Chapter

Collaborative Behavior and the Sharing Economy: Pan-European Evidence for a New Economic Approach

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Abstract

This chapter analyzes the sharing economy and collaborative consumption behaviors. The study addresses two lines of analysis. The first is theoretical, and it examines the background, definitions, and conceptual framework of the topic. The second is empirical and brings new evidence through a pan-European predictive analysis. From the theoretical angle, I conclude that the exchange behavior evolves toward a new paradigm, from initial digital formats into sharing formats. And for a more adequate interpretation of the sharing exchange theory, the economy will have to move forward and develop a formal apparatus that takes into consideration a set of relatively unusual principles. In particular a combination of new assumptions: rational/emotional decision-making, individual/prosocial interest, monetary/nonmonetary compensation, and ownership/use, which economics will have to incorporate into the functions thereof. From the empirical perspective, my research provides new evidence about the motivations of collaborative behavior. Particularly interesting is the result that self-employed or entrepreneurs are more prone to value collaborative platforms that are oriented as an alternative. On the contrary, managers and qualified employees have more practical and monetary motivations. Both results, theoretical and empirical, could open the door to new strategic orientations for the development of platforms.

Keywords: sharing economy, collaborative consumption, platform economy, access-based economy, peer-to-peer (P2P) markets

1. Introduction

In recent years, day-to-day economic practice has given us a host of examples attesting to the changing nature of economic exchange. For most people, *Uber* and *Airbnb* are possibly the most recognizable examples but, simply by taking a look at the variety of digital exchange platforms and networks currently available, it is possible to see that economic transactions are profoundly changing. These platforms, which complement or replace traditional markets such as passenger transport or tourist accommodation, are two clear examples of the fact that some of the foundations of the economy are structurally changing [1–3].

This development has often been noted from the perspective of sharing or of collaboration [4, 5]. With the advent of Web 2.0 and social networks, whose major difference from the first digital wave is that they enable and facilitate interactive digitalization [6], sharing has modified the economic exchange. Collaborative consumption is the new form of mass sharing between and among people, principally through peer-to-peer (P2P) digital platforms [7]. It implies the coordinated acquisition and distribution of goods or services for use, it is always done in expectation of some type of compensation (monetary or otherwise), and it places access or use over ownership [4, 8, 9]. In this sense, the key question for management research is to establish how consumer behavior has changed and, as a consequence thereof, how these transformations modify the business strategy [3, 10].

But, how should sharing or collaboration be interpreted? What is new in such forms of collaborative consumption? Do they create the need for us to approach economic exchange from a new analytical perspective? Do we have evidence of these new forms of consumption? What effects does collaborative consumption have on the economic activity? These are some of the questions that have inspired this chapter.

In order to answer them, a wide range of conceptual and empirical studies has been reviewed. The analysis extends from the core to the periphery of the issue. Firstly, the background, definitions, and conceptual frameworks of the sharing economy and collaborative consumption will be addressed. Secondly, the set of motivations explaining their rise will be studied, which allowed me to postulate the research hypotheses. Thirdly, new pan-European empirical evidence will be provided. Fourth and lastly, the main conceptual and empirical corollaries of the research will be addressed and discussed.

2. Digital sharing as economic behavior

The first digital wave was consolidated in the late twentieth century and generates new markets (digital markets) that significantly alter forms of consumption and production. Information goods and services, that is, all goods and services that can be digitalized, play a leading role in digital markets [11]. These goods have particular economic characteristics, such as nonrivalry (public goods), which are experience goods (whose utility can only be determined once they have been consumed), and they have a particular cost structure, with very high fixed costs (production) and decreasing marginal costs (reproduction) tending toward zero. The combination of these properties means that the price-setting rule revealed by all the information, which is equal to the marginal cost in traditional markets, does not work in digital markets. In establishing the value of information goods and services, the price is different from the marginal cost, and external network economies play an important role [12]. In addition, a decoupling of the traditional relationship between ownership and use is starting to occur through dematerialization, as represented by information goods and digital markets [13]. However, interpretative models of digital exchange are still based on rational and intangible decision-making, and individuals maximize its utility or the utility of its network only by taking into consideration individual or collective interests, which are still not collaborative [5].

In the early twenty-first century, a second wave of digital technology gave new impetus to the transformation of economic exchange behavior, which evolved from initial digital exchange into sharing or collaborative exchange. However, to understand this new trend, it is important first to define what sharing is. Sharing can be interpreted as one of the forms of people's economic behavior. Its existence and relevance as a type of exchange in human communities has been demonstrated since the beginning of the civilization [14]. Sharing means going beyond individual interests to take into

account human and social values. Sharing may have functional motivations, such as survival, but it can also be an altruistic act motivated by convenience, courtesy, or kindness toward others. All sharing practices are related to cultural norms, but sharing is much more than an altruistic act that occurs within the family, close social circles, or among friends. Indeed, it can also occur among strangers. In this context, it is possible to define sharing as "the act and process of distributing what is ours to others for their use as well as the act and process of receiving something from others for our use ([14], p. 126)." In an earlier, more socially oriented approach to the issue, sharing has been interpreted as a "nonreciprocal prosocial behavior ([10], p. 331)."

