

# **The Sharing Economy in a Digital Society: Youth Consumer Behavior in Italy**

## **Abstract**

This paper explores the sharing economy in Italy by focusing on key socioeconomic characteristics. Motivated by the global economic growth of the sharing economy, which could reach the value of € 570 billion in 2025, it contextualizes what drives people to collaborate and share tangible and intangible assets. It aims to discover how this digital trend shapes the social fabric of the global economy, providing a broader reflection in terms of future sustainability developments. Ongoing dynamic changes in digital consumer preferences regarding sharing products and services provide valuable evidence of their future commercial behavior. Adopting an exploratory approach, this paper analyzes the results of a questionnaire about potential behavioral factors that influence people's propensity to participate in sharing economy practices. Results show that the age of the consumer is a determining factor in terms of one's willingness to participate in the sharing economy. In contrast, gender and annual income are insignificant determinants. Finally, level of education is not a relevant factor for determining whether someone will or will not participate in the sharing economy process.

## **Keywords**

Sharing economy, digital economy, open-innovative applications, social entrepreneurship

## **1. Introduction**

The sharing economy is defined as a new consumption model that describes a prominent trend in consumer values from ownership to access, in which individuals and communities around the world rent, lend, swap, barter, gift and share resources on a scale never before possible (McAlpine, 2014). It is a popular market primarily in North America and Europe, but increasingly worldwide as well. This study is motivated by the European growth, which is expected to increase from its current € 28 billion to € 570 billion by 2025 (PWC, 2016; Hawlitschek et al., 2016). Digital and mobile technologies facilitate on-demand access to goods and services. According to Belk (2014) and Cheng (2016), we are now entering a new phase of the sharing economy, the post-ownership economy. The post-ownership economy is defined as a novel approach, where modern consumers value access to services more than ownership. On the one hand, digital and mobile technology allow consumers to instantly access goods and services, facilitating these innovative practices. On the other hand, this instant access enables consumers to share products and services without purchasing them. Fab Labs represents another new concept that has arisen in relation to the sharing economy—small shops that make tools for digital manufacturing accessible to the public to stimulate social and economic innovation (Manzo and Ramella, 2015).

Current studies lack a quantitative analysis of the motivational factors that affect consumers' attitudes and intentions regarding the sharing economy (Hamari et al., 2015). The majority of the existing studies consider primarily the touristic and transportation sectors of the sharing economy (e.g., car sharing, accommodation sharing, ride sharing, and meal sharing) (Tussyadiah, 2015; Dominici and Palumbo, 2013). A handful of studies, such as the one by Böcker and Meelen (2017), used large sample questionnaires to investigate the relative importance of economic, social and environmental participating-motivators in peer-to-peer sharing. Contemporary research from Gazzola et al. (2018) considers both extrinsic and intrinsic drivers, as well as monetary and non-monetary benefits of the sharing economy. This approach mainstreams a motivational continuum, leading from profit making to a conceptual and sustainable model formulation. The questionnaire considers the behavioral influence of several demographic factors like age, gender, income and education. In particular, we analyze the particularities of the Italian market. According to the Digital Economy and Society Index (DESI), a composite index that summarizes relevant indicators of Europe's digital performance, Italy is in the "catching up" group. This group of EU countries scores lower than the EU average, although they are growing faster annually (DESI, 2019). In this digital context, participation in the sharing economy is driven by social and sustainability benefits, such as engaging in collaborative behavior and developing local organizations (Prothero et al., 2011; Sacks, 2011; Ketron and Naletelich, 2019). The sharing economy also offers financial benefits by sharing the utilization of goods and services (such as in the tourism sector) and facilitating access to and conservation of various resources (Grifoni et al., 2018; Forno and Garibaldi, 2015).

Our exploratory research findings on Italian consumers confirm the presence of various environmental, economic, social and practical motivations, which are crucial for participation in this new economic model. Specifically, the consumer's age seems to be an important determinant that highlights the effective diffusion of the social and demographic differences of the participants.

## **2. Literature review and hypotheses**

The sharing economy is a modern socioeconomic phenomenon. According to Belk (2007), the sharing economy involves digitally enabled distribution of what is ours to others for their use. Therefore, Belk (2014) considers the sharing economy to be a direct result of the digital age, as online innovative technologies form the basis of the sharing economy. Goods and services are shared, either free or for a fee, through interactive digital platforms. Innovative technology connects large social networks, matching the goods or services they need (Baron, 2013; Zhong et al., 2018; Dominici et al., 2016). In addition, Frenken (2017) also links the increasing popularity of the sharing economy with several novel dynamic technologies. He argues that online sharing practices have risen so quickly because

they rely on the underutilized social aspect of sharing. Overall, the sharing economy requires an integrated platform that provides the necessary technological infrastructure to facilitate sharing activities.

