

OTDK-dolgozat

2025

EÖTVÖS LORÁND TUDOMÁNYEGYETEM

GAZDASÁGTUDOMÁNYI KAR

**NEMZETKÖZI HALLGATÓK FOGYASZTÓI MAGATARTÁSA A
HÁZTARTÁSI TERMÉKEKRE VONATKOZÓAN A MEGOSZTÓ
GAZDASÁGBAN**

**INTERNATIONAL STUDENTS' CONSUMER BEHAVIOR REGARDING
HOUSEHOLD GOODS IN THE SHARING ECONOMY**

Balogh Szabolcs Roland

Konzulens: Dr. Hlédik Erika

Kézirat lezárásának dátuma: 2024. 12. 18.

Table of contents

1. INTRODUCTION.....	1
2. BACKGROUND.....	3
2.1. INTERNATIONAL STUDENTS.....	3
2.1.1. Scope	3
2.1.2. Erasmus+ students' characteristics and behavior	3
2.2. SHARING ECONOMY	4
2.2.1. Description and comparison of different models.....	4
2.2.2. Consumer attitude and behaviour	6
2.3. CONSUMER BEHAVIOR IN SHARING ECONOMY SYSTEMS RELATED TO HOUSEHOLD GOODS.....	8
2.3.1. Identification and acquisition of data	9
2.4. CONTEXTS, METHODS USED, AND MAIN FINDINGS IN THE REVIEWED ARTICLES	9
2.5. INFLUENCING VARIABLES, VARIABLES OF INTEREST AND CONSEQUENCES	11
2.6. SUMMING UP THE LITERATURE REVIEW	12
3. DISCUSSION.....	13
3.1. METHODOLOGY	13
3.2. SAMPLE PROFILE	13
3.3. DRIVERS OF CONSUMPTION THROUGH PRODUCT SERVICE SYSTEMS.....	14
3.3.1. Functional drivers	14
3.3.2. Economic drivers.....	15
3.3.3. Social drivers	16
3.3.4. Ecological drivers	17
3.3.5. Emotional drivers.....	17
3.3.6. Epistemic drivers.....	18
3.3.7. Conditional drivers.....	19
3.4. BARRIERS TO CONSUMPTION THROUGH PRODUCT SERVICE SYSTEMS.....	20
3.4.1. Usage-related barriers	21
3.4.2. Quality-related barriers.....	21
3.4.3. Value-related barriers	22
3.4.4. Perceived risks	23
3.4.5. Tradition and image-related barriers.....	24
3.4.6. Person-object dissonance-related barriers.....	24
3.5. PRODUCT CATEGORY AND RESPECTIVE DRIVERS, BARRIERS.....	26

3.6.	NEEDS AND DESIRES BASED ON ACCOMMODATION TYPE.....	27
3.6.1.	<i>Choice of accommodation.....</i>	27
3.6.2.	<i>Accommodation types and their effects on needed and desired items.....</i>	28
4.	CONCLUSION	29
4.1.	THEORETICAL CONTRIBUTIONS	29
4.2.	MANAGERIAL CONTRIBUTIONS.....	30
4.3.	NOVELTY OF THE RESEARCH	31
4.4.	LIMITATIONS AND AMBIGUITIES	31
4.5.	OPEN QUESTIONS, FURTHER RESEARCH OPPORTUNITIES	32
	REFERENCES.....	33
	APPENDIX 1: TOPIC SEARCH KEYWORDS	37
	APPENDIX 2: EXCLUDED MESO TOPICS	38

1. Introduction

Thousands of students in higher education participate in international long-term student mobility programs, for example in the framework of Erasmus+ each year. Moving abroad to dormitories and apartments can pose challenges for these students related to acquiring the necessary or desirable household goods for their stay. This could possibly result in **excess waste generated** by the purchase of long-life household goods (like kitchen appliances, bedsheets, etc.) that mobility students finally dispose of at the end of their programs. On top of environmental harm, it can also cause **financial hardship** for the students.

This study seeks to collect the pain points international exchange students experience during their stay in Budapest related to acquiring and ownership of household goods and evaluate their attitudes regarding the possible alternative ways of consumption (mainly sharing economy models) with the tools of semi-structured **in-depth interviews**. The term „household goods” here is a broad term that encompasses long-life consumer goods that are normally part of a household, such as kitchen appliances like plates, pans, pots, cutlery, toasters, blenders, coffee machines or vacuum cleaners, doormats, hairdryers, irons, etc.

To identify the most relevant questions to be reflected on during the interview, thorough literature review is required to assess the empirical findings on:

- a) International students’ characteristics and consumer behavior regarding other products
- b) consumer attitude and behavior related to sharing economy models

Findings related to these topics are narrowed down to those that are relevant to the consumption of household goods. Consumer attitudes and behaviors are compared within different sharing consumption models to highlight differences in customer experience and value perception.

The insight gained through the in-depth interviews with the international exchange students can be used to develop potential product portfolios for a business planning to enter or already operating in the field of household goods distribution. The results of this study do not contain a financial plan or proof for financial viability, pricing policy, market research, only a concept test for renting out household goods.

There are also product design and marketing-related questions that fall out of the scope of this study and have high relevance to the topic. Such questions include the possible effect of

gender-based segmentation and its relation with the person-object fit and emotional drivers in the case of household goods, the social appeal of ecological consumption among communities of university students, or the difference between buying behavior of international students completing a full course or just a part of their courses. Quantitative research of markets to find the most profitable geographical regions or communication channels would also give a high value to a business in the sector.

2. Background

The topics that build up the research question are broader than what this study could entirely introduce. In order to provide a scope for the research, a narrower definition is necessary for each element.

2.1. International students

2.1.1. Scope

The scope of the interviews is limited to international students of higher education institutes that participate in international student mobility programs. Since the literature on international students is vast, this study focuses on academic findings related to students participating in the Student Mobility Program of Erasmus+. Within its framework, students spend 2-12 months in a foreign country (*Studying Abroad - Erasmus+*, n.d.).

2.1.2. Erasmus+ students' characteristics and behavior

Erasmus+ students' desire for professional and personal growth, fun, and vacation-specific motives have a strong influence on their choice of whether to participate while their destination choice is highly dependent on rich natural attractions and sights, safety/security, and authenticity (Lesjak et al., 2015).

Gender has a significant effect in determining motivation to participate in student mobility programs (Lesjak et al., 2015). Empirical evidence also supports this result as there are significantly more female participants in Erasmus+ student mobility programs (Benedictis & Leoni, 2020). In 2022, 62,5% of mobile students learned at Bachelor's level and 33,8% at the Master's, so we assume that the majority of students are between ages 18-25, for whom, lifestyle-related motivations are more determinant (Lesjak et al., 2015, European Commission, 2023).

Age is not a significant explanatory variable determining attitude toward environmental sustainability according to Wiernik et al. (2013). McCright & Xiao (2014) suggests that females tend to be more environmentally conscious than males and further research shows that Erasmus+ students' behavior when choosing means of transport is also mainly determined by economic and cognitive landscape factors (Nagaj & Žuromskaitė, 2023).

2.2. Sharing economy

Different business models in the scope of the sharing economy provide different ways of use, benefits, and values to the consumers. This section gives a description of some of the relevant business models related to shared consumption along with the consumer value they each provide and the determinants of adoption by consumers based on existing literature.

