websit, a company operating in music industry, and came up with a proposition of the new type of strategy — the one of a business model. Results of their study imply that in some industries it is necessary for the company to implement an innovation strategy aimed at searching for new ways to operate in the market. Similar opinion have Lu & Liu (2016), according to whom innovative business models not only help to improve the value offered for the buyer, therefore increasing customer satisfaction, but at the same time improve the operational efficiency of the enterprise value chain and utilization of resources.

When taking into account the second cluster, which refers to themes such as entrepreneurship and innovation management, a special attention should be paid to study of Ruseva & Ruskov (2015). According to them the business environment has changed drastically, offering companies new possibilities by opening up the global market, lowering entry barriers in many industries and making technology cheaper. These opportunities can be exploited by companies characterized by entrepreneurship (e.g. startups). An important conclusion which can be drawn from this cluster is that in the past business modeling used to be associated with technology innovation management, but nowadays it has become a major discipline in entrepreneurship. Therefore, entrepreneurship is driving company's development by fueling the innovation of business models.

When taking into account the third cluster, which refers to themes such as big data and innovation, interesting observation was made by Xing (2018). According to him the use of big data is changing the retail business. This fact imposes that big data is a factor driving the development of the whole retail industry. Considering it author came up with a proposal of a business model innovation which can be used by companies willing to change their manner of doing business. A lesson which emerges from this cluster is that big data can help

to innovate the existing business model and draw a new path of development for the company.

When taking into account the fourth cluster, which refers to themes such as business model innovation and servitization two important issues should be pointed out. Firstly, for many companies (even traditional manufacturers) it is becoming a necessity to pursue servitization. However, in some cases in order to perform a successful servitization there is a need to build relationships with external entities. E.g. the quantitative study of Bustinza et al. (2019) examines success of manufacturing firms cooperating with knowledge-intensive business service companies. Such a cooperation help them to innovate business models and offer not merely a product, but a new service which includes the delivery of a product as well. Therefore, servitization can influence company's performance. According to authors such a situation is characteristic for R&D-intensive industries, but also takes place in other types of industries. In this context Jinghua et al. (2016, pp. 123–128) state that innovation of company's business model is greatly dependent on the development of the industry the company operates in.

Secondly, there are some specific capabilities which can help company to successfully incorporate servitization into a business model thus creating a business model innovation. E.g. a study of Beltagui (2018) presents results of analysis on capabilities of manufacturing firms which allow them to implement a service business model. In the paper servitization is believed to be dependent on design capabilities possessed by the companies, which give the final shape of an offered service. Other types of capabilities which are often mentioned in the literature include intellectual property, research and development, team building and protective capability (Jinghua et al., 2016, pp. 123–128). All together they help to preserve the implemented business model innovation by making it more difficult to be copied for the competitors.

When taking into account the fifth cluster, which refers to themes such as open innovation (OI) and sustainability, one should notice that business model innovation requires from the company to stay open for potential opportunities which arise in the environment and can be exploited with the use of relationships build with external entities. Such an open approach could be beneficial in terms of innovations (Tidd & Bessant, 2018). However, the challenge for the open innovation approach is to provide the benefits not only to a single company, but to the highest possible number of actors. For this reason business model innovation should ensure sustainability. According to Breuer & Ludeke-Freund (2017) managers should keep in mind shared values of different actors engaged in the innovation process. It could result in creation of new structures of relationships between market entities as well as new types of business models which address complex societal problems (e.g. unsustainability of current forms of energy supply).

Shared value was a starting point for Roszkowska-Menkes (2018) who examined the relationship between open innovation and a form of sustainability

which is corporate social responsibility (CSR). According to her there are a few elements moderating such a relationship. These are the engagement of employees as well as external stakeholders, CSR-driven selective revealing and adoption of the OI approach. She presented a model that can be adopted by the company in order to capture value from stakeholders. In this context an interesting research has been done by Schaltegger et al. (2016) who presented the idea of co-evolutionary business model development for different types of actors existing in the market which adoption results in sustainable change of the market. Therefore, by adopting an open innovation approach company can create a sustainable business model innovation which could help to spread sustainable solutions across the whole business environment the company operates in.