According to Matofska (2016), the sharing economy is a socioeconomic ecosystem that is built around the sharing of human, physical and intellectual resources. It includes the shared creation, production, distribution, trade and consumption of goods and services by different people and organizations. The idea to share, swap, trade and rent products and services is not new, but the digital evolution has taken this concept forward and created entrepreneurial opportunities in which individuals can monetize their skills and suitably use underutilized resources (Kaushal, 2016). As a result, the sharing economy influences human behavioral and economic patterns (Eckhardt et al., 2019). The behavioral patterns link to multicultural environments. Culture influences individual's behavior; therefore, it also influences behaviors regarding economic sharing. Consequently, cultural values guide people's actions in this novel, innovatively driven approach. One reason for this is that behavioral patterns tend to be quite diverse when cross-cultural communities actively engage in sharing economy technological platforms (Ter Huurne et al., 2017). Hofstede (1984) argues that cultural differences can be divided primarily according to the following dimensions: i) individualism versus collectivism; ii) male versus female; iii) power distance; and iv) uncertainty avoidance. Sharing specific products and services can be a culturally and socially stimulating experience (Solomon et al., 2014). According to many studies on the topic, socio-demographic and economic diversity, including factors such as age, gender, annual income and education, affect consumer behavior in a wide variety of activities. From a theoretical point of view, consumer behavior is the study of how individual customers, groups or organizations make decisions about the selection and use of goods and services to satisfy their needs. It is very important to understand which factors influence the purchasing decisions of a consumer (D'Urso et al., 2017). The factors that need to be analyzed as part of this process include the following: psychological, personal and socio-cultural (Nguyen et al., 2018).

According to Kadic-Maglajlic et al. (2019), a prominent demographic factor in the sharing economy is age, as the younger generations are the most active participants. The study examines the experiences of two forms of sustainable consumption behavior of young adults: pro-environmental and pro-social consumption behavior. The results reveal that young adults' pro-environmental engagement and pro-social engagement are significant for their consumption behavior. Godelnik (2017) confirms that there is a growing consensus that millennials are massively embracing the sharing economy. Additionally, Kumar, Lahiri and Dogan (2018) find that sharing economy services

are mostly embraced by young generations, as other generations are still in the early adopters' phase. A diverse range of digital applications and mobile apps are considered to be innovative consumer behavior multipliers. Younger generations prefer low-cost digital platforms and networks of shared products/services' providers and on-demand access. On the contrary, they selectively avoid the idea of individual ownership and the higher costs of managing it. Younger people could lead the digital creation and development of the majority of this business innovation (Gazzola et al., 2017; Gazzola, 2018). As a result, we formulate our first research hypothesis about the sharing economy as follows:

*H1: There are differences between the younger and older generations in terms of their participation in the sharing economy.*

According to Zelezny et al. (2000) and Hunter et al. (2004), consumer behavior is gender driven. Women are more likely than men to adopt pro-environmental behavior. Böcker and Meelen's (2017) gender-related research on environmental motivations reveals that women are more engaged in sharing activities than men are. In contrast, other studies differ from this theoretical approach, such as the Eurobarometer's survey (2016), which reveals that men use sharing platforms more often than women. Expanding on gender-diversity theories, Hand (2019) suggests that there is a relationship between pro-environmental behavior and pre-natal sex hormone exposure in males, but not in females. Therefore, they find a small but significant difference in gender-related environmental behavior. Other studies suggest that there is no participation gap between men and women in terms of their sharing activities (Sung et al., 2018; Hamari et al., 2015).

Using the economic platform of Airbnb, Lutz and Newlands (2018) explore home sharing activities by analyzing the segmentation between users and non-users. According to their findings, women are slightly more engaged in home sharing services than men, but the gender differences are trivial. Both genders participate in home sharing activities in ways that align with their culture and traditions. Therefore, we formulate our second research hypothesis, as follows:

*H2: Gender does not have a significant influence on participation in the sharing economy.*

Other socioeconomic factors that affect participation in the sharing economy are annual income (Tussyadiah and Pesonen, 2016) and equal access to goods and services (Carley and Spapens, 2017). We expect consumers with low annual income to participate more frequently in sharing activities. According to Wang and Zhang (2012), sharing platforms provide economic benefits in two ways: i) users can save money by accessing shared products and services at lower costs; and, ii) providers can offer goods and services for economic returns.

Economic return is one of the main economic factors that affect users' decisions for model adoption (Hamari et al., 2015). Hars and Ou (2002) underline that potential future rewards could

motivate people to participate in this new digital economic model. Consequently, we presume that participation in sharing economic communities and products/services is generally driven by social entrepreneurship, which provides economic stimulation and sustainability to local organizations (Prothero et al., 2011; Schor, 2016). However, the sharing economy may also provide economic benefits, such as saving money and facilitating access to resources, and practical benefits. It offers users access to a wide variety of products and services. As a result, it also constitutes a series of individualistic motives for participating in sharing economic platforms (Hamari et al., 2015). Hung et al. (2011) study both the intrinsic and extrinsic motivations for participating in open source and open innovation development. They find that a strong extrinsic motivation is the potential for future entrepreneurial rewards, such as social and economic benefits (Cheng, 2016; Puschmann and Alt, 2016; Nica and Potcovaru, 2015).