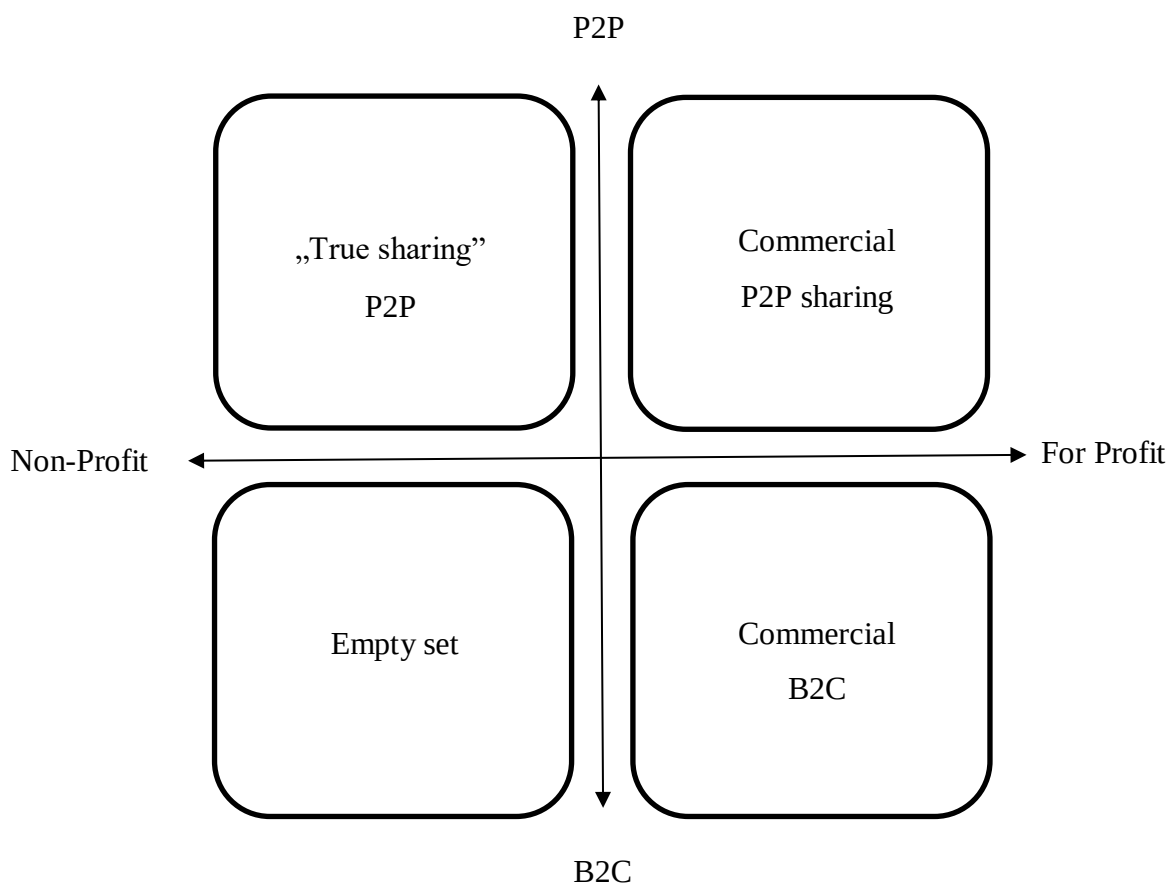
2.2.1. Description and comparison of different models

Khalek & Chakraborty (2023) conclude that sharing economy is a dynamically changing and growing paradigm of alternative consumption. Codagnone & Martens (2016) also emphasize that sharing economy contains many innovative economic and social activities that are hard to classify. Many of the definitions of the sharing economy in academic literature state that it has to contain online peer-to-peer (P2P) elements (Mi & Coffman, 2019). Some even argue that platforms like YouTube or Facebook belong to the concept of sharing economy in a broad sense (Belk, 2014). This study is going to rely on the definition of Botsman (2013): „An economic model based on sharing underutilized assets from spaces to skills to stuff for monetary or non-monetary benefits”. The further subcategories that are relevant in our case:

- a) Product service system (PSS): “an integrated combination of products and services that emphasizes the **“sale of use”** rather than the “sale of products”” (Akbar & Hoffmann, 2018, Baines et al., 2007). Nonprofit organizations operating in collaborative consumption are not PSSs (e.g. Freecycle) but forms of „true sharing” (Codagnone & Martens, 2016). PSSs can be B2C models as well as P2P platform-based models (See commercial P2P sharing and Commercial B2C in Figure 1).
- b) Collaborative Consumption (CC): “takes place in organized systems or networks, in which participants conduct sharing activities in the form of renting, lending, trading, bartering, and swapping of goods, services, transportation solutions, space, or money” (Benoit et al., 2017). One key element of CC is its **(P2P)** nature regarding the transactions of goods and compensation. If a business is operating a CC network or system, it is a necessary third party to the transaction (e.g. Uber, Airbnb), but non-profit organizations are possible in this area. „True sharing” refers to a way of engaging in sharing economy to reduce consumption without receiving monetary benefits for the services, like Freecycle or any group of people who willingly share their possessions with each other. (e.g. Pumpipumpe, Freecycle) (See „True sharing” and „Commercial P2P sharing on Figure 1).

- c) Recirculation: contrary to sharing economy models, recirculation of goods can happen with the transfer of ownership (e.g. thrift shops).

Separation of models within sharing economy has relevance concerning this topic because there are **differences in consumer behaviour** when renting a product from a business and from a network of peer providers (Belk, 2010). According to Codagnone & Martens (2016), sharing economy models can be roughly categorized into three categories based on whether their aim is to make profits and whether they engage in B2C or P2P models. This matrix only extends to models in which ownership is not transferred; thrift shops for example are not categorized (See Figure 1.)



1. Figure: Categorization of sharing economy models
Source: Codagnone & Martens, (2016., p.12.)

2.2.2. Consumer attitude and behaviour

Research on sharing economy identified many drivers and barriers to participation in sharing economy systems. The below tables contain a categorization of these factors generally present in sharing economy systems, based on the extensive systematic literature review of Khalek & Chakraborty (2023).

Table 1.: Drivers for participation in sharing economy models.

Source: own table based on findings of Khalek & Chakraborty (2023).

Driver types	Sharing tendency is higher...
Functional	...the higher the perceived usefulness, compatibility, relative advantage, ease of use, flexibility and convenience.
Economic	...the higher the perceived economic, utilitarian and price value.
Social	...the higher the social appeal of community belongingness and, altruism, shared goals and social commitment.
Ecological	...the higher the product's perceived contribution to the preservation of ecological sustainability and consumers' environmental consciousness.
Emotional	...the higher the enjoyment, fun, excitement derived from sharing consumption, product assortment, experience authenticity and trialability.
Epistemic	...the higher the authenticity of local experience stemming from the product, quality of information shared and knowledge gained through word of mouth.
Conditional	...the more favourable the context, personal situation, environmental circumstances.

Table 2.: Barriers from sharing

Source: own table based on findings of Khalek & Chakraborty (2023)

Barrier types	Sharing tendency is lower...
Usage	...the higher the perceived complexity of using the sharing platforms and the lower the knowledge on how the product works.
Quality	...the higher the uncertainty about the product quality and risks associated with product quality.
Value	...the higher the (possible) costs of sharing.
Risks	...the lower the trust is between sharing parties, the higher the safety concerns, uncertainty of liabilities of damages, perceived financial risk, scarcity risk and contamination risk.
Tradition and image	...the more materialistic the consumer and their environment is.
Person-object	...the lower the product-self association.

Complementing the above Table 1 and Table 2, academic findings conclude that engaging in CC differs from B2C PSS use regarding consumer perceptions and behavior, possibly due to the higher risks associated with CC systems (Huynh & Gurtner, 2023). Within the scope of CC systems, consumer attitudes, and behavior are different for sharing-in and sharing-out activities (Belk, 2010). Experiences shared with people with whom we have strong connections (sharing-in) can have an amplified effect compared to living through the experiences alone (Boothby et al., 2014). The attitude towards sharing consumption is not only determined by the closeness of people but also the consumers' attitude towards the product itself. For products that consumers have a high self-brand connection with, the sharing-out activity attenuates the perceived efficacy of the product, but this does not hold for sharing products that consumers have a low self-brand connection with (Lteif et al., 2023). This implies that offering products in a PSS that are not specially designed to build strong self-brand connections can improve the perceived functional utility of sharing, ultimately having a positive effect on the propensity to adopt, since normally sharing-out is the case in PSSs.

However, other literature suggests that consumers are more likely to choose a PSS if engaging in the sharing activity satisfies some of their needs for socializing and their desire for unique products (Akbar & Hoffmann, 2018). The results seem contradictory to the theory of perceived efficacy detriment when sharing-out, but the products on which the hypotheses were tested in the given experiments differ significantly. In the article of Lteif et al. (2023), the research question is tested by hand sanitizer use by consumers at the gym, while Akbar & Hoffmann (2018) studied attitudes and behavior related to bike-sharing services. These studies highlight the importance of differences between product categories and the situation in which they engage in sharing practices.

Furthermore, consumers' perception of the uniqueness of products mitigates the inhibiting effect of materialism on the adoption of PSSs (Akbar et al., 2016). That is, if a product or service is only accessible via sharing (and not by possession), materialistic consumers become more likely to engage in the PSS.

Given the price sensitivity of Erasmus+ students implied by Nagaj & Žuromskaitė (2023) we can assume that low-cost-seeking behavior also describes their relation towards household goods. A study conducted on women between the ages of 20-65 in the US indicated that the price-conscious segment of kitchen appliance consumers tends not to be interested in new products and they lack enthusiasm towards kitchen and cooking (Hur et al., 2010). Although the studied group, in this case, differs from international exchange students in many ways, the research does outline a significant group with a characteristic consumer behavior that could possibly apply to international exchange students too.

Based on the literature review, taking into consideration the possible drivers and barriers towards sharing consumption of household goods among international exchange students, we have to explore in depth their attitudes towards different products.

