The development of the second-hand market through apps in Germany

A study of the different variables that influence the behavioural intention of the German population to use second-hand apps

embs
european master in business studies

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KASSEL

September 2019

ABSTRACT

Title: The development of the second-hand market through apps in Germany. A study of the different variables that influence the behavioural intention of the German population to use second-hand apps

Keywords: Germany, second-hand products, apps, variables, behavioural intention

Introduction/Background: There has been a development of electronic commerce through apps and an increment in the market of second-hand products in the latest years. That is why, it seems essential to analyse how German consumers have reacted to this new way of perceiving commercial exchanges, how their behaviour has been modelled and how they have developed the necessary trust to facilitate it, since there is not much research done on the subject.

Purpose: The purpose of this thesis is to investigate the reasons of the development of the second-hand market through apps in a country like Germany, in which the second-hand market is highly developed. For that matter, different variables that could influence the behavioural intention to use this specific type of apps will be analysed.

Methodology: In order to answer the hypotheses and the research questions raised, the methodology of this thesis will be based on a quantitative study carried out through the analysis of the results of a questionnaire.

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INTRODUCTION

Today's world is changing and constantly evolving. The advance of Information and Communication Technologies (ICT) has led to make our daily lives be the product of a profound change, in which people spend most of the time connected to the network through computers, tablets or mobile phones.

In this new virtual environment, it can be stated that the most popular devices of today's world are, without the shadow of a doubt, smartphones. With such a small device, it is possible to communicate with any part of the world, make payments and even invest in the stock market. For this reason, there is a growing dependence on these devices. Without even being aware, at least 50% of the population suffers from a disorder called nomophobia (non-mobile-phone-phobia), which can be translated into an irrational fear of being without their mobile phones (García and Fabila, 2014).

The dependence is growing, and the digital environment has the possibility of offering new experiences to users thanks to technologies that are being developed rapidly (Brey, 2015). Focusing on e-commerce through mobile, it has been shown that 79% of smartphone users have made a purchase online using their mobile device. (Smith, 2019). That is why, united with the development of second-hand markets, the design and development of apps to sell and buy second-hand products has grown exponentially in recent years looking for a different shopping sensation to the one that can be obtained in a physical store.

Moreover, the sales system has changed. The internet and other technologies are creating a new paradigm in the way of buying and selling. In the past, everything was bought in physical stores, but nowadays the comfort and benefits offered by online exchanges and the existing capitalism that has led people to acquire large amounts of clothing that they soon get tired of, has caused this type of online second-hand markets to grow.

On the other hand, the selection of the German society to carry out this study has been determined by the incredible development of this market in the country, far exceeding its development in other countries of the European Union and based on the number of apps used for this purpose. Analysing the behaviour of German consumers can help demonstrate the

success of this market in we compare it to other locations, such as many countries in South America, where these types of C2C exchanges are practically non-existent.

Moreover, another reason why it is interesting to carry out this study is that it is something characteristic of the whole society in general. It means that not only a small group of people of a certain age or social class has adapted this way of doing commercial exchanges, but that it is roughly generalized to the whole society.

The graphic below shows an example of the development of the second-hand apparel market for the different age groups (Reinhart, 2019).
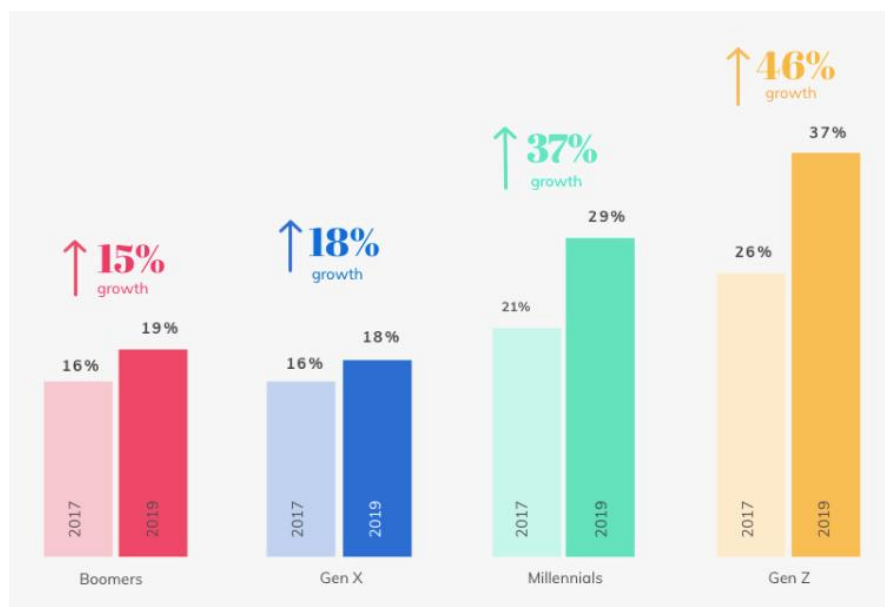