With the emergence of digital forms of sharing behavior through collaborative consumption, the literature has made significant advances [15]. Especially relevant is the differentiation between collective consumption and collaborative consumption. The literature has traditionally taken collective consumption to mean "those events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others ([16], p. 614)." This approach, which includes a wide range of daily consumption practices, such as drinking and eating with friends, or watching a show together, places emphasis on joint participation, though it seems too broad for the purposes of describing the phenomenon of collaborative consumption. For consumption to be collaborative, people need to adopt a specific form of coordination beyond their group behavior: the coordinated acquisition and distribution of the goods or services consumed. In other words, collaborative consumption is "the act and process of distributing what is ours to others for their use ([14], p. 126)."

Similarly, the literature has made advances in terms of clarifying collaborative consumption, particularly in relation to the delimitation of the differences between it and other types of consumption with prosocial intentions, such as gift-giving or economic exchanges. A number of earlier approaches associated collaborative consumption with traditional market behaviors such as "sharing, bartering, lending, trading, renting, gifting, and swapping ([7], p. 15)," but that overly broad approach was further delimited, with collaboration being restricted to the coordinated "acquisition and distribution of a resource for a fee or other compensation ([5], p. 1597)."

It is therefore necessary to insist on the fact that collaborative consumption behavior implies the coordinated acquisition and distribution of products or services for use, some type of compensation (monetary or otherwise), and access, often temporary, over ownership. In this respect, the notion of access-based consumption would adequately encompass the domain of and motivations behind collaborative consumption in the sense that "instead of buying and owning things, consumers want access to goods and prefer to pay for the experience of temporarily accessing them ([8], p. 881)."

3. Collaborative behavior in economic thought

Economic research addresses the sharing economy and collaborative consumption as if it were a conceptual umbrella that integrates diverse phenomena related to new forms of economic exchange and economic behavior. This new, sharing interpretation of exchange and behavior [10, 17] has been given many different names. Among them we find "product-service systems" [18], the idea of a consumption "mesh" or network [19], "collaborative consumption" [4, 7], the idea of "prosumers" [20], "commercial sharing systems" [9], "access-based consumption" [8], and even a new form of "crowd-based capitalism" [21]. All of these new exchange practices have two commonalities: "(1) their use of temporary access nonownership

models of utilizing consumer goods and services, and (2) their reliance on the Internet, and especially Web 2.0, to bring this about ([5], p. 1595)."

Conceptually, collaborative consumption behavior has been delimited by two distinct conceptual frameworks (**Table 1**). Consumer theory addresses the phenomenon from the perspective of a cultural and identity-based form of alternative exchange and behavior [22]. It has therefore paid greater attention to the concept of sharing, to types of consumption, and to collaborative markets or to the antiestablishment foundations of sharing [4, 7, 9, 23–26]. In contrast, information systems theory analyses the phenomenon from the perspective of digital P2P platform and network uses and behavior [27, 28]. These two approaches simply place more or less emphasis on the main components of collaborative consumption. While consumer theory has emphasized the analysis of motivations to explain nonownership access and uses, the information systems approach focuses on the study of technology acceptance models (TAMs) and theory of planned behavior (TPB) models that make using collaborative platforms and networks possible. The salient idea behind this second approach is that collaborative consumption operates through technological platforms (Web 2.0 or mobile applications). Within this context, the problem of motivations behind collaborative consumption behavior becomes the problem of motivations explaining the use of online collaborative consumption platforms. Thus, the success of such digital sharing platforms would explain the sharing behaviors of their potential users and resource providers [29]. In other words, participation behavior in collaborative consumption platforms can be formulated as an intent of acceptance and, therefore, can be approached from the perspective of TAMs and/or TPB models [30].

From the information systems approach, we are able to understand collaborative consumption as a "peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services ([17], p. 2047)." In fact, this new type of exchange and behavior is an economic and technological phenomenon driven by new development of information and communication technologies (ICTs), advances in consumer awareness, and the proliferation of collaborative online communities that make commerce more social, sustainable, or fairer [31, 32].

Approach	Authors	Definition
Consumer theory (restrictive)	Belk [4]	The acquisition and distribution of a resource for a fee or other compensation (nonmonetary)
Consumer theory (expanded)	Botsman and Rogers [7]	An economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership
Theory of the firm (efficiency)	Stephany [3]	Value in taking underutilized assets and making them accessible online to a community, leading to a reduced need for ownership of those assets
Information systems (technology acceptance)	Hamari et al. [17]	P2P-based activity of obtaining, giving, or sharing access to goods and services, coordinated through community-based online services
Functional synthesis	Belk [5] Price and Belk [22]	The use of temporary access nonownership models of utilizing goods and services, and reliance on the Internet, and especially Web 2.0, to bring this about

Table 1.
Sharing economy and collaborative behavior: definitions and conceptual frameworks.