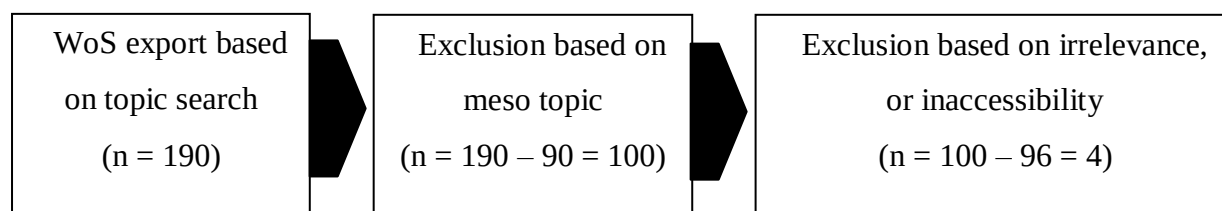
2.3. Consumer behavior in sharing economy systems related to household goods

Many literature reviews have been published about the SE, each grasping multiple aspects of the domain or providing a general comprehension. (Merino-Saum et al., 2023). As opposed to the already existing recent studies that synthesise literature based on rigorous frameworks, this section is dedicated to drilling down to a less frequently researched subfield of sharing economy.

2.3.1. Identification and acquisition of data

To gain insight about this particular subtopic in the domain of sharing economy, an iterative approach was used to assemble the advanced search query in the WoS database. Results from 2014.01.01 to 2024.10.01 were exported based on a topic search for the keywords separated by OR, AND and NOT separators (see the list of keywords and their relation in Annex 1). From the 190 results provided by WoS, 90 were excluded based on the meso topic assigned to them (see the list of excluded meso topics in Annex 2). From the 100 remaining results 91 further were excluded due to irrelevance, 3 because they were also reviews and 2 that could not be accessed. In the end, 4 remaining results were left, implying that this subfield is indeed yet to be researched thoroughly. The process is summarized in Figure 2.

Figure 1.: data acquisition flowchart



2.4. Contexts, methods used, and main findings in the reviewed articles

In the first article to put consumer behavior regarding household goods to a focus in the domain of SE, Oyedele & Simpson (2018) analyze the behavior of consumers in their „Emerging Adulthood” (EA) life-stage (Arnett, 2000). They claim that household goods are widely known to be used by consumers in their EA. The article examines relations between EA, product-service attribute perceptions, familiarity, trust, the presence of shareaids (online apps that facilitate and promote transaction utility, often through social media and, and how they contribute to intention be a taker in SE (Oyedele & Simpson, 2018). The study made 12 hypotheses based on previous articles about intention to participate in sharing consumption that had not included household items and weren’t focused on EA (Belk, 2010, Bardhi & Eckhardt, 2012, Lamberton & Rose, 2012). Through a survey of 345 undergraduate US students, Oyedele & Simpson, (2018) showed that contrarily to the posed hypotheses, perceived transaction utility does not directly influence the effects of perceived social utility are not significant in the household goods-sharing context.

Ribera Jemio et al., (2024) use different constructs and their variable of interest, instead of being merely the intention to take part in SE (as a taker of product-services), is the behavior of taking part in SE. The theoretical background is largely influenced by the theory of planned

behavior (TPB) (Ajzen, 1991), Norm Activation Theory (NAM) (Schwartz, 1977) and Value-Belief Norm Theory (VBNT) (Stern et al., 1999). As opposed to Oyedele & Simpson (2018), who put household goods into the sole item category to be studied, they investigate behavior related to specific items, used in the every day life (like bicycle pumps, drills, printers, etc.). A further difference is that they use the term SE in this study to describe P2P exchanges, regardless of whether it is done formally or informally or if there is a monetary compensation included. The article also examines the direct and indirect environmental effects of sharing consumption through the economic terms of re-spending environmental effect (REE) and environmental rebound effect (ERE), pointing out that contrarily to the common belief that SE unambiguously helps reduce the natural resources used up to provide consumption goods through the linear consumption model, the engagement of consumers in SE can result in a greater negative environmental effects, since the income consumers save by engaging in SE instead of ownership can be re-spent to other units of consumption (Ribera Jemio et al., 2024). The study investigating consumer behavior is conducted by surveying 654 students in the EPFL (Ecole Polytechnique Fédérale de Lausanne), Switzerland.

(Komonen, 2024) provides a different analysis by introducing the methods of corporate foresight to forecast potential emerging trends in the market, providing insights through the perspective of a last-mile logistics intermediary firm examining the opportunity to intermediate exchanges in SE related to household goods. Instead of proving relations about factors in consumer behavior influencing participation in SE, he uses a representative sample of Helsinki residents to link their demographics and zip code to their stated interest in SE. His findings are comparable to the findings of Oyedele & Simpson (2018), except the survey data implies that living with a partner and children can positively influence interest in such services, albeit living with a partner and children is arguably a part of the EA life-stage. The survey respondents expressed their interest towards narrower item categories and specific products (like home electronics or refrigerators)

Kunamaneni et al. (2019) provide a further perspective, examining consumer attitudes towards reusable containers for repeat purchase, low involvement (REPLIN) products. One could argue that REPLIN products should be regarded as examples of FMCG and not durable or household goods, but this topology could be argued against by emphasizing that the study examines refillable containers of such goods, which can be regarded as household goods (food containers for example). Furthermore, in some business models, for example that of Loop, a global platform for reuse, with operations in the US, Japan and France, these containers are

regularly exchanged between users, meaning that users return the reusable packaging after which these containers are cleaned and filled again (*Purpose*, n.d.). Because of this, this TDK study regards this as a borderline example of SE in household goods.

Kunamaneni et al. (2019) qualitatively explore dominant patterns in buyer decision-making regarding REPLIN products with the means of focus group discussions in the UK, with consumers self-identifying as either fairly or highly eco-aware or innovative. The main findings suggest that in this item category, consumers tend to opt for a satisfactory choice, minimizing cognitive effort, rather than making an optimal choice, therefore it can be advantageous to use familiar designs for eco-friendly products. Furthermore, the authors conclude that „an aesthetic design may invoke positive consumer response compared to an innovation that only offers functional improvements or new benefits. Aesthetic strategies lend permanence to objects, encouraging consumers to display them on their home countertops and reusing them, thus framing an antithesis to wasteful consumption.” (Kunamaneni et al., 2019).

2.5. Influencing variables, variables of interest and consequences

The studies conducted in the domain of consumer perception and behavior related SE in terms of household goods contain exploratory, descriptive and explanatory studies as well, but the connection between these studies is not extensive. Apart from the study of Kunamaneni et al. (2019), it is generally true that the articles investigate reasons for participating in SE or intending to participate in SE as a taker are focused on the traits and purchase situation of the consumers rather than trying to explain the effect of the product features and exchange circumstances (Komonen, 2024, Ribera Jemio et al., 2024, Oyedele & Simpson, 2018). The product features, even the items themselves can be considered more like a context in these studies than a variable influencing customer perception and behavior.

The studies are also alike in the way that they focus on the younger consumer segments (students), explaining why they in general are more prone to choose alternative consumption models – sometimes explicitly emphasizing their stricter budget constraints and financial dependencies (Oyedele & Simpson, 2018).

Interest variables in the studies include intention or interest in participation in SE as a taker, or choosing between consumption opportunities posed to the consumer. In the study of Kunamaneni et al. (2019) consumers expressed their choice, in the category of REPLIN products between buying a traditional product with a packaging to be disposed (recycled) or alternative products that can be refilled to enable reusing instead of recycling. In the article of

Ribera Jemio et al. (2024) consumer had the choice between consumption through SE, non-consumption or consumption through a linear business model. Furthermore, these articles provided an estimated impact on the environment of consumer choices measured in carbon footprint, calculated through by Life Cycle Assessment (LCA).

The only outcomes analyzed by the reviewed papers are those of the potential environmental effects of consumer behavior in term of carbon footprint. Typical questions of after-purchase consumer behavior like consumer satisfaction or loyalty were not thoroughly discussed.

2.6. Summing up the literature review

With the small number of articles in the narrow subtopic, in such a vast domain, further exploratory research is justified.

Literature on sharing economy in general heavily asserts that the most influential drivers are functional and economic benefits and the most influential barriers are various perceived risks related to the products/service (stronger or more significant barriers from the perspective of product/service design can be considered to be at the same time motivators; e.g. usage barriers – functional drivers). Apart from these seemingly undebatable effects, however, there are business-related questions that cannot be addressed based on existing literature in the case of household goods:

- What are the household goods that mobility students need or want during their stay?
- What can determine their product choice?
- What is their customer journey like?
- What are examples of drivers and barriers towards sharing consumption of given product category?
- What uncertainties arise among users? Are there specific risks associated with specific product types (e.g. contamination risk for kitchen appliances)?

Upon answering these questions based on the in-depth interviews, we gain insight into how Erasmus+ mobility students value different aspects of household goods and what are the key moments in their customer decision.