Collaborative consumption enables consumers to realize the enormous benefits of access to rather than ownership of products and services, while they save money, space, time, and socialize, becoming active stakeholders (Botsman and Rogers, 2010). Li and Wen (2019) suggest that the intrinsic motivations for participation are related to sustainability, sense of belonging and the influence of trust and enjoyment. Sustainability is an important factor for forming positive attitudes toward the sharing economy, although economic benefits are a stronger motivator for participation (Cheng, 2016; Hamari et al., 2015). According to Böcker and Meelen (2017), both middle- and higher-income groups are significantly less economically motivated to participate in the sharing economy than lower-income groups. Therefore, we formulate our third research hypothesis, as follows:

*H3: Income level impacts participation in the sharing economy. Individuals with a low annual income<sup>1</sup> are more likely to participate in the sharing economy than those with higher annual incomes.*

Finally, the literature reveals that education level is one of the most crucial user-determinants in the sharing economy. On the one hand, Eurobarometer (2016) and Schor et al., (2016) reveal that people with a higher level of education are more likely to engage in the sharing economy, either as providers or as consumers (Andreotti et al., 2017). On the other hand, Böcker and Meelen (2017) suggest that there is an insignificant relationship between education level and the importance of sustainability motivations. As a result, we introduce our last hypothesis as follows:

*H4: Education level impacts participation in the sharing economy. Those with higher levels of education are more likely to participate in the sharing economy than those with lower levels of education.*

---

<sup>1</sup> We selected the limit of €10000 due to Italy's introduction of the "Citizenship Income" in which payments are available to low earners and individual jobseekers with an annual household income below €9,360 who sign a form declaring themselves immediately available for work.

The next section will introduce the related research methodology and the digital tools employed to analyze the questionnaire, as well as the results and a discussion of the findings.

### **3. Methodology**

A mixed method approach (Bryman and Bell, 2015; Creswell and Clark, 2017) was utilized for the rich data collection, employing several digital tools. Specifically, we used Google for emails, as well as social media platforms, such as Facebook, WhatsApp, Instagram and LinkedIn. Data collection was conducted in Italy from September 2017 to January 2018. This method is used for conducting research that considers the collection and the analysis of qualitative and quantitative data. This way to deal to surveys and questionnaire is applied when there is the necessity to have an integration between two different methodologies. The questionnaire was created after some interviews to understand the main relevant elements related to the sharing economy phenomenon. By combining both quantitative and qualitative data, the researcher gains in breadth and depth in the understanding of a phenomenon, compensating for the weaknesses related to the use of a single approach. The survey was created using Google forms. This tool is a useful solution for managing real-time registrations for events and courses, surveys, tests, creating quizzes and much more.

Participants were invited to complete a questionnaire concerning the following: i) their level of familiarity with the sharing economy; ii) their attitudes; iii) their sharing motivations; iv) their participation experiences; and, v) their annual financial benefits<sup>2</sup> from the sharing economy. It is important to note that only verified and authenticated responses were collected.<sup>3</sup> We also utilized a 5-point Likert scale (Boone and Boone, 2012). Moreover, we employed the exact age factor, instead of the generational terms millennials or generation Y, generation X and generation Z, due to their demographic variance (Phitayakorn et al., 2015). The survey was composed of 5 question blocks with 27 questions in total. Table 1 shows the related blocks:

INSERT HERE TABLE 1

In the first survey block, the questions focus on the respondents' familiarity with the sharing economy in Italy. In the second block, the questions focus on the individual preferences and product attributes of Italians. The intent of these questions is to identify the following: i) the level of consumer's attractiveness towards sharing; ii) the most popular items to exchange; and iii) the selection hierarchy of product attributes. The third block builds on the significant reasons (e.g., economic, social and sustainability) that drive people to sharing activities. This third block is of prominent importance for understanding consumer behavior. Questions relate to the following: i) the most popular sharing platforms; ii) how much they participate in sharing activities, considering the subdivision defined by

---

<sup>2</sup> Year of reference is 2017.

<sup>3</sup> Verified answers are those that were clearly complete in all question blocks.

Schor et al. (2016); and, iii) consumer roles in sharing activities (e.g., supplier of goods, user of goods, both or none). This last question determines the nature of the questions that follow. Consumers responding as ‘users of goods’ and ‘both’ were then asked how much they had earned in the last 12 months. Additional questions relate to the following: i) how much are they willing to pay for sharing activities; ii) what are their preferences for frequently used products; and iii) how important is user feedback. Based on the responses, the questionnaire was designed to explore two different scenarios: i) consumers answering ‘supplier of goods’ scenario and ii) consumers answering ‘none’ scenario. To conclude, in the last block, questions focused on the individual’s future participation in sharing activities and their economic point of view regarding sharing. This block also included other socioeconomic-related features.

Hypothesis testing was employed for data analysis, because it is one of the most reliable and common statistical tools (Faliva and Zoia, 2004; Gardini and Costa, 2000; Paruolo, 1999). Though originally selected for scientific and survey data analysis, it is now widely employed for testing social networking, mobile, and crowdsourced data models (Bluman, 2009). It is important to underline that in statistical inference the design of the hypothesis checks the bound of the probability to have a false discovery (type I error). It is based on a precise amount (usually the significance level is  $\alpha=5\%$ ). We refer, in this distribution data universe, to chi-square statistics (Simar and Wilson, 2002; Hinton, 2014), that is a non-parametric test, planned to analyse group differences when the dependent variable is measured at a nominal level. The test allows us to evaluate the multiple questionnaire groups and independent variables to provide substantial information for the questionnaire participants (Paruolo, 1999). The main advantages of the chi-square test are related to the data flexibility for handling questionnaire’s multiple groups. In addition, it can test the association between variables and categorize differences between observed and expected values (Faliva and Zoia, 2004).

