

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Sumy State University

Academic and Research Institute of Business, Economics and Management
(Institute/faculty)

Department of Economics, Entrepreneurship and Business Administration
(department)

“Defense allowed”

Head of the Department

(signature) Oleksandra KARINTSEVA
(Name and SURNAME)

_____ 20__ .

QUALIFICATION WORK

towards attaining a Master’s Degree

specialty 073 Management,
(code and title)

educational-professional program Business Administration
(educational-professional / educational-scientific) (program)

Topic: Innovative approaches to business administration in conditions of digitization

Student _____ БА.М-22аН _____
(group code)

_____ Liu Wenyan _____
(surname, name)

The qualification work contains the results of own research. The use of ideas, results and texts of other authors are linked to the corresponding source.

[Signature]
(signature)

_____ Wenyan LIU _____
(student’s Name and SURNAME)

Supervisor

Assoc. Prof., PhD, Bohdan KOVALOV
(position, academic degree, academic title, Name and SURNAME)

_____ (signature)

Ministry of Education and Science of Ukraine
Sumy State University

**DEPARTMENT OF ECONOMICS, ENTREPRENEURSHIP
AND BUSINESS ADMINISTRATION**

APPROVED

Head of the Department
of Economics, Entrepreneurship and
Business Administration

_____ Oleksandra Karintseva

“ ____ ” _____ 20 ____ .

**ASSIGNMENT
for the qualification work
towards attaining a Master's Degree**

Student of group БА.М-22аН, 2 year of study ARIBiEM
(Institute)

Specialty 073 “Management”

Study program 8.073.00.09 “Business Administration”

_____ Liu Wenyan _____
(full name)

Topic of the qualification work: Innovative approaches to business administration in conditions of digitization

Enacted by the SSU order № 0663-VI from “11” June 2024.

Date of finalized Thesis submission: “ ____ ” _____ 20 ____ .

Initial data for research: scientific publications in peer-reviewed journals, monographs and manuals on the chosen topic, and relevant literature freely available on the Internet.

Content of the main part of the qualification work (list of questions to be considered) 1) Bibliometric and comparative analysis; 2) Methods of business plan and business model generation; 3) Generation business models for new businesses.

List of illustrations (should be presented during the defense)

- 1) Distribution of publications by year
- 2) Outputs in Top Citation Percentiles
- 3) Citation Count in 2013–2022
- 4) Lean Canvas of Foreign Languages School
- 5) Lean Canvas for a bakery

Date of receiving the assignment: “_____” _____20____ .

Master Thesis supervisor PhD, Assoc. Prof. Bohdan Kovalov

(academic title, Name, and SURNAME)

Assignment is accepted for completion: “_____” _____20____.

刘文燕

Student signature

Notes:

1. This assignment constitutes a crucial component of the qualification work required for the attainment of an educational degree and is positioned immediately following its title page.
2. Upon task completion, students are expected to acquaint themselves with the following:
 - A calendar schedule delineating the preparation stages of the qualification work, inclusive of specified deadlines for each stage's implementation.
 - The procedural guidelines for assessing the qualification work to identify any indications of academic plagiarism.
 - The criteria and requirements governing the evaluation of the qualification work, providing a clear understanding of the expectations and standards to be met.

SUMMARY

The qualification work contains 52 pages of the main text, 3 chapters, 14 figures, 8 tables and 34 references.

The purpose of the work is a comprehensive analysis of the innovative approaches to business administration in conditions of digitization and digitalization.

The purpose of the study determines the setting of the following tasks:

- to conduct a bibliometric analysis for the thematic domain “innovation, business and digitalisation”;
- analyse the academic performance in innovation, business and digitalisation;
- analyse the business plan and business model development methods;
- generate the business model for launching a manufacturing and a service business.

The object of the study is the process of improving approaches to business administration in conditions of digitization and digitalization.

The subject of the research is theoretical and methodical foundations, principles, methods and tools of business administration in conditions of digitization and digitalization.

The first chapter of the work contains a bibliometric analysis of publication and citation performance on innovation, business and digitalisation in terms of a publication’s distribution by years, a share of publications in top citation percentiles, the number of citations per publications, most cited papers, journal quartiles.

The second chapter examines business plan development methods, specifically, those developed by the UNIDO, KMPG and EBRD. Moreover, it compares Business Model Canvas and Lean Canvas methods and their application for startups.

The third section presents four generated business models for launching a manufacturing and a service business, using both methods for business model generation.

Key words: business, business model, innovations, bibliometrics, performance.

CONTENT

INTRODUCTION.....	6
1 BIBLIOMETRIC AND COMPARATIVE ANALYSIS.....	7
1.1 Bibliometric analysis.....	7
1.2 Analysis of the academic performance in innovation, business and digitalisation	13
2 METHODS OF BUSINESS PLAN AND BUSINESS MODEL GENERATION .	22
2.1. Analysis of business plan development methods.....	22
2.2 Analysis of business model development methods.....	27
3 GENERATION BUSINESS MODELS FOR NEW BUSINESSES	35
3.1 Development of a bakery business model.....	35
3.2 Development of the business model of the School of Foreign Languages	41
CONCLUSION	46
REFERENCES	48

INTRODUCTION

In today's digitized environment, innovation is critical for business administration, allowing companies to remain competitive and efficient. Using the latest technologies, such as artificial intelligence, big data, blockchain and automation, helps optimize business processes, improve the customer experience and reduce costs. In addition, innovative approaches allow us to adapt more quickly to changes in the market, respond to new challenges and open new growth opportunities. Thus, introducing innovations becomes necessary for the successful development and long-term survival of business in the era of digital transformations.

The main goal of the work is a comprehensive analysis of the innovative approaches to business administration in conditions of digitization and digitalization.

To realise the goal, the following tasks were set:

- to conduct a bibliometric analysis for the thematic domain “innovation, business and digitalisation”;
- analyse the academic performance in innovation, business and digitalization;
- analyse the business plan and business model development methods;
- generate the business model for launching a manufacturing and a service business.

The object of the study is the process of improving approaches to business administration in conditions of digitization and digitalization.

The subject of the research is theoretical and methodical foundations, principles, methods and tools of business administration in conditions of digitization and digitalization.

The main research methods are analysis and synthesis, a logical generalization method, an analytical and comparative method, and a business model generation method.

When writing the qualification paper, the primary sources of information were scientific publications in peer-reviewed journals, monographs and manuals on the chosen topic, and relevant literature freely available on the Internet.

1 BIBLIOMETRIC AND COMPARATIVE ANALYSIS

1.1 Bibliometric analysis

To conduct a bibliometric analysis about the qualification work, publications referenced by the Scopus database were selected. The following search query was created for relevant publications: “innovation AND business AND digitalisation”. The studied period was 2013-2022, the thematic field was “Business, Management and Accounting”, and the language of the documents was “English”. As a result, an array of 342 publications was obtained. Bibliometric analysis was carried out using the SciVal tool.

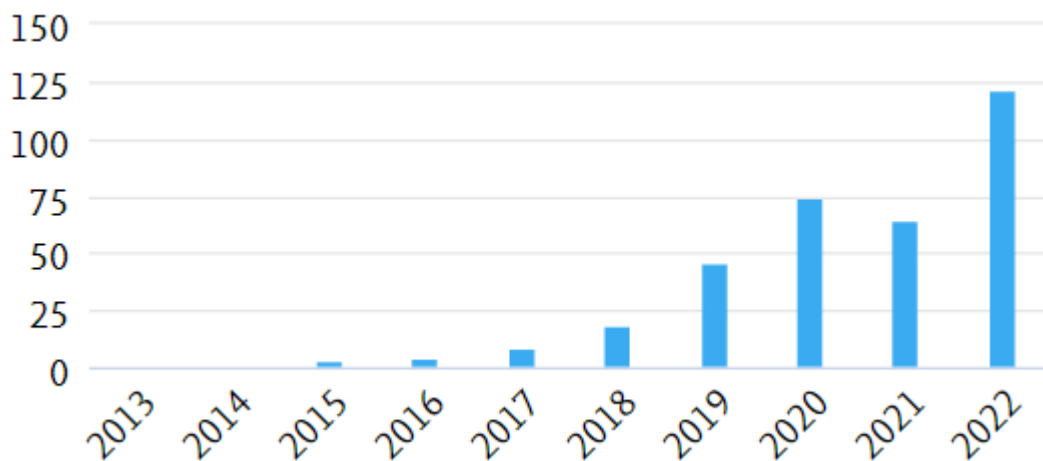


Figure 1.1 – Distribution of publications by year

Source: compiled by author based on SciVal data.

As shown in Fig. 1.1, in 2013 and 2014, zero publications were published on the researched topic. In 2015-2017, the annual number of publications was at most ten and amounted to three, four and nine, respectively. In 2018-2020, there was an increase in the number of publications, with an annual number of 19, 46 and 74, respectively. In 2021, there is a temporary slight decrease in the number of publications to 65, followed by a two-fold increase in 2022 to 122. The research topic's publication activity has

been increasing rapidly since 2019, possibly related to COVID-19 and its impact on business.

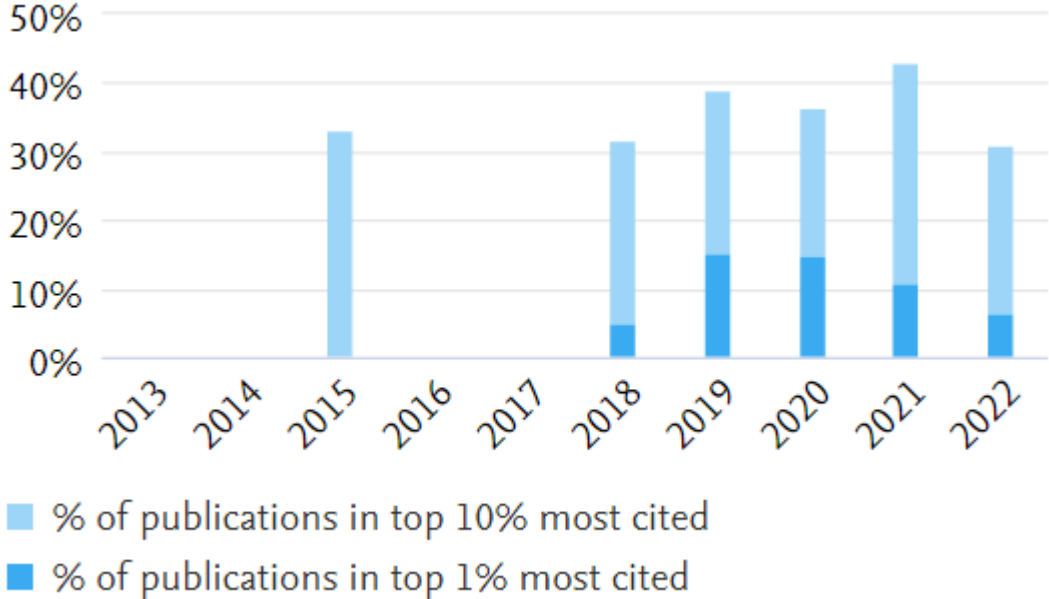


Figure 1.2 – Outputs in Top Citation Percentiles
 Source: compiled by author based on SciVal data.