3. Discussion

3.1. Methodology

The qualitative nature of the study stems from its exploratory aim. In the case of household goods in general, some respondents may hesitate to share sensitive information about product preferences (e.g. concerning their hygiene attitudes), thus we turned to the tool of semi-structured in-depth interviews. The interview guide is designed to acquire consumer-focused answers to the questions outlined in the academic review (see the guide in Appendix 1.).

The interview transcripts were subjected to qualitative content analysis. The outcome of the analysis does not show representative results, it only aims to collect the drivers and barriers of the mobility students towards the purchase of household goods through sharing and highlighting the drivers and barriers among international exchange students (see the interview transcripts in Appendix 2.).

The content analysis results are presented by drivers and barriers to consumption through PSSs in relation to the consumption models (in chapters 3.3. and 3.4.) and in relation to product category and type of accommodation sample members had (in chapter 3.5. and 3.6.). The drivers and barriers are classified by the framework outlined in the academic review, summarized in Table 1.

3.2. Sample profile

The sample consisted of 10 respondents, chosen at the convenience of the interviewer, who were studying in Budapest as exchange students at the time of recording the interviews, living in dormitories or apartments from various nationalities and fields of study (see Table 3).

Table 3.: Introducing the respondents: gender, nationality, field of study and type of accommodation

Interviewee number	Gender	Nationality	Field of study	Type of accommodation
1.	Female	French	Literature	Apartment
2.	Female	French	Literature	Student Apartment
3.	Female	German	Geography	Apartment
4.	Female	Greek	Political science	Apartment
5.	Female	Pakistani	MBA	Dormitory

6.	Female	Dutch	Pre-school teacher	Apartment
7.	Female	Italian	Political science	Student apartment
8.	Male	Czech	Philosophy	Apartment
9.	Male	Maldivian	Finance & accounting	Dormitory
10.	Male	Japanese	History	Dormitory

3.3. Drivers of consumption through product service systems

Factors that motivated sample members to consume through a PSS are presented by their nature in the following subchapters and summarized in Table 4. These drivers normally appear in comparison to other ways of acquiring and using household items.

3.3.1. Functional drivers

The perceived functional advantages of shared consumption proved to have a strong impact on the students' overall attitude toward consumption through PSSs.

The perceived surplus utilities of PSSs over ownership of items over a limited time among the students was often related to the **complications of traveling** with too much luggage and a **feeling of wastefulness**. They emphasized that they had limited capacity in which they had to fit whatever they thought they needed to bring with them, partly due to air travel:

“Actually I came in Emirates Flight and they allow only 25 KG luggage bag and one hand carry, so hand carry can maximum contain 7 KG. So I did, you know, bring one plate, one spoon, one glass, one cup. But they weren’t enough.”

and that air travel can also pose problems in bringing one’s personal belongings back to their home country:

„I'm done with my studies and I'm going to go back to my country, the beautiful Maldives. Now, when I'm going back, especially from the place of Europe, people back home would be like, Where the hell is my present? You come back stud, finishing your studies in Europe. At least have the courtesy to bring me something. So hence my point here is, my bags would be packed, packed to the ground. And if that is what will happen, why would I try to put my pots and pans inside that?”

Besides air travel, a further disadvantage of purchasing the desired items is that many students look for household items they already have at home and do not need an extra piece (e.g. air fryer). To get rid of their belongings they cannot carry home, all interviewees expressed that they would be willing to and are planning to give away their items when they leave Budapest, even without receiving compensation for them. They felt the items would otherwise be wasted. When asked to elaborate on what they meant by waste, students mentioned ecological and social perspectives (such as environmental damage of disposal of goods and helping those in need by giving them access to second-hand items for free) as well as a **general feeling** that was rather **concerning the items** themselves, that they are “*too good to waste*”. This feeling of the items themselves being wasted, however, seemed to be diminished also by second-hand consumption. In this case, they feel better about using an item that otherwise would not be used anymore:

„... [I would buy second hand] also because of the waste. I don't know. Maybe if I bought something and then left it in the house also the next person might end up not using it so it's a thing that I bought to use once or twice, and just then it ended up in the trash or just in a cupboard somewhere, not using it.”

„... Yeah, if I would stay for a long time... or also for a shorter time. If they are in a good condition, why not. (...) if I can find something, like, on the second hand that it's good, why not if someone didn't need it anymore?”

A further aspect some students considered is that their accommodation does not have **enough space** for many or large consumer goods, so they would be happy to engage in PSSs to avoid storing the items in their homes.

The functional benefits of using household items through a PSS, regardless of whether it is a P2P network or a B2C rental office, **made students enthusiastic** about purchasing the right of use rather than ownership. These benefits were the convenience of not having to transport items, the ease of disposal without wasting the items upon leave, the space they can save by not having to store their items, and the ease of acquiring items in a B2C setting (further facilitated by online catalogs and door-to-door shipping) as opposed to a P2P setting.

3.3.2. Economic drivers

Interviewees had diverse preferences and presumptions about the possible economic benefits of sharing consumption in a commercial environment. One main pattern related to perceived economic benefits was the idea of paying less for the use of an item they would

otherwise purchase. In a sense, they thought about renting as a more convenient **alternative to second-hand shopping** and reselling, since that way, they would not have to find a new buyer when they no longer need their items, but could enjoy the **price benefits** compared to buying new items:

„I mean I would have to find a person to, you know, just hand over to him [or] her. Like you can use it. And now you can keep them so. But if I rent them I can, you know, any organization or like website page who is renting me, I can return them and they can use them again to rent someone else.”

Even for those who regularly take part in second-hand exchange of goods, the time and effort needed to pass on their items appeared to prevent them from doing so in certain circumstances.

„At home, I have sold some books online, but usually I just get fed up with the whole process of listing and then talking to people and them not reacting to my messages. I end up just bringing it to the second-hand store, just donating it.”

A second approach of the interviewees to consumption through PSSs revealed that it could also encourage temporary use of amenities they would otherwise not purchase because of their high price and seldom use cases. Examples include high-end electronic devices, board games, and sports equipment like yoga mats or weights.

To questions concerning their **willingness to pay**, interviewees gave different answers, which were in line with their other personal drivers and barriers. For example, an interviewee who worried she would accidentally break the items she borrowed. She stated she *„likes the comfort of having the things”* and that she would only take part in such consumption if it costs less than owning the items. However, for another person whose main motivation to consume through a PSS would be decreasing their ecological footprint, it would be acceptable to pay the same amount as they would if they owned the items.

The students in the sample compared the economic advantages of renting items through a PSS to purchasing them second-hand, which had a positive impact on their judgment. They stated it fits their needs well and were actively looking for second-hand shops.

3.3.3. Social drivers

Social factors have not come to the surface during the interviews as clearly as economic and functional factors.

The way social factors did appear was linked to the disposal of goods at the end of the semester, rather than consumption in the first place. Thoughts about donating to charity or other students appeared, but this is arguably proof of willingness to participate in shared consumption, since in this context, the interviewees were talking about items that they were

never going to use or see again. The preferences differed in whether they would rather donate to those in poverty, someone they know, a business, or a student community if they had to choose between them, but the interviewees stated they would undoubtedly donate the goods they wish not to carry with themselves (if they knew how to do it).

Social drivers did not play a crucial role in consumption through a PSS in the sample. However, it did contribute to the willingness to donate to any organization economizing on the recirculation of used consumer goods.

3.3.4. Ecological drivers

For some environmentally conscious students, the ecological footprint they produce through consumption is a strong criterion that emotionally affects them when purchasing goods or services. They often visit second-hand shops and when asked about how they felt about renting, they explained the same feeling of saving on ecological costs of consumption.

„I go there [Noppes] a lot because I'm I feel very awkward about buying new stuff when there's also fine stuff at the second-hand stores, but I don't know if a lot of other students do that as well. (...) I'm very... I think about like my impact on the environment and stuff a lot. So I came here by train instead of by plane. I tried to buy like second-hand clothes that still look good”

„I have studied a lot of things about climate change. I've seen many interviews about it and they say that when we there is a term called fast fashion and when we use clothes and then we discard it, dispose it and we want to buy new clothes, then there is a, you know, big issue to like how to manage all those clothes people have discarded. So I think it's also good for our planet, if we, you know, compromise things a little bit.”

This feeling of ecological benefits for these students was directly associated with second-hand shopping. It is not clear whether there is such a direct association between renting or borrowing and the same ecological benefits, but it appeared in comparison to other ways of consumption.

3.3.5. Emotional drivers

It was rarely mentioned by the students that they enjoyed or would enjoy the process of P2P renting or P2P second-hand shopping. In a unique case, the interviewee stated it would be fun to meet the other person, but also stated that she would require multiple photos of the

product and would also ask why the other person is renting it to disperse risks associated with purchasing something from a stranger.

When speaking of B2C purchases, interviewees distinguished between getting the necessary items and shopping without a predetermined goal, the latter characterized by variety-seeking behavior. When acquiring the essential items, they tended to go to IKEA and other multinational companies, since these were the only places they knew they would find what they needed.