Figure 1: Development of the second-hand apparel market for different age groups

As it can be observed in the previous graphic, Generation Z is growing exponentially in terms of second-hand market use. According to Marcie Merriman, the executive director for growth strategy and retail innovation at Ernst & Young, it is due to a combination of the youngest generation being more entrepreneurially minded than its predecessors and new technology being available. She states that thanks to technology, "Generation Z is the first generation to really have the tools and ability to go after their dreams at a young age".

Despite this, there are few articles and research related to this topic. It is true that second-hand apps have gained importance nowadays but given their users' growth in recent years and future forecasts, there is a need for more research in this matter.

Therefore, this thesis will try to analyse how commercial exchanges have changed taking into account the impact of these C2C markets of second-hand products through applications in smartphones on the consumer behaviour of the German society.

THEORETICAL FRAMEWORK

Second-hand market

Until very recently, second-hand markets were understood only as street markets in which there were commercial exchanges between people of items that had been previously used, such as clothes or kitchen equipment. But this conception has changed completely. The second-hand market has expanded to a virtual format that millions of people have access to, increasing its size considerably in the latest years.

As it can be observed in the graphic below, resales have been experiencing a significant growth since 2012 (and that is only considering the apparel market), and it is expected to be even greater in the following years, becoming almost equal to thrift and donations in 2023 (Reinhart, 2019).

Figure 2: Evolution of the second-hand apparel market
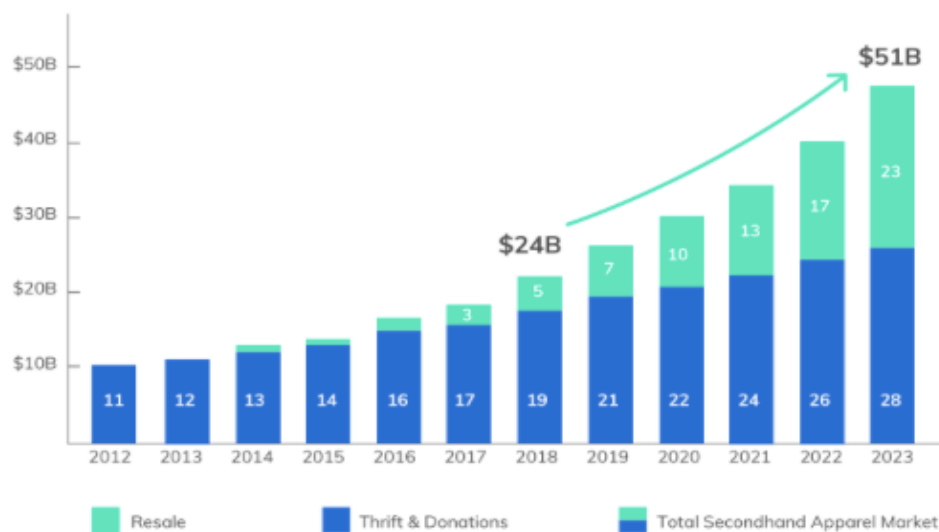
According to Ashley Graham, from the data analysis company Edited: "In 2022 the second-hand sector will also outperform the luxury market", and it is because there are products that being bought second-hand produce a more rational purchase decision by the consumer. These products are all those that can be used for a short period of time, for example, baby clothes or books.

On the other hand, one of the main disadvantages of this market is the problem with asymmetric information. George Akerlof (1970) explains some of the market failures derived from imperfect information, in this case asymmetry, which can be applied to the operation of the second-hand market and is clearly explained with the following example.

If we analyse the purchase of a car in the second-hand market, it can be stated that the buyer of the car has less information about the condition of the vehicle than the seller. As a result of this unequal information, uncertainty arises in buyers, so they will be reluctant to pay a high price for the product, and the fact that buyers are not willing to offer a high price causes prices to fall. Therefore, sellers of good quality cars would withdraw their vehicles from the market, resulting in a market crash because many of the cars sold are of poor quality.