The sixth cluster refers to circular economy. The circular economy is a phenomenon discussed more vigorously in recent days, because of limited resources being at disposal for the society. Therefore, the aim of circular economy is to provide sustainable economic growth through the re-use and improved distribution of products or resources (Antikainen & Valkokari, 2016). In case of circular economy business model innovation is of utmost importance (Whalen, 2017). It is so because business model innovation encompasses the attempts to incorporate the aims of circular economy into business practice. Companies gain many benefits for adopting to the requirements of circular economy. This issue seems to be especially important in case of developing countries. For this reason, Goyal et al. (2018) analyzed the influence of circular model on development of companies in India. According to them innovating a business model in line with rudiments of circular economy helps to generate value from products over multiple lifecycles. A similar conclusion has been drawn by Nussholz (2017) who believes that circular economy can help to reinvent company's business model and benefit financially from cycling resources.

However, implementing the rules of circular economy into a business model does not result from pursuit for sustainability, but rather the search for competitive advantage by companies (Horvath et al., 2019). Moreover, such a process is quite difficult and exemplifications of circular business models are still rare. There are two interdependent reasons for such a situation (Linder & Willander, 2017). The first one is a high uncertainty while circular business models to a great extent rely on external actors instead of the company itself. The second reason are high costs of circular's solution implementation.

The seventh cluster refers to competitive advantage. Business model innovation is linked to competitive advantage in a couple of ways Bashir & Verma (2019). Firstly, business model innovation ensures taking an advantage position for the company between competitors. Secondly, business model innovation influences results achieved by the company. Thirdly, business model innovation helps to gain strategic flexibility for the company. According to Rodica et al. (2015) the connection existing between competitive advantage and business model innovation is the reason for the growing popularity of this research phe-

nomenon. Business model innovation explains why companies with similar characteristics (e.g. in terms of resources) have different performance.

Business model innovation can help to create competitive advantage not only locally, but also internationally. Autio (2017) examined business model innovation of international new ventures. He states that there are a few conditions that need to be met in order for INV to stay competitive in the international environment. These are: learning orientation, using digital tools, adopting to international market different characteristics and a niche orientation. Therefore, the process of expanding into international markets can offer many sources of competitive advantage for the company. However, in order to exploit these sources a company must follow the previously specified rules. As described by the author: ‘long-term advantage can be ensured by cementing cross-border advantages into the cross-border operation’ (Autio, 2017, p. 211).

Results of performed analysis on the role of business model innovation for company’s development brought fruitful results. Information provided by the first cluster imply that business model innovation should be seen as a form of a specific strategy that company adopts in order to develop. The second cluster points out the fact that adopting a strategy of business model innovation requires from the company not only innovation management techniques but also capabilities such as entrepreneurship. A useful tool for business model is big data which incorporated by the company should be seen as a form of innovation (third cluster). The fourth cluster indicates that servitization also helps to innovate the business model. In order to trigger the innovation process of a business model, as stated in the description of the fifth cluster, a company need to adopt the open innovation approach which also provides sustainability. A topic closely related to sustainability has been pointed out in the sixth cluster stating that circular economy can cause business model innovation. Analysis was summed up by the seventh cluster which referred to competitive advantage underlying the role of business model in company’s development.

5. Discussion

When discussing the results presented in the paper there is a need to point out that in order to perform the literature review analysis a specific computer program (VOSviewer) was used. Although it is not a common solution, similar papers can be found in the literature, e.g. Liu et al. (2015). Taking this fact into consideration, author strongly believes that it is a useful way to perform the literature review analysis and obtain fruitful results. However, some concerns could raise the manner of grouping research themes into clusters. For the purpose of the presented study it was done taking into consideration the co-occurrences of keywords associated to each publication. Such a method has specific advantages as well as drawbacks. The main advantage is a relatively high objectivity — the program takes into consideration ‘hard data’ in order to perform the clustering. It seems that objectivity is key issues for truly critical analysis

of literature. However, there is also a weak spot in the adopted method. It lies in the threshold of minimum number of occurrences of a keyword which needs to be met in order to include the publication in results. At this point the program's objectivity is to some extent softened by the 'human factor'.

When comparing results presented in this paper to other existing literature review studies on business model innovation and company's development (Bashir & Verma, 2019; Bigdeli et al., 2017; Lili, 2014; Steinhofel et al., 2016) one could easily see the thorough character of presented information. Up till now publications were focusing only on a specific aspect of company's business model innovation and development phenomenon. E.g. Lili (2014) analyzed the influence of Internet, while Bigdeli et al. (2017) focus on servitization. Adopting such a research perspective enables to analyze the problem in detail, but lacks a holistic approach. In contrast to such publications the results presented in this paper draw a full picture of the role of business model innovation in company's development.