4. Toward new economic approaches

I just showed that, through new forms of collaborative consumption, exchange behavior evolves the economy toward a new interpretative paradigm, from initial digital markets to sharing markets. Sharing exchanges incorporate and reveal a lot

Characteristics	Initial digital exchange	Sharing exchange
Technology	ICTs and Internet 1.0 (noninteractive digitization)	ICTs and Internet 2.0 (interactive digitization) Social networks and social media
Products	Information goods and services (digital ownership)	Digital uses of goods and services (information or knowledge intensives)
Good properties	Nonrivalry (public goods)	Divisibility (rival goods become public)
	Experience goods	Experience uses
	High fixed and low marginal costs	Low fixed and marginal costs
Markets	Digital, noncoincident, and semiregulated	Digital, noncoincident, and unregulated (temporary and diffuse economic activity)
Key market stakeholders	Consumers and businesses engaged in e-commerce	Consumers/producers and businesses/platforms that coordinate electronic exchange
Golden rule of the market	Price differs from marginal cost	Price or fee equal to marginal use
	Price does not reveal all the information	Information is revealed before the price or fee
Efficiency sources	Network economies	Sharing economies
	Cheap inputs of information and knowledge	Cheap inputs of sharing uses of goods, services, information, or knowledge
Basic process and economic activity	Digitization	Sharing
	Intangibles assets	Disintermediation
Production and labor organization	Networked business and labor	Networked individual
	Temporary work	Contingent work (e.g., gigs)
Ownership/use relationship	Semi-identification between ownership and use (dematerialization)	De-identification between ownership and use (repersonification; use without ownership)
Economic interpretation and market structures	Rational and intangible decision-making	Rational and emotional decision-making
	Individual and collective interest	Prosocial interest (ethics, sustainability)
	Information and knowledge exchanges	Access over ownership exchanges
	Monetary compensation	Monetary or nonmonetary price or fee
	Entry and exit costs (e.g., lock-ins)	Free entry and exit
	Network competition	Sharing competition

Table 2.
Exchange in the initial digital economy and the sharing economy.

of information and knowledge, often before the transaction takes place. The basic sharing market stakeholders are consumers/producers and businesses/platforms that coordinate but do not control sharing exchange [33]. The economic properties of sharing exchange are therefore those of shared uses (divisibility, experience uses, and sharing economies). Many of those properties still need to be studied in much greater depth, and that is especially so for the form of the demand function (price or fee equal to marginal use), for its value creation process through sharing networks, and for the structure of P2P markets [10, 34]. Furthermore, the interpretative apparatus that economics will have to develop in order to address a sharing exchange theory must take into consideration a set of relatively unusual principles. Sharing exchange requires interpretative models that consider a combination of emotional and rational decision-making, individual interest-based as well as prosocial motivations, exchange compensation through a monetary or nonmonetary fee, and the set of sharing economies that it may generate. **Table 2** shows and orders some of the main manifestations of new forms of sharing exchange, comparing them to forms of digital exchange.

5. Motivations of collaborative behavior

The set of driving and impeding forces of participation behavior in digital networks for collaborative consumption is clearly multidimensional and encompasses economic, social, environmental, ethical, and motivational elements that need to be addressed in depth [27]. Among these motivations, the literature has identified: (1) economic benefits, time, space and effort savings, and an awareness of exchange costs [8]; (2) cultural changes linked to a new relationship among goods and services, individual ownership, and consumer identity [5, 7]; (3) a rise in the critical view of excessive consumption [35, 36]; (4) growing environmental awareness [19]; and (5) the desire to belong to a community [4]. Critical mass, idle time, belief in the common good, and trust among strangers have also been identified as predictors of the use and provision of content, goods, and services on digital sharing platforms and networks [7].

However, there is still relatively little empirical evidence of the modeling of or results from digital sharing systems based jointly on the behaviors of their users and providers [28]. For example, a priori, some driving forces have an impact on both groups (such as trust), whereas others only have an impact on one of them (i.e., earning money motivates providers and saving money motivates users). Thus, while participation in digital practices of the collaborative consumption depends on the critical mass of its participants (users and providers), it is necessary to look further into the motivations (joint and separate) explaining participation and collaborative behavior [37]. In accordance with this approach, literature has found that participation in a digital collaborative consumption network was motivated by a broad set of factors such as sustainability, enjoyment, and economic benefits [17]. Along similar lines, a multidimensional set of motivations associated with participation behavior (use and provision) in a P2P network for renting goods and services has been identified. That set of motivations included technological, economic, social, ideological, identity, and prosocial factors [27].

One of the main starting points for collaborative consumption was the evolution from business-to-consumer (B2C) electronic commerce (e-commerce) toward the emergence of consumer-to-consumer (C2C) digital markets. On such P2P platforms and networks, people exchange goods and services on a large scale, often under the banner of an alternative form of consumption that is more social, sustainable, varied, convenient, anticapitalist, or without monetary compensation [14, 38]. In fact, many of the motivations explaining this new form of consumption are actually related to their alternative nature, which differs from that of traditional forms of

ownership consumption [23, 24, 39]. Latest research expanded the scope and studied the motivations of users and providers of P2P platforms in Europe [40]. These literature studies have concluded that the providers' motivations differed from the users. The ideology (better community and increased sustainability) explained the providers' participation, while practical reasons (satisfaction of needs, increased value, and convenience) explained the users' participation. Along the same lines, literature has identified that sharing attitudes are linked to moral, social, and monetary motivations [41]. Similarly, monetary incentives are identified as a necessary but not sufficient condition at the moment of sharing individual possessions with others. In this context, a first working hypothesis could be that:

Hypothesis 1: Anticonsumer or antimaterialist motivations, captured through the possibility of nonmonetary exchanges, predict the provision of collaborative platforms.