„Well, for me personally it was just because I had just arrived here and we have IKEA at home. So I was like, I can just go on the Dutch IKEA website to figure out the stuff that I need and then look for it in the store.” [- in this context, „figuring out the stuff that I need” refers to finding the exact goods, but she already knew she was looking for a pillow]

Some added that they felt glad when they came across items they needed to acquire but did not expect them to be available at a particular store:

„I don't know where, but I was [looking for] perfume. And some stuff like cosmetics stuff, or my hair, or anything. And finally, I saw that there was a downstairs. And downstairs, there was some stuff for school. Yeah, with books and pen and everything. It was very nice because I had to buy too of that. So it was very happy that it was on the same shop. And after I saw that there was, also stuff for the room, like a [mat]. So yeah, I was very satisfied that there was everything inside.”

Based on the interviews, we can assume that most household goods are usually not the kind of items that international students particularly enjoy shopping and they try to spend **as little time and money on these as possible**. This assumption carries within itself the weak presence of person-object dissonances, that results in a more utilitarian approach to making purchase decisions. A counterexample for this finding would be that many of the interviewees enjoy going to thrift shops to buy second-hand clothes. Still, clothes usually allow for more room in person-object fit or dissonance.

3.3.6. Epistemic drivers

The interviews conducted on this particular sample give insight into epistemic drivers relating to two different dimensions in which we can analyze their effects.

The first relates to **student lifestyle**: the common idea of being a university student among the interviewees contains elements of being resourceful (due to financial constraints), and withstanding the lack of amenities normally expected in someone's home. This is in line with their stated behavior, according to which they actively share items with their flatmates and

friends, but when it comes to purchasing a good or service, it appears to lead to non-consumption, even if they can afford the items in question:

„I think it's this student life mindset of if I can do it without it, maybe I don't really need it. I don't know. It's (...) not that I have to spend too much money on something in order to but still thinking, maybe I can use that money somewhere else.”

„I'm trying to be minimalistic. Simple. I guess so. because a fork is like only (...), let's say, 500 forints. - And with that 500, for example, I could just keep it in my account. But then the other thing is, I'm traveling and I plan to travel this break as well with my friend. So, I mean, I'm not buying a fork, another fork, (because) to save money, but I have money.”

The second type of epistemic drivers in the context of the interviews is about how the interviewees **perceive Budapest and Hungary**. Although they had common ideas, all the examples of local peculiarities mentioned by the interviewees related to consumables such as paprika powder, chimney cake, or pálinka, which can not be consumed through a PSS.

Thus, epistemic drivers, in this case, seem to have a negative effect on using PSSs: the „student lifestyle” dimension can decrease the likelihood of engaging in sharing economy practices because it decreases the likelihood of consumption in the first place, while Budapest does not seem to be associated with any items of epistemic value according to the sample.

3.3.7. Conditional drivers

Students from non-European cultures needed items rarely found in regular stores in Budapest, such as mortars and pestles, pressure cookers, characteristic pieces of clothing of Eastern cultures, and also somewhat costly items, such as electric heaters since they expected central heating to be warmer. These were strong drivers towards consumption, not only the use of PSSs. The interviewees mentioned their needs towards specific, cultural, or environment-related items in the context of unforeseen events they could not prepare for. Some of these environmental effects (for example the cold) are temporary. Along with economic drivers, the temporary need for an item was a motivating factor for students to use PSSs.

Table 4.: Drivers of use of PSSs as opposed to other means of consumption.

		PSS		Driver types
		P2P	B2C	
PSS	P2P		Less effort is needed to disperse risks, available customer service, more transparency	Emotional
	B2C	Opportunity to meet new people		Emotional
Buying new		Cheaper, less waste, eco-friendly, easy to return, takes up less space		Functional, Economic, Emotional
Buying second-hand	P2P	Easy to return, takes up less space	Easy to return, available customer service, takes up less space	Functional, Emotional
	B2C	Easy to return, takes up less space		Functional
Bringing from home		Less luggage, no extra fees		Functional, Economic
Non-consumption		Access to items that would otherwise be too expensive		Economic, Conditional

Source: own edit based on own findings.

Explanation: the table shows the drivers of consumption through PSSs compared to other means. The rows' first and second cells indicate the basis for comparison (alternative ways of acquiring and using household goods) to P2P and B2C PSSs (in column headings). The last cell of each row shows the types of drivers appearing in that comparison.

Example: Consumption through P2P and B2C PSSs is preferable over B2C second-hand shopping because items students can save space in their accommodation and can easily return the products. These are functional drivers.

3.4. Barriers to consumption through product service systems

The following subchapters describe the barriers to consumption through PSS appearing in the sample. Since sample members had no prior experience with PSSs providing household items, the barriers are directly related to certain elements of the consumption model. For example, students experienced language-related difficulties with second-hand P2P platforms, so we assume this would be similar in the case of a P2P PSS platform. The barriers, perceived risks, and factors that can mitigate their negative effects according to the interviewees are summarized in Table 5.

3.4.1. Usage-related barriers

When presented with the idea of acquiring household items for a semester through renting, students' first associations related to P2P second-hand or accommodation-providing networks. This implied that usage-related barriers regarding the use of digital P2P platforms were not generally present in the sample regarding these systems: students were familiar with how they work, usually adding their own opinions about the perceived drawbacks and benefits of these systems. In general, the interviewees had no concerns about the usage difficulties of the household items themselves, except for a unique example, a gas stove, when a certain student had no available instructions on how to use it.

The usage-related barriers that surfaced in the interviews were examples of **language barriers** and a lack of knowledge about local businesses or **access** to those (for example Cseriti and Vinted):

„... when I was in France, I was watching for Hungary, I think. And I think it's just that I can't buy something from Hungary when I am in France but when I am in Hungary. Finally, it's possible. But I didn't think of that.” [she was looking for items available in Hungary on Vinted before traveling, but could not find any. Thus, she thought Vinted was not available in Hungary.]

*“I mean here I don't use Vinted because you can **only use it with a Hungarian phone number** and currently I like I forgot to do it when I had one but I used it in Germany”*

Interviewees expressed that upon arrival, their most trusted source for getting information about which shops, goods, or restaurants fit their needs the best is through the WOM of fellow students and official recommendations by the receiving university. These recommendations seem to be effective in overcoming barriers related to the lack of knowledge and access.

Usage barriers appearing repeatedly were the barriers of not knowing the options to access goods or services, and without a sufficient level of Hungarian knowledge, being unable to look up these opportunities and engage in P2P networks. Recommendations from trusted sources (other students, university officials) were effective in generating trust in businesses according to the interviewees.

3.4.2. Quality-related barriers

Quality-related barriers proved to be a major source of distrust when engaging in consumption through PSSs. They explained they would be wary of the items available for

renting being of low quality, which they usually associated with a shorter product life. This effect was not different in cases of renting or second-hand shopping (except for the perceived risk of the item breaking while renting them). However, it appeared they would put more trust in household goods directly rented out from a business, than a P2P network.

„... because they are business, probably they have good stuff. I think that you're a business you won't ruin your reputation, giving people stuff that is not good.”

„... because you have some kind of, at least an illusion of quality control.”

Interviewees seldom mentioned worries about the consequences of a defective product (e.g. a hairdryer causing damage to them).

Some students considered the brand/origins of household goods as an important metric of their quality, while others stated that they do not care about brands at all, or they do not even know any brands in a specific product category. In a unique case, a Japanese student found it a challenge to judge product quality in Hungary, since he did not know the Hungarian or European brands that were producing household goods.

„Renting the screen for your PC or if it would be some sound system, you rent some Sony or JBL, then just some Chinese off-brand, you know?”

„... if I found a copy of a brand that is quite similar to it and you know it's in a good condition, but it doesn't have the label of, I mean expensive brand, then it doesn't matter for me.”

Quality-related barriers in purchasing habits were strongly present in the interviews, but the effects that could boost confidence in a certain product's or service's quality varied, including branding, trialability, recommendations from trusted sources, transparency of quality control within a firm, having images and rating of the product and the previous user or owner.

3.4.3. Value-related barriers

The presumption of renting items being costly appeared in some interviews (regardless of whether it is the case of B2C or P2P) but it never appeared for second-hand items. However, there was a strong pattern of students perceiving renting as a cost-efficient solution to getting through a semester.

Value-related barriers were not characteristic of the interviewees' opinions in general.

3.4.4. Perceived risks

Contamination risks, safety concerns, the uncertainty of liabilities in case of damages happening to the rented product, and the trust between sharing parties had a great impact on the attitude towards sharing consumption of the students.

