DIGITAL TRANSFORMATION, SHARING ECONOMY AND EFFECTS ON SOCIETY

Cvijeta Djevojic, Mirta Brajak & Iris Mihajlovic

This Publication has to be referred as: Djevojic, C[vijeta]; Brajak, M[irta] & Mihajlovic, I[ris] (2021). Digital Transformation, Sharing Economy and Effects on Society, Proceedings of the 32nd DAAAM International Symposium, pp.0732-0739, B. Katalinic (Ed.), Published by DAAAM International, ISBN 978-3-902734-33-4, ISSN 1726-9679, Vienna, Austria

DOI: 10.2507/32nd.daaam.proceedings.102

Abstract

This paper examines the importance of innovative tools that help companies overcoming the uncertainties. Assuring an optimal platform designed under a single architecture should meet the interests of both market poles as common, based on technology that creates value and care society. First part of paper has an emphasis on terminology definition of digital transformation as model, business process and prerequisites that define its implementation as necessary as it is. Second part of the paper speaks in favour of sharing economy and its effects on society. SE is based on 'technology' and how it facilitates new social and economic configurations. In some discussions this technology is an 'algorithm', while in others it is a 'platform' or simply 'technology'. Furthermore, there is not always agreement on these terms, as researchers have different definitions of an 'algorithm' defining the technology as a platform, but only concern themselves with one algorithmic process of that platform. In other cases, technological changes are reduced to quantifiable trends, such as increasing computational power, speed of matchmaking, or the omnipresence of personal devices. Results speak in favour of business framework that should meet "soft socially fulfilling responsibilities" as market insists today. In the long run, they will certainly guarantee success and profitability.

Keywords: Digital transformation; Sharing economy; Tourism; Communication; Society.

1. Introduction

Finding a way out of the uncertainty that determines the business environment through the practice, past, present and future conditions, still seems being as an ambitious task. Historically, looking at technological progress based on creative destruction that is in synergy with scientific knowledge from other fields at the same time, the great efforts has been made to discover a model that could guarantee an existence and progress. Evolution and transformation are the only constants in the natural environment, society and economy, driven by the search for efficiency, not necessarily an excellence. Consequently, today's new measurable indicators that put pressure on companies should be found in the challenges of dynamic market requests. Innovative tools that help companies overcoming the uncertainties are in the central research interest of scientists, and the authorities mentioned in this paper.

Analysing efficiencies of algorithms, we found out that the most energies are paid for an idea of ensuring accessibility, flexibility, personalization, and convergence. Convincing that new platforms designed under a single architecture meet the interests of both market poles as common, the technology creates value. Efforts are being made, and are going to be made to search for semiotic values of antonyms "as physical, analogous, mappings" that will transform a standardized operating model into a flexible one with cyber, digital, sharing capabilities that will be focused or redirected on understanding of business to "soft social" fulfilling responsibilities "as the market demands today, which in the long run will surely guarantee success and profitability by economic standards.

2. Digital transformation

Digital business involves the use of digital technologies to conduct business processes. Digital technologies include the use of computers, mobile devices and other technology that serves businesses in the modernization of business processes in order to achieve better business results. The main feature of digital technologies is their accessibility [1], which greatly facilitates the transition to new platforms. With the development of internet marketing, new opportunities have opened up for customers, who were able to receive and view information on their smartphones and tablets in real time. Social networks play a significant role in transforming the structure of social relationships through digital technologies, both in the consumer and business worlds [2].

Digital transformation is the adaptation of the way of doing business to a new, digital environment, using digital technologies, with all the benefits that e-business brings. Digital transformation should affect the improvement of quality of life, encourage economic growth and environmental protection, which are social values that business models must have, in addition to commercial values. Prerequisites for achieving digital transformation and spreading innovation in services are strengthening cooperation between government, companies and society as a whole, as well as harmonizing policies in their interaction [3].