Fig. 1.2 shows a share of publications in Innovation, Business and Digitalization that are among the most cited worldwide. 118 of 342 publications, 34.5%, have belonged to the top 10% of most cited publications worldwide. However, these shares are different for every year and equals 33.3% (2015), 31.6% (2018), 39.1% (2019), 36.5% (2020), 43.1% (2021) and 31.1% (2022) respectively. In 2016 and 2017, no publications in Innovation, Business and Digitalization were included in the top 10% of most cited publications worldwide. Moreover, the share of publications in the top 1% most cited varies from its minimum of 5.3% in 2018 to its maximum of 39.1% in 2019.

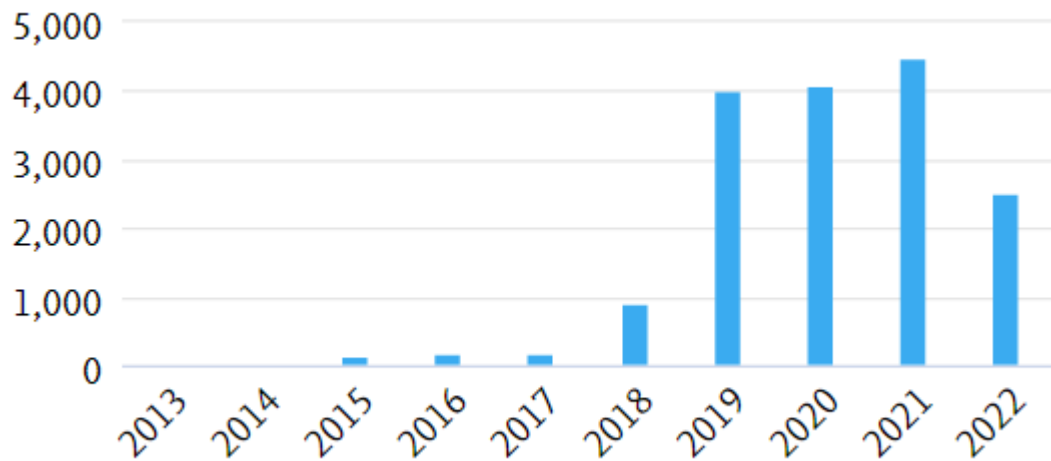


Figure 1.3 – Citation Count in 2013–2022

Source: compiled by author based on SciVal data.

Fig. 1.3 shows the number of citations received by publications in Innovation, Business and Digitalization in 2013–2022 by year. In 2015–2017, the number of citations was below 200 yearly. 2018 was a transition year with 910 citations, followed by a rapid increase of citations in 2019–2021 to 4 026, 4 104, and 4 487, respectively. In 2022, a slight decrease was observed in 2 516 citations. The total number of received citations is 16 582.

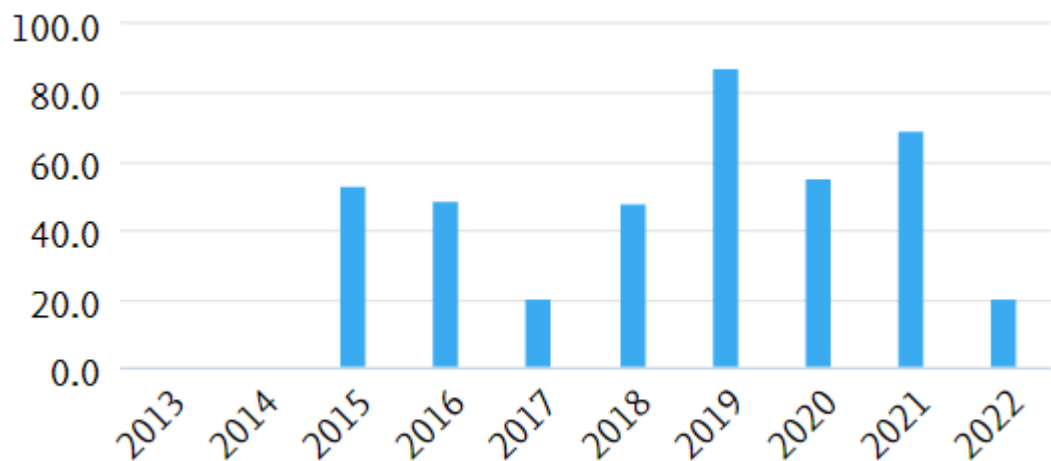


Figure 1.4 – Citations per publication in 2013-2022

Source: compiled by author based on SciVal data.

Fig. 1.4 shows the number of citations per publication in Innovation, Business and Digitalization in 2013–2022. The average value is 48.5 for the entire period. The lowest value is observed in 2017 and 2022, with values of 20.4 and 20.6, respectively. The median value of the number of citations per publication was between 47.9 and 69 in 2015–2016 and 2018, 2020 and 2021. A maximum of 87.5 citations per publication was observed in 2019. This means that the publications in Innovation, Business and Digitalization, published in 2019, are the most influential for researchers worldwide.

Table 1.1 – The most cited publication in Innovation, Business and Digitalization in 2013–2022.

Publication	Citations	Field-Weighted Citation Impact
Digital transformation: A multidisciplinary reflection and research agenda. Verhoef, P.C., Broekhuizen, T., Bart, Y. and 4 more (2021) <i>Journal of Business Research</i> , 122, pp. 889–901.	1608	72.32
Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. Warner, K.S.R., Wäger, M. (2019) <i>Long Range Planning</i> , 52 (3), pp. 326–349.	1140	43.19
Digitalisation and its influence on business model innovation. Rachinger, M., Rauter, R., Müller, C. and 2 more (2019) <i>Journal of Manufacturing Technology Management</i> , 30 (8), pp. 1143–1160.	533	19.58
Digital servitisation business models in ecosystems: A theory of the firm. Kohtamäki, M., Parida, V., Oghazi, P. and 2 more (2019) <i>Journal of Business Research</i> , 104, pp. 380–392.	508	15.08
The relationship between digitalisation and servitisation: The role of servitisation in capturing the financial potential of digitalisation. Kohtamäki, M., Parida, V., Patel, P.C. and 1 more (2020) <i>Technological Forecasting and Social Change</i> , 151.	347	22.32

Source: compiled by author based on SciVal data.

Table 1.1 displays the top 5 publications in innovation, business, and digitalisation by the number of citations from 2013 to 2022. The journal article [1] titled “Digital Transformation: A Multidisciplinary Reflection and Research Agenda” has the highest number of citations and the highest Field–Weighted Citation Impact, which equal 1 608 and 72.32, respectively. This article was published in the Journal of Business Research. The research “Building Dynamic Capabilities for Digital Transformation: An Ongoing Process of Strategic Renewal” [2] is the second most cited publication with 1 140 citations and 43.19 field–weight citation impact. The research was published in the “Long Range Planning” journal. The article “Digitalization and its Influence on Business Model Innovation” [3] is the third most cited research, with 533 citations and 19.58 Field–Weighted Citation Impact. The publication “Digital Servitization Business Models in Ecosystems: A Theory of the Firm” [4] is the fourth most cited article with 508 citations and 15.08 of Field–Weighted Citation Impact. Finally, the fifth most cited article is “The Relationship between Digitalization and Servitization: The Role of Servitization in Capturing the Financial Potential of Digitalization” [5], which has 347 citations and 22.32 Field–Weighted Citation Impact.

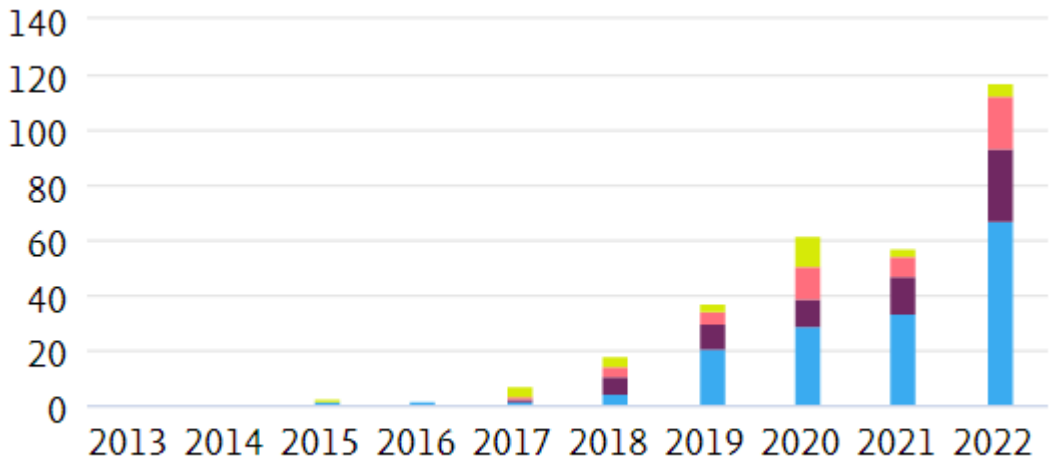


Figure 1.5 – Journal quartiles in 2013–2022 by year

Source: compiled by the author based on SciVal data.





Quartiles	Publications ②	Publication share (%)
 Q1 (top 25%)	162	53.5
 Q2 (26% - 50%)	66	21.8
 Q3 (51% - 75%)	49	16.2
 Q4 (76% - 100%)	26	8.6

Figure 1.6 – Overall distribution of publications in journal quartiles

Source: compiled by author based on SciVal data.

Fig. 1.5 and 1.6 reflect the share of publications in Innovation, Business and Digitalization per journal quartile by CiteScore in 2013–2022. The number of Q1 publications has increased significantly from five items in 2018 to 67 in 2022. The total number of the Q1 publications is 162 or 53.5%. The number of Q2 publications has increased smoothly from six in 2018 to 27 in 2022. The overall number of the Q2 publications is 66 or 21.8%. The number of Q3 publications has risen from four items in 2018 to 19 in 2022. The total number of Q3 publications is 49, or 16.2%. Finally, the number of Q4 publications remained the same during the period. However, it has a three–time increase in 2020 to 11 items.

1.2 Analysis of the academic performance in innovation, business and digitalisation

Table 1.2 – Top 10 most cited authors

Author	Affiliation	Country/ Region	Scholarly Output	Views Count	Field– Weighted Citation Impact	Citation Count
Parida, Vinit	Luleå University of Technology	Sweden	17	9548	8.46	2205
Bart, Yakov	Northeastern University	United States	1	2421	72.32	1608
Broekhuizen, Thijs L.J.	University of Groningen	Netherlands	1	2421	72.32	1608
Verhoef, Peter C.	University of Groningen	Netherlands	1	2421	72.32	1608
Warner, Karl S.R.	Edinburgh Napier University	United Kingdom	1	3239	43.19	1140
Gebauer, Heiko	Fraunhofer Center for International Management and Knowledge–Economy	Germany	5	3173	9.96	1108
Kohtamäki, Marko	University of Vaasa	Finland	3	2717	13.37	929
Oghazi, Pejvak	University of Economics and Human Sciences in Warsaw	Poland	4	2678	7.59	665
Kraus, Sascha	Free University of Bozen–Bolzano	Italy	5	1624	24.01	640
Rauter, Romana	University of Graz	Austria	1	1295	19.58	533

Source: compiled by author based on SciVal data.

