INTERNET AND DEVELOPMENT PERSPECTIVES

# SHARING ECONOMY – DISRUPTIVE INTERNET BASED BUSINESS MODELS OF THE FUTURE

Nevena Jovanović, Dragana Buvac, Ivana Matić, Stefan Kocić

Beogradska Bankarska Akademija

#### Abstract:

Technology-enabled, peer-to-peer and business-to-peer platforms, commonly referred to as the "sharing economy", have grown exponentially in the past several years. These platforms offer feedback mechanisms to their users, are efficient in gaining their trust and are thus perceived as reliable providers of services and at lower prices compared to traditional service providers. The effects of these new business models are astonishing - no more than five-yearold company Uber operates in more than 250 cities all over the world and its estimated value is over \$40 billion. However, such a huge success has also some downsides. First of them is the problem with the security of the data exchanged on the platforms. Secondly, collaborative platforms are difficult to monitor. Technology is the key driver of the sharing economy. At the same time, the sharing economy can significantly contribute to the technology on which it was built – by making it more popular to the wider audience. The sharing economy has proven to be successful in generating profit to their owners, but the question is will it be as successful in maintaining the trust of the consumers by ensuring their security.

## Keywords:

sharing economy, P2P, online travel agencies, security.

### 1. INTRODUCTION

Over the past two decades, technological advancements have facilitated the appearance and renewal of many businesses. Global business environment is challenging and unstable, and requires companies to focus on improving flexibility and ability to adjust to constant changes in the external environment. "New technologies will yield ... empowerment of ordinary people, efficiency, and even lower carbon footprints" (Schor, 2014). P2P platforms arose from entrepreneurial ideas based on new technologies, today they "are motivated by economic, environmental, and social factors" (Schor, 2014). Innovative business models of Uber, AirBnB, Amazon, Spotify and other popular P2P platforms "allow individuals and groups to make money from underused assets" (PWC, 2015). These platforms are part of the sharing economy. Botsman and Rogers (2010) define sharing economy as "an economic model driven by network technologies that enables things and skills to be shared or exchanged in ways and on a scale not possible before". Sharing economy is based on the Internet and

## Correspondence:

Nevena Jovanović

#### e-mail:

jovanovicnevena989@gmail.com



it allows consumers to interact and share content. These peer-to-peer platforms facilitate the exchange associated with the rise of collaborative consumption, and include Airbnb, Uber, Zipcar, TaskRabbit and similar (Lecaros-Aquise, 2014).

# 2. THE RISE OF P2P PLATFORMS

In 2008, when Brian Chesky and Joe Gebbia advertised accommodation to attendees of different conferences using a website called airbedandbreakfast.com little did they know that in less than 10 years their website will be used by an average of 425,000 people worldwide every night (Times, 2015). Ever since, many P2P platforms appeared, offering different types of services. Technology platform provider of these services charges an Intermediation fee for the use of the platform and provides:

- Traffic platform connects the providers and the users of the service, and develops the network to enhance its influence.
- Background check as the peer-to-peer market connects vast numbers of individuals from all over the world, the platform providers offer a background check thus offering both the users and the providers of services a kind of warranty and reduce the risks involved in the purchase of the services.
- Feedback mechanism as the background check cannot provide definite guarantee for users and providers of the service, the platform provider ensures the quality and the satisfaction to both sides through user-driven feedback mechanism. Reputation and trust are the key characteristics of online sales; thus, all providers and guests share the same interest which is to reduce the risks resulting from the purchase and provision of service to unknown individuals. The feedback mechanism is especially efficient if multiple transactions occur and ensures that users and providers of services who do not comply with the rules are less probable to repeat undesirable behavior.
- Risk Management To mitigate the risks of doing business with unknown partners across the world, platform providers also provide insurance against damage to service providers and reimbursement if services were not delivered to users.
- Logistics A platform providers offer transaction processing, analytics about customer satisfaction valuable to service providers, as well as useful

discounts on additional services such as rent a car or similar.

Peer-to-peer platforms cannot control actual provision of the service (Chen et al., 2009). However, customer satisfaction depends on usability of the platform, data safety during financial transactions, quality of communication and customer service and sales support (Papaioannou, 2013). Also, convenience and accessibility are important for the users of P2P platforms (The Daily Best, 2010). Customers value ease of payment (IFPI, 2014). Trust, however, is the key to attracting more users and providers to the community (The Economist, 2013).

The Economics and Statistics Administration of the U.S. Commerce Department (2016) defines P2P platforms based on the four main characteristics (Belk, 2014):

- All platforms are web-based and use information technology (IT systems), or use mobile "apps" on Internet-enabled devices to facilitate peer-to-peer transactions.
- All platforms base their quality control and users and providers protection on user-based rating systems.
- All platforms employ part-time workers who work from their homes.
- Workers use their own tools and assets to provide a service.