The economic literature has also highlighted a number of economic aspects that might be driving new digital forms of sharing. Such motivations may also be rational, pursuing a behavior of utility maximization. This is the case, for example, when consumers replace exclusive and expensive ownership with low-cost uses through an online collaborative consumption service [42]. Along the same line, literature has obtained results that tended toward practical motivations and utility. Specific costs, utility factors, the perceived risk of product scarcity, and familiarity with sharing were the explanatory factors of the likelihood of sharing [8, 9]. Beyond this initial and partial evidence, the most recent literature has broadened the scope of its objectives in relation to both the motivations and the number of consumers and types of collaborative consumption analyzed [43]. Lower prices were found to be the main motivation in all types of goods and services analyzed. Scarcity, the environment, and access over ownership were also important in some of the types of goods and services studied. In addition, it has also been obtained that the intentions to share are explained based on economic, environmental, and social benefits that would be captured through a mediating effect linked to the perceived utility [30]. At the same time, the enjoyment experienced would be explained through a sentiment of belonging to the community where sharing takes place. Thus, and considering the different motivations of users and providers, I could formulate my second working hypothesis as follows:

Hypothesis 2:Practical economic motivations, like price, novelty, and convenience, predict the use and provision of collaborative platforms.

Other studies have advanced our knowledge of the forms of adoption and repeated use of digital sharing platforms [26]. The motivations linked to perceived benefits could explain user satisfaction and the probability of choosing to use those platforms again. Regarding the motivations and barriers to collaborative consumption in a P2P accommodation platforms, literature has found that sustainability, belonging to a community, and financial benefits were the main motivations, while the lack of trust, of efficiency, and of economic benefits were the main barriers [44]. At the same line, a multidimensional set of motivations that explained participation (use and provision) in a P2P network for renting goods and services has been identified [27]. Those motivations were technological (privacy, process risk, the platform's ubiquitous availability), economic (income, resource scarcity, effort expectancy, thriftiness, product variety), social (knowledge and modern lifestyle), ideological and identity-related (anticapitalism, independence through ownership, prestige of ownership, enjoyment in sharing), and prosocial (sense of belonging, social experience, social influence). Thus, my third working hypothesis is related to the barriers to collaborative behavior:

Hypothesis 3:The lack of a responsible person, the lack of fulfillment of service expectations, the lack of information, the lack of trust in the agents, or the lack of trust in the Internet predict (brake) the use and provision of collaborative platforms.

With the idea of broadening the set of motivations and the diversity of forms and stakeholders of the collaborative behavior, literature has also analyzed the role of sociodemographic characteristics [25]. Women and young people were more likely to share most of the products/objects. Particularly interesting is the result that shared consumption had more to do with personal mind-set or psychological disposition than with some sociodemographic aspects, like income levels. In this sense, I can formulate a working hypothesis about the sociodemographic predictors of collaborative behavior:

Hypothesis 4:Sociodemographic characteristics predict the use and provision of collaborative platforms.

6. Pan-European evidence of collaborative behavior

In order to obtain a representative sample and to compare the situation of collaboration consumption in the countries of the European Union, the European Commission [45] dedicated a *Flash Eurobarometer* (number 438) to a survey of the use of collaborative economy platforms. *Flash Eurobarometers* are ad hoc statistical operations consisting of short—landline and mobile—telephone interviews on a topic of interest. *Flash Barometer* 438 obtained data on the use of collaborative economy platforms from a sample of 14,050 citizens aged 15 years and above in the 28 countries of the European Union (Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, and the United Kingdom) through approximately 500 interviews per country. The universe of the survey consisted of the 412,630,644 European Union citizens aged 15 years and above. The sample design for each country was probabilistic and representative. The margins of error at the 95% confidence level in the case of maximum indetermination ($p = q = 50$) were +0.4% for the entire sample, and around +1.9% for individual country samples. The fieldwork was carried out on March 15 and 16, 2016.

The questionnaire defines a collaborative platform (CP) as "an Internet-based tool that enables transactions between people providing and using a service. They can be used for a wide range of services, from renting accommodation and car sharing to small household jobs ([45], p. 29)." Based on that approach, the survey asked the respondents about their awareness of such platforms and gave them the following options for their answers on use: (1) unaware (UNAWARE) or "You have never heard of these platforms"; (2) aware but does not use (AWNOTUSE) or "You have heard of these platforms but you have never visited them"; (3) initial use (INIUSE) or "You have been on one or more of these platforms and paid for a service once"; (4) occasional use (OCCAUSE) or "You use the services of these platforms occasionally (once every few months)"; and (5) regular use (REGUSE) or "You use the services of these platforms regularly (at least every month)." For all users of such platforms (TOTUSE), which includes initial use, occasional use, and regular use, the survey also gathered data about providing goods and services and gave the respondents the following options for their answers: (1) no provision (NOPROV) or "No, you haven't"; (2) initial provision (INIPROV) or "You have offered a service on one or more of these platforms once"; (3) occasional provision (OCCAPROV) or "You offer services via these platforms occasionally (once every few months)"; and (4) regular provision (REGPROV) or "You offer services via these platforms regularly (every month)." All providers of such platforms (TOTPROV) include initial provision, occasional provision, and regular provision. The various options

of those two variables were transformed into individual variables. All of these new individual variables were dichotomous, where 1 = the respondent was aware of and used or provided goods or services via collaborative platforms, and 0 = the respondent answered otherwise.