This test is used for calculating a p-value and comparing the result with the chi-square distribution. In this comparison, the degrees of freedom are equal to the number of cells (n) minus the reduction in degrees of freedom (p). Considering the questionnaire’s subsample populations (due to a chi square test limitation related to small sample of fewer than 20 observations), we complement the Fisher’s exact test to confirm the results of this study (Bower, 2003; McCrum-Gardner, 2008; Siegel, 1956). We employ Fisher’s test to examine the significance of the association (contingency) between the questionnaire’s classifications and contribute to categorical data results (Upton, 1992). Therefore, this non-parametric test verifies whether the dichotomous data of two samples, summarized in a contingency table, are compatible with the null hypothesis. Correspondingly, we also verify that the population origins of the two samples have the same dichotomous subdivision. As

a result, we conclude that the observed differences of the sample data are simply accidental (Simar and Wilson, 2002; Routledge, 1992).

In this second test, the calculation of a p-value is necessary to understand the results and to verify the acceptance of the null hypothesis. In respect to the data normality, we employ test H3, a different kind of test, which uses z-score tests. We perform this kind of test, as we know the sampling probability distribution for the difference between the two means, and the assumptions for the parametric tests have been met (Kim, 2015; Simar and Wilson, 2002, Faliva and Zoia, 2004).

Finally, we employ the z score, as it is used to test the population proportions of exact sample sizes and check the statistical difference between two groups (Paruolo, 1999).

#### **4. Results**

A response rate of 92% was achieved with 926 valid responses (the entire sample included 1007 elements) from a balanced population sample of 60% females and 40% males. Moreover, most of the participants (815 participants) were between 19 and 34 years old—widely defined as the children of globalization (Berkup, 2014)—while 26 participants were less than 19 years old, 60 were 35 to 51 years old and 25 were more than 51 years old.

INSERT HERE FIGURE 1

INSERT HERE TABLE 2

From a descriptive point of view, twenty-nine percent (29%) of respondents were university graduates (see table 2). In the first part of the survey, one of the questions relates to the use and knowledge of specific online platforms (Question 4 of Part 2: “Select the sharing platforms you've heard about”). Consequently, the participants were given the option to check more than one alternative.

INSERT HERE TABLE 3

As a result, table 3 reveals that the three most popular platforms are as follows: i) eBay, an exchange type of platform); ii) BlaBlacar, a carpooling type of platform; and, iii) Uber, a services type of platform that also includes peer-to-peer ridesharing. These results are interesting, because the answers reflect the reality of the most popular sharing platforms. In addition, results exhibit that users clearly identify the offered services and they are willing to employ them, like sharing mobility.



Table 4 results reveal, from a descriptive point of view, that there is not a distinctive difference between males and females in their product and/or service preferences, other than clothing and jewelry. In these two product categories, the difference exceeds 15%. Nevertheless, there are specific product and/or service categories where gender orientation is of prominent importance.

INSERT HERE TABLE 4

The last two tables (table 5 and table 6) are related to participation in different categories of the sharing economy in relation to the participants' annual income. The question related to income was not compulsory; therefore, the sample (that also complements H3 testing) is limited to 691 answers. As a result, due to the structure of the sample, we consider the limit of €10000 for treating these two different subsamples.

INSERT HERE TABLE 5

INSERT HERE TABLE 6

Tables 5 and 6 reveal a strong interrelation between the two income categories for all of the elements provided in the survey. The two subsamples provided similar responses. In fact, 94% of the sample has a threshold of less than 5%. In concluding this descriptive section, we confirm that there are several motivations for sharing goods and services. Italian consumers seem motivated to participate in the sharing economy for the following reasons: i) to share in order to reduce waste; ii) to improve the environmental efficiency of sustainable resources; and iii) to save money with smart living innovations.

According to the Eurobarometer Survey (2016), the sharing economy is growing slowly, as three out four respondents reported that they did not participate in car sharing and product trade. Moreover, the same survey affirms that differences in ages and annual incomes are related to different motives for participating in the sharing economy. Explicitly, intrinsic and extrinsic motivations work in tandem to attract Italian consumers to the sharing economy.

This study's responses relate to Eurobarometer's survey regarding participation in sharing activities. In fact, it reveals that Italian consumers are abstaining from sharing activities of specific transportation modalities (e.g., cars, motorcycles, etc.), diverging from current global trends. Nevertheless, they seem keen to share intangible assets, such as ideas, skills and knowledge, as well as tangible assets, such as accommodations and crowdfunding. In addition, Italians engage in social

activities and contribute to the sharing economy by reducing the acquisition of temporarily used items (e.g., books or used products).

Consequently, we introduce a response mean index for testing our hypotheses in order to elaborate on the study's dynamics. Using the revealed propensity and participation values of the sharing economy, we investigate the first hypothesis object (H1)<sup>4</sup>. H1 potentially verifies if the answers provided by different age groups regarding their propensity toward the usage and future of sharing economy are different. We subdivided the respondents into two subsamples: respondents from 18 to 34 years old, (n=851) and respondents from 35 to 70 years old, (n=75). The results are shown in the following table:

INSERT HERE TABLE 7

Data reveals that young Italian consumers engage selectively in the sharing economy. In fact, the p-value is strictly significant (see table 7). Nevertheless, it is important to note the population differences between the two subsamples. The questionnaire was conducted exclusively using digital tools (e.g., social networks and emails), which favor younger populations. The H2<sup>5</sup> object under investigation is the gender difference among participants in the sharing economy. As a result, we calculated the propensity for participating in the sharing economy for males (n=367) and females (n=559), regardless of their age. We compared the sample using Fisher's exact test and Pearson's chi-squared, as follows.

