

Varazdin Development and Entrepreneurship Agency and University North
in cooperation with
Faculty of Management University of Warsaw
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat



Economic and Social Development

83rd International Scientific Conference on Economic and Social Development –
"Green Marketing"

Book of Proceedings

Editors:

Ljerka Luic, Ivana Martincevic, Vesna Sesar



ISSN 1849-7535



9 771849 753006 >

Varazdin, 2-3 June, 2022

Varazdin Development and Entrepreneurship Agency and University North
in cooperation with
Faculty of Management University of Warsaw
Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat

Editors:

Ljerka Luic, University North, Croatia
Ivana Martincevic, University North, Croatia
Vesna Sesar, University North, Croatia

Economic and Social Development

83rd International Scientific Conference on Economic and Social Development –
"Green Marketing"

Book of Proceedings

Varazdin, 2-3 June, 2022

Title ■ Economic and Social Development (Book of Proceedings), 83rd International Scientific Conference on Economic and Social Development - "Green Marketing"

Editors ■ Ljerka Luic, Ivana Martincevic, Vesna Sesar

Scientific Committee / Programski Odbor ■ Marijan Cingula (President), University of Zagreb, Croatia; Sannur Aliyev, Azerbaijan State University of Economics, Azerbaijan; Ayuba A. Aminu, University of Maiduguri, Nigeria; Anona Armstrong, Victoria University, Australia; Gouri Sankar Bandyopadhyay, The University of Burdwan, Rajbati Bardhaman, India; Haimanti Banerji, Indian Institute of Technology, Kharagpur, India; Victor Beker, University of Buenos Aires, Argentina; Asmae Benthani, Mohammed V University, Morocco; Alla Bobyleva, The Lomonosov Moscow State University, Russia; Leonid K. Bobrov, State University of Economics and Management, Novosibirsk, Russia; Rado Bohinc, University of Ljubljana, Slovenia; Adnan Celik, Selcuk University, Konya, Turkey; Angelo Maia Cister, Federal University of Rio de Janeiro, Brasil; Mirela Cristea, University of Craiova, Romania; Taoufik Daghari, Mohammed V University, Morocco; Oguz Demir, Istanbul Commerce University, Turkey; T.S. Devaraja, University of Mysore, India; Onur Dogan, Dokuz Eylul University, Turkey; Darko Dukic, University of Osijek, Croatia; Gordana Dukic, University of Osijek, Croatia; Alba Dumi, Vlora University, Vlore, Albania; Galina Pavlovna Gagarinskaya, Samara State University, Russia; Mirjana Gligoric, Faculty of Economics - Belgrade University, Serbia; Maria Jose Angelico Goncalves, Porto Accounting and Business School - P.Porto, Portugal; Mehmet Emre Gorgulu, Afyon Kocatepe University, Turkey; Klodiana Gorica, University of Tirana, Albania; Aleksandra Grobelna, Gdynia Maritime University, Poland; Liudmila Guzikova, Peter the Great Saint-Petersburg Polytechnic University, Russia; Anica Hunjet, University North, Koprivnica, Croatia; Khalid Hammes, Mohammed V University, Morocco; Oxana Ivanova, Ulyanovsk State University, Ulyanovsk, Russia; Irena Jankovic, Faculty of Economics, Belgrade University, Serbia; Myrl Jones, Radford University, USA; Hacer Simay Karaalp, Pamukkale University, Turkey; Dafna Kariv, The College of Management Academic Studies, Rishon Le Zion, Israel; Hilal Yildirim Keser, Uludag University, Bursa, Turkey; Sophia Khalimova, Institute of Economics and Industrial Engineering of Siberian Branch of Russian Academy of Science, Novosibirsk, Russia; Marina Klacmer Calopa, University of Zagreb, Croatia; Igor Klopotan, Medjimursko Veleuciliste u Cakovcu, Croatia; Vladimir Kovsca, University of Zagreb, Croatia; Goran Kozina, University North, Koprivnica, Croatia; Dzenan Kulovic, Univeristy of Zenica, Bosnia and Herzegovina; Robert Lewis, Les Roches Gruyere University of Applied Sciences, Bulle, Switzerland; Ladislav Lukas, Univ. of West Bohemia, Faculty of Economics, Czech Republic; Mustapha Machrafi, Mohammed V University, Morocco; Joao Jose Lourenco Marques, University of Aveiro, Portugal; Pascal Marty, University of La Rochelle, France; Vaidotas Matutis, Vilnius University, Lithuania; Daniel Francois Meyer, North West University, South Africa; Marin Milkovic, University North, Koprivnica, Croatia; Abdelhamid Nechad, ENCGT- Abdelmalek Essaadi University, Morocco; Gratiela Georgiana Noja, West University of Timisoara, Romania; Zsuzsanna Novak, Corvinus University of Budapest, Hungary; Tomasz Ochowski, University of Warsaw, Poland; Barbara Herczeg Paksic, University of Osijek, Croatia; Vera Palea, Universita degli Studi di Torino, Italy; Dusko Pavlovic, Libertas International University, Zagreb, Croatia; Igor Pihir, University of Zagreb, Croatia; Dmitri Pletnev, Chelyabinsk State University, Russian Federation; Mirosław Przygoda, University of Warsaw, Poland; Karlis Purmalis, University of Latvia, Latvia; Nicholas Recker, Metropolitan State University of Denver, USA; Kerry Redican, Virginia Tech, Blacksburg, USA; Humberto Ribeiro, University of Aveiro, Portugal; Robert Rybnicek, University of Graz, Austria; Elzbieta Szymanska, Bialystok University of Technology, Poland; Katarzyna Szymanska, The State Higher School of Vocational Education in Ciechanow, Poland; Iliaria Tutore, University of Naples Parthenope, Italy; Sandra Raquel Alves, Polytechnic of Leiria, Portugal; Joanna Stawska, University of Lodz, Poland; Ilko Vrankic, University of Zagreb, Croatia; Stanislaw Walukiewicz, Bialystok University of Technology, Poland; Thomas Will, Agnes Scott College, USA; Li Yongqiang, Victoria University, Australia; Peter Zabielskis, University of Macau, China; Silvija Zeman, Medjimursko Veleuciliste u Cakovcu, Croatia; Tao Zeng, Wilfrid Laurier University, Waterloo, Canada; Snezana Zivkovic, University of Nis, Serbia.