Table 1.2 highlights the Top 10 most cited authors in Innovation, Business and Digitalization in 2013–2022. Parida Vinit from Luleå University of Technology (Sweden) has the highest number of citations and the number of publications, which equals 2 205 and 17, respectively. Bart Yakov from Northeastern University (United States), Broekhuizen Thijs L.J. and Verhoef Peter C. from University of Groningen (Netherlands) have the second highest number of citations, which equals 1608 and only one co–authored publication titled “Digital transformation: A multidisciplinary reflection and research agenda”. Warner Karl S.R. from Edinburgh Napier University (United Kingdom) has the third highest number of citations (1 140) and only one

publication. Gebauer Heiko from Fraunhofer Center for International Management and Knowledge Economy (Germany), Kohtamäki Marko from the University of Vaasa (Finland) and Oghazi Pejvak from the University of Economics and Human Sciences in Warsaw (Poland) are the fourth and fifth and sixth most cited researchers with 1 108, 929 and 665 citations as well as 5, 3 and 4 publications respectively. Seventh and ninth places are taken by Kraus Sascha from the Free University of Bozen–Bolzano (Italy) and Rauter Romana from the University of Graz (Austria) with 640 and 533 citations, as well as five and one publications, respectively.

Table 1.3 – Top 10 most cited institutions

Institution	Country/Region	Scholarly Output	Views Count	Field–Weighted Citation Impact	Citation Count
Luleå University of Technology	Sweden	19	9645	7.64	2215
University of Vaasa	Finland	16	9306	8.8	2165
Northeastern University	United States	3	2930	26.81	1762
University of St. Gallen	Switzerland	8	4384	7.32	1203
Linköping University	Sweden	5	3196	9.55	1086
University of South–Eastern Norway	Norway	7	3438	6.46	912
Swiss Federal Institute of Technology Zurich	Switzerland	7	2719	4.33	800
Aston University	United Kingdom	3	2526	15.08	739
Södertörn University	Sweden	4	2678	7.59	665
Åbo Akademi University	Finland	3	2204	7.74	503

Source: compiled by author based on SciVal data.

Table 1.3 reflects the Top 10 most cited institutions in Innovation, Business and Digitalization in 2013–2022. Three of the ten institutions belong to Sweden. These are the Luleå University of Technology (takes first place with 2 215 citations and 19 publications), Linköping University (takes fifth place with 1 086 citations and five publications), and Södertörn University (takes ninth place with 665 citations and four publications). Two of the ten institutions are from Switzerland: the University of St. Gallen (4th place with 1 203 citations and eight publications) and the Swiss Federal

Institute of Technology Zurich (7th place with 800 citations and seven publications). Finland is presented by two institutions, namely, the University of Vaasa (the 2nd most cited institution with 2 165 citations of 16 publications) and the Åbo Akademi University (the 10th most cited HEI with 503 citations and three publications). The United States, Norway and the United Kingdom are presented by one HEI each, namely, the Northeastern University (the third place with 1 762 citations and three publications), University of South–Eastern Norway (the sixth place with 912 citations and seven publications) and Aston University (the eighth place with 739 citations of 3 publications) respectively.

Table 1.4 – Top 10 most cited countries

Country/Region	Scholarly Output	Views Count	Field–Weighted Citation Impact	Citation Count
Germany	45	14169	6.36	3850
Sweden	41	13766	5.03	3346
United Kingdom	30	12357	6.63	3209
Finland	40	15920	4.88	3174
United States	21	8213	6.96	2793
France	22	7769	10.63	2726
Netherlands	8	5454	14.01	2327
Italy	30	10413	5.39	1861
Switzerland	14	5131	4.66	1393
Norway	14	5687	6.1	1294

Source: compiled by author based on SciVal data.

Table 1.4 indicates the top 10 countries cited in Innovation, Business and Digitalization in 2013–2022. Germany, Sweden, the United Kingdom and Finland have more than 3,000 citations each and have taken the first four positions with 3 850, 3 346, 3 209 and 3 174 citations, respectively. The number of cited publications varies from 30 (United Kingdom) to 45 (Germany). The United States, France, and the Netherlands have more than 2,000 citations each and have taken the 5th, 6th, and seventh seats, with 2 793, 2 726, and 2 327 citations, respectively. The number of cited publications varies from eight (Netherlands) to 22 (France). Italy, Switzerland and Norway take the 8th, 9th and 10th places with 1 861, 1 393 and 1 294 citations,

respectively. The number of publications is 14 for Switzerland and Norway and 30 for Italy.

Table 1.5 – Top 10 most cited Scopus academic journals

Scopus Source	Scholarly Output	Views Count	Field–Weighted Citation Impact	Citation Count
Journal of Business Research	12	8016	10.98	2915
Technological Forecasting and Social Change	20	10644	9.9	2219
Long Range Planning	2	3580	25.67	1268
Journal of Manufacturing Technology Management	5	2538	5.6	656
Review of Managerial Science	4	1261	28.47	464
Business Horizons	3	1069	6.05	400
International Journal of Innovation Science	2	1182	12.24	372
Industrial Marketing Management	4	1443	4.19	364
Telecommunications Policy	2	1240	8.61	356
California Management Review	2	822	8.01	308

Source: compiled by author based on SciVal data.

Table 1.5 illustrates the Top 10 most cited Scopus academic journals in Innovation, Business and Digitalization in 2013–2022. Journal of Business Research (Elsevier, United States) is the 1st most cited source with 2 915 citations of 12 publications. However, the journal has a medium value of Views Count and Field–Weighted Citation Impact, which equal 8 016 and 10.98, respectively. Technological Forecasting and Social Change (Elsevier, United States) is the 2nd most cited source, with 2 219 citations from 20 publications. The journal has the highest value of views among the top 10 journals (10 644) and a medium value of Field–Weighted Citation Impact (9.9). The Long Range Planning journal (Elsevier, United Kingdom) is the 3rd most cited source, with 1,268 citations and two publications. The journal has a medium value of views (3 580) and the second–highest value of Field–Weighted Citation Impact among the top 10 journals (25.67). Other seven of the top 10 journals have less than 1,000 citations. Journal of Manufacturing Technology Management (Emerald, United Kingdom), the Review of Managerial Science journal (Springer, Germany) and the Business Horizons journal (Elsevier, United Kingdom) are the 3rd, fourth and fifth

most cited journals with 656, 464 and 400 citations, respectively. The Review of Managerial Science journal has the highest Field-Weighted Citation Impact among the top 10 journals, which equals 28.47. The last four positions among the top 10 journals are taken by the International Journal of Innovation Science (Emerald, United Kingdom), Industrial Marketing Management (Elsevier, United States), Telecommunications Policy (Elsevier, United Kingdom) and California Management Review (Haas School of Business, United States), respectively. The number of citations varies from 308 to 372, the number of views – from 822 to 1 182, and the value of Field-Weighted Citation Impact – from 4.19 to 12.24.

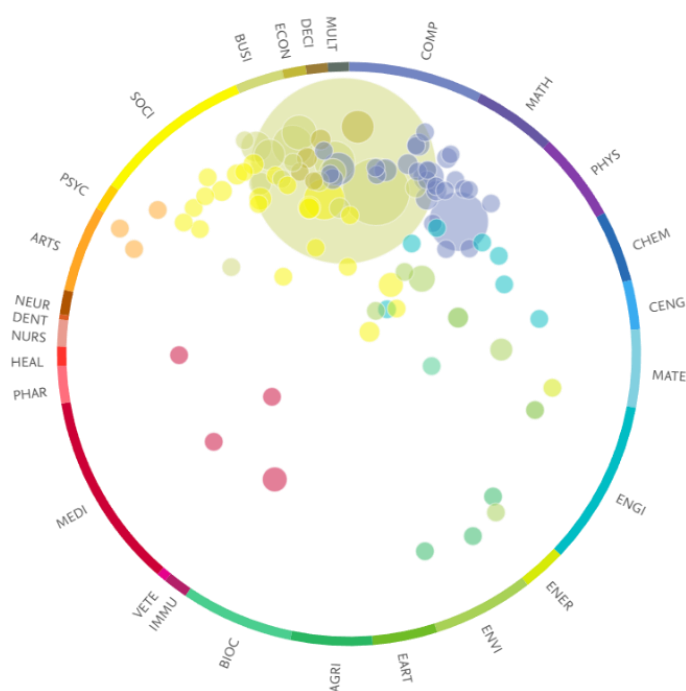


Figure 1.7 – Topic clusters

Notes: Subject areas abbreviations: COMP – Computer Science; MATH – Mathematics; PHYS – Physics and Astronomy; CHEM – Chemistry; CENG – Chemical Engineering; MATE – Materials Science; ENGI – Engineering; ENER – Energy; ENVI – Environmental Science; EART – Earth and Planetary Sciences; AGRI – Agricultural and Biological Sciences; BIOOC – Biochemistry, Genetics and Molecular Biology; IMMUN – Immunology and Microbiology; VETE – Veterinary; MEDI – Medicine; PHAR– Pharmacology, Toxicology and Pharmaceutics; HEAL – Health Professions; NURS – Nursing; DENT – Dentistry; NEUR – Neuroscience; ARTS – Arts and Humanities; PSYC – Psychology; SOCI – Social Sciences; BUSI – Business, Management and Accounting; ECON – Economics, Econometrics and Finance; DECI – Decision Sciences; MULT – Multidisciplinary.

Source: compiled by author based on SciVal data.

As shown in Fig. 1.7, between 2013 and 2022, publications in Innovation, Business and Digitalization have contributed to 99 topic clusters. The most significant topic cluster is “Industry; Information Technology; Business Model” (TC.47). Eighty–three publications from the data sample have contributed to this cluster. According to SciVal, the topic cluster focuses on “innovative business strategies, encompassing diverse areas such as market analysis, performance measurement, digital transformation, and organisational capabilities”. The second largest cluster is “Supply Chain Management; Industry; Airline” (TC.25). Twenty–five publications from the data sample have contributed to this cluster. According to SciVal, the topic cluster focuses on “the value co–creation in service systems, exploring the impact of business model design, service innovation, and health marketing. It also delves into the influence of factors like airport slot policies and supply chain sustainability on performance”. The third largest cluster is “Industry 4.0; Digital Twin; Internet of Things” (TC.1057). 21 publications from the data sample have contributed to this cluster. According to SciVal, the topic cluster focuses on “the advancements in smart manufacturing technology, encompassing digital twin models, cloud–based manufacturing services, Industry 4.0, energy systems, and research and analysis in the manufacturing industry”. The fourth place is shared by three topic clusters with 12 publications in each as follows:

- “Industry; Industrial Policy; Innovation Systems” (TC.245) with a focus on “economic development, innovation networks, and global value chains, exploring the impact of regional clusters, technology, and policy on economic growth and industry dynamics”.