INSERT HERE TABLE 8

The results of the questionnaire support H2. In fact, gender seems to be irrelevant regarding both present and future participation; the sample does not reveal any statistically significant differences.

The aspect investigated in H3<sup>6</sup> is income. It is important to highlight that the questions related to income were not mandatory; thus, 691 respondents comprise this sample. The methodology for analyzing this hypothesis, the parametric test, differed from the other three. Of the 691 respondents, 452 respondents declared an income lower than €10000 per year, and 239 declared an income of more than €10000.

INSERT HERE TABLE 9

---

<sup>4</sup> H1 and H2 tests are employing the values from questionnaire's part 4.

<sup>5</sup> H1 and H2 were tested using the values from Part 4 of the questionnaire.

<sup>6</sup> H3 and H4 were tested using the values from Parts 2 and 3 of the questionnaire.

The survey collected the answers for these two income categories into two main groups. One group consists of negative answers and the other of positive answers. Both negative and positive answers are responding to their relation and potential in a sharing economy activity, according to a predetermined product/service category. No evident difference emerged for either positive and negative answers. Consequently, it seems that income is not a discriminating factor. Therefore, in terms of the categories considered, we conclude that income is not an important factor for participating in the sharing economy, disproving H3.

The aspect investigated in H4<sup>7</sup> is the potential for level of education to impact one's propensity for participating in the sharing economy. To investigate this hypothesis, we divided the sample into the following two groups: people without a bachelor's degree (n=661) and people with almost a bachelor's degree (n=265). The second category (people with almost a bachelor's degree) included undergraduate university students who are currently in their junior or senior year. Subsequently, we calculated each group's propensity to participate in the sharing economy.

INSERT HERE TABLE 10

Finally, for the comparison between these two samples, we used Fisher's exact test and Pearson's chi-squared. The p-value for these tests was greater than 10%, suggesting that H4 is incorrect. Since the responses relating to education level, for both graduates and undergraduates, fail to exhibit significant differences between the two groups, we can affirm that age is an influential element for determining whether or not someone will participate in the sharing economy, whereas sex, income and education are not significant determinants of participation. Because the sharing economy is powered by the digital economy, such results are expected, as younger generations tend to employ these extensively tools extensively (Godelnik, R., 2017).

## **Conclusion**

The results of this study contribute to the growth of knowledge regarding the digital revolution and the sharing economy by methodologically demonstrating prominent motivations for participating in the sharing economy. Overall, the questionnaire's results indicate that among personal motivators of age, sex, income and education, age is the most impactful. In addition, responses indicate that intrinsic

---

<sup>7</sup> H3 and H4 were tested using the values from Parts 2 and 3 of the questionnaire.

and extrinsic motivators work in tandem for young Italian consumers. Results also indicate that sustainability plays an important role in the sharing economy. Young Italians are sensitive to waste reduction. In accordance, they prefer sustainable modalities (e.g., bicycles) that enhance environmental efficiency. These factors potentially stimulate sustainable dynamics and innovative relationships that produce a strong social effect and strengthen the sense of digital community (Puschmann, 2016; Porter and Kramer, 2019).

Firstly, the questionnaire reveals an Italian inclination and selective participation in the digital economy. These selective sharing activities involve the availability of immediate products/services that allow active participants to enrich their social and economic well-being, saving time and money. In accordance with this survey's results, Dellaert (2019) supports the fact that sharing economy users are inclined toward personalized and customizable accessibility. This new digital consumption model helps everyone to reduce individualistic behavioral patterns in favor of more collaborative ones. This ongoing trend of Italian participation in the sharing economy supports the predictions of vigorous global digital development over the next decade (Marchi and Parekh, 2015).

Secondly, the findings from the questionnaire suggest that Italians in lower annual income level categories (less than €10000) are more inclined to participate in sharing practices. The prominent reason for such an inclination is entrepreneurially oriented, linking to the generation of additional income. These socioeconomic behavioral patterns encourage digital entrepreneurship, as well as the creation of innovative start-up companies. In addition, traditional companies could capture this creative technological trend in the digital economy and reposition themselves in this new market. Their adoption of innovative business models and the creation of digital business profiles could signal a sustainable business strategy. These shared economic opportunities seem to be predominantly present in the rental, transport, accommodation, catering and other financial and professional service industries. As a result, this study concludes that the Italian market supports a digital trend that affects several sectors and industries.

Thirdly, the results of the questionnaire show that the sharing economy changes consumers' behavior, as lower income categories are more active than higher income categories with the digital applications in the field. Consequently, based on the results of this study, we expect to see the emergence of open-innovation collaboration models in the future. Such a trend could act as a multiplier to innovative products and services, enabling the restructuring of a number of stagnant organizations.

Fourthly, this questionnaire complements related research, supporting the argument that the sharing economy satisfies different product and service needs, transforming users' lifestyles (Hamari et al., 2015; Zhu et al., 2017). Nevertheless, the intention of this study is certainly not to argue for the

abandonment of the property concept in favor of shared economic practices. Rather, it supports the vivid co-existence of the two models: the traditional economic model and the digital economic one.