Review Committee / Recenzentski Odbor ■ Marina Klacmer Calopa (President); Ana Aleksic; Sandra Raquel Alves; Ayuba Aminu; Mihovil Andjelinovic; Josip Arneric; Lidija Bagaric; Tomislav Bakovic; Sanja Blazevic; Leonid Bobrov; Ruzica Brecic; Anita Ceh Casni; Iryna Chernysh; Mirela Cristea; Oguz Demir; Stjepan Dvorski; Robert Fabac; Ivica Filipovic; Sinisa Franjic; Fran Galetic; Mirjana Gligoric; Tomislav Globan; Anita Goltnik Urnaut; Tomislav Herczeg; Irena Jankovic; Emina Jerkovic; Dafna Kariv; Oliver Kesar; Hilal Yildirim Keser; Martina Dragija Kostic; Tatjana Kovac; Vladimir Kovsca; Angelo Maia Cister; Katarina Marosevic; Vaidotas Matutis; Marjana Merkač Skok; Daniel Francois Meyer; Natanya Meyer; Josip Mikulic; Ljubica Milanovic Glavan; Guenter Mueller; Ivana Nacinovic Braje; Zlatko Nedelko; Gratiela Georgiana Noja; Zsuzsanna Novak; Alka Obadic; Claudia Ogorean; Igor Pihir; Najla Podrug; Vojko Potocan; Dinko Primorac; Zeljka Primorac; Sanda Renko; Humberto Ribeiro; Vlasta Roska; Souhaila Said; Armando Javier Sanchez Diaz; Tomislav Sekur; Lorena Skufflic; Mirko Smoljic; Petar Soric; Mario Spremic; Matjaz Stor; Tomasz Studzieniecki; Lejla Tijanic; Daniel Tomic; Boris Tusek; Rebeka Daniela Vlahov; Ilko Vrankic; Thomas Will; Zoran Wittine; Tao Zeng; Grzegorz Zimon; Snezana Zivkovic; Berislav Zmuk.

Organizing Committee / Organizacijski Odbor ■ Domagoj Cingula (President); Djani Bunja; Marina Klacmer Calopa; Spomenko Kesina; Erlino Koscak; Tomasz Ochowski; Mirosław Przygoda; Michael Stefulj; Tomasz Studzieniecki; Rebeka Danijela Vlahov; Sime Vucetic.

Publishing Editor ■ Spomenko Kesina, Domagoj Cingula

Publisher ■ **Design** ■ **Print** ■ Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia / University North, Koprivnica, Croatia / Faculty of Management University of Warsaw, Warsaw, Poland / Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat, Morocco

Printing ■ Online Edition

ISSN 1849-7535

The Book is open access and double-blind peer reviewed.

Our past Books are indexed and abstracted by ProQuest, EconBIZ, CPCI (Web of Science) and EconLit databases and available for download in a PDF format from the Economic and Social Development Conference website: <http://www.esd-conference.com>

© 2022 Varazdin Development and Entrepreneurship Agency, Varazdin, Croatia; University North, Koprivnica, Croatia; Faculty of Management University of Warsaw, Warsaw, Poland; Faculty of Law, Economics and Social Sciences Sale - Mohammed V University in Rabat, Morocco. All rights reserved. Authors are responsible for the linguistic and technical accuracy of their contributions. Authors keep their copyrights for further publishing.

CONTENTS

IMPACT OF COVID 19 ON RAKUTEN BUSINESS RESULT	1
Josko Lozic, Katerina Fotova Cikovic, Damira Kecek	
ENTREPRENEURIAL ACTIVITIES OF UNIVERSITIES – CASE OF SLOVAKIA .	11
Miroslav Sipikal	
THE ACRONYM AS A BRAND NAME: WHY CHOOSE IT FOR THE NAMING OF THE BRAND AND WHY NOT CHOOSE IT IN ANY CASE?	17
Arpad Ferenc Papp-Vary, Rita Lukacs	
INTERPERSONAL RELATIONS AND THE IMPORTANCE OF INTELLECTUAL CAPITAL AS A COMPETITIVE ADVANTAGE OF THE ORGANIZATION	27
Anica Hunjet, Petra Ostojic, Sanja Mihelic	
GREEN PUBLIC PROCUREMENT	37
Vlatka Kordos, Valentina Golubovic, Ana Globocnik Zunac	
INTERDEPENDENCE OF STAKEHOLDERS IN A TOURIST DESTINATION ACCORDING TO "ZERO" ENVIRONMENTAL IMPACT.....	44
Dijana Vukovic, Irena Zavrl, Anica Hunjet	
BITCOIN AS A SUBSTITUTE FOR CURRENT CURRENCIES.....	55
Ismet Voka, Filipos Ruxho	
HYDROGEN UTILISATION AS A KEY FACTOR FOR ACHIEVING ENERGY SYSTEM DECARBONISATION.....	64
Dalibor Pudic, Eraldo Banovac	
EVIDENCE ON PRE-PANDEMIC OUTBOUND TOURISM DEMAND DETERMINANTS IN OECD COUNTRIES	75
Blanka Simundic	
IMPACT ASSESMENT OF DIGITAL SKILLS ON R&D INVESTMENT	86
Neva Babic, Ljerka Luic, Ante Roncevic	
INFLUENCE OF FANS ON RESULT EFFICIENCY IN FOOTBALL.....	97
Hrvoje Ajman, Josip Cvenic, Mateo Paulovic	
IMPLICATIONS OF DIGITAL WORK ON EMPLOYEE PRODUCTIVITY AND THEIR DIGITAL EMPATHY	103
Mia Haramija, Zeljka Fruk	
THE ROLE OF PERSONAL DIGITAL COMPETITIVENESS IN THE DIGITAL ECONOMY: ATTITUDES AND VALUES OF DOCTORAL (PHD) STUDENTS	111
Darijo Klaric, Josip Mandic	