6. Conclusion

The purpose of this study was to identify the role of business model innovation in company's development. In order to achieve this aim a thoroughful literature review was performed. Literature review was chosen as a method to achieve the aim of the paper taking into consideration complex character of the researched phenomenon (Dymitrowski, 2016, pp. 19–28) as well as lack of consensus identified in the existing literature. With the use of a computer program (VOSviewer) different research themes referring to business model innovation and development were identified. The themes were then grouped into cluster. Clusters helped to describe the influence of business model innovation on company's development.

Results presented in the paper possess a specific value — they offer a comprehensive and complete map of research themes associated with business model innovation and development. Therefore, in a complex way they describe the role of business model innovation from the perspective of company's development. Additionally, achieved results present up-to-date state of knowledge on the studied phenomenon.

Apart from providing useful information for the representatives of science, achieved results can help to formulate some recommendations for business practice. Results can serve as a roadmap for managers who are willing to develop their companies with the use of business model innovation. By taking into account the identified clusters they can learn about most common associations taking place between different types of company's activity. By acknowledging this fact, they can adjust company's development strategy.

Since the presented literature review is a mere first step in researching the role of business model innovation it has some limitations. One of them was imposing a specific limit (threshold of minimum number of keyword oc-

currence) when identifying the research themes. For this reason, it is recommended to broaden the research perspective in the future and setting the limit as higher. It would allow to identify more research themes and therefore analyze the phenomenon even more in detail.

The second limitation refers to the theoretical character of presented results. While literature review is typically the first stage of a long research process it is recommended to verify the results empirically. Therefore, it is recommended to perform quantitative analysis in order to check the frequency of occurrence of relationships identified in the paper. Taking this fact into consideration author plans to conduct further research.

References

- Antikainen, M., & Valkokari, K. (2016). A framework for sustainable circular business model innovation. *Technology Innovation Management Review*, 6(7). doi:10.22215/timreview/1000.
- Autio, E. (2017). Strategic entrepreneurial internationalization: a normative framework. *Strategic Entrepreneurship Journal*, 11(3). doi:10.1002/sej.1261.
- Bashir, M., & Verma, R. (2019). Internal factors & consequences of business model innovation. *Management Decision*, 57(1). doi:10.1108/md-11-2016-0784.
- Beltagui, A. (2018). A design-thinking perspective on capability development. *International Journal of Operations & Production Management*, 38(4). doi:10.1108/IJOPM-11-2016-0661.
- Bigdeli, A.Z., Baines, T., Bustinza, O.F., & Shi, V.G. (2017). Organisational change towards servitization: a theoretical framework. *Competitiveness Review*, 27(1). doi:10.1108/CR-03-2015-0015.
- Bojoaga, A., & Petrisor, I. (2013). The effects of business model innovation: an exploratory research. *Managerial Challenges of the Contemporary Society*, 5.
- Bouncken, R. B., & Fredrich, V. (2016). Business model innovation in alliances: successful configurations. *Journal of Business Research*, 69(9). doi:10.1016/j.jbusres.2016.01.004.
- Breuer, H., & Ludeke-Freund, F. (2014). Normative innovation for sustainable business models in value networks. In K. Huizingh, S. Conn, M. Torkkeli, & I. Bitran (Eds.), *ISPIM Conference Proceedings*. Dublin.
- Breuer, H., & Ludeke-Freund, F. (2017). Values-based network and business model innovation. *International Journal of Innovation Management*, 21(3). doi:10.1142/S1363919617500281.
- Bustinza, O.F., Gomes, E., Vendrell-Herrero, F., & Baines, T. (2019). Product-service innovation and performance: the role of collaborative partnerships and R&D intensity. *R&D Management*, 49(1). doi:10.1111/radm.12269.
- Casadesus-Massanell, R., & Ricart, J. E. (2009). Company strategy: business model reconfiguration for innovation and internationalization. *IESE Business School Working Paper*, 807. doi:10.2139/ssrn.1550782.