Having stipulated the levels of use and provision, the survey looked at the driving factors (benefits) and impeding factors (problems) of collaborative platforms compared to the traditional forms of commerce of goods and services. Regarding the driving factors, the survey gave those respondents who were aware of and users of collaborative platforms the following options for their answers: (1) service cost (PRICE) or "It is cheaper or free"; (2) service newness (NEWNESS) or "It offers new or different services"; (3) service convenience (CONVEN) or "The access to services is organized in a more convenient way"; and (4) nonmonetary exchanges (NONMONET) or "The ability to exchange products or services instead of paying with money." Regarding the impeding factors, the survey gave those respondents who were aware of and users of collaborative platforms the following options for their answers: (1) lack of a responsible person when problems arise (LRESPON) or "Not knowing who is responsible in case a problem arises"; (2) lack of fulfillment of service expectations (LFULLSERV) or "Being disappointed because the services and goods do not meet expectations"; (3) lack of information (LINFORM) or "Not having enough information on the service provided"; (4) lack of trust in the agents (LTRUSTAG) or "Not trusting the provider or seller"; and (5) lack of trust in the Internet (LTRUSTINT) or "Not trusting the Internet transactions in general." All of these variables were dichotomous, where 1 = the respondent answered positively about the driving or impeding factors, and 0 = the respondent answered otherwise.

Lastly, the survey gathered sociodemographic data in order to be able to characterize the users and the providers of collaborative platforms. Specifically, data were gathered on age, gender, years of education, number of household members, type of locality (village or rural area, small, midsized, or large town/city), and occupational status: self-employed or business person, employee (director, qualified professional, manual worker, and nonmanual worker), unemployed or nonemployed (stay-at-home parent/carer, student, retiree, or unemployed person).

Table 3 shows the descriptive statistics of the variables relating to the use and provision of collaborative platforms in Europe. Regarding awareness and use of collaborative platforms, the survey found that more than half of European citizens were unaware of these new forms of exchange (53.2%), while a further third was aware of them but had never used them (33.9%). Thus, 12.9% of the European population aged 15 years and above stated that they were users of collaborative platforms, with the following distribution: 3.2% initial use (one transacted exchange), 6.5% occasional use (once every few months), and 3.2% regular use (at least every month). In relation to the provision of goods and services via collaborative platforms, of the users of such platforms (12.9%), almost three quarters had never provided any (72.1%). The remaining 27.9% of users (3.6% of the European population) had provided goods and services, with the following distribution: 7.3% (0.9% of the total) had made an initial provision (provided goods or services once), 15.7% (2.1% of the total) had made an occasional provision (once every few months), and 5.0% (0.6% of the total) had made a regular provision (every month).

For those who were aware of (33.9%) and users of (12.9%) such platforms (46.8%), the survey also gathered data about the driving and impeding factors of their use. Among the driving factors, convenience (39.1%) and price (31.4%) were cited the most, whereas service newness (22.4%) and the possibility of carrying out nonmonetary exchanges (21.8%) came some way behind the two main motivations. Regarding the factors that would limit the use and provision of such platforms, the lack of a responsible person when problems arise in the exchange (36.5%) was the main reason given, followed at some distance by the lack of fulfillment of service expectations

	N	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
Awareness and use							
Unaware (UNAWARE)	13,837	0.532	0.499	0	1	−0.128	−1.984
Aware but not use (AWNOTUSE)	13,837	0.339	0.473	0	1	0.682	−1.535
Initial use (INIUSE)	13,837	0.032	0.177	0	1	5.298	26.068
Occasional use (OCCAUSE)	13,837	0.065	0.247	0	1	3.530	10.465
Regular use (REGUSE)	13,837	0.032	0.177	0	1	5.291	26.998
Total use (TOTUSE)	13,837	0.129	0.336	0	1	2.207	2.872
Provision of goods and services							
No provision (NOPROV)	1778	0.721	0.448	0	1	−0.987	−1.028
Initial provision (INIPROV)	1778	0.073	0.259	0	1	3.298	8.890
Occasional provision (OCCAPROV)	1778	0.157	0.364	0	1	1.888	1.567
Regular provision (REGPROV)	1778	0.050	0.217	0	1	4.158	15.303
Total provision (TOTPROV)	1788	0.279	0.449	0	1	0.987	−1.028
Driving factors							
Price (PRICE)	6477	0.314	0.464	0	1	0.801	−1.359
Newness (NEWNESS)	6477	0.224	0.417	0	1	1.324	−0.247
Convenience (CONVEN)	6477	0.391	0.488	0	1	0.449	−1.779
Nonmonetary (NONMONET)	6477	0.218	0.413	0	1	1.368	−0.127
Impeding factors							
Lack responsible person (LRESPON)	6477	0.365	0.481	0	1	0.560	−1.687
Lack fulfilling expect (LFULLSER)	6477	0.259	0.438	0	1	1.099	−0.792
Lack information (LINFORM)	6477	0.186	0.389	0	1	1.614	0.605
Lack trust in agents (LTRUSTAG)	6477	0.250	0.433	0	1	1.154	−0.668
Lack trust in Internet (LTRUSTINT)	6477	0.272	0.445	0	1	1.027	−0.947

Table 3.
The use and provision of collaborative platforms in Europe.