Recently, the digital transformation has been the subject of research by many experts, both theorists and practitioners, who have published a large number of papers and articles in which they express their, often different, views on the subject. Thus, it is difficult to draw a general definition of digital transformation from the existing literature. To better describe what digital transformation is, what the drivers are, what the characteristics are, and what areas it affects, Morakanyane, Grace, and O'Reilly [4] put existing concepts into a matrix. Each of the authors of the concept of digital transformation wants to give their contribution in defining this phenomenon. Therefore, there is not just one definition of digital transformation. To obtain a general definition of digital transformation, it is necessary to look for keywords and different models [4]. Generally speaking, digital transformation is the use of digital technologies with the aim of increasing value and achieving a competitive advantage in business processes.

IT strategy is important at all levels [2] and needs to be constantly reviewed. Businesses, using IT technology, gain a competitive advantage by reducing costs. As a result, a new hierarchy of market priorities emerges, technologies, platforms and applications gain in importance. The new time brings with it the competition of companies in which the main factors of competition are time and information used for profit. Through these new customer-customer models using new technologies facilitates economic and social configurations.

The foundation of the digital transformation is digital technology. In recent years, digital technologies have become more accessible to a wider circle of people and increasingly easy to use, so mobile phones and social networks have become the main means of communication between private and business entities. Wider availability prevents companies from using digital technology to gain a competitive advantage, but companies can take advantage of the use of digital technologies in business to improve their image and create added value through faster and better communication with customers and other businesses [5]. Rapid changes in the way products are distributed to the market result in a new experience for all market participants, which conditions the transformation of the way of doing business by applying new technologies [4]. The definition and analysis of the process leads us into a broad field of problematics, giving us an insight into the development of organizational structure, organizational resources and organizational culture, using new concept and an innovative vision [6]. Priorities should be re-defined .

The implementation of digitalisation can take a long time due to the fact that it is a big and radical change, and those companies that accept the change faster and easier have a competitive advantage. The new industrial revolution is thought to have begun in the early 21st century and we call it Industry 4.0 [7], [8], [9], for which digitalization is the main driving force. The change in living conditions has been reflected in the use of new technologies that have facilitated business operations and contributed to trends in product placement. Such a new, innovative business creates a positive user experience that changes the production paradigm in the new industrial revolution [10], [11], [12]. A key factor in the fourth industrial revolution is digitalization, which will change the way we produce, market, and provide services, and the improvement resulting from these changes is reflected in lower costs and higher quality. By using digital technologies, communication between buyers and sellers will become more personalized, as well as marketing tools: pricing, distribution, customer management, etc. [13].

The result of digital transformation through the use of digital technologies are new business models, and together with new products, services and new markets, they form the digital economy [14]. The basic features of the digital economy is the use of information and communication technology in business. Existing physical resources are gaining new, digital resources in this way.

Informatization lies at the core of the digital economy, and all economic aspects are adapted to it, the way of thinking, organizational structure, organizational culture, production processes and analysis of business results. The rapid changes in the external environment caused by global digitalization are forcing companies to react quickly in adapting. The biggest transformations are happening in the areas of communication, interaction with partners, consumers, and production. As a result of these changes, there is great interest in researching the benefits that digitalisation has on economies and the ways in which it affects the functioning of economic operators. Therefore, it has been proven that the introduction of the latest information and computer technologies in all spheres of the economy is one of the priority directions of the state's internal policy [15], and research in this area is extremely important.

Thanks to digitalization, we measure success by the level of flexibility to respond to changes and adapt business to the new environment, and not as before by the size of capital and the length of existence of the company. According to a group of scientists [16], a modern enterprise represents a complex production and organizational system. Its components are constantly changing. Increased competition leads to increased complexity of production analysis, management, planning, production processes and internal and external relations with suppliers and intermediaries. [17], [18].

2.1. Digital Economy and Society Index (DESI)

The Digital Economy and Society Index (DESI) [19] has been published annually by the European Commission since 2014, and its task is to measure the progress of EU members in the digital economy and society, which collects relevant indicators and consists of 5 main policy areas with a total of 37 indicators:

Policy area	Indicators
1 Connectivity	Fixed broadband take-up, fixed broadband coverage, mobile broadband and broadband prices
2 Human capital	Internet user skills and advanced skills
3 Use of internet	Citizens' use of internet services and online transactions
4 Integration of digital technology	Business digitisation and e-commerce
5 Digital public services	e-Government

Table 1. DESI's five principal policy areas

The following chart shows the progress of EU member states looking at the overall level of digitalisation of the economy and society observed in the last 5 years. DESI progression over that time period is measured.