DIFFERENTIATION OF DIGITAL PUBLIC RELATION TOOLS ANALYSED FROM A DIGITAL LITERACY PERSPECTIVE.....	121
Manuela Pantaler	
THE IMPORTANCE OF HARMONIZATION OF EDUCATIONAL PROGRAMS IN DIGITAL TRANSFORMATION.....	127
Kristina Milaj, Tea Stepan	
THE INFLUENCE OF CITY ADMINISTRATION'S RESPONSIVENESS TO CITIZENS ATTITUDES TOWARDS CITY DIGITAL COMMUNICATION.....	137
Lovro Lukavecki, Maja Hresc	
NETIQUETTE AND DIGITAL EMPATHY IN THE CONTEXT OF APPLYING CROSS-CURRICULAR TOPICS IN THE CONTEMPORARY EDUCATION.....	146
Marta Novak	
SYNERGISTIC EFFECT OF BUSINESS SYNTHESIS AND INFORMAL EDUCATION ON THE DEVELOPMENT OF REGIONAL DIGITAL ECONOMY.	154
Jurica Mustac	
A STEP CLOSER TO UNDERSTANDING RESEARCH TRENDS IN THE FIELD OF DIGITAL INCLUSION OF PERSONS WITH DISABILITIES IN HIGHER EDUCATION: A SYSTEMATIC LITERATURE REVIEW.....	164
Ljerka Luic, Maja Popovic	
CAUSAL RELATIONSHIP BETWEEN DIGITAL INTELLIGENCE QUOTIENT AND THE DIGITAL ECONOMY AND SOCIETY INDEX	171
Marija Dusevic	
EDUCATION LEVEL EFFECT OF URBAN DIGITAL IMMIGRANTS TOWARDS THE LEVEL OF THEIR DIGITAL LITERACY	179
Domagoj Topic, Marko Antic, Josipa Brkic	
RESEARCH AND CRITICAL EVALUATION IN THE DIGITAL EDUCATIONAL ENVIRONMENT	186
Manuela Koseto Nadinic, Sandra Maletic	
THE IMPACT OF DIGITAL LITERACY ON THE CYBER SECURITY OF DIGITAL CITIZENS.....	196
Eva Bach	
DIGITAL COMMUNICATION AND DIGITAL COMPETENCIES - PREREQUISITES FOR BUILDING THE ORGANIZATION'S DIGITAL IDENTITY	205
Mateja Fras Venus	
PERSONAL CYBER SECURITY MANAGEMENT: BASED ON THE EXAMPLE OF MASTERS OF EDUCATION.....	211
Drazenka Svelec-Juricic, Matilda Bulic	

IMPACT OF COVID 19 ON RAKUTEN BUSINESS RESULT

Josko Lozic

*University North, Croatia
jlozic@unin.hr*

Katerina Fotova Cikovic

*University North, Croatia
kcikovic@unin.hr*

Damira Kecek

*University North, Croatia
dkecek@unin.hr*

ABSTRACT

Purpose - the aim of this paper is to analyse the business efficiency of the Rakuten platform at the beginning and during the Covid 19 crisis. Methodology / Design - research and analysis are based on secondary research published in Annual Report Corporation as well as in other relevant scientific sources. The research is divided into three basic parts that can be individually compared with the results of research on other platforms in the pandemic period. The results - the results of the research proved the strong impact of the Covid 19 pandemic on the overall business result. The analysis of financial items, as a quantitative part of the research, needs to be compared with the results that the platform achieves in the development of business activities in order to obtain a complete picture of the business. Conclusion - the platform has achieved negative financial results in the last two years, but the number of users is still growing, which leaves room for financial recovery. In addition, the platform develops new technologies and business models from which it expects revenue in the future.

Keywords: *hybrid platform, multi-sided platform, online retail, platform economy, Rakuten*

1. INTRODUCTION

Rakuten was founded in 1997, as an online store. Very soon after its founding, the Rakuten Ichiba electronic platform took over the market leadership from its competitors. The company levered the Japanese hospitality to build a reliable corporate culture and shaped an outstanding service that focuses on encouraging long-term relationships between merchants and customers (Willenborg 2016). Rakuten Ichiba platform in Japan is a market leader in several different digital service sectors from banking to travel thus making it one of the most innovative companies in the world: it was mentioned, for example, by Forbes as one of the world's most innovative companies in 2013 (Hänninen, Smedlund 2019). The platform diversified the business model and took advantage of the effects of digital business transformation (Lozić 2019). Tokyo-based Rakuten so dominates the e-commerce market in its home country that it's often called the Amazon of Japan. If it's not well-known in some other parts of the world, that's about to change (Helft 2017). Rakuten Group is a B-to-C platform, similar to Amazon, operating mainly in Japan but currently expanding. It offers a similar combination of retail and entertainment, while also creating online malls where sellers can create virtual shopfronts to attract customers. It is, however, a pure multi-sided platform, offering no own goods or logistics (Strategic direction 2018). The business model of the platform is organized as a classic platform economy (Parker et.al. 2016; Moazed, Johnson 2016) which uses the effects of the zero marginal cost model (Rifkin 2015). The business model is a combination of several different models of service commodification that are immanent to postmodern society (Lozić et.al. 2019).