Fifthly, the findings of this study support the European data provided by the Eurobarometer survey (2016), as they reveal that young Italians are attracted to and involved in this digital process. Moreover, this study's market participation determinants are significant for reinventing entrepreneurial products and services. In fact, due to the confirmation that gender and income are irrelevant factors, participating businesses could adopt their marketing campaigns to treat these two factors as non-fundamental and discriminatory.

Technologies of the fourth industrial revolution cardinally changed the environment of the person activity and the change brought about by the Sharing Economy in the way of doing business and in social relations is just beginning. Into this new economy there are resources (such as information, web knowledge) that are strictly interconnected with instrument and management technologies. The sharing of information, capital and knowledge allows to increase, considering the concept of limited availability of the resources, the efficiency of their use. For this motivation it is important to understand their principal aim as new sources of competitive advantages of companies can be found.

Finally, our results are subject to certain research limitations, partly due to the digital tools employed. First, the standardized online survey form limited the older generations' participation. Second, the majority of respondents have an annual income of €10000 or less.

Therefore, our future research should focus on increasing the respondent sample size and types of digital tools, as it seems that sharing ownership is a millennial preference in Italy. As a result, the focus of our future research should be shifted to practicalities relating to transactional efficiency and user convenience, as well as the consumers' and the suppliers' geographic position and their preferences regarding shared activities.

## References

- Andreotti, A., Anselmi, G., Eichhorn, T., Hoffmann, C. P., Jürss, S. and Micheli, M. (2017), "European perspectives on participation in the sharing economy." Available at SSRN: <https://ssrn.com/abstract=3046550>, (Accessed 19 October 2019)
- Baron, P. (2013), "The root and responsibility model: a framework for ethical consumption.", *Kybernetes*, Vol. 42 No. 9, pp. 1325-1337.
- Belk, R. (2007), "Why not share rather than own?", *The Annals of the American Academy of Political and Social Science*, Vol. 611 No. 1, pp. 126-140.

- Belk, R. (2014), "You are what you can access: Sharing and collaborative consumption online.", *Journal of business research*, Vol. 67 No. 8, pp. 1595-1600.
- Berkup, S. B. (2014), "Working with generations X and Y in generation Z period: Management of different generations in business life", *Mediterranean Journal of Social Sciences*, Vol. 5 No. 19, pp. 218-228 .
- Bluman, A. G. (2009), *Elementary statistics: A step by step approach*, McGraw-Hill Higher Education ,New York.
- Böcker, L. and Meelen, T. (2017), "Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation." *Environmental Innovation and Societal Transitions*, Vol. 23, pp. 28-39.
- Boone, H. N. and Boone, D. A. (2012), "Analyzing likert data.", *Journal of extension*, Vol. 50 No. 2, pp. 1-5.
- Botsman, R. and Rogers, R. (2011), *What's mine is yours: how collaborative consumption is changing the way we live*, Collins, London.
- Bower, K. M. (2003), "When to use Fisher's exact test", In *American Society for Quality, Six Sigma Forum Magazine*, Vol. 2 No 4, pp. 35-37.
- Bryman, A. and Bell, E. (2015), *Business Research Methods (Vol. fourth)*, Bell & Bain Ltd, Glasgow.
- Carley, M. and Spapens, P. (2017), *Sharing the world: sustainable living and global equity in the 21st century*, Abingdon on Thames, Routledge.
- Cheng, M. (2016), "Sharing economy: A review and agenda for future research.", *International Journal of Hospitality Management*, Vol. 57, pp. 60-70.
- Creswell, J. W., and Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Thousand Oaks, Sage publications.
- Dellaert, B. G. (2019), "The consumer production journey: marketing to consumers as co-producers in the sharing economy.", *Journal of the Academy of Marketing Science*, Vol. 47 No 2, pp. 238-254.
- DESI (2019), "Digital single market, European Commission", available at: <https://ec.europa.eu/digital-single-market/en/desi> (Accessed 19 October 2019)
- Dominici, G., and Palumbo, F. (2013), "How to build an e-learning product: Factors for student/customer satisfaction.", *Business Horizons*, Vol 56 No 1, pp. 87-96.
- Dominici, G., Matić, M., Abbate, T., and Fatta, D. D. (2016), "Consumer attitude toward using smart shopping carts: a comparative analysis of Italian and Croatian consumer attitudes.", *International Journal of Electronic Marketing and Retailing*, Vol 7 No 3, pp. 229-244.