- “Entrepreneurship; Family Business; Entrepreneurial Orientation” (TC.481) focusing on “the influence of family dynamics on business performance, innovation, and internationalisation. It explores the impact of market orientation, social capital, and generational management on family–owned firms, shedding light on the complexities of family involvement in business”.

– and “Commerce; Pricing; Industry” (TC.1169) dealing with “the dynamics of digital innovation ecosystems, encompassing the interplay of platform emergence, innovation diffusion, pricing strategies, broadband adoption, and competition regulation”.

Other 93 topic clusters were contributed by nine publications or less.

Table 1.6 – Top 10 subject areas

Subject Area	Scholarly Output	Citations	Authors	Citations per Publication	Field-weighted Citation Impact
Business, Management and Accounting	342	16582	961	48.5	3.59
Economics, Econometrics and Finance	101	3490	304	34.6	2.36
Social Sciences	65	2909	185	44.8	2.89
Engineering	54	2379	195	44.1	2.88
Decision Sciences	49	2047	149	41.8	3.61
Computer Science	47	2344	142	49.9	3.98
Psychology	27	2328	83	86.2	7.61
Environmental Science	8	518	26	64.8	3.83
Energy	6	17	22	2.8	0.26
Mathematics	4	35	17	8.8	0.8

Notes: A publication can be included in multiple subject areas

Source: compiled by author based on SciVal data.

Table 1.6 displays the top 10 subject areas in which publications from the data sample were included. Three hundred forty-two publications were included in the "Business, Management and Accounting" subject area because this was our search request limitation. Nine hundred sixty-one authors have contributed to this subject area, and 16 582 citations were received. The second most covered subject is "Economics, Econometrics and Finance". Three hundred four authors produced 101 publications (29.5%), which received 3 490 citations. The “Social Sciences”, “Engineering”, “Decision Sciences”, “Computer Science", and "Psychology" subject areas count from 27 to 65 publications. The number of authors varies from 83 to 185,

and the number of citations – from 2 047 to 2 909. Less than ten publications in each are related to the "Environmental Science", "Energy" and "Mathematics" subject areas. The number of authors and citations varies from 17 to 26 and from 17 to 518, respectively. The highest value of Citations per Publication (86.2) is the "Psychology" subject area, which is almost two times higher than the value for the same indicator for the "Business, Management and Accounting" subject area (48.5). Publications in the "Energy" subject area were cited less than three times, the lowest value.



AAA relevance of keyphrase | declining AAA growing (2013-2022)

Figure 1.8 – Top 50 key phrases by relevance

Source: compiled by author based on SciVal data.

Fig. 1.8 represents 50 of the most relevant keywords and key phrases based on 342 publications from the data sample. The keywords' size correlates with the number of their publication occurrences, while the colour indicates a keyword trend character (growing or declining). The appearance of all keywords has grown from 2013 to 2022 because they are highlighted in green. The most common keywords are presented in Table 1.7.

Table 1.7 – Keyword appearance by year

Keyword	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013 – 2022
Digitalisation	0	0	3	4	5	15	35	52	52	90	256
Business Model	0	0	1	1	3	8	15	26	21	39	114
Industry	0	0	0	2	2	9	22	26	17	26	104
Digital Transformation	0	0	0	0	0	1	10	19	19	31	80
Digital Innovation	0	0	0	1	1	1	10	11	13	8	45
Value Creation	0	0	0	0	1	3	3	11	6	7	31
SME	0	0	0	0	0	2	3	7	8	10	30
Innovation Management	0	0	0	0	0	2	3	5	5	10	25
Business Model Innovation	0	0	0	0	0	1	2	6	2	5	16

Source: compiled by author based on SciVal data.

“Digitalisation” is the most used keyword in the data sample in 2013–2022. The number of its occurrences is 256. The frequency of its appearance has been growing from 3 to 90 in 2015–2022. "Business Model" is the second most popular keyword, with an overall number of occurrences equal to 114. Its frequency has risen from 1 to 39 in 2015–2022. "Industry" is the third most common keyword in the data sample, with the overall number of mentions equal to 104. The frequency of its appearance in the publications data sample increased from 2 to 26 in 2016–2022. The other seven keywords have appeared less than 100 times in publications. These keywords are “Digital Transformation” (80 occurrences), “Digital Innovation” (45 occurrences), “Value Creation” (31), “SME” (30), “Innovation Management” (25) and “Business Model Innovation” (16).

2 METHODS OF BUSINESS PLAN AND BUSINESS MODEL GENERATION

2.1. Analysis of business plan development methods

The world experience of writing business plans includes several well-known and most-used methods of writing them, among them the UNIDO (United Nations Industrial Development Organization) method [6], the KPMG method [7], the EBRD (European Bank for Reconstruction and Development) method [8].

According to the portal of the Small Business Administration in the USA [9], the following ten stages are proposed for starting a business:

- conducting market research – market research will show whether there is an opportunity to turn an idea into a successful business. This is a way to gather information about potential customers and businesses already operating in an area. Use this information to find a competitive advantage for a business.

- writing a business plan – a business plan is the basis of a business. It is a road map for structuring, launching and growing a new business. Entrepreneurs will use it to convince people that working with them – or investing in their company – is an intelligent choice.

- business financing – A business plan will help to understand how much money is needed to start a business. If an individual does not have that amount, they must raise or borrow capital. Fortunately, more ways exist to find the capital they need than ever.

- determination of business location – the location of an enterprise is one of the most critical decisions. Whether entrepreneurs build a brick-and-mortar business or launch an online store, their choices can affect taxes, legal requirements, and revenue.

- determining a business form – the legal form entrepreneurs choose for their business will affect business registration requirements, how much they pay in taxes and their liability.

– choosing a business name – choosing the perfect name takes work. Entrepreneurs want it to reflect their brand and capture their spirit. They also need to ensure that someone else still needs to start using their company name.

– business registration – once entrepreneurs have chosen the perfect company name, it is time to make it legal and protect their brand. If they are doing business under a name other than their own, they must register with the federal government and possibly a state government (note: this requirement is specific to the U.S. only).

– Obtaining tax details – entrepreneurs will use their Employer Identification Number (EIN) to take essential steps to start and grow their business, such as opening a bank account and paying taxes. It is like a social security number for their business.

– obtaining licenses and permits – keeping a business hassle-free while remaining legally compliant. The licenses and permits required for a business will vary by industry, state, location, and other factors.

– opening a bank account – a small business checking account can help with legal, tax and day-to-day problems. The good news is that it is easy to set up if an entrepreneur has the proper registrations and documents ready.

Further detailed analysis of the methodology of writing a business plan is presented. A good business plan will help an entrepreneur through each stage of starting and managing a business. Entrepreneurs will use their business plan as a road map for structuring, launching and developing a new business. It is a way to think through the critical elements of a business.

Business plans can help to get financing or attract new business partners. Investors want to feel confident that they will see a return on their investment. Therefore, a business plan is a tool to convince people that working together and partnering or investing in a company is a wise choice.

There is no right or wrong way to write a business plan. The plan must meet the needs of the entrepreneur. Most business plans fall into two general categories: traditional or non-standard (“lean” or simplified).

Traditional business plans use a standard structure and encourage detail in each section. They tend to require more forecasting work and can be tens of pages long.

Such a plan is very detailed, takes more time to write, and is comprehensive. Lenders and investors often request this plan.

Simplified business plans for business startups are less common but still use a standard structure. They only summarise the most critical points of the plan's key elements. They can take as little as an hour and are usually just one page. This type of plan is high-level focused, quick to write, and contains only the essential elements. Some lenders and investors may ask for more information.

2.1.1. Traditional form. A detailed analysis of the traditional business plan writing is presented below.

Entrepreneurs may prefer the traditional business plan format if they are very detail-oriented, want a comprehensive plan, or plan to request funding from traditional sources.

When they write a business plan, entrepreneurs do not have to stick to the exact content of the business plan. Instead, use the most relevant sections to a business and needs. Traditional business plans use some combination of these nine sections.

Resume. Entrepreneurs must briefly tell a reader what a company is and why it will be successful. Include a mission, product, or service and basic information about a company's leadership team, employees, and location. It should also include financial information and high-growth plans if there is a plan to apply for funding.

Company description. Use a company description to provide detailed information about a company. Learn more about the problems a business solves. Be specific and list the consumers, organisations or businesses a company plans to serve.

Explain the competitive advantages that will make a business successful. Are there any experts on a team? Has the perfect location been found for a store? A company description is a place where business strengths can be shown.

Market analysis. A good understanding of the worldview and target market will be needed. Competitive research will show what other businesses are doing and their strengths. Look for trends and themes in marketing research. What do successful competitors do? Why does it work? Can it be done better? Now is the time to answer these questions.

Organisation and management. Tell a reader how a company will be structured and who will manage it.

Describe the legal structure of a business. Indicate whether you intend to incorporate a business as a C or S corporation, a partnership or limited liability partnership, or if you are a sole proprietorship or LLC.

Use an organisational chart to outline who is responsible for what in a company. Show how each person's unique experience will contribute to the success of a business. Consider the resumes and resumes of key members of a team.

A service or product line. Describe what is being sold or what services are being offered. Explain how it benefits customers and what the product life cycle looks like. Share plans for intellectual property, such as copyrights or patents. Explain this in detail if there is research and development for a service or product.

Marketing and sales. There is no one-size-fits-all approach to marketing strategy. A strategy should evolve and change according to unique needs.

This section aims to describe how customers will be attracted and retained. It should also describe how the sale will happen. This section should be completed after financial projections, so ensure marketing and sales strategies are completed before.

Funding request. If an individual is applying for funding, this is where they will outline their funding requirements. The goal is to be clear about how much money is needed over the next five years and what it will be used for.

They should specify whether they want debt or equity, the terms they would like to apply, and the time the request will cover. A detailed description of how the funds will be used is essential. It should be indicated whether the funds are needed to purchase equipment or materials, pay wages, or cover specific bills before increasing income. Always describe future strategic financial plans, such as paying off debt or selling the business.

Financial forecasts. Complete the funding request with financial projections. The goal is to convince the reader that the business is stable and will be a financial success.

If the company is already established, include income statements, balance sheets, and cash flow statements for the past three to five years. If other collateral can be put up against the loan, it should be listed now.

A prospective financial forecast for the next five years should be provided, including projected income statements, balance sheets, cash flow statements, and capital expenditure budgets. During the first year, it is advisable to be even more specific and use quarterly – or even monthly – forecasts. Projections should be clearly explained and aligned with the funding applications.

This is a great place to use graphs and charts to tell the financial stories of the business.

Appendices. Attachments should be used to provide supporting documents or other materials specifically requested. The most shared articles are credit histories, resumes, product photos, testimonials, licenses, permits or patents, legal documents, permits, and other contracts.

2.1.2. A simplified form of writing a business plan. Let us consider a simplified form of writing a business plan, the so-called "Lean Startup".