Fig. 1. Digital Economy and Society Index – Member States' progress, 2015-2020

Significant progress has been made in Ireland, the Netherlands, Malta and Spain, which are well above the EU average measured by the DESI score. Finland and Sweden are slightly above average in terms of the progress made in the last five years, along with Belgium and Germany, although they are among the leaders in overall performance in the digital world. Among the high-performing Member States in the overall DESI scale are Denmark, Estonia and Luxembourg, although they have shown relatively low progress in digitization in the last five years. Significantly, most countries that are below the EU average in terms of digitization have not made significant progress in the observed period.

Fig. 2. Digital Economy and Society Index, 2020

Scandinavian countries, Finland, Sweden, Denmark, along with the Netherlands have the most advanced digital economies in the. Eastern European countries Bulgaria, Greece, Romania, and Italy have the lowest scores on the index.

Fig. 3. International Digital Economy and Society Index, based on 2018 data

The digital performance of EU countries is compared with 17 non-EU countries. The International DESI (I-DESI) evaluates the performance of both the individual EU countries and the EU as a whole in comparison to some non-EU countries. The top four EU countries (Finland, Sweden, the Netherlands and Denmark) are just behind the US and considered the global leaders, with scores even higher than Korea and Japan. EU's average in digital performance is, however, lower than those three countries.

2.2. Main findings of DESI 2020 in the 5 digital areas

Broadband connectivity

Access to a fast and reliable broadband connection (including fixed and mobile connections) is crucial in light of the ongoing coronavirus pandemic in which key social and economic services are delivered online. Modern and robust digital infrastructure provides the necessary coverage for these services. During the crisis, networks faced significantly increased demand, while at the same time having to ensure the use of broadband-enabled services. Overall connectivity has improved, both in terms of supply and demand. In 2019, new generation access (NGA) coverage increased to 86% of households compared to 83% a year earlier, while very high capacity fixed networks (VHCN) are available to 44% of households.

Over a period of 5 years, more and more people are using broadband services of at least 100 Mbps, now with the current level of 26% of households, five times higher than five years ago. 4G networks cover almost the entire European population, but little progress has been made in allocating 5G spectrum. Only 17 Member States have already allocated spectrum in the pioneering 5G bands.

Human capital - digital skills

Digital skills are the backbone of the digital society. They allow people to use digital services and engage in online activities, especially when mobility is limited. Basic and advanced digital skills need to be strengthened in school curricula through academic offerings in EU Member States. Similarly, digital skills are essential for the effective use of distance learning solutions, including support for schools and families, with special attention to those at risk of social exclusion (e.g. by making hardware and training available). In 2019, the percentage of people who have at least basic digital skills reached 58% (compared to 55% in 2015). However, much of the EU population still lacks basic digital skills, although most jobs require such skills.

Internet use of citizens

Internet use by individuals increased during the pandemic. The general restriction has led to repetitive access to social media and entertainment platforms, as well as distance work, e-commerce, e-government services and distance learning. This trend already existed before the pandemic, as internet use continued to increase from year to year, with 85% of Europeans surfing the internet at least once a week (compared to 75% in 2014). The use of video calls has increased the most, from 49% of Internet users in 2018 to 60% in 2019. Internet banking and shopping are also more popular, used by 66% and 71% of Internet users, respectively. In contrast, only 11% of Europeans completed the 2019 online course.

Integration of digital technology by enterprises

Small and medium-sized enterprises (SMEs) that have not embedded digital solutions are a challenge to provide their staff with the opportunity to work from home. One of the many obstacles to the digitalization of SMEs is the digital knowledge gap caused by the low level of digital literacy among owners, managers and employees. Addressing these shortcomings will be vital to ensure a strong recovery. Businesses became more and more digital, and leading companies took over. 38.5% of large companies already relied on advanced cloud services, and 32.7% used big data analytics. However, the vast majority of SMEs reported not yet using these technologies, with only 17% using cloud services and only 12% using big data analytics.