- D'Urso, P., Di Monte, I., Massari, R., and Cappelli, C. (2017). "Consumer behaviour and online advertising: A fuzzy approach to the market segmentation." *Micro & Macro Marketing*, 26(Vol. 26, No 2, pp. 213-228.
- Eckhardt, G. M., Houston, M. B., Jiang, B., Lamberton, C., Rindfleisch, A. and Zervas, G. (2019), "Marketing in the sharing economy.", *Journal of Marketing*, Vol. 83 No 5, pp.5-27.
- Eurobarometer (2016). 84. Autumn 2015. "Public opinion in the European Union.", Available at: [https://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb81/eb81\\_publ\\_en.pdf](https://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb81/eb81_publ_en.pdf) (Accessed 19 October 2019)
- Faliva, M. and Zoia, M. G. (2004), "Econometric profiles of testing of statistical hypotheses: model specification tests", *Statistica*, Vol. 64 No 2, pp. 257-269.
- Frenken, K. (2017), "Political economies and environmental futures for the sharing economy.", *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, Vol. 375 No 2095, pp. 1-15.
- Forno, F., and Garibaldi, R. (2015). "Sharing economy in travel and tourism: The case of home-swapping in Italy". *Journal of Quality Assurance in Hospitality & Tourism*, Vol.16, No 2,pp. 202-220.
- Gardini, C. and Costa, F. (2000), *Econometria* (Vol. 32), Franco Angeli, Milano.
- Gazzola, P. (2018). "Behind the sharing economy: Innovation and dynamic capability", In *Knowledge Management in the Sharing Economy* Springer, Cham, pp. 75-94.
- Gazzola, P., Colombo, G., Pezzetti, R. and Nicolescu, L. (2017), "Consumer empowerment in the digital economy: Availing sustainable purchasing decisions.", *Sustainability*, Vol. 9 No 5, pp. 693-712.
- Gazzola, P., Vătămănescu, E. M., Andrei, A. G. and Marrapodi, C. (2018), "Users' motivations to participate in the sharing economy: Moving from profits toward sustainable development.", *Corporate Social Responsibility and Environmental Management*, Vol. 26, pp. 740-749.
- Grifoni, P., D'Andrea, A., Ferri, F., Guzzo, T., Angeli Felicioni, M., Praticò, C., and Vignoli, A. (2018). "Sharing Economy: Business Models and Regulatory Landscape in the Mediterranean Areas". *International Business Research*, Vol. 11, no 5, pp. 62-79.
- Godelnik, R. (2017), "Millennials and the sharing economy: Lessons from a 'buy nothing new, share everything month' project.", *Environmental Innovation and societal transitions*, Vol. 23, pp. 40-52.

Hamari, J., Sjöklint, M. and Ukkonen, A. (2015), "The sharing economy: Why people participate in collaborative consumption", *Journal of the Association for Information Science and Technology*, Vol. 67 No 9, pp. 2047-2059.

Hand, C. (2019), "Biology and being green: The effect of prenatal testosterone exposure on pro-environmental consumption behavior.", *Journal of Business Research*. Available at: DOI: <https://doi.org/10.1016/j.jbusres.2019.02.034>, (Accessed 19 October 2019).

Hars A. and Ou S. (2002), "Working for Free? Motivations for Participating in Open-Source Projects", *International Journal of Electronic Commerce*, Vol.6 No 3, pp. 25-39.

Hawllitschek, F., Teubner, T. and Weinhardt, C. (2016), "Trust in the sharing economy.", *Die Unternehmung*, Vol.70 No 1, pp. 26-44.

Hinton, P. R. (2014), *Statistics explained*, Routledge, Abingdon on Thames.

Hofstede, G. (1984), *Culture's consequences: International differences in work-related values* (Vol. 5), Sage, Thousand Oaks.

Hung, S. Y., Durcikova, A., Lai, H. M. and Lin, W. M. (2011), "The influence of intrinsic and extrinsic motivation on individuals' knowledge sharing behavior.", *International Journal of Human-Computer Studies*, Vol. 69 No 6, pp. 415-427.

Hunter, L. M., Hatch, A. and Johnson, A. (2004), "Cross-national gender variation in environmental behaviors", *Social science quarterly*, Vol. 85 No 3, pp. 677-694.

Kadic-Maglajlic, S., Arslanagic-Kalajdzic, M., Micevski, M., Dlacic, J. and Zabkar, V. (2019), "Being engaged is a good thing: Understanding sustainable consumption behavior among young adults.", *Journal of Business Research*. Available at: DOI: <https://doi.org/10.1016/j.jbusres.2019.02.040> (Accessed 19 October 2019).

Kaushal, L. A. (2018). "The Rise in the Sharing Economy: Indian Perspective.", In *Global Entrepreneurship and New Venture Creation in the Sharing Economy*, Hershey, IGI Global. pp. 113-129.

Ketron, S. and Naletelich, K. (2019), "Victim or beggar? Anthropomorphic messengers and the savior effect in consumer sustainability behavior", *Journal of Business Research*, Vol. 96, pp. 73-84.

Kim, T. K. (2015), "T test as a parametric statistic", *Korean journal of anesthesiology*, Vol. 68 No 6, pp. 540.

Kumar, V., Lahiri, A. and Dogan, O. B. (2018), "A strategic framework for a profitable business model in the sharing economy.", *Industrial Marketing Management*, Vol. 69, pp. 147-160.

Li, H. and Wen, H. (2019), "How Is Motivation Generated in Collaborative Consumption: Mediation Effect in Extrinsic and Intrinsic Motivation.", *Sustainability*, Vol. 11 No 3, pp. 640-650.