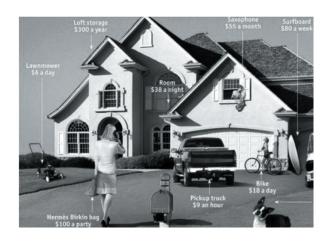


Fig. 1. Sharing economy is present in all aspects of modern life

Source: http://www.economist.com/news/ leaders/21573104-internet-everythinghire-rise-sharing-economy



# 3. OTA'S

Online companies like Booking.com, Expedia, Travel Bird and similar provide travelers with comfortable and easy solutions when deciding on their accommodation and other services while traveling. Online travel agencies succeeded in reducing the time and efforts needed for the search and reservation and customers were able to access a range of travel offers "after just one search" (Yacouel & Fleischer, 2012).

The online travel agencies websites are customer oriented and easy to use, and they provide more information. Thus, their design and quality is superior to the hotels' websites. Finally, they provide a mechanism for reservations and payment of the desired product (Go & Pine, 1995).

Similar to P2P platforms, online travel agencies rely on trust and data security, and use similar mechanisms of risk management. Noone and McGuire (2013) found that "user-generated content (reviews) has a significant effect on perceived value when evaluating price-versus-benefit tradeoffs". Online travel agencies are thus perceived as more trustworthy by the customers as the opinions and reviews published are created by the people who actually visited the hotels and experienced their services (Yacouel and Fleischer, 2012). OTA's use their websites to offer additional services such a car rental offerings, airplane tickets, destination guides and travel tips (Kaynama & Black, 2000).

OTA's maintain their high "digital presence" and attract more people to their websites than hotels (Blankenbaker & Mishra, 2009). For example, the research shows that "it takes 1 hour to search and book a hotel directly", compared to 32 minutes to do the same over online travel agency (HRS provider, 2015). Consequently, it is estimated that 80% of reservations are made through online travel agencies (Morgan Stanley, 2015).

Online travel agencies collect information from the hotel databases and reservation system, and present the customer with data on the availability and the price of rooms according to the customer inquiry. When a customer decides to make reservation of the room, based on what is offered to him, online travel agency forwards their request to the hotel reservation system, upon which it collects a commission from the hotel in which the room was booked (Clemons, Hann, & Hitt, 2002).

# 4. DATA PRIVACY

One of the biggest concerns among the travelers using online platforms is data privacy. P2P platforms collect sensitive information about millions of people, including identity, credit card numbers, location data and purchasing habits.

The study of Electronic Frontier Foundation (2016) examines social networking sites, email providers, ISPs, cloud storage providers, and other companies, and their practices and policies concerning transparency reports, respect of the law enforcement guidelines, notification of users and a warrant for content requiries. The reports have shown that many P2P platforms have improved their practices over time to ensure compliance with local and state laws.

For example, Uber and Lyft focus on transparency and user privacy. For example, FlipKey requires a warrant for publishing user content or location data, while Airbnb and Instacart, require a warrant for content, publish law enforcement guidelines, and are members of the Digital Due Process Coalition. However, many of the leading P2P platforms ignore the privacy and security of their users.

Feedback is a powerful mechanism in risk management of online platforms, but ratings can be false, biased or reflect socially desirable behavior or strategic manipulation (Zervas et al., 2015). Thus, besides data protection, P2P platforms need to ensure viability of user-generated content which is usually uploaded onto platforms to facilitate and support decision making process.

Data protection rules apply on the online distribution of user-generated content including third parties' personal data and thus are used to diminish violation of data protection rights, which may take place outside of the conditions established by data protection law (de Azevedo Cunha, et al., 2012). OTA's and other online platforms are particularly vulnerable as they do not have mechanisms to exercise control over the spreading of the content. Many peer platforms attempt to verify the identity of peers to reduce the risks. Finally, secure and trustworthy payment systems are considered another important enabler of trust and safety in peer transactions (Piper Jaffray, 2015: 8). Many peer platforms offer such services, often in co-operation with established external payment systems (OECD, 2016). Many of these payment systems are themselves subject to governmental regulation or oversight (OECD, 2016).



# 5. CONCLUSION

Safeguarding user data against unwarranted government or other individual's access demands is very important for developing trust between the users and providers of service, as well as between platform providers and other stakeholders. As trust is the essence of successful operations of the platforms, many providers attempt to verify the identity of the users, control user content and use payment systems monitored by the government agencies. However, given the lack of legislation concerning online businesses, especially P2P platforms, their providers need to invest more into ensuring the safety and privacy of their users, as well as into viability of the shared user content.