Digital public services

There has been an upward trend in digital public services. In 2019, the quality and use of digital public services also increased. 67% of people who normally use the Internet who have submitted forms to their public administration reported that they now use Internet channels (compared to 57% in 2014), which shows the growing convenience of online procedures compared to paper ones.

3. Sharing economy in terms of Social Challenges

There is no generally accepted term or name for the sharing economy. Many different terms are still used in the scientific and professional literature for the term sharing economy [20]. The term sharing economies first appeared in 2008. [21] and can be said to be the most commonly used term today [22]. There are other terms that are being used, such as “peer-to-peer economy”, “on-demand economy”, “gig economy” [23] (Belk, 2014), “access-based consumption” [24] and “collaborative economy” [25]. The traditional business model of companies, in which production factors are used to offer products or services on the market, is increasingly being replaced by a new business model. The new business model relies on the use of digital and interconnected platforms to share physical resources among a large number of people - the focus is no longer on ownership, but on direct experience and mutual trust of service providers and users. The sharing economy in newer history is a term for a set of business models, exchanges and platforms [26]. “Sharing is an alternative to the private ownership that is emphasized in both marketplace exchange and gift giving. In sharing, two or more people may enjoy the benefits (or costs) that flow from possessing a thing” [23].

The development of the sharing economy was driven by the financial crisis that caused the economic collapse of 2008, as well as the rapid development of technology. Connecting and networking became easier, and information was shared more easily. The sharing economy evolves still, and is not a complete concept. It is oriented exclusively to the present, which means that it does not require a start from scratch or drastic change and revolution, but seeks what is possible and feasible in the current situation. It does not find its reliance on the support and support of the state and its institutions, which are expensive and slow in resolving the most important issues of today, such as unemployment. While using the latest technology, it allows people to create the content of a product or service themselves. The very important fact is that technology today is available to almost everyone. It thus creates new forms of demand and new forms of economy that did not exist before. This is why we are not looking at the sharing economy as a transformation of the existing, but something completely new [27]. The development of technology, ways of communication through social networks, as well as changes in consumer attitudes and behaviour, have led to the need for more efficient use of products and services. The benefits are lower prices, availability to the average consumer or user, with resource savings and better effects on the environment and society [28].

The main goal of this new business model – Shared economy and “share goods” which implies redistribution, mutualisation and shared mobility.[29]. The sharing economy connects service providers directly or through intermediaries. Users in the sharing economy can also be suppliers. Users search for information about different products and services and compare them according to various criteria such as price and rating added by other users. To use a certain service payment must be made. After using a certain service users can evaluate it themselves. The goal of sharing economy platforms in the role of intermediaries is to connect the user and the service provider and maintain the electronic market, enable the transactions and billing through the application, for which they get a commission. [21].

The sharing economy has flourished in tourism and travel, which are an indispensable part of human lives. The local population was given the opportunity to provide services to tourists. There are many examples, and we can single out the most popular, such as:

- Transfer services (Uber)
- Restaurant services (Eatwith),
- Accommodation services (Airbnb).
- Services for tour guides (Vayable) etc. [30]

The Airbnb was created in 2008 and soon became worldwide famous. It encompasses three main categories of participants: service providers, service users and intermediaries. To become what it is today and to make this work, Airbnb needed to cope with few key issues: getting hosts and visitors on board avoid negotiation and build a trust between users for transactions to take place [31].

Technological innovations, sociological and philosophical perspectives, and economic perspectives are the main drivers of social change. Airbnb followed those main drivers. It followed the growth of technological innovations as we move into the time frame of the Internet of Things and later of energy and distribution. People’s mind-sets have moved from industrial economy with focus on product ownership to an experience economy. Airbnb is moving from a time frame of possession to the age of access which means they are even eliminating concepts of “property” and “ownership” [32].