Perceived contamination risk appeared mostly concerning kitchen equipment, mostly due to suppositions of previous owners misusing or not properly taking care of the products. Expectations regarding the appearance and condition of the items to be used through PSSs varied greatly. While some students would expect to receive items that do not show any signs of previous use, some would be fine with slightly worn-down items that are still able to fulfill their functionality, but all students expressed that the items would have to be clean.

Lack of trust between sharing parties (regarding the completion of item delivery or payment) also characterized the students' attitude toward P2P systems as well as uncertainty about the consequences of breaking or damaging a product in case of a PSS.

P2P networks in the case of sharing out seemed to **invoke perceptions of all the above risks more than B2C** PSSs. While borrowing from close friends did not appear to raise any concerns in the interviewees, these perceived risks emerged when they were asked if they were willing to share items with other students they did not personally know and were further amplified in the case of sharing with a stranger who is not a fellow student:

„I think it's in general like in any type of closeness, right? So if it's someone you know for a long time, that's the most comfortable if it's someone like you're close, but not too close, like so classmate or something, it's a bit worse, but still okay. Then like if it's your at least someone you don't know but from your same age group or something you know that's still better and you know like the further you get from (...) the more different people, it's less comfortable, so I don't know, like borrowing something from some old Hungarian grandma would feel weirder than borrowing from some other international student of my age, if that makes sense.”

However, a middleman in P2P exchanges can reduce these negative effects, as well as renting or buying assets owned by a business instead of peers. Further means to reduce distrust between members of a P2P network or toward a business mentioned by interviewees were recommendations of fellow students, official recommendations by receiving university, online textual and Likert-type reviews, and the ability to see and try the items before initiating a monetary transaction.

Someone also mentioned that the ability to rent from and rent to a business would also give her a physical sense of safety:

„I wouldn't feel comfortable with a random man coming up to my door to take something, because at this point if he decides to enter my apartment, if I don't want to, I cannot do anything. [a middleman or a business to manage the exchange] would be amazing.”

In the case of sharing in, the sample members had no concerns about the product or the progress of sharing. In the case of sharing out, however, it seems that an intermediating party can have a diminishing effect on perceived risks through quality control and clear business policies.

3.4.5. Tradition and image-related barriers

Materialism as a barrier to shared consumption was not common among the interviewees, but in a particular case it was so strong that the interviewee excluded any possibility of him consuming anything from a PSS:

„I believe it's a form of communism. You subscribe to something, but then you never really own it; unless you fulfill the subscriptions they can take it back from you and then you're left with nothing (...) the fear is the denial of ownership.”

This was a unique case; other than this, the interviewees showed no evidence of facing such barriers.

3.4.6. Person-object dissonance-related barriers

This type of barrier seldom appeared in the sample. One student, for example, chose to buy new bedsheets instead of using the one available at her accommodation because of their color. The reason behind this choice was that she had not felt “*like home*” with grey bedsheets.

One way to avoid this effect preventing users from using a PSS is to have a variety of differently personalized household goods in stock.

Table 5: Barriers and perceived risks associated with ways of obtaining necessary and desired household goods, along with students' ideas to mitigate those effects

		Barriers	Perceived risks	Mitigating factors
PSS	P2P	No knowledge of local brands and distributors, language barriers, need to make efforts to mitigate risks, concerns over quality (product life)	Hygienic problems, uncertainty about potential liabilities, distrust between sharing parties, safety concerns	Pictures about provider and product, online textual reviews, Likert-like reviews, intermediation in exchange to avoid physical contact, trialability of product, recommendations from university or fellow students
	B2C	No knowledge of local brands and distributors, concerns over quality	Uncertainty about potential liabilities	Trialability of product, clear information about potential liabilities
Buying new		No knowledge of local brands and distributors, language barriers, higher costs, feeling of wastefulness		Widely known brands and distributors (e.g. IKEA), possibility to donate/sell items when leaving
Buying second-hand	P2P	No knowledge of local brands and platforms, language barriers, need to make efforts to mitigate risks, concerns over quality (product life)	Hygienic problems, distrust between sharing parties, safety concerns, distrust between sharing parties	Pictures about provider and product, online textual reviews, Likert-like reviews, intermediation in exchange to avoid physical contact, trialability of product recommendations from university or fellow students
	B2C	No knowledge of local brands and distributors, temporary need for items, concerns over quality		Recommendations from university or fellow students, trialability
Bringing from home		Compatibility issues (e.g. UK-type electric socket), costs of transport, discomfort of large luggage, unexpected needs		

Source: own edit

Explanation: the first two cells of rows contain the means of acquiring items, the following cells the barriers and perceived risks associated with the means of consumption, and the last cell contains interviewees' ideas to reduce these barriers and perceived risks.

3.5. Product category and respective drivers, barriers

The sample did not contain evidence of a strong relationship between product categories and drivers and barriers towards their shared consumption. Instead, we can find certain product attributes that are easily associated with a certain type of risk.

Students in the sample were worried about the hygienic state of products they deem difficult to clean and products that are usually in contact directly with intimate parts of their bodies (like towels, bedsheets, and underwear). **Contamination** risk, or this worry about hygiene, was repeatedly associated with buying second-hand or borrowing **from strangers**; it seemed to have little to no case when sharing in. Some also mentioned that it could boost their trust in a rental office if they were able to check previous users of the products they are interested in.

„Also, because I have one [blender] at home and I shared it with other people, I was living with for a long time and I remember the amount of time that they didn't clean them properly and I think I wouldn't trust people enough because like, they can be nasty. And yeah, not I don't think I would rather not have one than have one that I don't know where it comes from. Maybe I would like buy a secondhand from a friend or so, but not from a stranger.”

A further product attribute affecting the perceived functional and economic utility of consumption through PSS appeared to be the perceived product value and quality. When thinking about low-value goods, even if they are long-lasting, those, whose main motivation to use PSSs were the perceived functional and economic benefits, pointed out that some items seemed to have such a small value that the feeling of wastefulness (upon leaving the product behind) and the saved costs would not be worth the trouble of alternative consumption. The sample showed repeating patterns of increased perceived functional and economic benefits in relation to higher perceived product value/quality. Higher product value was also associated with less perceived risks of the items malfunctioning or breaking.

„It depends on the item, the vegetable peeler is something really stupid. So I will buy it and leave it at the flat because it's not that important.”

„If I would be renting something, I would be looking for something of a better quality, if that makes sense. So because I know that it should be something that survives a lot. (...). If I would use an example, if I would rent a phone and also I wouldn't rent some cheapest phone, but something better because I need some trust in that product. (...) if I would rent like, yeah, I

come for winter from Summer hot, so I need to rent a coat. So I rent some quality, woolen coat, rather than some plastic one from China.”

When discussing higher-value items, customer service availability also seemed to boost trust in business operations.

A further pattern that emerged from the interviews regarding the urgency of household products is that accommodations are often not equipped with the necessary cleaning and hygiene-related products, such as soap and dishwashing gel. Although these items are not suitable for PSS-like distribution in the traditional sense, the presence of these items in a certain business' inventory can generate traffic since students immediately start to look after these after arriving.

3.6. Needs and desires based on accommodation type

Accommodations the sample members stayed at can be ordered into the following categories:

- **dormitories**, with multiple beds in a single bedroom, kitchen shared with 10+ people, and bathroom shared with 3 or more people;
- **large apartments** near the city center, shared with 2-3 flatmates, with a separate bedroom for each person, one or two bathrooms, and one kitchen;
- **small or student apartments**, with small single or double bedrooms, a small kitchen, and a bathroom.

3.6.1. Choice of accommodation

Shared bedroom dormitories are the cheapest accommodation types, which was the main motivation for students to apply for a place in a dormitory. Some students ended up renting out an apartment with flatmates pointed out that it is generally hard to get a placement in a dormitory, and some universities do not offer any place for incoming internationals in their dormitories. Others had strong demands about their stay; they wanted not to share their accommodation with anyone, in this case, mostly resulting in renting out small (student) apartments. A larger portion of the sample students wished to have a private bedroom but wanted to share their apartments with flatmates not only to split rent prices but also to socialize.

„I've lived in student housing with like 13 people in the hallway and that was too much then. I've also lived on my own for a bit, like completely alone. That was very quiet and not

really a vibe either, so I knew that I wanted to be sharing an apartment with like two or three other people.”

For the sample members, the most important criteria when choosing accommodation types were the desired **level of privacy** and socializing and the **price**. The location and the facilities available at the accommodation seemed less relevant.

3.6.2. Accommodation types and their effects on needed and desired items

The dormitories the sample members lived in were equipped with many household items they could borrow if needed. Examples include pans, pots, irons, and kettles. Interviewees found these items helpful, but they added that borrowing can be annoying because they could not use the borrowed items the way they wanted. For them, the most characteristic driver towards consumption through PSS was that they could get the items they desired to **use frequently for the whole semester** and not have to bring them home or dispose of them.