If someone wants to explain or start their business quickly, prefers the "Lean Startup" format, has a relatively simple business, or plans to change and improve their business plan regularly, this format is beneficial.

Lean startup formats are graphs that use only a few elements to describe a company's values, infrastructure, customers, and finances. They help visualise trade-offs and critical facts about the company.

There are many versions of non-standard launch templates, but one of the oldest and most famous is the "Business Canvas" developed by A. Osterwalder. The nine components of the "Business Canvas" version include the following blocks:

Key partnerships. Consider other businesses or services the business will work with to get off the ground, such as suppliers, manufacturers, subcontractors, and similar strategic partners.

Main areas of activity. List ways the business will gain a competitive advantage. Highlight things like selling directly to consumers or using technology to leverage the sharing economy.

Basic resources. Identify any resources needed to create value for the customer. Important assets may include people, capital, or intellectual property. Remember to

take advantage of the business resources available for women, veterans, and HUBZone businesses.

A value proposition. Make a clear and convincing statement about the company's unique value in the market.

Customer relations. Describe how customers interact with the business. Is it automated or in person? In-person or online? Think about the customer experience from start to finish.

Customer segments. Be specific when naming the target market. The business will only be for some, so it is essential to have a clear idea of who the business will serve.

Channels. List the most important ways to communicate with customers. Most businesses use a mix of channels and optimise them over time.

Cost structure. Determine whether the company will focus on cost reduction or value maximisation. Define the strategy and then list the most important costs associated with it.

Income streams. Explain how the company will make money. Some examples are direct sales, membership fees, and selling advertising space. If the business has multiple revenue streams, list them all.

2.2 Analysis of business model development methods

There are two options for building a business model canvas: Business Model Canvas and Lean Canvas [10; 11].

Business Model Canvas appeared earlier when it became clear that business plans are useless. People spend much time writing detailed plans, but they must be read and go straight to the trash.

Then, analyst Alexander Osterwalder presented that managers do not write the plan but by designers – people with visual thinking.

In psychology, “gestalt” is the perception of an image or phenomenon. Canvas is a gestalt of a business model when all the main components of a strategy are collected on a sheet of paper.

However, the Business Model Canvas was developed mainly for offline companies to plan the subsequent phases – a quarter or a year of operation. When this canvas was applied to startups, it turned out that it did not work for them. There was nothing to write in some cells of the plan (there were no partners in the project, and the sales channels were unclear), so another strategist, Ash Maurya, developed a simplified version of the plan – Lean Canvas.

The Lean Canvas is a Business Model Canvas tailored for an early-stage startup. This is the first case of documentation of the business model of the future startup, which will then constantly change. It is helpful for business founders, potential investors and partners.

When the idea and concept are invented, the goal of any project is to form the requirements for the MVP (minimum viable product), to understand how the product will look at the initial level, how to make money, etc. Lean Canvas will help us with this.

The correct Lean process is based on constant feedback. Entrepreneurs built something small, showed it to users, got feedback and understood where to go next. Step by step, entrepreneurs build the product and then make it more difficult.

Lean Canvas is a part of this philosophy when nothing is done in excess, but only the minimum necessary is done. Something that will allow us to understand better how to take the next step.

The scheme looks like this, and it needs to be filled.

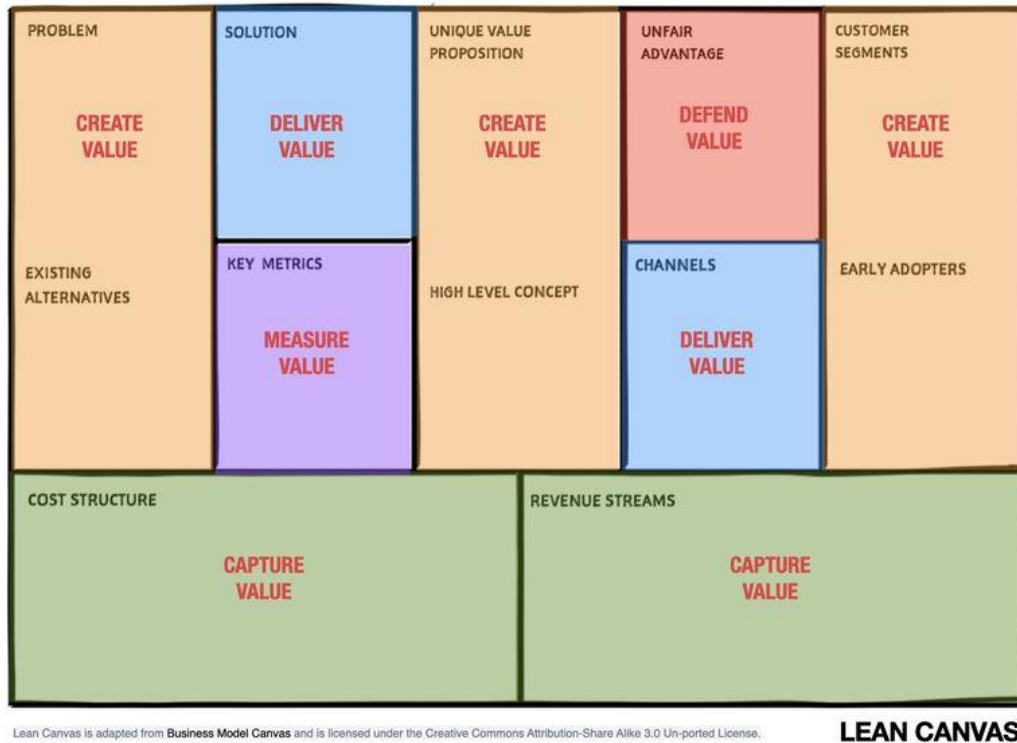


Figure 2.1 – Lean Canvas template

Source: [11]

The task at the initial stage is to create an MVP that can be shown to someone.

Blocks must be filled in the sequence indicated in the diagram:

- Customers and Problem,
- Unique Value Proposition,
- Solution,
- Channels,
- Financial part – Cost structure and Revenue Streams,
- Key Metrics,
- Unfair Advantage.

Let us consider each of the elements of the model in more detail.

2.2.1. User segmentation and problem definition (Customers & Problem). The main element of Lean Canvas is the customer. This is where the complexity comes in – the business must represent different types of clients.

First, we draw all the consumer segments that come to mind; then, we describe the problem. We define a group of early adopters (Early Customers) from the entire audience. These are the users:

- for whom the problem is the most acute.
- who have already tried to solve the problem in alternative ways.

First, the most homogeneous and small group to build the product should be chosen. Why so? Because then it is much more straightforward:

- to understand the general characteristics of this group on which to focus.
- communicate with each of the first customers (the optimal target segment is up to 100 people).

Pay attention at this stage if there are no alternatives on the market or indirect competitors – this could be better. We may exaggerate the problem since we are still looking for a solution.

2.2.2. Unique business proposition and problem solution (UVP & Solution). We are moving towards UTP (USP, UVP – Unique Selling Proposition or Unique Value Proposition). In the cell, entrepreneurs must write the phrase they would publish on the website's main page.

For example, the UTP of the Youteam project, – Hire a World-Class Development Team Within 24 Hours. They provide an opportunity to solve the problem in a day, and this is the first time anyone else does this.

Next comes the solution. This is a set of characteristics. Most online services focus on related issues. Therefore, the solution translates into a more convenient user experience that can be provided. Most often, it is more informative and comforting.

2.2.3. We define channels of contact with users (Channels). A channel is the path through which a customer comes to business. If this is the web, the concept includes the website to which the client should be brought and tools for increasing traffic.

By default, the first sales channel is direct contacts. When entrepreneurs negotiate with customers and show them the product, based on the essence of the product, it is necessary to understand how it will be promoted.

As a rule, at the beginning, 1–2 channels work because the startup does not have resources. Most often, this is contextual advertising, SEO or SMM.

2.2.4. Budget forecasts: costs and estimated income (Cost Structure & Revenue). Cost structure and revenue are lost a lot. However, these are vital points that should be considered. This is a test. If entrepreneurs can fill in the Cost structure and Revenue cells in half an hour, they are domain experts. That is, they understand the business they are starting a startup. Entrepreneurs know how much services and goods cost, the necessary "ingredients", how the salaries of people in the field are estimated, what the market looks like and what business models they can try.

As a rule, we discuss fixed costs (fixed prices) and the general recurring revenue stream (regular income). We do not consider how much it is necessary to invest in the development of the product, and we do not affect variable costs (variable costs) such as some commissions.

It is essential to see that the income stream is realistic and does not get lost in the background of expenses.

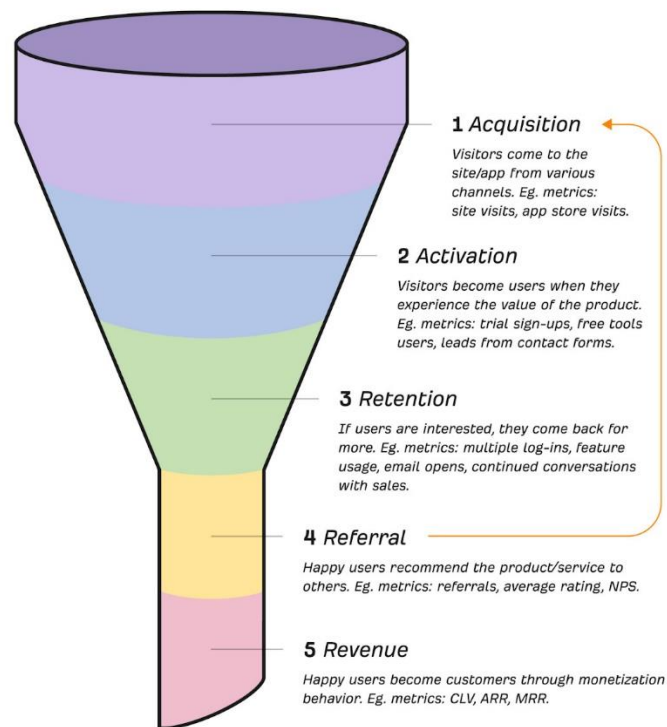
2.2.5. We define KPI. There are two approaches to KPIs. The first is a natural KPI indicator. For example, for the Youteam site, the KPI is the number of development hours sold.

Why is it not monetary? Because the monetary indicator can be regulated artificially by increasing prices or cutting costs. KPIs should be formed by themselves because of business work.

The second approach is the so-called pirate metrics promoted by Dave McClure. This is the "AARRR" concept:

- Acquisition – attraction (the cost of customer attraction is calculated in order to compete in the market; it should be minimal);
- Activation – activation (motivation to revisit the page; time spent browsing the site, clicks and viewed pages are taken into account);
- Retention (email marketing, push notifications);
- Referral – motivation of regular customers (reposts, referral links)
- Revenue – income (financial metrics; efficiency is easy to check: the more users become permanent, the higher the profit).