Society is greatly affected by the growth of the sharing economy. The benefits are various, and we can extract some of them:

- Lower prices of goods and services caused by the expansion of the sharing economy
- Flexible working hours
- Use of unused capacity and encouragement of additional consumption
- Improving consumer experience and development of trust mechanisms between the user and the service provider [33]

In addition to the many positive effects, we need to consider the consequences of such business models. It is necessary to consider the main shortcomings or challenges posed by the sharing economy, such as lower personal income instability, the level of protection of workers and benefits, professional development and education, the issue of privacy and security of user data and access to sharing economy platforms [33]. The rise of the sharing economy may affect not only consumers’ interest in purchasing products but also their preferences for product features and quality. Future researchers should consider hypothesis that bear in mind the consumer’s decision of becoming providers and buyers of higher-quality products— luxury rather than budget brand products – to make themselves more attractive to users of the sharing economy. There are also few insights related to dynamics of such changes in behaviour as the sharing economy evolves of an optimal manner the efficient producers should accordingly adapt their product mixes.

4. Conclusion

The modern way of life is now in digital spaces and the platforms are the gateway. This research phenomenon has drawn scholars from a large number of different fields and disciplines into an emerging research area. Given the variety of perspectives represented, there is a great need to collect and connect what has been done, and to identify some common themes and threats, which will serve as a basis for future discussions on the crucial roles played by digital platforms in the sharing economy. Academic studies on sharing economy and related terms, supported by digital transformation results identify some trends and the ways in which the new sharing economy is disrupting the traditional way of doing business in high intensive labour sector as service sector is.

Finally, this paper presents advantages of digitalization that stimulated the emergence new technology as appropriate model, algorithms as sharing economy. Observations which are circumscribe often missing the deep insight on technology’s role in terms of impacts in an area of social also time and space convergence. In that manner the advantages in time savings are found out in efficiencies of usage of digital tools. The enterprises will evaluate the complementary resources that they need and conduct strategic alliances (as DESI indicators support) to ensure the availability of resources for survival and to reduce environmental uncertainties. As many scholars of the sharing economy have explained, the act of sharing has roots in the ancient bartering systems and communal ways of life. However, it is only in the last two decades that an intense discussion of sharing and economic collaboration has risen up around the term ‘sharing economy’.

This is in part due to the fact that, although sharing has been around for a long time, digital platforms and other large-scale mediating technologies have not. Indeed, much of the excitement over the sharing economy and collaborative consumption surrounds digitally-supported businesses and communities which have enjoyed commercial success in recent years, upsetting established businesses. As a result, the presence of such technologies has been put forward as a defining characteristic, separating those businesses and communities under the term “sharing economy” from traditional sharing contexts. Thus, we can describe the sharing economy as an economic model defined as a peer-to-peer based activity of acquiring, providing, or sharing access to goods and services that is often facilitated by an online platform. The sharing economy has grown out of the open-source community to refer to peer to peer-based sharing of access to goods and services, but the term is now often more broadly used to describe any sales transactions conducted online. At the base of the increasing concept of the SE is the role of digital technologies. In many conceptions, the SE system is predicated on some kind of efficient, scalable technology, which brings large networks of people together and matches them to the goods or services they need with a lot of comfort at the same time. The market successes of SE businesses, as well as the social futures of collaborative networks, are often tightly associated with the technologies on which they run. More broadly, the SE (Sharing Economy) presents some new contexts for the use of technology, and for the types of social relations which are carried out.

Dynamics of demand have implications as stimuli and challenge for definition of model or algorithm to support the sharing values in accordance with desirable experiences, addressed on info users. In that manner the dynamics of platforms' capacity should be considered through the appropriate models as well. Future research should have an emphasis on concept that respect a compromise between added values in time savings, simultaneously communicating with potential market niches, while sharing true values that multiply positive experience and shape future demand. While appearing as virtue of supplying services through the platforms, providers are effectively distributors of the platforms' service capacity. Sharing assets through sharing economy market channels is alternative, ecologically friendly mode of consumption, which brings more value to people from ownership and reduces costs of usage of goods and services [34]. However, current research into the sharing economy has some directions for additional research into important areas such as offering providers of intellectual assets to rent those assets. It should consider premise if non-commercial platforms sharing of intellectual assets would could be an additional promising avenue.