Behavioural intention to use second-hand apps

Before the 50s, it was thought that the consumer was a rational being. But nowadays, the conception of this statement has changed. Calling consumers rational would mean that they know what to buy and why, but it has been demonstrated that around 80% of purchases are impulsive. Therefore, analysing the consumer is interesting to get a little closer to give an explanation of their behaviour when making purchases.

Personality and culture are two determining factors in the individual's behaviour. People are different because of different experiences during childhood, cultural exposure, personal motivations or hereditary differences (Mowen, 2000). Focusing on the cultural part, it can be said that it has a very large influence on how individuals act and, on their behaviour (Arnould and Thompson, 2005). People have always been immersed in a particular culture that benefits and limits them in their activities because both cultural restrictions and advantages influence the consumer's purchase decision.

For this master thesis, there are some variables that can be analysed if the purpose is to understand the consumer behaviour of the German society towards second-hand apps, because those variables can be related to the behavioural intention of the German population to use these apps, and that is what this thesis will try to examinate.

Variables influencing the behavioural intention to use second-hand apps

- Trust

Trust is one of the most important elements that a society can count on. According to López (2010), "trust is a hypothesis about the other's future behaviour. It is an attitude that concerns the future, to the extent that this future depends on the action of another. It is a kind of bet that consists in not worrying about the non-control of the other and of time". Some authors perceive it as an attribute of individuals, but other approaches understand it as a property of the social environment or a culture. According to the second perspective, individuals do not "possess" trust: they live in a social climate of greater or lesser confidence. By saying whether they trust others or not, they would not make a statement about themselves, but about the "trustworthiness" of their society and the people around them.

In every type of relationships, especially in second-hand markets, individuals must have basic trust needs met before being able to progress to more substantial interactions. Creating this trust is gradual because when the relationship advances, scepticism is overcome, the comfort level increases, and new demands can be made. The relationship evolves through different stages of commitment, each built on top of the previous ones. Higher levels of commitment cannot be attained before the lower ones (Sherwin, 2016)

It rarely happens that a consumer makes a purchase online from an anonymous vendor without questioning the trustworthiness and veracity of that seller. As consumers can see the products in physical places, touch them and interact directly with the salesperson, this does not happen with regard to online shopping. This therefore becomes a recipe for consumers to feel uncomfortable in an online shopping environment. According to Bowlby, [66], individual consumers will differ in their trusting personality characteristics and the speed at which they achieve the trust level required starting transactions with online vendors.

- Sustainability

Sustainability is "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). This concept contains a long-term

approach and encompasses three components: economic, social and environmental which was initially proposed by the economist René Passet in 1979.

The economic component takes into consideration the impact of the actions of companies on the macroeconomic structure. The social component focuses on social justice, prioritizing equity in wealth, equal rights and the responsibility of political institutions. Finally, the environmental component pursues the maintenance of physical resources, taking into account that protocols are not unlimited and must be kept suitable for future generations so they can also enjoy them (Crane and Matten, 2016).

The relationship between second-hand markets and sustainability is clear. With the shocking capitalism that surrounds society, if the products are not sold to other consumers once they have been used, and they end up in paper bins or stored in a basement, the process is not sustainable. However, selling and buying products in C2C markets helps extend the product life cycle. Francesca Willow states that "second hand is always the best option to look at first because it's extending the life of things that already exist".

The resale of products among consumers extends the life of the product. Thereby, it is possible to produce less products which have the same purpose (Truttmann and Rechberger, 2006), because only analysing the fashion industry, consumers are buying 60% more clothes than they did in 2002, but the problem is that they keep them for only the half of amount of time (Morrison and Petherick, 2019).

- Price

Kotler and Armstrong (1998) define the price in a specific context as "the amount of money charged for a product or service". It can be affirmed that the price provides a basically economic nature that allows a monetary sacrifice necessary to obtain a certain product or service (Díez and Díaz, 2008).

Nowadays, it is very common to compare the price between two similar products. Depending on the person and the consumer's situation, the price of a given product is very relative. Price can be associated as a tangible and objective measure, although according to other authors, it

is based on "the subjective reality of perception" (Rivera et al., 2013). In the latter case, consumers are rational, they value the time and effort used in price comparison.