„... there's an iron in the dormitory. But then I have to go - I mean, it's not a lot of trouble, - but I must go and ask for permission to get that iron. And then if I'm going to iron with that iron, I have to iron all the clothes that I've just washed. But if I had an iron, I could just iron one that I'm going to wear and then use the iron the next day for the next set of items I'm gonna wear.”

„... like a kettle which I need and you know it's in the kitchen, but we have to walk a little for it like it's a little bit distant from our room. So I use the kettle [of my roommate].”

Those who rented student apartments or larger apartments were also genuinely satisfied with the available facilities, but it was common they avoided the use of items they found dirty upon arrival. They often bought replacements for some items, and some of them asked their landlady/landlord to reimburse them if the items in question were listed beforehand among the available facilities. While those with larger apartments had similar perceptions of the benefits of consumption through a PSS to those in the dormitories, the students who lived in small flats, normally rented out as student apartments, emphasized they would use a PSS to **save space** in their accommodation, by **renting items they seldom use a few times** during the semester.

There were no general differences in the barriers to shared consumption between those in different accommodation types.

4. Conclusion

In order to find out what difficulties international students face when moving in for a temporary period related to acquiring and owning household goods, and assessing their attitude toward consumption through a PSS, the exploratory research conducted within the framework of this study highlights patterns of association and criteria of consumer decision-making.

4.1. Theoretical contributions

Academic literature concerning consumer behavior in the sharing economy gives a good general basis for further studies, but there are a myriad of contexts which are underexplored at the moment. Very few articles shed light on consumer behavior influenced by product attributes or different consumption circumstances (for instance, medium term mobilities).

Insight into the product and shopping experiences of the sample members shows that they generally prefer to acquire their items **cheaply and fast**. This finding is in line with the assumption of low-cost-seeking behavior regarding traveling methods mentioned in the literature review (Nagaj & Žuromskaitė, 2023). Though they would like to shop second-hand, they have no access to or knowledge of these opportunities in Budapest except for clothing. Due to their lack of Hungarian language and knowledge about local businesses, they choose internationally known distributors, where they know they can get their items from.

Interviewed students pointed out the difficulties and costs of traveling with many household goods, resulting in an **openness towards using PSSs** to acquire their needed and desired items for a semester's stay. They also emphasized their willingness to share items with their peers or even strangers, if they were in necessarily clean and working condition and that they would like to avoid wasting items upon their leave. This finding is in line with the findings of Khalek & Chakraborty (2023) stating that perceived **functional** and **economic benefits** are the predominant reasons why customers choose to take part in sharing economy models, but sheds light on the importance of the **feeling of wastefulness**. It is worth noting that wasting items was associated with many drivers to sharing consumption – it invoked thoughts about the less fortunate people who could use the items further on as social drivers, environmental harm the household waste produces as ecological drivers, and the loss of functional utility of an otherwise still useful item. These associations were connected to the thought of temporary use of household items, caused by the inability or worthlessness of bringing the items home after the exchange semester.

The ecological benefits of consuming through a PSS perceived by the interviewees were akin to the perceived ecological benefits of shopping second-hand. For environmentally conscious consumers, this played an important role in formulating a positive attitude towards PSSs. The review of Khalek & Chakraborty (2023) suggests that academic sources offer varying results on the effect of perceived ecological benefits, but the narrative of the damages on the items due to shared use eliminating the ecological benefits did not appear in the interviews, contrary to Benoit et al. (2017).

Barriers to consumption through PSSs, perceived risks, and their mitigating effects within the sample members were perfectly in line with business practices already common in the retail industry (e.g. online ratings). A common barrier to consumption, in general, was the unavailability of second-hand stores and knowledge about local distributors and platforms.

The strongest repeating pattern concerning barriers and perceived risks associated with consumption through PSSs was contamination risk and quality barriers. Interviewees also emphasized the inconvenience of the P2P networks over its offered benefits.

4.2. Managerial contributions

According to the results drawn from the sample, there is an openness toward consuming household goods through PSSs. Below, there are general recommendations and existing business practices **mentioned by interviewees** that can help build and maintain trust and maximize customer satisfaction.

To tackle language, knowledge, and accessibility barriers, an online catalog or website should be made available for students to browse in English (or more) language(s). WOM from students and official recommendations from students' receiving universities can have a great impact on trust toward the business or platform provider. Positive textual reviews and Likert-type ratings can also boost trust. The presence of a physical store can ensure the trialability of household products to eliminate quality-related barriers.

To diminish perceived contamination risks and uncertainties towards liabilities upon damaging the products, business policies and operations related to quality and hygiene control should be made publicly available and easily understandable. Operating as a third, trusted party between the owners of household goods and customers or directly renting out a business's assets can eliminate safety issues.

According to the findings on emotional drivers, the customer journey should be as short and require as little effort as possible. Door-to-door shipping would be welcome among some customers, especially those who need or desire large or heavy household goods.

The price of renting an item for a semester should not exceed the price of that item at a distributor, as economic factors appeared to have a huge influence on the consumer behavior of the interviewees. Although this study is not representative, it reinforces previous academic findings (Khalek & Chakraborty, 2023).

Emphasizing household waste reduction could draw the attention of environmentally conscious customers.

A list of items mentioned by interviewees that they found important or useful is available in Appendix 3.

4.3. Novelty of the research

The novelty of this study compared to those previously published in academic journals lies in its focus on household items and international students. Much of the research previously done on sharing economy models focuses on carsharing, and accommodation sharing. Businesses, as well as non-profit projects, focus on sharing household items in neighborhoods (e.g. Pumpipumpe, Monto) for temporary and seldom use. International exchange students can have different needs because there are certain household items they need regularly for a semester or two (e.g. electric kettles, blankets).

Contrarily to other research conducted on consumer behavior related to household goods in the sharing economy, **the research context of international students can lead to discovering norm-breaking behavior**, since often they are not aware of the consumption opportunities around them, making them difficult to engage in their habitual consuming behavior.

4.4. Limitations and ambiguities

The findings of the study and the recommendations based on the findings rely entirely upon the interviewees' stated attitudes and willingness to use PSSs. There is no experimental evidence of these attitudes or willingness. Furthermore, due to the different native languages of the interviewer and the interviewees, misunderstandings of words and phrases are possible.

The study does not contain elements to prove financial feasibility. It merely underlines the existence of openness of the customer segment to consume household goods through a PSS, let it be a P2P network or a B2C enterprise. Due to its qualitative nature, it provides no information about the expected share of the segment open to using PSSs and no estimation of user acquisition costs. It contains no estimates of costs a business has to account for if they undertake such operations (e.g. costs of cleaning the items, etc.).

Based on the interviews, we can conclude that items international exchange students need, desire, or can afford are strongly determined by their accommodation and living circumstances. Different dormitories and apartments have different equipment available at different costs, and different locations. Many universities have a strict policy they follow regarding the accommodation of incoming international exchange students. Information about the availability of items in dormitories assigned to house international students during their stay or in apartments usually rented to incoming international students could also prove useful in evaluating or predicting their needs and desires.

4.5. Open questions, further research opportunities

Given the apparent openness from the customers' side to consumption through a PSS, it would provide entrepreneurs and businesses operating in the industry of household items with useful information to make estimations about the serviceable available and obtainable market size of these consumers and a financial plan for a business planning to launch operations as a provider of products as service.

Since there were enormous differences between the interviewees' opinions about using PSSs, ranging from a rational and beneficial thing to do to the exploitation of customers and upright denial of ownership, it could be useful for marketers to examine the cultural background of such claims (e.g. effect of gender, age, religion, and nationality on willingness to use PSSs).