- Dymitrowski, A. (2016). The nature of business model innovation. In B. Borusiak, & M. Lewicki (Eds.), *Innovation management: research aspects*. Poznań: Bugucki Wydawnictwo Naukowe.
- Goyal, S., Esposito, M., & Kapoor, A. (2018). Circular economy business models in developing economies: lessons from India on reduce, recycle, and reuse paradigms. *Thunderbird International Business Review*, 60(5). doi:10.1002/tie.21883.
- Guo, H., Zhao, J., & Tang, J. (2013). The role of top managers' human and social capital in business model innovation. *Chinese Management Studies*, 7(3). doi:10.1108/CMS-03-2013-0050.
- Hao-Chen, H., Mei-Chi, L., Lee-Hsuan, L., & Chien-Tsai, C. (2013). Overcoming organizational inertia to strengthen business model innovation. *Journal of Organizational Change Management*, 26(6). doi:10.1108/JOCM-04-2012-0047.
- Horvath, B., Khazami, N., Ymeri, P., & Fogarassy, C. (2019). Investigating the current business model innovation trends in the biotechnology industry. *Journal of Business Economics and Management*, 20(1). doi:10.3846/jbem.2019.6880.
- Jinghua, L., Lina, M., & Jianying, W. (2016). The business model innovation of servitization in China: from PFI theory perspective. In X. Wu, Q. Xu, & J. Chen (Eds.), *Proceedings from 8th International Symposium on Management of Technology*. Hangzhou: Zhejiang Univ Press.
- Laudien, S.M., & Daxböck, B. (2015). *Antecedents and outcomes of collaborative business model innovation*. Paper presented at XXVI ISPIM Conference Shaping the Frontiers of Innovation Management, Budapest, Hungary.
- Liang, L., Kuusisto, A., Kuusisto, J., & Vänskä, J. (2013). *Business model innovation and service innovation: similarities and differences*. Paper presented at XXIV ISPIM Conference Innovating in Global Markets: Challenges for Sustainable Growth, Helsinki, Finland.
- Lili, L. (2014). Research on business model innovation path of internet enterprise. In X. Jie, E. Xu, A. Kutan, & T. Tu (Eds.), *Proceedings from International Conference on Strategic Management*. Chengdu: Sichuan University Press.
- Linder, M., & Williander, M. (2017). Circular business model innovation: inherent uncertainties. *Business Strategy and the Environment*, 26(2). doi:10.1002/bse.1906.
- Liu, Z., Yin, Y., Liu, W., & Dunford, M. (2015). Visualizing the intellectual structure and evolution of innovation systems research: a bibliometric analysis. *Scientometrics*, 103(1). doi:10.1007/s11192-014-1517-y.
- Lu, C., & Liu, S. (2016). Cultural tourism O2O business model innovation: a case study of CTrip. *Journal of Electronic Commerce in Organizations*, 14(2). doi:10.4018/JECO.2016040102.
- Miles, R.E., Miles, G., & Snow, C.C. (2006). Collaborative entrepreneurship: a business model for continuous innovation. *Organizational Dynamics*, 35(1). doi:10.1016/j.orgdyn.2005.12.004.

- Nussholz, J. (2017). Circular business model framework: mapping value creation architectures along the product lifecycle. In C. Bakker, & R. Mugge (Eds.), *Plate: product lifetimes and the environment*. Amsterdam: Ios Press.
- Rask, M. (2014). Internationalization through business model innovation: in search of relevant design dimensions and elements. *Journal of International Entrepreneurship*, 12(2). doi:10.1007/s10843-014-0127-3.
- Rayna, T., & Striukova, L. (2016). 360° business model innovation: toward an integrated view of business model innovation. *Research Technology Management*, 59(3). doi:10.1080/08956308.2016.1161401.
- Rodica, P., Robert, B., & Lavnia-Alexandra, C. (2015). Seven stages toward a customer-centered business model innovation. In K.S. Soliman (Ed.), *Innovation management and sustainable economic competitive advantage: from regional development to global growth*. Norristown: Ibima.
- Roszkowska-Menkes, M.T. (2018). Integrating strategic CSR and open innovation: towards a conceptual framework. *Social Responsibility Journal*, 14(4). doi:10.1108/SRJ-07-2017-0127.
- Ruseva, R., & Ruskov, P. (2015). The reverse business-modelling framework: a new approach towards action-oriented entrepreneurship. In R.P. Dameri, & L. Beltrametti (Eds.), *Proceedings of the 10th European Conference on Innovation and Entrepreneurship*. Genoa: Acpi.
- Saur-Amaral, I., Soares, R.R., & Proença, J.F. (2016). *Business model innovation: a systematic literature review*. Paper presented at 3rd International Conference on Innovation and Entrepreneurship in Marketing & Consumer Behaviour, Lisbon, Portugal.
- Schaltegger, S., Luedeke-Freund, F., & Hansen, E.G. (2016). Business models for sustainability: a co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & Environment*, 29(3). doi:10.1177/1086026616633272.
- Schneider, S., & Spieth, P. (2013). *Entrepreneurially approaching environmental dynamism through business model innovation?* Paper presented at XXIV ISPIM Conference Innovating in Global Markets: Challenges for Sustainable Growth, Helsinki, Finland.
- Steinboefel, E., Kohl, H., & Orth, R. (2016). Business model innovation: a comparative analysis. In I. Aaltio & M.T. Eskelinen (Eds.), *Proceedings of the 11th European Conference on Innovation and Entrepreneurship*. Jyväskylä: Acad Conferences.
- Tidd, J., & Bessant, J. (2018). Innovation management challenges: from fads to fundamentals. *International Journal of Innovation Management*, 22(5). doi:10.1142/S1363919618400078.
- Whalen, K. (2017). Classifying circular business models: A practice-based review. In C. Bakker, & R. Mugge (Eds.), *Plate: product lifetimes and the environment*. Amsterdam: Ios Press.