Price is one of the most important variables when making a commercial strategy, with a 63% respectively (Baker, 1991) and it is also a variable with important psychological consequences on consumer behaviour. Price has always been considered as a strongly related fact to the development of second-hand markets, since one of the main characteristics of second-hand products is that their price is usually cheaper than the price that consumers would pay if they bought the product as if it was new.

- Availability and accessibility

But even though the price is one of the main reasons to buy second-hand products, the second factor that motivates this type of purchase, for 34.9%, is being able to get discontinued, or out of stock products (Gómez, 2019). Consumers are able to find products that are no longer sold in physical stores and this availability of products makes the shopping experience more exciting and satisfying.

Related to accessibility, 59% of smartphone users prefer businesses with mobile sites or apps that enable them to make purchases easily and quickly (Smith, 2019), so that could explain the success of second-hand apps in the present, due to a greater comfort to be able to make transactions or purchases without having to physically move anywhere, saving time, energy and, in most of the cases, money.

REVIEW OF LITERATURE

The table below shows the empirical papers and review of literature that have been reviewed and will be used in the following months for the preparation of this thesis.

For reasons of space, only certain columns have been added, but it is possible to find the complete information about each paper in the Excel document that is also attached with this work.

YEAR	TITTLE	PUBLISHER	AUTHOR	CONTRIBUTION
2015	A practical model to predict the repeat purchasing pattern of consumers in the C2C e-commerce	Springer Science Business Media New York	Tian et al	Predicts consumption patterns using frequencies and timings of transactions as variables
2013	Social layers of customer-to-customer value co-creation	Journal of Service Management	Rihova et al	Introduces a C2C co-creation perspective, conceptualizing the social layers within which value is formed
2008	Strategic implications of the open-market paradigm under digital convergence: the case of small business C2C	Springer-Verlag	Jeon, Park and Digman	Presents the open-market paradigm in the context of digital convergence and proposes strategic directions for open-market participants
2014	Factors influencing buyer's trust in C2C E commerce	The Journal of Computer Information System	Jones and Leonard	Identifies which factors influence buyer's trust and which don't
2007	C2C Electronic Commerce: a distinct research stream	The Journal of Electronic Commerce	Jones and Leonard	Identifies predictors of satisfaction in the C2C e-commerce environment

2011	Effects of influential factors on consumer perceptions of uncertainty for online shopping	Nankai Business Review International	Zhang and Liu	Identifies influential factors on consumer perceptions of uncertainty for online shopping
2016	Consumer Behaviour towards Online Purchase of Used Goods	Splint International Journal of Professionals	Sudheer and Sudhir	Examines factors influencing to purchase and reasons for the purchase of used goods
2009	Toward an understanding of consumer perspectives on experiences	Journal of Services Marketing	Baron and Harris	Increases understanding of the value derived from C2C interactions
2008	Examining "peer-to-peer" (P2P) systems and consumer-to-consumer (C2C) exchange	European Journal of Marketing	Plouffe	Gives an empirical glimpse at some of the individual-level antecedents and perceptual drivers underlying the C2C exchange modality
2013	The online purchase as a context for co-creating experiences: drivers and consequences for customer behaviour	Internet Research	Blanco-Arcas et al	Investigates the online purchase experience as a co-creation context
2010	Analyzing the impact of intermediaries in electronic markets: an empirical investigation of online C2C auctions	Insititue of Information Management	Duan	Examines the effect of intermediaries in C2C online transactions
2007	Exploring consumer resale behaviour in C2C online auctions: taxonomy and	Academy of Marketing Science Review	Chu and Liao	Defines and categorizes consumer online resale behavior in order to provide a framework for further research

	influences on consumer decisions			
2012	Mood and social presence on consumer purchase behaviour in C2C e-commerce	Insititute of Information Management	Zhang and Tang	Explores the influence of mood and social presence on consumer purchase behaviour in C2C e-commerce
2016	Engagement platforms: the role of emotions in fostering customer engagement in interactive media	Journal of Service Theory and Practice	Blanco-Arcas et al	Explores the role of emotions in developing customer engagement during virtual service interactions (useful for C2C online markets success)
2013	Acquiring Buyer's Trust in C2C Transactions	International Journal of China Marketing	Jiang	Examines the effect of factors of acquiring buyers' trust in C2C online transactions
2019	Trust, risk and transaction intention in C2C e-marketplaces	Emerald Publishing Limited	Li et al	Compares the impact of trust and risk on individual's transaction intention in C2C e-marketplaces from both the buyers' and the sellers' perspectives

Table 2: Review of literature (own elaboration)

STUDY FRAMEWORK

Problem statement

By answering the question of: "what is the problem that needs to be solved?", it could be said that this thesis will try to fill the gap of the study of the behavioural intention to use second-hand markets through applications in Germany.