Future research should also clarify the possible implications, predict appropriate (reasonable and responsible) model of selection of users by providers and that is taken from experiences have been affecting on behaviour of users in practice.

5. References

- [1] Ross, J. W., Sebastian, I. M., Beath, C., Scantelbury, S., Mocker, M., Fonstad, N., Kagan, M., Moloney, K., Krussel, S. G. (2016). Designing Digital Organizations, CISR Working Paper No. 406, Sloan School of Management, Cambridge, Massachusetts
- [2] Bharadwaj, A., El Sawy, O.A., Pavlou, P.A., Venkatraman, N. (2013). Digital business strategy: Toward a next generation of insights. *MIS Quarterly*, Vol. 37 No. 2, 471-482, Available from: <https://misq.org/misq/downloads/download/editorial/581/>, Accessed on: 2021-10-15
- [3] Haberli Junior, C., Oliveira, T., Yanaze, M., Spers, E. E. (2019). Performance, farmer perception, and the routinisation (RO) moderation on ERP post-implementation. *Heliyon* Vol.5, No. 6. Available from: <http://www.scopus.com/inward/record.url?scp=85067337657&partnerID=8YFLogxK>, Accessed on: 2021-03-23
- [4] Morakanyane, R., Grace, A. A., O'Reilly, P. (2017). Conceptualizing Digital Transformation in Business Organizations: A Systematic Review of Literature, Proceedings of BLED 2017, 21, Available from: <https://aisel.aisnet.org/ble2017/21>
- [5] Spremić, M. (2017). Governing digital technology – how mature IT governance can help in digital transformation?, *International Journal of Economics and Management Systems*, 2, 1; 214-223, Available from: <https://www.bib.irb.hr/934731>, Accessed on: 2021-10-15
- [6] Biočina Lobaš, I., Račić, M. (2002). The importance of process reenngineering in the Hotel Industry // *Annals of DAAAM for 2002. & Annals of DAAAM for 2002 & Proceedings of the 13th DAAAM International Symposium on Intelligent Manufacturing and Automation / Katalinic, Branko (Ed.). Vienna: DAAAM International*, pp. 35-36, p.35.
- [7] Schwab, K. (2017). *The Fourth Industrial Revolution*, Penguin Random House, New York
- [8] Liao, Y., Deschamps, F., de Freitas Rocha Loures, E., Pierin Ramos, L. F. (2017). Past, present and future of Industry 4.0 - a systematic literature review and research agenda proposal, *International Journal of Production Research*, Vol. 55, No. 12, pp.3609-3629
- [9] Vaidya, S., Ambad, P., Bhosle, S. (2018). Industry 4.0 - A Glimpse, *Procedia Manufacturing*, Vol. 20, pp.233-238
- [10] Moavenzadeh, J. (2015). The 4th Industrial Revolution: Reshaping the Future of Production, *World Economic Forum*
- [11] Geissbauer, R., Vedsø, J., Schrauf, S. (2016). A Strategist's Guide to Industry 4.0, *Strategy + Business*, Vol. 83.
- [12] Baur, C., Wee, D. (2015). Manufactu ring's next act, *McKinsey Quarterly*.
- [13] Rekettye, G., Rekettye, G. Jr. (2019). The Effects of Digitalization on Customer Experience, In *Proceedings of the ENTRENOVA – ENTERprise REsearch INNOVation Conference (Online)* 5, no. 1, 340-346. Available from: <https://hrcak.srce.hr/ojs/index.php/entrenova/article/view/13774/6921>