AARRR Pirate Metrics Framework in a Nutshell



© <https://ahrefs.com/blog/aarr-metrics-framework/>

ahrefs

Figure 2.2 – AARRR pirate metrics funnel

Source: [12].

More often, people prefer the first approach, which is the product equivalent. However, in practice, sometimes it is necessary to consider these five characteristics. Then, a framework is formed in the KPI based on things that must be added to the product.

2.2.6. Unfair Advantage. The essence of the hidden advantage (unfair advantage) is that some long-term advantage of the startup should be established. After all, if it confirms the primary hypothesis and starts to grow, it will be noticed by the big players in the market, who do not need to copy the idea.

An obvious unfair advantage is a patent if the product is based on an invention or technology. Other options:

- personal brand (as in the example with Santa Claus),

- formed network (network of vendors/users),
- the founders’ personalities (if they are authorities in the field).

Let us consider possible risk trajectories in the Lean Canvas.

After drawing up the Lean Canvas, it is necessary to identify the risky elements.

The model of any startup is built on hypotheses. Now, we see them all in front of us. We need to walk through them and say where our assumptions are the riskiest and where they have less chance of being true.

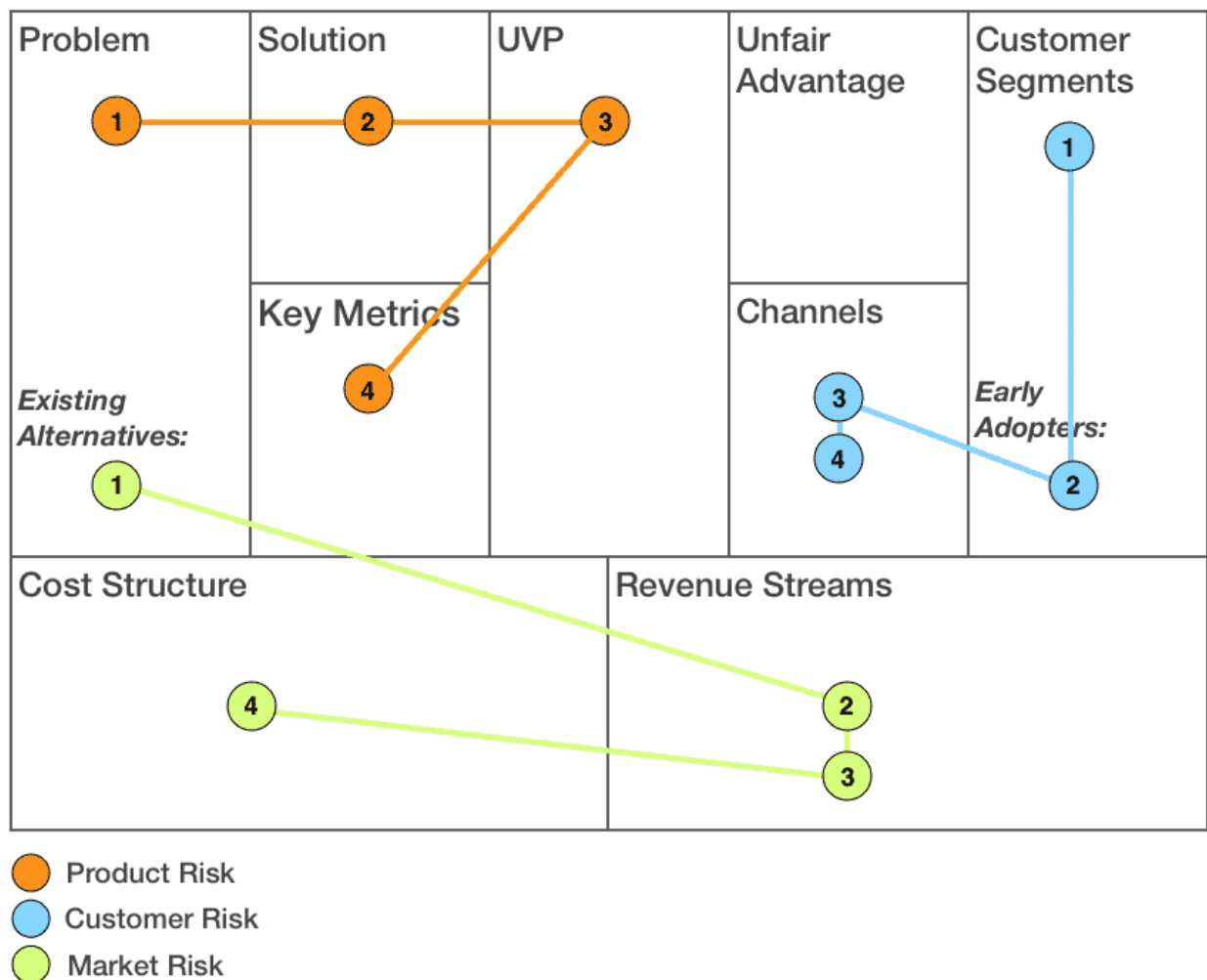


Figure 2.3 – Possible risks in Lean Canvas

Source: [13].

Here are three critical risk trajectories:

- customer risk: wrongly chosen audience or segment of early adopters, wrongly chosen channels through which to learn about the product;

– product risk: a mistake in the formation of the product, overestimation of the problem, coming up with a wrong solution, it is positioned incorrectly, or the success is incorrectly assessed;

– market risk: underestimated or overestimated external parameters, competitors' alternatives are too strong, and there is no place on the market; they will not make money, or it will be expensive to enter the market.

These are the three trajectories around which the MVP is built.

If we are talking only about customer risk, we do not necessarily need to build a product as such. It is enough to create a visual prototype and communicate with users. This is how we test users, segments, and channels.

If the risk is related to the product, we need to build the MVP of the product. Users and interviews with them will not tell us anything; we need something more tangible. Then, we will understand that we can offer a better solution than the alternatives on the market.

Moreover, the most challenging thing is if there is market risk. It will only show when we launch the product and try to make money. In this case, not only do we need to make a product and start showing it, but we also need to launch and see if we grow or fall and break even.

These are three prominent cases, which are based on where the risks in the business model lie. Entrepreneurs need to think about them first.

3 GENERATION BUSINESS MODELS FOR NEW BUSINESSES

This section has developed several business models for establishing a business. The first business model is for manufacturing (a bakery), and the second is for service (a foreign language school).

3.1 Development of a bakery business model

3.1.1. Resume. The object of the study will be a bakery, which will be located directly in the city.

People buy bakery products every day, so these products will be in demand regardless of the economic situation in the country because, in difficult times, the demand for bread has increased.

Today, large factories are engaged in the production of flour products and bread, which are consumed by most of the population. However, these large manufacturers work according to tried-and-tested recipes and cannot offer extraordinary recipes or exquisite pastries. To do this, they need to retool production and change technology, which requires considerable costs, and the demand for these innovations may need to be higher.

So, in contrast to large productions, there are bakeries where people can experiment and find several new recipes that will appeal to customers and bring more profit to the entrepreneur without much expense. After analysing the market in the city, it was concluded that today, this niche still needs to be occupied because there are only two mini-bakeries in one of the sleepy areas of the city. Therefore, the urgency of creating a bakery is relatively high.

The vision of this project is to bake incredibly delicious desserts without gluten and allergic components. Pastry that does not make them smooth!

Mission: to make people happier with pastries that are not only tasty but also useful and to become the favourite bakery of city residents. We make delicious products according to customer preferences!

Values: quality products, qualified staff, hospitality, satisfied customers

3.1.2. Canvas business model development.

1. Customer segments. The bakery is a mass–market firm. More attention is explicitly aimed at fans of sweets and children.

2. Value Proposition. Delicious and healthy baked goods are sold at affordable prices and conveniently in a bakery in the city centre. The ability to deliver goods "to the door" in the city is the most significant advantage, because it is incredibly convenient for customers, and the lack of such a service from competitors only adds more demand to us.

3. Channels. The sales channels are primarily the bakery, where customers can buy products and enjoy a cup of aromatic coffee or tea. Word of mouth is one of the leading advertising channels. It is still relevant, especially in small towns. Active advertising on social networks such as Instagram and Facebook is also a pretty good solution so that pages will be updated several times a week, and surveys will be conducted on customer preferences: what new products would they like to see, what products are currently liked the most, what changes need to be made institution etc. After some time, master classes on making delicious treats and healthy bread are planned.

4. Customer Relationships. Weekly promotions for people with children in the form of sweet gifts for children when buying products before 4 pm on weekends will encourage our target audience to visit again because the sweet surprise will change every week. Also, from 8 am to 10 am, coffee will be discounted when customers buy a freshly baked croissant or muffin.

5. Revenue Streams. At the initial stage, the bakery's income will depend directly on sales, but later, the income should increase through conducting workshops and delivering baked goods to the door.

6. Key Resources. The essential resources that will be needed are primarily equipment: ovens, several baking sheets, refrigerators, a food processor, small utensils, etc. Human resources are also significant: baker, cashier and financial in the form of startup capital.

7. Key Activities. The critical activity of the enterprise, no matter how strange it sounds, is to bake, sell and advertise. Briefly, but clearly. Building an image and a clientele is also quite an important activity, but the three actions mentioned above must be carried out first and foremost.

8. Key Partners. As for partners, of course, these are suppliers of raw materials for the manufacture of finished products, the bank, SMM manager and accountant, who are planned to be hired as freelancers. The delivery service also belongs to this cohort of freelancers. It is also planned to cooperate with coffee shops that need pastries. Cafe partners are a good idea because, in this way, entrepreneurs can increase income and make additional advertising for their production.

9. Cost Structure. Rent, employee wages, and advertising are all fixed costs. However, there are also variable costs: the fee for utility services, which depends on the season; purchase of raw materials, because the market and prices are not always stable; and costs for one of the partners – the delivery service, because it is quite important to predict the number of orders with delivery and determine a certain amount of costs for it.

Key partners	Key activities	A value proposition	Customer relationship	Customer segments
Suppliers of raw materials	Bake	Tasty and healthy baking	Discounts for regular customers	Mass market
SMM manager	Sell			
Delivery service	Advertise	Affordable price and convenient location in the city centre	Channels	Children
Accountant	Key resources	Possibility of delivery of goods to the door in the city		
Bank	Physical (equipment)		"A word of mouth"	Own stores
Cafe Partners (delivery of our products to coffee shops)	People (baker, waiter)			
	Financial (initial capital)			

Cost structure	Revenue streams
Fixed costs: salary, rent, advertising	Sale of products
Variables: communal services, purchase of raw materials	Masterclasses
Business depends on values (quality raw materials and qualified personnel)	Delivery of pastries

Figure 3.1 – Business model Canvas for a bakery

Source: constructed by author.

3.1.3. Lean Canvas generation for a bakery.

1. Customers. The establishment's customers primarily monitor their health but love sweets, pastries, and children. Moreover, the early customers will be women with children and middle-aged people.

2. Problem. We see a significant shortage of high-quality, tasty and unusual baked goods, so a new bakery that can solve this problem is urgent.

3. Unique value proposition. Tasty and healthy baked goods will bring taste pleasure and health benefits because we use the freshest raw materials and make our treats with love.