(25.9%), the lack of trust in the Internet in general (27.2%), and the lack of trust in the agents (buyers and sellers) of the exchange in particular (25.0%). Lastly, the lack of information (18.6%) was the reason that the respondents cited the least.

Regarding sociodemographic characteristics, the mean age was 54 years and the majority of the respondents were women (58.4% women, 41.6% men). Of the individuals in the sample, 43.4% had 20 or more years of formal education. From an occupational perspective, of note was the high presence of retirees (37.3%) and of manual workers (20.3%). Most households comprised two members (44.0%). Finally, regarding the localities of European citizens (rural, small or mid-sized town/city, or large metropolitan town/city), the sample was equally divided (into three-thirds). Furthermore, in relation to countries, the sample skewed toward the European Union's most populous countries in central and Eastern Europe (35.7% of the sample).

The basic aim of my study is to find out if these sociodemographic characterization variables, together with the motivation/barrier variables, can be turned into predictors of use and provision behavior on collaborative platforms. To that end, we performed an odds ratio (OR) analysis. Formally, it is usually defined as the ratio of the odds of a condition occurring in a population group to the odds of it occurring in another group. It is a measure of the statistical association between dichotomous variables, which has been widely used in social research for three main reasons: firstly, because the OR determines a predictor and a confidence interval (95% CI) between binary dichotomous variables, which enables probability relationships to be established; secondly, because it is useful for examining the predictive effect of one variable on another, while the other variables remain constant in a logistic regression model; and thirdly, because OR offers a quick and efficient interpretation in case studies and controls.

The interpretation of an OR analysis is as follows. If the value of the OR is less than 1 and the confidence interval (95% CI) is situated below the unit, the predictive relationship between the two variables analyzed is an inverse relationship. If the value of the OR is greater than 1 and the confidence interval (95% CI) is situated above the unit, the predictive relationship between the two variables analyzed is a direct relationship. Whenever the confidence interval (95% CI) includes the unit, the predictive relationship between two variables cannot be determined [46, 47].

If I begin by taking the use of collaborative platforms (n = 1792), the first thing to highlight is that its driving forces are clearly linked to motivations of an economic and practical nature (**Table 4**). Convenience and price are the two main drivers of collaborative platform use in Europe. In contrast, the driving factor relating to nonmonetary exchange, which could be identified as being ideological in an antiestablishment or anticapitalism sense, clearly disincentives the use of collaborative platforms. Among the impeding forces, it should be noted that the lack of fulfillment of expectations in relation to the service offered via the collaborative platform disincentives the use thereof. In contrast, the lack of trust in the Internet would not act as an impediment to total use.

Among the sociodemographic predictors of the use of collaborative platforms in Europe, the analysis performed provides us with a set of results worth highlighting. Firstly, men are more inclined than women to use such platforms. Secondly, the younger age ranges (54 years and below) are more likely to make a total use than the older age ranges. And thirdly, households with more members have a greater probability of having a user of collaborative platforms among them than households with fewer members.

Regarding human capital and occupational status, the joint use of collaborative economy platforms in Europe is also linked to the fact of being a student or having many years of education and to professional contexts of entrepreneurship, managerial responsibility, or being highly qualified. In fact, students or people with 20 or more years of formal education are much more likely to use collaborative platforms