The strategy of the platform is based on a combination of vendor creativity and technological algorithm, on the one hand, and the development of logistics and other forms of business activities, on the other hand. In this context, we can talk about a hybrid model of platform development and management. Rakuten is, besides Amazon, today's most diversified e-commerce company worldwide with businesses ranging from marketplaces, to accompanied internet services, online advertising, media content, in-house media devices, shipping and logistics, and payment and financing services (Schiliro 2013). As we approach our 25th anniversary, we have expanded our ecosystem beyond e-commerce to include a diverse portfolio of businesses centred on fintech and mobile (Annual Report 2020). In addition to Rakuten Ichiba, online shopping as the oldest business segment, the platform develops business in the segment of auctions, online golf booking, online travel booking, book sales, etc. The platform develops a special business segment within the financial sector by providing online banking, financing and credit card services. A modern system of contactless payment and payment by smartphones has been developed. The platform provides the services of Internet providers as well as broadband services, and has a special sector of sports business. The paper will investigate and analyse the impact of the Covid 19 pandemic on the platform's operations. The results of the research can serve as a comparison with other organizations in the platform economy model.

2. LITERATURE REVIEW

Rakuten started with its core business, an online shopping mall called Rakuten Ichiba, selling everything from consumer electronics and computers to fashion, home furnishings, sporting goods, etc. In Japan alone, more than 60 % of its population uses the marketplace accounting for an almost 30 % share of the overall 28.2 billion € e-commerce market in Japan (Willenborg 2016). Rakuten's vision is focused on disruptive innovation, reliance on knowledge, creativity and passion from around the world to meet ambitious goals and help build communities where people can follow their dreams and live in happiness (Annual Report 2020). With a different approach than its competitors, Rakuten Ichiba banks on a new strategy that uses a business-to-business-to-customer (B2B2C) model. The B2B2C model is a shop-based marketing place, focusing on the exchange between buyers and sellers rather than on being a shop or a collection of shops (Willenborg 2016). It also has a loyalty scheme, which rewards those who shop there with any purchases made across its ecosystem. It earns profit from membership fees and commission, as well as the sale of data, digital marketing, and sales consultancy services (Strategic direction). Rakuten concept is based on making connections between people based on areas of interest, which means that individuals as well as merchants can become curators, influential to other interested parties (Thau 2014). According to the organizational model, Rakuten is a multi-sided platform which makes it much less capital intensive, easier to scale, and more profitable than traditional retail. Uniquely, the new style of multi-sided platform retailers is able to focus entirely on creating lock-in of customers, leaving the suppliers using their platform to focus on the transactions of goods (Strategic direction). In the ten years since 2000, the corporation has made more than twenty strategic acquisitions. The M&A activities were accompanied with providing corporate venture capital to new acquired companies. This can be seen as a hybrid model between a Silicon Valley business cluster and a Japanese "keiretsu" system (Walter, Zhang 2012). Strategic takeovers and business diversification had a negative impact on the corporation's operations at the beginning of the crisis, but regular customers retained all the rights they had acquired in previous periods (Coldevey 2020). While both Rakuten Group and Amazon.com maintain tight control over their suppliers (banning those that do not conform to their quality criteria), they offer great freedom to those that wish to use their platform to sell quality good (Strategic direction). Our research found that the three leading platform marketplaces differ fundamentally in their business models.

The platforms from Alibaba and Rakuten are comprised of independent sellers, whereas Amazon combines sales from independent suppliers with its own inventory (Hänninen, Smedlund 2019). The value proposition of Rakuten Group is based on offering shopping as an entertainment, with its platform serving as a virtual shopping mall allowing suppliers to create their own storefront like in a physical mall. Rakuten is a pure platform, without vertical integration and in-house supply chain processes (Hänninen et.al. 2017). Rakuten.com is pretty much the best online shopping cashback website out there (Taylor 2022). On Rakuten, savings of up to 15% can be achieved by returning money after purchase (Rosen 2021). Over 90% of members use the benefits of collecting points, and the platform ranks first in Japan in terms of customer satisfaction with this type of reward (Annual Report). We recently introduced a new feature called Personalized Rewards that allows our merchants to pair their customer data with our first-party data to create targeted, hyper-personalized Cash Back offers. The affiliate marketing expertise of our sister company, Rakuten Advertising, makes this experience frictionless for both the consumer and our partners (Yu 2021). Rakuten Group offers over 70 services in Japan, and its mobile carrier business is a subscription service based on monthly fees that also generates high contact frequency with its users (Annual Report 2020). Rakuten TV has launched twenty-one new television channels in Spain, Italy and France (Sutton 2021). Rakuten TV is the first on demand and streaming platform in Europe combining TVOD, SVOD, AVOD and FAST services (Dziadul 2021). Data mining method also can be used to improve the accuracy. The result of this research acts as initial research for future large application development which is able to mine all Indonesia e-commerce site like google shopping (Simanjuntak et.al. 2015). Rakuten Ichiba is “based on the concept of not having internet savvy people run the business, but creating a platform that enables ordinary people skilled in retail to open their own online shop” This highly profitable business model focuses on a shop-centric rather than product-centric satisfying both consumers and merchants equally (Willenborg 2016). In April 2021, the name of the corporation was changed to Rakuten Group. There are two fundamental reasons for this. The first reason was business differentiation and procurement decentralization, and the second reason was the expansion of the ecosystem into the environment and the association with new companies (Annual Report 2020).