References

- Akbar, P., & Hoffmann, S. (2018). Under which circumstances do consumers choose a product service system (PSS)? Consumer benefits and costs of sharing in PSS. *Journal of Cleaner Production*, 201, 416–427. <https://doi.org/10.1016/j.jclepro.2018.08.010>
- Akbar, P., Mai, R., & Hoffmann, S. (2016). When do materialistic consumers join commercial sharing systems. *Journal of Business Research*, 69(10), 4215–4224. <https://doi.org/10.1016/j.jbusres.2016.03.003>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Baines, T. S., Lightfoot, H. W., Evans, S., Neely, A., Greenough, R., Peppard, J., Roy, R., Shehab, E., Braganza, A., Tiwari, A., Alcock, J. R., Angus, J. P., Basti, M., Cousens, A., Irving, P., Johnson, M., Kingston, J., Lockett, H., Martinez, V., ... Wilson, H. (2007). State-of-the-art in product-service systems. *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, 221(10), 1543–1552. Scopus. <https://doi.org/10.1243/09544054JEM858>
- Bardhi, F., & Eckhardt, G. M. (2012). Access-Based Consumption: The Case of Car Sharing. *Journal of Consumer Research*, 39(4), 881–898. <https://doi.org/10.1086/666376>
- Bassedas, A. C., & General, D.-D. (n.d.). *European Commission B-1049 Brussels*.
- Belk, R. (2010). Sharing: Table 1. *Journal of Consumer Research*, 36(5), 715–734. <https://doi.org/10.1086/612649>
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67(8), 1595–1600. <https://doi.org/10.1016/j.jbusres.2013.10.001>

- Benedictis, L. D., & Leoni, S. (2020). Gender bias in the Erasmus network of universities. *Applied Network Science*, 5(1), Article 1. <https://doi.org/10.1007/s41109-020-00297-9>
- Benoit, S., Baker, T. L., Bolton, R. N., Gruber, T., & Kandampully, J. (2017). A triadic framework for collaborative consumption (CC): Motives, activities and resources & capabilities of actors. *Journal of Business Research*, 79, 219–227. <https://doi.org/10.1016/j.jbusres.2017.05.004>
- Boothby, E. J., Clark, M. S., & Bargh, J. A. (2014). Shared Experiences Are Amplified. *Psychological Science*, 25(12), 2209–2216. <https://doi.org/10.1177/0956797614551162>
- Codagnone, C., & Martens, B. (2016). Scoping the Sharing Economy: Origins, Definitions, Impact and Regulatory Issues. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2783662>
- Hur, W.-M., Kyung Kim, H., & Park, J. (2010). Food- and situation-specific lifestyle segmentation of kitchen appliance market. *British Food Journal*, 112(3), 294–305. <https://doi.org/10.1108/00070701011029165>
- Huynh, T., & Gurtner, S. (2023). Resistance to the sharing economy: Why some consumers and providers do not participate in P2P sharing. *Journal of Cleaner Production*, 422, 138628. <https://doi.org/10.1016/j.jclepro.2023.138628>
- Khalek, S. A., & Chakraborty, A. (2023). Shared consumption and its determinants: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, 47(3), 888–921. <https://doi.org/10.1111/ijcs.12913>
- Komonen, P. (2024). Exploring access-based consumption in last-mile logistics: A customer foresight study. *Foresight*, 26(3), 393–404. <https://doi.org/10.1108/FS-09-2023-0175>

- Kunamaneni, S., Jassi, S., & Hoang, D. (2019). Promoting reuse behaviour: Challenges and strategies for repeat purchase, low-involvement products. *Sustainable Production and Consumption*, 20, 253–272. <https://doi.org/10.1016/j.spc.2019.07.001>
- Lamberton, C. P., & Rose, R. L. (2012). When is Ours Better than Mine? A Framework for Understanding and Altering Participation in Commercial Sharing Systems. *Journal of Marketing*, 76(4), 109–125. <https://doi.org/10.1509/jm.10.0368>
- Lesjak, M., Juvan, E., Ineson, E. M., Yap, M. H. T., & Axelsson, E. P. (2015). Erasmus student motivation: Why and where to go? *Higher Education*, 70(5), 845–865. <https://doi.org/10.1007/s10734-015-9871-0>
- Lteif, L., Block, L., Kramer, T., & Hada, M. (2023). The Influence of Shared Consumption on Product Efficacy Perceptions: The Detrimental Effect of Sharing with Strangers. *Journal of Marketing Research*, 00222437231181137. <https://doi.org/10.1177/00222437231181137>
- M. Wiernik, B., S. Ones, D., & Dilchert, S. (2013). Age and environmental sustainability: A meta-analysis. *Journal of Managerial Psychology*, 28(7/8), 826–856. <https://doi.org/10.1108/JMP-07-2013-0221>
- McCright, A. M., & Xiao, C. (2014). Gender and Environmental Concern: Insights from Recent Work and for Future Research. *Society & Natural Resources*, 27(10), 1109–1113. <https://doi.org/10.1080/08941920.2014.918235>
- Merino-Saum, A., Ribera Jemio, P. A., Hansmann, R., & Binder, C. R. (2023). Drivers and barriers to participation in the sharing economy: Does the environment really matter? A systematic review of 175 scientific articles. *Resources, Conservation and Recycling*, 198, 107121. <https://doi.org/10.1016/j.resconrec.2023.107121>
- Mi, Z., & Coffman, D. (2019). The sharing economy promotes sustainable societies. *Nature Communications*, 10(1), Article 1. <https://doi.org/10.1038/s41467-019-09260-4>

- Nagaj, R., & Žuromskaitė, B. (2023). Young Travellers and Green Travel in the Post-COVID Era. *Sustainability*, 15(18), Article 18. <https://doi.org/10.3390/su151813822>
- Oyedele, A., & Simpson, P. (2018). Emerging adulthood, sharing utilities and intention to use sharing services. *Journal of Services Marketing*, 32(2), 161–174. <https://doi.org/10.1108/JSM-09-2016-0344>
- Purpose*. (n.d.). Retrieved 28 October 2024, from <https://exploreloup.com/en/purpose>
- Ribera Jemio, P., Merino-Saum, A., Hansmann, R., & Binder, C. R. (2024). Is the sharing economy a sustainable mode of consumption? An empirical case study of sharing of household goods and environmental rebound effects in a university context. *Cleaner and Responsible Consumption*, 14, 100210. <https://doi.org/10.1016/j.clrc.2024.100210>
- Schwartz, S. H. (1977). Normative Influences on Altruism. In *Advances in Experimental Social Psychology* (Vol. 10, pp. 221–279). Elsevier. [https://doi.org/10.1016/S0065-2601\(08\)60358-5](https://doi.org/10.1016/S0065-2601(08)60358-5)
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism. *Human Ecology Review*, 6(2).
- Studying abroad—Erasmus+*. (n.d.). Retrieved 30 May 2024, from <https://erasmus-plus.ec.europa.eu/opportunities/opportunities-for-individuals/students/studying-abroad>

Appendix 1: topic search keywords

Articles available in the WoS database, dating from 01/01/2014 to 01/10/2024 with no restriction regarding journals were exported. To find the articles in the domain of sharing economy in a comprehensive sense, the following search terms were used in the search query:

"sustain*" OR "green" OR "sharing economy" OR "share* economy" OR "access based consumption" OR "access-based economy" OR "access-based consumption" OR "access based economy" OR "collaborative consumption" OR "collaborative economy" OR "collaborative services" OR "peer-to-peer *sharing" OR "peer to peer *sharing" OR "peer-to-peer exchange" OR "peer to peer exchange" OR "p2p exchange" OR "p2p *sharing" OR "lateral exchange market" OR "gig economy" OR "platform economy" OR "circular econom*" OR "the mesh" OR "connected consum*" OR "co-production" OR "co-creation" OR "prosumption" OR "consumer participation" "online volunteering" OR "product service system"

To narrow down on consumer perception and behavior in the broad domain, the aforementioned search terms were linked with an AND Boolean to the following terms:

"consum* behav*" OR "consum* pattern" OR "decision-making" OR "decision making" OR "consum* prefer*" OR "consum* motiv*" OR "marketing" OR "distribution" OR "retail" OR "psychological" OR "socio-cultural" OR "sociocultural" OR "perception*" OR "adipiti*" OR "driver*" OR "accept*" OR "intent*" OR "factor" OR "diffusion" OR "participat*" OR "engag" OR "challeng*" OR "barrier*" OR "inhibit*"

To narrow down on the item category, the following strings were added with a further AND separator to the search query:

"smcg" OR "slow-moving consum* goods" OR "slow moving consum* goods" OR "slow-moving goods" OR "slow moving goods" OR "low demand consum* goods" OR "low-demand consum* goods" OR "durable good*" OR "durable product*" OR "slow turnover good*" OR "slow turnover product*" OR "long shelf-life" OR "long shelf life" OR "household good*"

NOT

“pharma*”

Appendix 2: excluded meso topics

The search yielded 190 results, of which 90 was further excluded based on their assigned WoS meso topics: Polymer Science, Agricultural Policy, Nanoparticles, Crop Science, Paper & Wood Materials Science, Nutrition & Dietetics, Organic Semiconductors, Nanofibers, Scaffolds & Fabrication, Drug Delivery Chemistry, Entomology, Herbicides, Pesticides & Ground Poisoning, Risk Assessment, Human Geography, Substance Abuse, Physiology & Metals, Ophthalmology, Lipids, Synthesis, Biosensors, Chromatography & Electrophoresis, Inorganic & Nuclear Chemistry, 2d Materials, Phytochemicals, Photoproductivity, Forestry, Dairy & Animal Sciences, Plant Pathology, Security Systems, Design & Manufacturing, Safety & Maintenance, Plasma Physics, Gender & Sexuality Studies, Friction & Vibration, Environmental Sciences, Food Science and technology.

The remaining 100 results were then manually assessed for relevance, after which 91 results were excluded based on their irrelevance, 3 reviews were excluded and 2 articles could not be accessed so only 4 articles were left for content analysis.