	Users (n = 1792)		Providers (n = 496)	
	OR	**(95% CI)**	**OR**	**(95% CI)**
Motivations/barriers (driving and impeding factors)				
Price	**1.687**	**(1.505–1.890)**	1.063	(0.860–1.312)
Newness	1.094	(0.962–1.245)	1.077	(0.846–1.372)
Convenience	**2.334**	**(2.089–2.608)**	0.953	(0.775–1.173)
Nonmonetary exchange	**0.668**	**(0.580–0.769)**	**1.384**	**(1.062–1.803)**
Lack of a responsible person	1.089	(0.973–1.218)	**0.747**	**(0.601–0.929)**
Lack of fulfillment service expectation	**1.234**	**(1.093–1.394)**	1.234	(0.986–1.544)
Lack of information	1.055	(0.918–1.212)	0.990	(0.760–1.289)
Lack of trust in the agents	**1.217**	**(1.076–1.377)**	1.043	(0.828–1.314)
Lack of trust in the Internet	**0.878**	**(0.775–0.994)**	0.973	(0.767–1.236)
Sociodemographic predictors				
Age				
15–24 years	**1.262**	**(1.039–1.532)**	0.871	(0.578–1.311)
25–34 years	**2.386**	**(2.077–2.740)**	**1.436**	**(1.106–1.866)**
35–44 years	**2.097**	**(1.858–2.367)**	0.989	(0.775–1.262)
45–54 years	**1.420**	**(1.260–1.601)**	0.878	(0.684–1.595)
55–64 years	**0.755**	**(0.680–0.883)**	1.070	(0.815–1.406)
65 years and above	**0.246**	**(0.212–0.286)**	0.727	(0.514–1.028)
Gender (1 = male, 0 = female)	**1.456**	**(1.318–1.608)**	**1.409**	**(1.144–1.736)**
Human capital (years of education)				
Still studying	**1.536**	**(1.240–1.903)**	0.887	(0.570–1.381)
Up to 15 years	**0.170**	**(0.128–0.226)**	1.224	(0.669–2.237)
16–19 years	**0.616**	**(0.553–0.687)**	0.839	(0.664–1.059)
20 or more years	**2.313**	**(2.088–2.563)**	1.170	(0.943–1.453)
Occupational status				
Self-employed/entrepreneurs	**1.828**	**(1.573–2.125)**	**1.843**	**(1.391–2.443)**
Employees—directors	**3.012**	**(2.575–3.522)**	1.006	(0.746–1.356)
Employees—qualified professionals	**2.181**	**(1.832–2.596)**	1.147	(0.820–1.605)
Employees—nonmanagement workers	**1.572**	**(1.403–1.762)**	**0.688**	**(0.539–0.878)**
Employees—manual workers	**0.781**	**(0.626–0.974)**	**1.673**	**(1.087–2.574)**
Nonemployed—parents/carers	**0.598**	**(0.475–0.754)**	0.822	(0.491–1.376)
Nonemployed—students	**1.373**	**(1.092–1.726)**	0.787	(0.482–1.284)
Non-employed—retirees	**0.271**	**(0.237–0.310)**	**0.718**	**(0.527–0.977)**
Unemployed—job seekers	0.886	(0.680–1.153)	1.330	(0.787–2.247)
Household members				
One	**0.598**	**(0.524–0.681)**	1.200	(0.915–1.574)
Two	**1.137**	**(1.029–1.257)**	0.915	(0.742–1.127)

	Users (n = 1792)		Providers (n = 496)	
	OR	**(95% CI)**	**OR**	**(95% CI)**
Three	**1.212**	**(1.067–1.377)**	1.067	(0.821–1.386)
Four or more	**1.203**	**(1.053–1.374)**	0.906	(0.685–1.198)
Locality				
Village or rural area	**0.736**	**(0.658–0.823)**	1.042	(0.824–1.318)
Small or mid-sized town/city	0.940	(0.848–1.043)	0.980	(0.789–1.217)
Large town/city or metropolitan area	**1.419**	**(1.280–1.574)**	0.986	(0.795–1.222)
Country groupings				
Continental Europe[1]	**1.249**	**(1.113–1.403)**	1.207	(0.954–1.526)
Mediterranean Europe[2]	**0.735**	**(0.651–0.831)**	1.000	(0.773–1.294)
Northern Europe[3]	1.058	(0.932–1.202)	**0.748**	**(0.566–0.987)**
Central and Eastern Europe[4]	1.029	(0.928–1.141)	1.028	(0.829–1.276)

Notes: OR: odds ratio and 95% CI: confidence intervals at 95%. ORs and 95% CI in bold are significant.
[1]Continental Europe: Belgium, France, Luxembourg, the Netherlands, Austria, and Germany.
[2]Mediterranean Europe: Greece, Spain, Italy, Portugal, Cyprus, Malta, and Croatia.
[3]Northern Europe: Denmark, Finland, Sweden, the United Kingdom, and Ireland.
[4]Central and Eastern Europe: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia, and Slovakia.

Table 4.
Predictors of P2P platform use and provision in Europe.

than people with fewer years of education. As far as occupational status is concerned, the self-employed and business people, employees who are directors, employees who are qualified professionals, and employees who are nonmanual workers are the most likely to use collaborative platforms. In contrast, employees who are manual workers, stay-at-home parents/carers, the unemployed and, in particular, retirees are much less inclined toward collaborative consumption via platforms.

Finally, the predictors by geographical area also provide relevant information, firstly, because the impetus behind collaborative consumption comes from large towns/cities and metropolitan areas, whereas living in villages and rural areas would disincentive collaborative consumption via platforms. By country, we also observe a greater likelihood to use collaborative platforms in continental Europe—Belgium, France, Luxembourg, Netherlands, Austria, and Germany—whereas in Mediterranean Europe—Greece, Spain, Italy, Portugal, Cyprus, Malta, and Croatia—the situation is the inverse.

The analysis of predictive factors for the provision of goods and services via collaborative platforms (n = 496) in Europe (**Table 4**) reveals a picture that clearly differs from the use of such platforms. Of the motivational predictors of collaborative provision, the first element to highlight is that such provision has a clearly ideological component, in an antiestablishment or anticapitalism sense, because the possibility of doing nonmonetary exchanges becomes a driving factor. Moreover, nonmonetary exchange was the only provision-driving predictor to be identified, because the other economic and convenience factors were not significant. Regarding the impeding forces, the lack of a responsible person would not disincentive the collaborative provision of goods and services.

From the perspective of the sociodemographic predictors, the collaborative provision of goods and services in Europe would be motivated by a much narrower set of factors than the one identified for collaborative uses. Men, the young

population aged between 25 and 34 years, the self-employed or entrepreneurs, or manual workers would be the most likely to make collaborative provisions of goods and services. In contrast, nonmanual workers, retirees, or citizens of countries in northern Europe—Denmark, Finland, Sweden, the United Kingdom, and Ireland—would be the least likely to make collaborative provisions.