- Lutz, C. and Newlands, G. (2018), "Consumer segmentation within the sharing economy: The case of Airbnb.", *Journal of Business Research*, Vol. 88, pp. 187-196.
- Manzo, C., and Ramella, F. (2015). "Fab labs in Italy: Collective goods in the sharing economy." *Stato e mercato*, Vol. 35, No 3, pp. 379-418.
- Marchi, A. and Parekh E.J. ( 2015). "How the sharing economy can make its case". Available at: <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-the-sharing-economy-can-make-its-case> (Accessed 19 October 2019)
- Matofska, B. (2016), "What is the Sharing Economy?". Available at: <http://www.thepeoplewhoshare.com/blog/what-is-the-sharing-economy/> (Accessed 19 October 2019)
- McAlpine, T. (2014), "The sharing economy.", *Credit Union Management*, Vol. 37 No 12, pp. 40-41.
- McCrum-Gardner, E. (2008), "Which is the correct statistical test to use?.", *British Journal of Oral and Maxillofacial Surgery*, Vol. 46 No 1, pp. 38-41.
- Nguyen, D. H., de Leeuw, S., and Dullaert, W. E. (2018). Consumer behaviour and order fulfilment in online retailing: a systematic review. *International Journal of Management Reviews*, Vol. 20, No 2, pp. 255-276.
- Nica, E. and Potcovaru, A. M. (2015), "The social sustainability of the sharing economy", *Economics, Management and Financial Markets*, Vol. 10 No 4, pp. 69-75.
- Paruolo, P. (1999), *Elementi di statistica*, Carocci, Bologna.
- Phitayakorn, R., Nick, M. W., Alseidi, A., Lind, D. S., Sudan, R., Isenberg, G. and Petrusa, E. R. (2015), "WISE-MD usage among millennial medical students.", *The american journal of surgery*, Vol. 209 No 1, pp. 152-157.
- Porter, M. E. and Kramer, M. R. (2019), "Creating shared value.", In *Managing sustainable business*, Springer, Dordrecht, pp. 323-346.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W.E., Luchs, M.G., Ozanne, L.K. and Thøgersen, J. (2011), "Sustainable consumption: Opportunities for consumer research and public policy", *Journal of Public Policy & Marketing*, Vol. 30 No 1, pp. 31–38.
- Puschmann, T. and Alt, R. (2016), "Sharing economy", *Business & Information Systems Engineering*, Vol. 58 No 1, pp. 93-99.
- PwC, (2016), "Europe's five key sharing economy sectors could deliver €570 billion by 2025." Available at: <https://press.pwc.com/News-releases/europe-s-five-key-sharing-economy-sectors-could-deliver--570- billion-by-2025/s/45858e92-e1a7-4466-a011-a7f6b9bb488f> (Accessed 19 October 2019)

- Routledge, R. D. (1992), "Resolving the conflict over Fisher's exact test.", *Canadian Journal of Statistics*, Vol. 20 No 2, pp. 201-209.
- Sacks, D. (2011), "The sharing economy", *Fast company*, Vol. 155 No 1, pp. 88-131.
- Schor, J. (2016), "Debating the sharing economy. *Journal of Self-Governance and Management Economics*", Vol. 4 No 3, pp. 7-22.
- Schor, J. B., Fitzmaurice, C., Carfagna, L. B., Attwood-Charles, W. and Poteat, E. D. (2016), "Paradoxes of openness and distinction in the sharing economy", *Poetics*, Vol. 53, pp. 66-81.
- Siegel, S. (1956), *Nonparametric Statistics for the Behavioral Sciences*, McGraw-Hill, New York.
- Simar, L. and Wilson, P. W. (2002), "Non-parametric tests of returns to scale.", *European Journal of Operational Research*, Vol. 139 No 1, pp. 115-132.
- Solomon, M. R., Dahl, D. W., White, K., Zaichkowsky, J. L. and Polegato, R. (2014), *Consumer behavior: Buying, having, and being (Vol. 10)*, Pearson, Toronto.
- Sung, E., Kim, H., & Lee, D. (2018), "Why do people consume and provide sharing economy accommodation?—A sustainability perspective." *Sustainability*, Vol. 10 No 6, pp 2072- 2087 .
- Ter Huurne, M., Ronteltap, A., Corten, R. and Buskens, V. (2017), "Antecedents of trust in the sharing economy: A systematic review", *Journal of Consumer Behaviour*, Vol. 16 No 6, pp. 485-498.
- Tussyadiah, I. P. (2015), "An exploratory study on drivers and deterrents of collaborative consumption in travel". In *Information and communication technologies in tourism 2015*, Springer, Cham, pp. 817-830.
- Tussyadiah, I. P. and Pesonen, J. (2016), "Impacts of peer-to-peer accommodation use on travel patterns.", *Journal of Travel Research*, 55(8), Vol. 55 No 8, pp. 1022-1040.
- Upton, G. J. (1992), "Fisher's exact test.", *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, Vol. 153 No 3, pp. 395-402
- Wang, C. and Zhang, P. (2012), "The evolution of social commerce: The people, management, technology, and information dimensions", *Communications of the Association for Information Systems*, Vol. 31 No 1, pp. 5-28.
- Zelezny, L. C., Chua, P. P. and Aldrich, C. (2000), "New ways of thinking about environmentalism: Elaborating on gender differences in environmentalism", *Journal of Social issues*, Vol. 56 No 3, 443-457.
- Zhu, G., So, K. K. F. and Hudson, S. (2017), "Inside the sharing economy: understanding consumer motivations behind the adoption of mobile applications", *International Journal of Contemporary Hospitality Management*, Vol. 29 No 9, 2218-2239.

Zhong, Q., Liang, S., Cui, L., Chan, H. K., and Qiu, Y. (2018), "Using online reviews to explore consumer purchasing behaviour in different cultural settings.", *Kybernetes*, Vol. 48 No 6, 1242-1263.