- Xing, W. (2018). Research on the trinity innovation model of retail business based on big data. In Y.M. Wang & D.C. Zhou, (Eds.), *Proceedings from International Conference on Education Management and Information Technology*. London: Francis Academy.
- Zalewska-Kurek, K., Kandemir, S., Englis, B.G., & Englis, P.D. (2014). *Development of a typology of business model innovation*. Paper presented at 59th Annual Conference of the International Council for Small Business, Dublin, Ireland.
- Zheng, Z., & Xinsheng, K. (2014). Research on online music business model innovation: a case study of Xiami web site. In M. Kuek, W. Zhang, & R. Zhao (Eds.), *Proceedings from International Symposium on Management, Innovation and Development*. Hawthorn East: St. Plum-blossom.
- Zott, C., Amit, R., & Massa, L. (2010). The business model: theoretical roots, recent developments, and future research. *IESE Working Papers*, 862.

Acknowledgements

Author contributions: author has given an approval to the final version of the article.

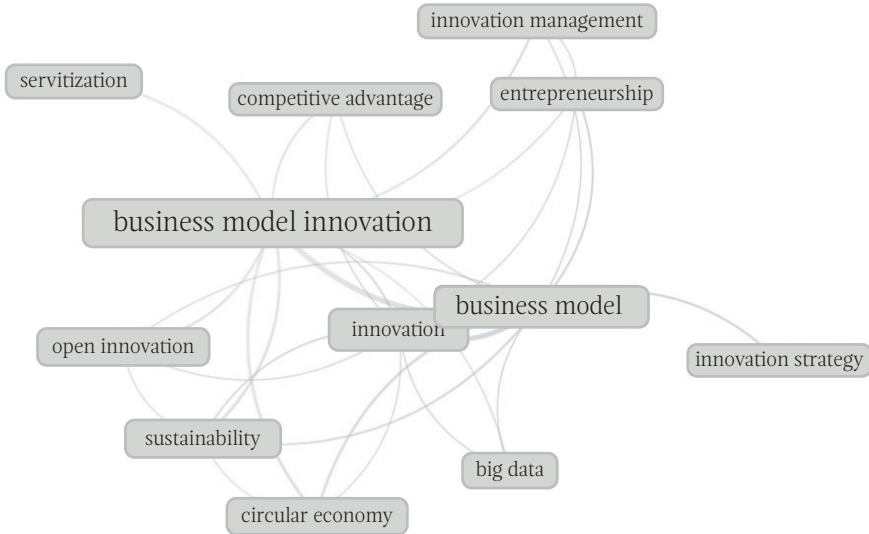
Funding: this research was funded by the Poznan University of Economics and Business sources.

Note: the results of this study were presented at *10th International Conference on Applied Economics Contemporary Issues in Economy* (June 27–28, 2019, Torun, Poland).

Appendix

Scheme 1.

Map of keywords referring to the topic of business model innovation and development



Source: own elaboration with the use of VOSviewer based on Web of Science Core Collection database.