7. Discussion: new consumer behavior, new economic approaches

Through an analysis of a representative sample of 14,050 citizens aged 15 years and above in the 28 countries of the European Union in 2016, in this study I have characterized the profiles of users (1792) and providers (496) of collaborative platforms and have identified their motivational and sociodemographic predictors. The main strength of this study is that it provides us with results based on a representative sample of the entire European population; this adds value to the literature because samples that are not representative of the population, or that focus on specific collaborative platforms or consumption, have habitually been analyzed thus far [17, 27, 28]. Two main conclusions were drawn from this analysis.

Firstly, through an odds ratio (OR) analysis, the study obtained a set of forces (motivational and sociodemographic) that are capable of predicting the use and provision of collaborative platforms in Europe. Regarding users, the main driving forces identified were of an economic and practical nature (Hypothesis 2: convenience and price), and the impeding forces would also be situated on this line (Hypothesis 3: lack of fulfillment of service expectations and lack of trust in the Internet). Beyond these results, which are consistent with studies confirming the importance of motivations of practicality and utility in the explanation of the use of collaborative consumption platforms [8, 9, 26, 44], emphasis should be placed on the importance of predictors of a sociodemographic nature (Hypothesis 4). Younger people; men; people living in households with more members; people with more years of education; people within entrepreneurship, managerial responsibility, or highly qualified contexts; people living in large towns/cities or metropolitan areas; and people who are citizens of continental Europe are more likely to engage in collaborative consumption via digital platforms. Given that a number of studies have pointed out that lifestyle is more important than level of income [25], this finding is important because certain sociodemographic profiles were identified that, in population contexts (i.e., in representative samples of the entire population), would incentivize collaborative consumption and behavior.

And secondly, the results obtained for the predictors of the provision of goods and services via collaborative platforms in Europe are clearly different from those for the predictors of use. The first thing to note is that, unlike use—and as some studies have already highlighted [27, 40, 41]—provision has a clearly ideological motivational component (Hypothesis 1). The possibility of doing nonmonetary exchanges is the only predictive provision-driving factor. Among the impeding factors, the lack of a responsible person would not disincentive provision via collaborative platforms. As in the case of users, there is a set of sociodemographic predictors for providers, albeit fewer in number: men, the young population aged between 25 and 34 years, the self-employed or entrepreneurs, or manual workers would be the most likely to make provisions of goods and services. In contrast, nonmanual workers, retirees, or citizens of countries in northern Europe would be the least likely to make such provisions.

Particularly interesting is the identification of categories of specific occupational status that would incentivize or be more sensitive to use and provide P2P collaborative platforms. The self-employed or entrepreneurs would be the most likely to make provisions and uses of goods and services, and this is consistent with

the dual role that research in consumer theory has identified [48]. This result has important implications regarding the management strategy. It is true that management research has identified a group of strategic recommendations for firms that would like to understand and take advantage of the sharing economy [5, 49–51], but literature has not counted occupational status as a predictor. Based on our results, entrepreneurs and self-employed are more prone to value initiatives that are oriented as an alternative of the usual consumption models. Self-employment or entrepreneurship entails a mindset of aspects that firms may desire to attract or promote for some stakeholders. Broadening the set of motivations allows firms to better understand how their stakeholders are more likely or not to be participating in collaborative consumption. Profiles such as entrepreneurs and self-employed have a dynamism that firms may encourage, and understanding how these profiles are motivated is crucial to attack the right people or to develop marketing using the right strategies.

On the contrary, managers and qualified employees have more practical and monetary motivations, so that they are more sensible to sharing initiatives oriented toward the practical utility of sharing. In this context, knowing the practical and useful motivations of managers and qualified workers is also relevant to the firm strategy, especially for those who choose to develop collaborative platforms more oriented to economic optimization than to alternative exchange and behavior.

However, all this new evidence does not yet address the multidimensional set of factors that would explain the transformations of economic behavior related to the emergence of sharing exchange and P2P markets [34, 38, 52, 53]. In my empirical exercise, we have identified a number of additional sociodemographic motivations, but we still know very little about the effects of collaborative consumption and behavior. For example, what form does the collaborative consumption function take? Does it complement or replace the noncollaborative consumption function? What proportion of total consumption does collaborative consumption represent? How does this new form of consumption affect other aggregates of the economy? What is its multiplier? The search for answers to these questions will undoubtedly set the course of future research.

In the meantime, a connection between the conceptual frameworks of the sharing economy should be noted. The salient idea behind this connection is that, through new forms of collaborative consumption and behavior, exchange evolves toward a new interpretative paradigm, from initial digital formats into sharing formats. And for a more adequate interpretation of the sharing exchange theory, the economy will have to move forward and develop a formal apparatus that takes into consideration a set of relatively unusual principles, especially interpretative models that consider a combination of emotional and rational decision-making, individual interest-based as well as prosocial motivations, exchange compensation through a monetary or nonmonetary fee, and the set of sharing economies, that it may generate. In the same way, the business strategy should begin to combine the traditional financial approach to the benefits with the concept of profit, that better summarizes the collaborative behavior.

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The author does not declare any conflict of interest.

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