There is not much research on this matter, since applications are a novel topic in the market, so it needs to be investigated, because the importance of the topic has grown in recent years due to the great impact of mobile phones and the use of applications in society, as explained in the introduction.

Therefore, conducting a research on the use of applications related to second-hand products can be of great importance for today's world. The reason is that, by carrying out this research, more information can be obtained on the use of these applications and on the reason for their success, and this can be analysed to develop new applications or extend it to other areas of society.

Research questions

The main question of this thesis would be the following one:

- ¿Why is the second-hand market through apps so developed in Germany?

However, the development of a market is relatively complicated to measure, that is why the behavioural intention of the German population to use second-hand apps is going to be analysed.

If some variables influence the behavioural intention to use these apps, that would have a direct relationship with the development of the mentioned market. Knowing which variables influence the population of Germany to start using second-hand apps, will provide an explanation of the reasons why the market has been growing in this country more than in other locations. This can be actively illustrated with the following research question, which is complementing the first one:

- ¿What are the variables that influence the behavioural intention to use second-hand apps?

Hypothesis

In order to test if the variables mentioned in the theoretical framework affect the behavioural intention to use second-hand apps in Germany and analyse if this impact is significant, the following hypothesis have been developed:

- H1: The variable "Trust" is strongly related to the behavioural intention to use second-hand apps in Germany

- H2: The variable "Sustainability" is strongly related to the behavioural intention to use second-hand apps in Germany

- H3: The variable "Price" is strongly related to the behavioural intention to use second-hand apps in Germany

- H4: The variable "Availability" is strongly related to the behavioural intention to use second-hand apps in Germany

- H5: The variable "Affordability" is strongly related to the behavioural intention to use second-hand apps in Germany

The way in which these hypotheses are going to be tested to answer the research questions of this thesis are explained in the following section referring to the methodology.

METHODOLOGY

Research method

The methodology of this master thesis will be based on a quantitative study. The choice of a quantitative method to carry out in this thesis has been based on the fact that quantitative studies make it possible to infer the research findings in larger populations because it allows the statistical generalization of the results. Moreover, the data obtained from quantitative investigations are often considered as tangible, rigorous and reliable. These adjectives suggest that this data have considerable precision, have been collected through systematic procedures and can easily be contrasted by another researcher (Ugalde and Balbastre, 2013).

<u>Online questionnaire</u>

An online questionnaire will be developed to analyse behavioural intention to use second-hand applications. The questionnaire will be translated exclusively in German, since the study is carried out only in Germany, due to the fact that answering the questionnaire in their mother tongue will produce better results and a closer approach to the participants. English will be also available for the respondents who are not German but have been living in Germany for a long period of time and therefore, can be useful for this investigation.

The platform that will be used to develop this questionnaire will be Sphinx, due to its ease of use and multiple functionalities.

Sample

According to the theory, if the population that needs to be sampled is composed of 50 people or more, the appropriate number of respondents should be of at least 30 (White, 2004). Since this thesis tries to analyse the German society, the appropriate number of respondents of the questionnaire would be bigger, being 300 the number of respondents that will be tried to achieve.

The sample should be heterogeneous, composed of people of different ages, sexes, professions and social classes, as this would help to generalize the conclusions obtained more easily to the German society in general.

Procedure/Data collection

As it was mentioned before, the questionnaire will be developed with Sphinx, and to proceed with the collection of information, this questionnaire will be disseminated through various digital platforms. In order to reach the youngest public, this questionnaire will be sent through university e-mails to contact German students from all parts of the country. With regard to the oldest public, the use of social networks such as Facebook, or LinkedIn will be used.

Data analysis

For the data analysis, SmartPLS will be used as the software program to interpret the results and be able to extract the conclusions in order to test the hypothesis of this study.

PLAN OF WORK

Dates	Objectives	Stage of completion
1/9 – 30/9	Exposé	Completed
1/10 – 13/10	Questionnaire and experiment design	To follow
14/10 – 27/10	Launch of questionnaire	To follow
28/10 – 10/11	Experiment	To follow
11/11 – 24/11	Data analysis	To follow
25/11 – 15/01	Thesis writing	To follow

Table 3: Plan of work (own elaboration)

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