4. Solution. The solution to the problem can be updating the recipe, using quality products and hiring only qualified staff ready to experiment in the kitchen.

5. Channels. The sales channels are primarily the bakery itself, where customers can buy products and enjoy a cup of aromatic coffee or tea. Word of mouth is one of the leading advertising channels. It is still relevant, especially in small towns. Active advertising on social networks such as Instagram and Facebook is also a pretty good solution so that pages will be updated several times a week, and surveys will be conducted on customer preferences: what new products would they like to see, what products are currently liked the most, what changes need to be made institution etc. After some time, master classes on making delicious treats and healthy bread are planned.

6. Revenues. At the initial stage, the bakery's income will depend directly on sales, but later, the income should increase through conducting workshops and delivering baked goods to the door.

7. Cost structure. Rent, employee wages, and advertising are all fixed costs. However, there are also variable costs: the fee for utility services, which depends on the season; purchase of raw materials, because the market and prices are not always stable; and costs for one of the partners – the delivery service, because predicting the number of orders with delivery and determining a certain amount of costs for it is pretty essential.

8. Key metrics (natural metric and AARRR).

8.1 Natural metric:

KPIs are calculated based on indicators such as the volume of production, the volume of sales (in monetary and physical terms), the average transaction amount, the number of involved customers, the percentage of defects, etc. It will be possible to calculate the natural KPI indicator in a month. For accuracy of the result and tracking of progress, it is better to take a sample from several months or even years later. However, the natural indicator is the number of customers who visited the bakery and purchased products.

8.2 Concept of AARRR:

Engagement: This will be done through social networks, blogger advertising, and people's feedback.

Activation: Conduct weekly surveys about buyers' preferences on our social network pages and collect their feedback on purchased products.

Maintenance: constant updating of the assortment, promotions and special offers depending on the season

Motivation: The cosy atmosphere inside the bakery, where people can relax after a working day or spend time with their family, puts the customer in a good mood and makes him want to come back again.

Profit: sales of products thanks to quality advertising

9. Unfair advantage. The hidden advantage of this bakery is the delivery of pastries in the city and the holding of master classes on making pastries. Moreover, the

recipe includes a segment of vegetarian products that use almond milk and replace eggs.

Problem To expand the market of tasty and healthy baked goods at affordable prices and original recipes for every taste	Solution Update product recipes Use only fresh raw materials for the production of goods	A unique value proposition Tasty and healthy baked goods will bring taste pleasure and health benefits because we use the freshest raw materials and make our treats with love.	Unfair advantage A baking segment for vegans using almond milk and replacing eggs in the recipe	Customers People who monitor their health Families with children
	Key metrics A natural indicator is the number of customers who visited the bakery and purchased products.		Channels Word-of-mouth Advertising in social. Networks (Instagram, Facebook) and surveys in them Own stores	
Cost structure Fixed costs: salary, rent, advertising Variables: communal services, purchase of raw materials		Revenue streams Sale of products Masterclasses Delivery of pastries		

Figure 3.2 – Lean Canvas for a bakery

Source: constructed by author.

3.2 Development of the business model of the School of Foreign Languages

3.2.1. Resume. This business model was created to justify the effectiveness of opening English language courses in the city. All classes will be held under the supervision of a teacher with a degree in "Philology (English and German languages)" and more than ten years of professional experience in a secondary educational institution.

English is one of the most widely spoken languages in the world, especially as a second (non-native) language and the language of international communication. It is the official language of more than 60 sovereign states.

Foreign language courses based on a business model will be systematic group and individual classes with people of different age categories. The basis of the program will be the teaching method developed while teaching in one of the secondary educational institutions. It will be a step-by-step lesson aimed at comprehensive language learning, including practising speaking, grammar, writing, reading, translation, listening, etc. The class is planned to be held both for those who want to learn the language from scratch and for those who have already reached a certain level of knowledge and plan to study the language in depth.

The vision of this project is to become one of the first schools to help with this "difficult" foreign language.

Mission: to meet the growing demand of residents of the city and district for quality educational services for learning a foreign language and making a profit.

Values are quality services, qualified staff, and a pleasant atmosphere.

3.1.2. Canvas business model development.

1. Customer segments. The school of foreign languages is a mass market enterprise. Greater attention is directed at students and pupils preparing for exams. Attention should also be paid to people who want to learn the language for work abroad, communication with native speakers and those people who need quality translation services.

2. Value proposition. Distance learning, inexpensive group classes, professional exam preparation, and individual classes. Provision of appropriate training certificates.

3. Channels. Sales channels are students who are studying. The channels that support our connection with customers are social networks (Instagram, Facebook), the so-called "Word of Mouth", and advertising on the streets (flyers, billboards, on walls).

4. Customer relationships. Permanent promotions and group sets – every weekend, the organisation free meetings with native speakers to improve language skills and overcome the language barrier.

5. Revenue streams. Income from individual, group, and remote classes, as well as translations of documents, letters, and texts.

6. Key resources. As in any service sector, the essential resources are educated staff: at least five teachers from different fields.

7. Key activities. The critical enterprise's essential activity is providing quality knowledge and educational services, namely, conducting foreign language lessons for children and adults. Both individual and group classes will be available for clients. The program of classes will be focused on the comprehensive study of the language, including the practice of speaking, grammar, writing, reading, simultaneous oral and written interpretation, listening, etc. Special attention will be paid to the requirements of ESL (English as a Second Language) – a standardised qualification exam in English for non-native speakers. There will also be lessons in narrow areas (business English, business correspondence, written translation of socio-political orientation, etc.) and corporate classes.

8. Key partners. As for partners, these are schools, educational institutions, notaries, marketing companies and educational institutions. We plan to cooperate with partner schools that do not have enough places to study, and they provide us with these clients on mutually beneficial terms. In any case, this is better than simply losing a client. Partner schools are a good idea because that way, the schools do not waste resources on these students and get a percentage for bringing us new students.

9. Cost structure. Fixed costs: rent, staff wages, internet services.

Variable costs are utility bills and purchase of office consumables.

One-time expenses are computers, peripherals, and furniture (see Table 3.1).

Table 3.1 – Costs of the business model

Incomes, monthly	Expenses, Monthly
Tuition fees – 20,000 USD	Rental – 1 000 USD
Translation service fees – USD USD	Salary – 4,000 USD
	Tax – 800 USD
	Utilities bills – 400 USD
	Other expenses – 400 USD
	Advertising – 400 USD
Overall – 21 000 USD	Overall – 7 000 USD

Source: calculated by author.

3.2.3. Lean Canvas for a foreign languages school.

1. Costumers. Students and pupils are preparing for exams. Also, attention should be paid to people who want to learn the language for work abroad, communication with native speakers and those people who need quality translation services.

The institution's clients are eager to develop and desire to speak several languages.

Early customers: students who are preparing to take the external examination

2. Problem. Nowadays, many people want quality education or language skills, but unfortunately, insufficient qualified personnel and schools exist.

3. Unique value proposition. Quality knowledge and translation services at attractive prices.

4. Solution. The solution to the problem is that we have assembled a team of the best professional teachers with much experience.

5. Channels. Sales channels are students who are studying. A conversation club where people can talk to a native speaker will provide new students.

6. Revenues. Income from individual, group, and remote classes, as well as translations of documents, letters, and texts.

7. Cost structure. Fixed expenses: rent, staff wages, internet services, taxes.

Variable costs: utility bills and the purchase of office consumables.

One-time expenses: computers and their peripherals, furniture

8. Key metrics (natural indicator and AARRR).

8.1 Natural indicator:

KPIs are calculated based on such indicators as the volume of courses and certificates provided, the volume of course sales (in monetary and physical terms), and the average number of participants. So, it will be possible to calculate the natural KPI indicator in a month. For accuracy of the result and tracking of progress, it is better to take a sample from several months or even years later. However, the natural indicator is the number of students who received the B2 certificate.

8.2 Concept of AARRR:

Attracting: through social networks, blog advertising and thanks to people's feedback, the so-called "word of mouth radio", advertising on the streets (flyers, billboards, on walls).

Problem	Solution	A unique proposition	Unfair advantage	Costumers
Providing services for obtaining quality education or language skills, our team of professionals will decide this.	Update product recipes Use only fresh raw materials for the production of goods	Quality knowledge and translation services at attractive prices.	A wide range of services: learning many languages and document translations.	Mass market Legal Persons
	Key metrics The natural indicator is the number of students who received the level B2		Sales channels Soc. Networks (Instagram, Facebook) and polls in them "Word-of-mouth" Partner schools	

<p>Cost structure</p> <p>Fixed expenses are rent, staff wages, internet services, and taxes. Variable costs are utility bills and purchase of office consumables. One-time expenses are computers and their peripherals.</p>	<p>Revenue streams</p> <p>Income from an individual, group, and remote classes, as well as translations of documents, letters, and texts.</p>
---	--

Figure 3.3 – Lean Canvas of Foreign Languages School

Source: constructed by author.

Activation: Conduct weekly surveys on our social media pages about student preferences and collect their feedback on the courses they have taken.

Maintenance: Invitation of popular lecturers at reasonable prices.

Motivation: a cosy atmosphere inside that helps to perceive information, constant communication with native speakers,

Income: Income from individual, group, and remote classes, as well as translations of documents, letters, and texts.

9. Unfair advantage. A wide range of services: learning many languages and translating documents.

CONCLUSION

Based on the comparison of previous studies [14-34] with the obtained results, the following conclusions can be drawn. A bibliometric analysis was conducted to analyse a state of the art of the "Innovation, business and digitalisation" thematic domain in 2013–2022. It was established that publication activity on the researched topic has been increasing rapidly since 2019, possibly related to COVID–19 and its impact on business.

Analysis of outputs in top citation percentiles indicated that a share of publications in the top 1% most cited varies from its minimum of 5.3% in 2018 to its maximum of 39.1% in 2019. Moreover, 118% of 342 publications, which is 34.5%, have belonged to the top 10% of most cited publications worldwide.

Citation count analysis indicated a rapid increase of citations in 2019–2021 to 4 026, 4 104, and 4 487, respectively. The average value is 48.5 for the entire period. The lowest value of citations per publication is observed in 2017 and 2022, with values of 20.4 and 20.6, respectively.

The top 5 publications in Innovation, Business and Digitalization were analysed by number of citations in 2013–2022. The journal article of Verhoef et al. (2021) titled "Digital Transformation: A Multidisciplinary Reflection and Research Agenda" has the highest number of citations and the highest Field–Weighted Citation Impact, which equal 1 608 and 72.32, respectively.

It was analysed journal quartiles in 2013–2022 by year. It was established that the number of Q1 publications has increased significantly from five items in 2018 to 67 items in 2022.

It was analysed the top 10 most cited authors, Top 10 most cited institutions, Top 10 most cited countries and Top 10 most cited Scopus academic journals. Representatives from Sweden, the United States, the United Kingdom, the Netherlands and Germany appeared in the Top–3 of each ranking. Journal of Business Research (Elsevier, United States) is the 1st most cited source with 2 915 citations of 12 publications. However, the journal has a medium value of Views Count and Field–Weighted Citation Impact, which equal 8 016 and 10.98, respectively.