3. METHODOLOGY AND RESEARCH QUESTIONS

The paper will use the Rakuten Corporate Report 2020 as the official report of the corporation on business results. In addition to the Annual Report, other scientific sources that are relevant to the research of the topic in the paper will be used. The analysis is based on the financial analysis of selected items from the profit and loss account as well as on the statistical analysis of the trend and the ANOVA model.

Research and analysis focuses on two fundamental research issues:

- Q1 - How the Covid 19 crisis is affecting the financial result of the platform.
- Q2 - How the Covid 19 crisis is affecting the trend in the number of members on the platform.

The first research question is aimed at analysing the impact of the Covid 19 pandemic on the platform’s overall business results. The overall business of the platform will be analysed on the basis of selected financial items, but also as an overall trend in the number of users and technological development of the platform. The second research question is aimed at analysing the trend of the number of users in the context of financial performance, but also expectations of the trend of revenue and profit of the platform in the future. The results and commentary of the research are presented in the Conclusion chapter.

4. BUSINESS ANALYSIS

The Rakuten platform is organized as a hybrid model of the platform economy. It generates revenue from interactions in B2B and B2C models, as well as other service commodity models. As with other hybrid ecosystems in the platform model, services from Big-data processing, subscriptions to various services, services and the like are monetized. Most strikingly, it is the use of Big Data and technology solutions such as data analytics and cloud computing/storage that is making these new retail giants so powerful. It is through the accumulation and control of consumer data that they are able to control and profit from the markets within which they function (Strategic direction 2018). Research and analysis are divided into three basic segments. In the first part, the selected financial parameters from the profit and loss account will be analysed. The research includes financial analysis and interpretation of results and analysis by regression model of trends in order to determine the average values and trends in the analysed period. In the second part of the research, the trend of platform members is analysed. Statistical models of data processing as well as regression analysis are used in the analysis. In the third part, the ANOVA model will be used to determine the statistical significance and the significance of the correlation of the selected analysed variables.

4.1. Financial analysis

The analysis of the financial operations of the corporation covers a five-year period, i.e. the period from 2016 to 2020. In the analysed period, the corporation's revenues grew by 90.2%, from \$ 7.193 billion to \$ 13.682 billion. In the same period, cost revenue increased by 138.2%, which is above the increase in revenue. In the last two analysed periods, the cost of revenue was higher than total revenue. Gross profit decreased continuously in the analysed period and fell from 13.3% to 6.7%. Gross profit has been negative in the last two analysed periods. The increase in the cost of revenue above the increase in revenue indicates the strong impact of Covid 19 on the platform's operations as well as the overall financial result.

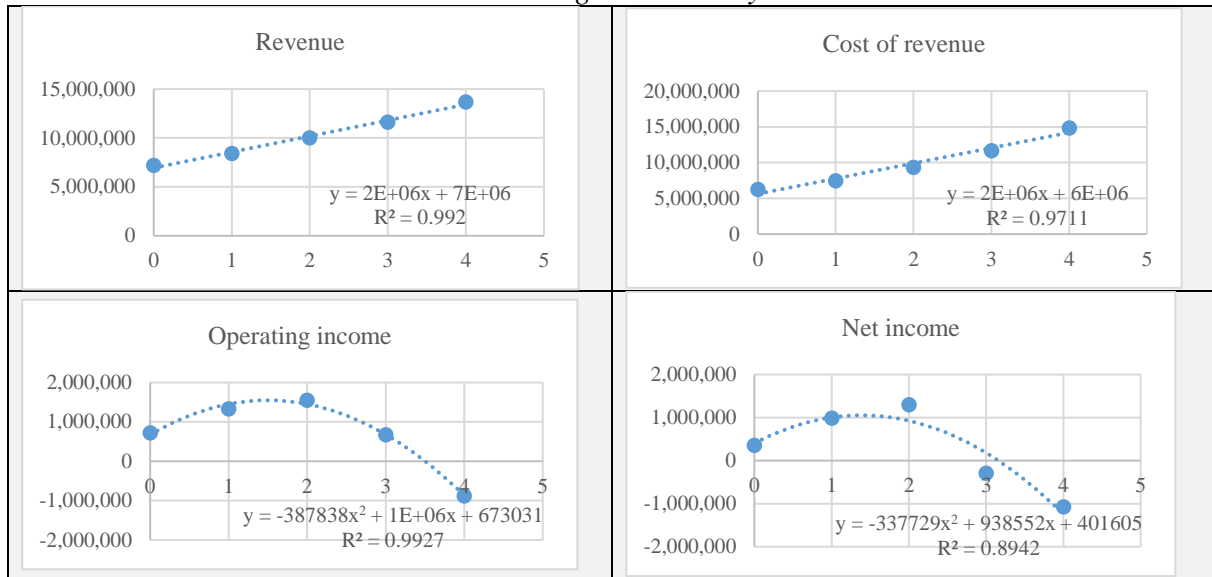
Table 1: Selected financial items (000; \$)

	2016	2017	2018	2019	2020
Revenue	7.193.627	8.405.818	10.023.470	11.628.170	13.682.060
Cost of revenue	6.233.901	7.454.195	9.352.553	11.655.500	14.848.520
Gross Profit	959.726	951.623	670.917	-27.330	-1.166.460
%	13,3%	11,3%	6,7%	-	-
Operating income	717.388	1.329.161	1.550.869	669.250	-882.180
Net income	349.554	984.207	1.294.766	-293.370	-1.073.471
EBIT %	10,0%	15,8%	15,5%	5,8%	-