- [14] Spremić, M. (2020). Digital business transformation (Digitalna transformacija poslovanja), Ekonomski fakultet – Zagreb
- [15] Bilovodska, O., Gaidabrus, N., Ruban, D. (2017). An analytical study on logistics outsourcing impact on logistical service quality in supply chains (case study: industrial enterprises of Sumy region). *Problems and Perspectives in Management*, 15(3), pp. 201-211. Available from: [http://10.21511/ppm.15\(3-1\).2017.04](http://10.21511/ppm.15(3-1).2017.04).
- [16] Babenko, V., Romanenkov, Yu., Yakymova, L., Nakisko A. (2017). Development of the model of minimax adaptive management of innovative processes at an enterprise with consideration of risks. *Eastern-European Journal of Enterprise Technologies*, Vol 5, No 4 (89), pp. 49-56.
- [17] Bilovodska, O., Gryshchenko, O., Syhyda, L. (2016). Specific features of regional logistics potential consideration in the process of the enterprise distribution system development. *Economic Annals-XXI*, 160(7-8), pp. 105-110. <https://doi.org/10.21003/ea.V160-21>.
- [18] Chmutova, I. & Vovk, V. & Bezrodna, O. (2017). Analytical tools to implement integrated bank financial management technologies. *Economic Annals-XXI*, Vol. 163(1-2(1)), pp. 95-99. Available from: <http://soskin.info/ea/2017/163-1-2-1/201726.html>
- [19] Digital Economy and Society Index (DESI) (2020). Questions and Answers, 2020. Available from: https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_102
- [20] Frenken, K., Schor, J. (2017). Putting the sharing economy into perspective, *Environmental Innovation and Societal Transitions*, 23, ppt. 3-10.
- [21] Puschmann, T., Alt, R. (2016). Sharing Economy, *Business & Information Systems Engineering*, 58 (1), ppt. 93-99.
- [22] Gobble, M., M. (2017). Defining the Sharing Economy, *Research-Technology Management*, 60 (2), ppt. 59-63.
- [23] Belk, R. (2007). Why not share rather than own?. *The Annals of the American Academy of Political and Social Science*, 611, 126-140
- [24] Frechette, M. (2016). Peer-To-Peer Collaborative Consumption, *Social Distance*, ppt.1-116
- [25] Botsman, R. (2013). Fact Company, The sharing economy lacks a shared definition. Available from: <https://www.fastcompany.com/3022028/the-sharing-economy-lacks-a-shared-definition>
- [26] Allenm, D. & Berg, C. (2014). The sharing economy: How over-regulation could destroy. Available from: <https://ipa.org.au/publications/2312/the-sharing-economy-how-over-regulation-could-destroy-an-economic-revolution>
- [27] Sajter, D., (2014). Sharing economy (Ekonomija dijeljenja), Available from: https://bib.irb.hr/datoteka/722791.Ekonomija_dijeljenja.pdf
- [28] Dodig I., Rađenović Kozić B. (2018). Sharing economy and marketing aspects of its development (Ekonomija dijeljenja (sharing economy) i marketinški aspekti njenog razvoja)
- [29] Demailly, D., Novel, A.-S. (2014). The sharing economy: make it sustainable, *Studies N°03/14*, IDDRI, Paris, France, 30 p.
- [30] Botsman, R., & Rogers, R. (2011). What's mine is yours: how collaborative consumption is changing the way we live. Collins London. Available from [http:// appli6.hec.fr/amo/Public/Files/Docs/241_fr.pdf](http://appli6.hec.fr/amo/Public/Files/Docs/241_fr.pdf)
- [31] Guttentag, D. (2013), Airbnb: disruptive innovation and the rise of an informal tourism accommodation sector, *Current Issues in Tourism*, pp. 1-26
- [32] Jeroen Oskam, Albert Boswijk, (2016). Airbnb: the future of networked hospitality businesses, *Journal of Tourism Futures*, Vol. 2 Issue: 1, pp.22-42
- [33] Brozović V., Hršić F., Meštrović L., Bilić H., Naletina D., Petljak K, (2019.), *Proceedings of the Faculty of Economics iz Zagreb (Zbornik Ekonomskog fakulteta u Zagrebu)*, year 17, nr. 1
- [34] Brkljač, M, Sudarević, T. (2018). Sharing Economy and „Industry 4.0“ as the Business, *Environment of Millennial Generation - a Marketing Perspective*, *Annals of DAAAM for 2018*. & *Proceedings of the 29th DAAAM International Symposium on Intelligent Manufacturing and Automation / Katalinic, Branko (Ed.)*.Vienna: DAAAM International, pp. pp. 1092-1101