It was found that between 2013 and 2022, publications in Innovation, Business and Digitalization have contributed to 99 topic clusters. The main three are "Industry; Information Technology, Business Model", "Supply Chain Management; Industry; Airline", and "Industry 4.0; Digital Twin, Internet of Things".

It was identified the top 10 subject areas to which publications contributed. The second largest area is "Economics, Econometrics and Finance", which counts 304 authors, 101 publications (29.5%) and 3 490 citations.

It was identified the top 50 keywords by relevance and appearance in 2013–2022. The top 10 most popular keywords are Digitalization, Business Model, Industry, Digital Transformation, Digital Innovation, Value Creation, SME, Innovation Management, and Business Model Innovation.

As a result of the analysis of the methods of writing a business plan, it was established that they can be presented in two forms: traditional and simplified ("lean"). The latter, in turn, has all the signs of a business model.

As a result of analysing business model writing methods, two main types were established – Business Model Canvas and Lean Canvas. The first type is usually used for existing businesses, and the second – for startups.

The scientific novelty of the master's thesis consists of the business models developed by the author for establishing a bakery and a school of foreign languages.

REFERENCES

1. Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889-901.
2. Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326-349.
3. Rachinger, M., Rauter, R., Müller, C., Vorraber, W., & Schirgi, E. (2019). Digitalisation and its influence on business model innovation. *Journal of Manufacturing Technology Management*, 30(8), 1143-1160.
4. Kohtamäki, M., Parida, V., Oghazi, P., Gebauer, H., & Baines, T. (2019). Digital servitisation business models in ecosystems: A theory of the firm. *Journal of Business Research*, 104, 380-392.
5. Kohtamäki, M., Parida, V., Patel, P., & Gebauer, H. (2020). The relationship between digitalisation and servitisation: The role of servitisation in capturing the financial potential of digitalisation. *Technological Forecasting and Social Change*, 151.
6. UNIDO (2024). URL: <https://www.un.org/ru/ecosoc/unido/>
7. KPMG (2024). URL: <https://home.kpmg/xx/en/home.html>
8. European Bank for Reconstruction and Development (2024). URL: <https://www.ebrd.com/ru/home.html>
9. SBA (2024). <http://www.sba.gov>
10. Osterwalder, A. (2013, May 06). A Better Way to Think About Your Business Model. *Harvard Business Review*. URL: <https://hbr.org/2013/05/a-better-way-to-think-about-yo>
11. Lean Canvas (2024). Leanfoundry. URL: <https://www.leanfoundry.com/tools/lean-canvas>
12. AARRR Metrics Framework (2024). AHRefs. URL: <https://ahrefs.com/blog/aarr-metrics-framework/>

13. Lean Canvas Model Risks (2024). Hardthings. ULR: <https://hardthings.pl/lean-canvas-model-biznesowy-na-kartce-a4/>
14. Babenko V., Matsenko O., Voronenko V., Nikolaiev S., Kazak D. Economic prospects for cooperation the European Union and Ukraine in the use of blockchain technologies. The Journal of V. N. Karazin Kharkiv National University. Series: International Relations. Economics. Country Studies. Tourism. 2020. № 12. С. 8-17. <https://essuir.sumdu.edu.ua/handle/123456789/83746>
15. Hrytsenko P., Voronenko V., Kovalenko Ye., Kurman T., Omelianenko V. Assessment of the development of innovation activities in the regions: Case of Ukraine. Problems and Perspectives in Management. 2021. 19(4). P. 77-88. <https://essuir.sumdu.edu.ua/handle/123456789/85729>
16. Hrytsenko, P.V., Kovalenko, Y.V., Voronenko, V.I., Smakouz, A.M., Stepanenko, Y.S. Analysis of the Definition of “Change” as an Economic Category. Mechanism of Economic Regulation. 2021. № 1. С. 92-98. <https://essuir.sumdu.edu.ua/handle/123456789/84025>
17. Ji, Z., & Sotnyk, I. (2023). Economic analysis of energy efficiency of China’s and India’s national economies. Mechanism of an Economic Regulation, (1(99), 11-16. <https://doi.org/10.32782/mer.2023.99.02>
<https://essuir.sumdu.edu.ua/handle/123456789/91221>
18. Jianming Mu, Goncharenko O. S., Chortok Yu. V., Yaremenko A. H. Peculiarities of Formation of the Region's Logistics Infrastructure on the Basis of Eco-Innovations Within the Framework of Stakeholders' Partnership in the Enterprise-Region-State System // Mechanism of Economic Regulation. 2021. № 4. P. 22-29. DOI: <https://doi.org/10.21272/mer.2021.94.03>
<https://essuir.sumdu.edu.ua/handle/123456789/87514>
19. Karintseva O. I., Yevdokymov A. V., Yevdokymova A. V., Kharchenko M. O., Dron V. V. Designing the Information Educational Environment of the Studying Course for the Educational Process Management Using Cloud Services. Механізм регулювання економіки. 2020. № 3. С. 87-97. DOI: <https://doi.org/10.21272/mer.2020.89.07>

20. Kovalov, B., Karintseva, O., Kharchenko, M., Khymchenko, Y., & Tarasov, V. (2023). Methods of evaluating digitization and digital transformation of business and economy: the experience of OECD and EU countries. *Економіка розвитку систем*, 5(1), 18-25. <https://doi.org/10.32782/2707-8019/2023-1-3> <https://essuir.sumdu.edu.ua/handle/123456789/91585>

21. Kubatko, O. V., Kubatko, O. V., Sachnenko, T. I., Oluwaseun, O. O. Organization of Business Activities with Account to Environmental and Economic Aspects // *Mechanism of Economic Regulation*. 2021. № 2. P. 76-85. DOI: <https://doi.org/10.21272/mer.2021.92.08> <https://essuir.sumdu.edu.ua/handle/123456789/85180>

22. Kubatko, O., Merritt, R., Duane, S., & Piven, V. (2023). The impact of the COVID-19 pandemic on global food system resilience. *Mechanism of an Economic Regulation*, (1(99)), 144-148. <https://doi.org/10.32782/mer.2023.99.22> <https://essuir.sumdu.edu.ua/handle/123456789/91371>

23. Lukash, O. A., Derev`yanko, Y. M., Kozlov, D. V., Mukorez, A. I. Regional Economic Development in The Context of the COVID-19 Pandemic and the Economic Crisis // *Mechanism of Economic Regulation*. 2021. № 1. P. 99-107. DOI: <https://doi.org/10.21272/mer.2021.91.08> <https://essuir.sumdu.edu.ua/handle/123456789/84026>

24. Melnyk, L. Hr., Shaulska, L. V., Mazin, Yu. O., Matsenko, O. I., Piven, V. S., Konoplov, V. V. Modern Trends in the Production of Renewable Energy: the Cost Benefit Approach // *Mechanism of Economic Regulation*. 2021. № 1. P. 5-16. DOI: <https://doi.org/10.21272/mer.2021.91.01> <https://essuir.sumdu.edu.ua/handle/123456789/83761>

25. Melnyk, L., Karintseva, O., Kubatko, O., Derev`yanko, Y., & Matsenko, O. (2022). Restructuring of socio-economic systems as a component of the formation of the digital economy in Ukraine. *Mechanism of an Economic Regulation*, (1-2(95-96)), 7-13. <https://doi.org/10.32782/mer.2022.95-96.01> <https://essuir.sumdu.edu.ua/handle/123456789/89627>

26. Melnyk, L., Kovalov, B., Mykahilov, S., Mykhailov, S., Skrypka, Y., & Starodub, I. (2022). Dynamics of reproduction of economic systems in the transition

to digital economy – in the light of synergetic theory of development*. Mechanism of an Economic Regulation, (3-4(97-98), 7-14. <https://doi.org/10.32782/mer.2022.97-98.01> <https://essuir.sumdu.edu.ua/handle/123456789/90520>

27. Melnyk, L., Matsenko, O., Kalinichenko, L., Holub, A., & Sotnyk, I. (2023). Instruments for ensuring the phase transition of economic systems to management based on Industries 3.0, 4.0, 5.0. Mechanism of an Economic Regulation, (1(99), 34-40. <https://doi.org/10.32782/mer.2023.99.06> <https://essuir.sumdu.edu.ua/handle/123456789/91226>

28. Nesterenko V., Dolhosheieva O., Kirilieva A., Voronenko V., Hrytsenko P. «Green» vector of the economic development of the country. Mechanism of Economic Regulation. 2021. № 3. С. 82-90. <https://essuir.sumdu.edu.ua/handle/123456789/87533>

29. Nikulina, M., Sotnyk, I., Derykolenko, O., & Starodub, I. (2022). Unemployment in Ukraine's economy: COVID-19, war and digitalization. Mechanism of an Economic Regulation, (1-2(95-96), 25-32. <https://doi.org/10.32782/mer.2022.95-96.04> <https://essuir.sumdu.edu.ua/handle/123456789/89630>

30. Omelyanenko V., Pidorychev I., Voronenko V., Andrusiak N., Omelianenko O., Fyliuk H., Matkovskyy P., Kosmidailo I. Information & Analytical Support of Innovation Processes Management Efficiency Estimations at the Regional Level. International Journal of Computer Science and Network Security. 2022. Vol. 22, No. 6. P. 400-407. <https://essuir.sumdu.edu.ua/handle/123456789/89615>

31. Sotnyk I. M., Nahorni M. V., Maslii M. Yu., Nikulina M. P., Yehorov Y. V. Problems of Unemployment in Ukraine Under the COVID-19 Pandemic // Mechanism of Economic Regulation. 2021. № 3. P. 88-96. DOI: <https://doi.org/10.21272/mer.2021.93.08> <https://essuir.sumdu.edu.ua/handle/123456789/87534>

32. Sotnyk, I. M., Matsenko, O. M., Popov, V. S., Martymianov, A. S. Ensuring the Economic Competitiveness of Small Green Energy Projects // Mechanism of Economic Regulation. 2021. № 1. P. 28-40. DOI: <https://doi.org/10.21272/mer.2021.91.03> <https://essuir.sumdu.edu.ua/handle/123456789/84021>

33. Tambovceva, T. T., Melnyk, L. Hr., Dehtyarova, I. B., Nikolaev, S. O. Circular Economy: Tendencies and Development Perspectives // Mechanism of Economic Regulation. 2021. № 2. P. 33-42. DOI: <https://doi.org/10.21272/mer.2021.92.04>

<https://essuir.sumdu.edu.ua/handle/123456789/85156>

34. Voronenko V., Horobchenko D. Approaches to the Formation of a Theoretical Model for the Analysis of Environmental and Economic Development. Journal of Environmental Management and Tourism. Craiova: ASERS Publishing, 2018. Vol. 9, Issue Number 5(29). P. 1108-1119.

<https://essuir.sumdu.edu.ua/handle/123456789/77227>