Source: own illustration

Operating income and net income grew in the first three analysed periods, and then began to fall sharply. At the beginning of the crisis, Covid 19 operating income fell by 56.8% compared to 2018. At the end of the analysed period, operating income was negative. Operating income grew from 10% to more than 15%, before falling to 5.8%, i.e. a negative result. Net income was similar, but at the beginning of the crisis Covid 19 was negative, and the following year the loss increased by 265.9%. The results of the research are shown in Table 1. Due to poor business results, the platform closed its online store in the USA. Rakuten bought Buy.com for \$250 million back in 2010 in an attempt to expand its retail business out of its stronghold of Japan. Unfortunately, the evolving market, aggressive growth (and targeting of rivals) at Amazon and, likely, the choice to rebrand the once well-known site under the Rakuten name all led to declining business (Coldevey 2020). The Rakuten mobile network made \$ 1.02 billion in losses in the first year of the Covid 19 crisis (Kapko 2022).

Table 2: Regression analysis



Source: own illustration

Revenue growth is explained by the linear regression equation $y = 2E + 06x + 7E + 06$. The average annual revenue growth was 19.63%, with a coefficient of determination $R^2 = 0.992$. The cost of revenue trend is explained by the linear regression equation $y = 2E + 06x + 6E + 06$. The average annual increase in Cost of revenue was 20.18%, which was higher than the average trend of revenue growth. The operating income trend is explained by the regression equation $y = -387838x^2 + 1E + 06x + 673031$, with the coefficient of determination $R^2 = 0.9927$. Operating income was the highest in 2018, amounting to 15.5% of total revenue. The net income trend is explained by the regression equation $y = -337729x^2 + 938552x + 401605$, with the coefficient of determination $R^2 = 0.8942$. The results of the research are shown in Table 2. The research confirmed the strong impact of the pandemic on the financial result of the platform. In addition, the platform began developing its own mobile telephony as well as the 5G network, which further impacted the financial result.

4.2. Number of user's analysis

The number of members of the Rakuten platform has been continuously growing in the analysed period. From 2014 to 2020, the number of members increased from 70.3 million to 119.8 million or 70.4%. Comparing with the selected financial period, from 2016 to 2020, the number of members increased by 36.9%. In the same period, revenues increased almost three times more than the increase in the number of members, which indicates increased consumption of existing members. The increase in the number of members is digressive and was the largest in the first analysed period, and the smallest in the last analysed period. At the beginning of the Covid 19 crisis, the trend in the number of members changed from digressive to progressive growth, after which the trend became digressive again. Digressive growth indicates the saturation of the number of members on the platform. The trend in the number of members is shown in Table 3.

Table following on the next page

Table 3: Number of Rakuten members (mill.)

2014	70,3	%
2015	78,8	12,1%
2016	87,5	11,0%
2017	95,2	8,8%
2018	102,6	7,8%
2019	111,4	8,6%
2020	119,8	7,5%

Source: own illustration (www.statista.com)

The trend of growth in the number of users over a period of seven years is explained by the linear regression equation $y = 8.1714x + 70.571$, with a coefficient of determination $R^2 = 0.9995$. The average annual increase in the number of members was 8.59%. In the analysed five-year period, comparable to the financial analysis of operations, the average annual increase in the number of members was 7.82%. The growth trend is digressive and lower by 12% than the growth of total revenues. The management of the platform relied on the loyalty of the members and their acceptance of the new mobile network that will be launched by the platform. In 2019, there were already 100 million members in Japan, and the platform expected the development of a mobile network within the ecosystem due to various forms of rewards developed by the platform in other sectors (Simms 2019).

4.3. ANOVA analysis

The platform achieves revenue growth and membership growth, but has a negative financial result. Growth in revenue and membership is no longer sufficient to cover operating costs. The development strategy is changing from an online sales platform to a hybrid form of the platform and an ecosystem development platform. Strategic acquisitions have shaped an ecosystem that is currently seen as the most diverse and encounters people in many everyday life situations. A constant focus on global expansion and untapped business and niche segments contributes to its overall success (Willenborg 2016). The development of the hybrid model increases demand and affects the growth of revenue outside the core business or online retail. The ANOVA model tested the impact of member growth on the platform's total revenue. A strong correlation was found between revenue growth and the number of members, i.e. Multiple R = 0.99756. The coefficient of determination or Adjusted R Square is 0.99375 (for arrays less than 30 frequencies), and Standard Error 203308.44. The results of the Significance F analysis indicate a large impact of the independent variable on total revenue, i.e. the P-value of the member's variable is 0.000136, at a significance level of 0.05, which means that the independent variable Members significantly affects the trend of total revenue. The ANOVA model also tested the impact of the trend in the number of members on the net profit of the platform. The results of the analysis showed a weak correlation between the trend in the number of users and net profit, i.e. Multiple R = 0.70256. The coefficient of determination Adjusted R Square = 0.32437 is not sufficient for accurate interpretation of the results, which indicates a large deviation from the mean regression values. Significance F = 0.18580, which indicates that there is no variable that significantly affects net profit, i.e. the value of P-value for the independent variable Members was 0.18580, at the level of significance of 0.05, which means that it does not significantly affect independent variable.