## **REFERENCES**

- 1. Schor, J. (2014). Debating the Sharing Economy. [online] Available from: http://www.greattransition.org/images/GTI\_publications/Schor\_Debating\_the\_Sharing\_Economy.pdf. [Accessed 23 March 2017].
- Botsman,R. and Rogers,R. (2010) What's mine is yours - How collaborative consumption is changing the way we live. [online] Julien Bicrel - Février 2012. Majeure Alternative Management - HEC Paris.
- 3. Meleo L., Romolini A., De Marco M. (2016) The Sharing Economy Revolution and Peer-to-peer Online Platforms. The Case of Airbnb. In: Borangiu T., Dragoicea M., Nóvoa H. (eds) Exploring Services Science. IESS 2016. Lecture Notes in Business Information Processing, vol 247. Springer, Cham
- 4. PWC (2015). The Sharing economy. [online] Available from: https://www.pwc.com/us/en/technology/publications/assets/pwc-consumer-intelligence-series-the-sharing-economy.pdf. [Accessed 23 March 2017].
- 5. Times (2015). 5Things You Didn't Know About the Sharing Economy. Time 29 Jan. 2015. [online] Available from: <a href="http://time.com/3686877/uber-lyft-sharing-economy/">http://time.com/3686877/uber-lyft-sharing-economy/</a>[Accessed 23 March 2017].
- 6. Papaioannou, E., Assimakopoulos, C., Sarmaniotis, C. & Georgiadis, C. K. (2013). Investigating customer satisfaction dimensions with service quality of online auctions: An empirical investigation of e-Bay, *Information Systems and e-Business Management*, vol. 11, no. 2, pp. 313 330
- 7. IFPI. (2014). IFPI Digital Music Report 2014: Lightning up new markets, [online] Available from: http://www.ifpi.org/downloads/Digital-Music-Report-2014.pdf [Accessed 23 March 2017].

submit your manuscript | www.sinteza.singidunum.ac.rs

- 8. Chen, J., Zhang, C. & Xu, Y. (2009). The role of mutual trust in building members' loyalty to a C2C platform provider, *International Journal of Electronic Commerce*, vol. 14, no. 1, pp. 147 171
- 9. The Daily Best. (2010). Sean Parker on Apple's monopoly, [video online] Available from: https://www.youtube.com/watch?v=76cfzqrgLHw#t=22 [Accessed 23 March 2017].
- 10. The Economist. (2013a). All eyes on the sharing economy, *The Economist*, 9 March, Available from: http://www.economist.com/news/technology-quarterly/21572914-collaborative-consumption-technology-makes-it-easier-people-rent-items [Accessed 23 March 2017].
- 11. Belk, R. (2014) You Are What You Can Access: Sharing and Collaborative Consumption Online Journal of Business Research, August 2014, Vol. 67, Issue 8, doi: 10.1016/j.jbusres.2013.10.001.
- 12. Yacouel, N., & Fleischer, A. (2012). The Role of Cybermediaries in Reputation Building and Price Premiums in the Online Hotel Market. *Journal of Travel Research*, 51(2), 219-226.
- 13. Go, F., & Pine, R. (1995). *Globalisation Strategy in the Hotel industry*. London: Routledge.
- 14. Morgan Stanley, 2015, Internet, Lodging, Leisure and Hotels. November 15, 2015
- 15. Noone,B.M. & McGuire,K (2013) Effects of Price and User-Generated Content on Consumers' Prepurchase Evaluations of Variably Priced Services, Journal of Hospitality & Tourism Research (Feb. 27, 2013)
- Kaynama, S. A., & Black, C. I. (2000). A Proposal to Assess the Service Quality of Online Travel Agencies: An Exploratory Study. *Journal of Professional* Services Marketing, 21(1), 63.
- 17. Blankenbaker, J., & Mishra, S. (2009). Paid search for online travel agencies: Exploring strategies for search keywords. J Revenue Pricing Manag, 8(2-3), 155-165.
- 18. HRS provider (2015). The cost of choice, Available at: http://www.hrscorporate.com/pdfs/whitepapers/ HRS-The-Cost-of-Choice.pdf[Accessed 23 March 2017].
- 19. Morgan Stanley, 2015, Internet, Lodging, Leisure and Hotels. November 15, 2015. [Accessed 23 March 2017].
- 20. Clemons, E. K., Hann, I.-H., & Hitt, L. M. (2002). Price Dispersion and Differentiation in Online Travel: An Empirical Investigation. *Management Science*, 48(4), 534-549.
- 21. Electronic Frontier Foundation (2016) Who Has Your Back, https://www.eff.org/who-has-your-back-2016#executive-summary

Internet and Development Perspectives



- de Azevedo Cunha, M.V., Marin, L., Sartor, G. (2012) Peer-to-peer privacy violations and ISP liability: data protection in the user-generated web. International Data Privacy Law, 2012, Vol. 2, No. 2.
- 23. Zervas, G., Prosperio, D., & Byers, J. (2015), A First Look at Online Reputation on Airbnb, Where Every Stay is Above Average. Boston: Boston University.
- 24. PiperJaffray (2015), Sharing Economy. An In-Depth Look At Its Evolution & Trajectory Across Industries. PiperJaffray. https://piper2.bluematrix.com/docs/pdf/b73e4dc7-0fe5-447a-a7f0-f0dd1f941abb. pdf. [Accessed 23 March 2017].
- 25. OECD (2016) Protecting Consumers In Peer Platform Markets: Exploring The Issues. Background report for Ministerial Panel 3.1 JT03396637. http://www.oecd.org/officialdocuments/public displaydocumentpdf/?cote=DSTI/CP(2015)4/FINAL&docLanguage=En. [Accessed 23 March 2017].