Table following on the next page

Table 4: Regression analysis

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0,99765333							
R Square	0,99531216							
Adjusted R Square	0,99374955							
Standard Error	203308,444							
Observations	5							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	2,6328E+13	2,6328E+13	636,9536	0,000136414			
Residual	3	1,24003E+11	41334323577					
Total	4	2,6452E+13						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	-10545963,2	826501,4923	-12,7597631	0,001039	-13176259,83	-7915666,59	-13176259,83	-7915666,59
Members	200702,732	7952,42159	25,23793912	0,000136	175394,5772	226010,8867	175394,5772	226010,8867

Source: own illustration

The results of the analysis with the ANOVA model prove a significant correlation between the increase in the number of users and the increase in total revenues. Also, the results of the analysis show a weak correlation between the trend of the number of users and net profit, i.e. the increase in the number of users does not significantly affect net profit. The growth in the number of users is digressive, and revenues during the crisis grew at a lower rate than the growth before the crisis. The platform invested in the diversification of activities, which resulted in an increase in costs that could not be offset by an increase in the number of users, i.e. the growth in the number of users did not affect the proportional growth of total revenues.

5. CONCLUSION

The results of the research proved that the crisis related to the Covid 19 pandemic significantly affected the overall financial result of the platform. Total revenues grew, but gross profit was negative already in the first year of the Covid 19 pandemic. The basic results of the research are contained in five points:

- Cost of revenue grew faster than revenue, and gross profit was negative.
- The Covid 19 global pandemic has significantly affected operating and net income platforms.
- In the analysed period, the revenues of the platform increased almost three times more than the number of members.
- At the beginning of the crisis, the growth trend of the number of members changed. The beginning of the crisis had a positive effect on the growth of the number of members, but the following year this growth returned to the standard model.
- Testing using the ANOVA method proves significant significance of the model, i.e. the increase in the number of members significantly affects the platform's revenues.

In the context of the first research question, it can be concluded that the crisis had a significant impact on the overall financial results. Total revenues grew steadily, but total costs grew faster than total revenues. Net profit was negative in the last two analysed periods and increased significantly in the last period. Total revenues grew by an average of 19.63% per year, but the cost of revenue grew by an average of 20.18%. Diversification of operations and alimony of income from hybrid forms of business was not enough to amortize the operating costs associated with the Covid 19 crisis. Business losses increased after Rakuten started introducing a new mobile network.

They ballooned to a loincloth-stretching 225 billion Japanese yen (US\$2 billion) last year, more than doubling the 2020 figure, even though group revenues grew 15.5%, to nearly JPY1.7 trillion (\$14.7 billion) (Morris 2022). In 2019, Mikitani invested \$5.5 billion to launch a new telecom network and disrupt Japan's three-way mobile phone oligopoly: KKDI, NTT Docomo and Japanese billionaire Masayoshi Son's SoftBank by providing a cheaper and more flexible network called radio access network (RAN) (Leung 2021). The crisis caused by the pandemic has affected corporations differently in the platform economy model. Groupon operated with losses and they increased in the crisis (Lozić et.al. 2021), while eBay had a continuous growth of revenues and revenues grew during the Covid 19 pandemic (Lozić 2021). In the context of the second research question, the research results did not prove a stronger impact of the crisis on the trend in the number of users. Before the pandemic, the number of users grew digressively, and at the beginning of the 2019 crisis, this trend changed. In this context, it can be concluded that the crisis has had a positive effect on the trend in the number of users. However, in the following period the trend changed and returned to the digressive model as before the appearance of Covid 19. The change in the trend was short-lived, and the growth in the number of users in the last analysed period was the smallest. At the beginning of the pandemic, a new mobile network was developed on the platform, which attracted a new number of users of the Rakuten ecosystem, but the trend has stabilized recently. Brokerage houses expected losses in the next three years after the introduction of the new mobile network (Simms 2019), as evidenced by the results of financial analysis. The test results with the ANOVA model prove a significant statistical correlation between revenue and the number of users, i.e. a significant impact of the increase in the number of users on the increase in total revenue at the significance level of 0.05. However, from the results of the financial analysis it can be concluded that the operating costs associated with the Covid 19 crisis have also increased significantly. The results and analysis of the research can be the basis for future research related to the platform's operations.

LITERATURE:

1. Annual Report 2020. <https://global.rakuten.com/corp/investors/documents/annual.html>. [07.03.2022.]
2. Coldewey, D. (2020). „Rakuten is shuttering the online shop formerly known as Buy.com“. *Techcrunch*. <https://techcrunch.com/2020/07/30/rakuten-is-shuttering-the-online-shop-formerly-known-as-buy-com>. [28.02.2022.]
3. Dziadul, C. (2021). „Rakuten launches new localised channels“. *Broadbandtvnews.com*. <https://www.broadbandtvnews.com/2021/11/18/rakuten-launches-new-localised-channels/> [28.02.2022.]
4. Hänninen, M. & Smedlund, A. (2019). „On retail digital platforms suppliers have to become responsive customer service organizations“. *Strategy & Leadership*, Vol. 47, No. 1, pp. 37-43. DOI. 10.1108/SL-04-2018-0036.
5. Hänninen, M.; Smedlund, A. & Mitronen, L. (2017). „Digitalization in retailing: multi-sided platforms as drivers of industry transformation“. *Baltic Journal of Management*. Vol. 13 No. 2, pp. 152-168.
6. Helft, M. (2017). „Borrowing From Amazon's Playbook Rakuten Aims For Global Dominance“. *Forbes.com*. <https://www.forbes.com/sites/miguelhelft/2017/08/08/borrowing-from-amazons-playbook-rakuten-aims-for-global-dominance/?sh=431c48b78104>. [28.02.2022.]
7. Kapko, M. (2022). „Rakuten Mobile Losses Surpass \$1B in Q4.“ *Sdx.central*. <https://www.sdxcentral.com/articles/news/rakuten-mobile-losses-surpass-1b-in-q4/2022/02/>. [28.02.2022.]

8. Leung, R. (2021). „Hiroshi Mikitani Gains \$760 Million After Rakuten's First Mobile Network Deal in Europe“. Forbes.com. <https://www.forbes.com/sites/rubyleung/2021/08/05/hiroshi-mikitani-gains-760-million-after-rakutens-first-mobile-network-deal-in-europe/?sh=5debfd9567fd>. [28.02.2022.]
9. Lozić, J. (2019). “Core concept of business transformation: From business digitalization to business digital transformation.” *48th International Scientific Conference on Economic and Social Development – "Managerial Issues in Modern Business"*. Warsaw, str. 159.-167.
10. Lozić, J. (2021). “The impact of the Covid 19 pandemic on the business of the eBay platform”. *68th International Scientific Conference on Economic and Social Development*. Aveiro, pp. 127-135.
11. Lozić, J.; Fotova Čiković, K.; Smoljić, M. (2021). „Financial analysis of Groupon platform: Saturation at industry of coupon market“. *72nd International Scientific Conference on Economic and Social Development – „Digital Transformation and Business“*, pp. 186-194.
12. Lozić, J.; Milković, M. & Lozić, I. (2019). „Entrepreneurship development in the context of postmodern: future of entrepreneurship or adaptation to development of postmodern society”. *49th International Scientific Conference on Economic and Social Development – "Building Resilient Society"*. Zagreb, pp. 578-590.
13. Moazed, A.; Johnson, N.L. (2016). *Modern Monopolies – What it takes to Dominate the 21st Century Economy*, Applico, LLC. ISBN 9781250091895.
14. Morris, I. (2022). „Rakuten says losses to shrink, eyeing 10.000-site 5G rollout in 2022“. *Lightreading.com*. <https://www.lightreading.com/5g/rakuten-says-losses-to-shrink-eyeing-10000-site-5g-rollout-in-2022/d/d-id/775281>. [28.02.2022.]
15. Parker, G.G.; Van Alstyne, M.W.; Choudary, S.P. (2016). *Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work for You*, W.W. Norton & Company Ltd. ISBN 978-0-393-24913-2.
16. Rifkin, J. (2015). *The zero marginal cost society: The Internet of things, the collaborative commons, and the eclipse of capitalism*, Palgrave Macmillan, St. Martin's Press LLC. ISBN 978-1-137-28011-4.
17. Rosen, S. (2021). „Here's How You Can Get 15% Cash Back This Week From Some Big Online Stores“. NextAdvisor.com <https://time.com/nextadvisor/in-the-news/rakuten-cash-back-deal-may-10/>. [28.02.2022.]
18. Schiliro, A. (2013). „E-Commerce companies: World 2013 - 2018 Trends“. *Corporate strategies*. Paris: Xerfi Global.
19. Simanjuntak, H.; Sibarani, N.; Sinaga, B. & Hutabarat, N. (2015). „Web mining on indonesia e-commerce site: Lazada and Rakuten“. *International Journal of Database Management Systems (IJDMS)* Vol.7, No.1, pp. 1-13.
20. Simms, J. (2019). „Japan's Richest 2019: Rakuten's Mikitani Bets \$5.5 Billion To Shake Up Telecom Industry“. Forbes.com. <https://www.forbes.com/sites/jsimms/2019/04/10/japans-richest-2019-hiroshi-mikitani-aims-to-disrupt-japans-telecom-industry-with-rakuten-mobile/?sh=1330d37c3a6d>. [28.02.2022.]
21. Statista.com. <https://www.statista.com/topics/5374/rakuten/#dossierKeyfigures>. [08.03.2022.]
22. Strategic directions (2018). „Has digital retail won? The effect of multi-sided platforms on the retail industry“, Vol. 34, No. 3. pp. 4-6. 000, doi. 10.1108/SD-12-2017-0191.
23. Sutton, F. (2021). „Rakuten TV launches new channels in Spain, Italy and France“. *Rapidnewtv.com*. <https://www.rapidtvnews.com/2021111861598/rakuten-tv-launches-new-channels-in-spain-italy-and-france.html#axzz7LAdaQQII>. [28.02.2022.]
24. Taylor, P. (2022). „Rakuten (Formerly Ebates) Review 2022: How Does it Work? Is it Legit?“. *PTmoney.com*. <https://ptmoney.com/ebatescom-review-save-money-when-shopping-online/>. [28.02.2022.]

25. Thau, B. (2014). „Rakuten’s global ambitions: Japan’s biggest e-commerce player uses third-party marketplace model to expand“. <https://chainstoreage.com/news/rakutens-global-ambitions>. [16.02.2022.]
26. Walter, A. & Zhang, X. (2012). *East Asian capitalism: Diversity, continuity, and change*. Oxford University Press. ISBN-13: 9780199643097.
27. Willenborg, T.S. (2016). „Rakuten: A Case Study on Entering New Markets Through an Innovative Business-to-Business-to-Consumer Strategy“. (ed.) Seagers, R.T. *Multinational Management*, pp. 203-220. DOI 10.1007/978-3-319-23012-2-11.
28. Yu, S. (2021). „The CMO'S New M.O.: How Dana Marineau Is Building A Culture of 'Optimism' At Rakuten“. *Forbes.com*. <https://www.forbes.com/sites/soonyu/2021/11/23/the-cmos-new-mo--how-dana-marineau-is-building-a-culture-of-optimism-at-rakuten/?sh=1e8dcf0a1556>. [28.02.2022.]