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**Mestrado em Estatística e Gestão de Informação**  
Master Program in Statistics and Information Management

## **Voluntary Simplicity and Willingness not to buy**

Ana Paula Ribeiro Lima Ferreira Miguez

Dissertation Proposal presented as partial requirement for  
obtaining the Master's degree in Statistics and Information  
Management

NOVA Information Management School  
Instituto Superior de Estatística e Gestão de Informação  
Universidade Nova de Lisboa

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by

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Dissertation Proposal presented as partial requirement for obtaining the Master's degree in Information Management, with a specialization in Marketing Research and CRM

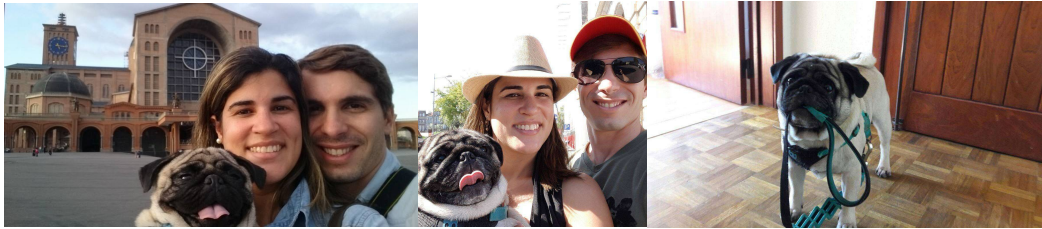
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### YOU ARE MY HOME!



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To my unborn baby, who I would love to have the chance to have met and taught all the things my dad taught me.



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To Dra. Angelica, who has been taking care of my heart and my soul during all this time.

***“Many that live to deserve death. Some that die deserve life. Do not be so eager to deal out death judgment. Even the very wise cannot see all ends. All we have to decide is what to do with the time that is given to us.”***

Gandolf, the Grey. J. R. R. Tolkien (1954). The Lord of the Rings – The Fellowship of the Ring.

***“I'd made it this far and refused to give up because all my life I had always finished the race.”***

Louis Zamperini (1956). Devil at My Heels.

***“To persevere, I think, is important for everybody. Don't give up, don't give in. There's always an answer to everything”.***

Louis Zamperini (2014). Don't Give Up, Don't Give In: Lessons from an Extraordinary Life.

## **ABSTRACT**

This study aims to understand why people do not buy in the scope of voluntary simplicity. The importance of this study is related to questions raised about consumption and lifestyle. The main objective is to measure whether the trend for voluntary simplicity would be influential and how it acts on consumers' willingness not to buy. To better understand this phenomenon of voluntary simplicity, we will use the hypothesis as a predictive model, to provide a directional response to our main goal. The Millennials, with ages between 18-34, both genders, actively studying and working, and living in Portugal were the target population of the study. The survey was conducted from May 4th, 2020, until January 19th, 2021. During this period, 282 people responded to a questionnaire with 72 questions. This study provided valuable insights into the key factors influencing the Willingness Not to buy. The model explains 51% of the variance of variables presented, which is a good value in market research. The relevance of this research is based on understanding these changes in the economy and how they affect purchasing intentions. By doing so, this study contributes to academic research and companies, to improve customer experience and satisfaction regarding voluntary simplicity.

## **KEYWORDS**

Voluntary Simplicity; Minimalism; Lifestyle; Consumer Behavior; Sustainability; Minimalist; Sustainable lifestyle; Sustainable consumption; Emotional; Well-being; Consumer empowerment; Decision complexity; Sustainable consumption

# ÍNDICE

1	Introduction .....	1
2	Background and Problem identification.....	3
3	Study Objectives .....	4
4	Study Relevance and importance.....	5
5	Literature Review .....	6
5.1	What is Voluntary Simplicity?.....	6
5.2	Voluntary Simplicity Values .....	7
11.2.1.	Material Simplicity .....	7
11.2.2.	Human Scale .....	7
11.2.3.	Self-Determination .....	8
11.2.4.	Ecological Awareness .....	8
11.2.5.	Personal Growth .....	9
5.3	What is not Voluntary Simplicity? .....	10
5.3.1.	An Environmental Movement .....	10
5.3.2.	Living in Poverty .....	10
5.3.3.	A cure for Social Problems .....	10
5.3.4.	A transitory movement .....	10
5.3.5.	Confined in one Country .....	11
5.3.6.	Fulfilling your primary Necessities .....	11
5.3.7.	A political movement or party?.....	12
5.4	Willingness to buy: a retrospective of related studies.....	13
5.5	Willingness Not to buy and Self-Control .....	14
6	Voluntary Simplicity Degrees .....	16
6.1	Full Voluntary Simplicity Adherent.....	16
6.2	Partial Voluntary Adherent.....	16
6.3	Sympathizers .....	16
6.4	Indifferent, Unaware, or Opposed .....	16
7	Methodology .....	17
7.1	Conceptual Model .....	18
7.2	Hypothesis .....	18
8	Target Population and Sample frame.....	19
8.1	Target Population .....	19
8.2	Alternative Target Population .....	19

9	Measures .....	20
10	Analysis Method .....	21
10.1	Scale .....	21
10.2	Data Collection .....	21
10.3	Data Cleaning .....	21
10.4	Demographic Information .....	22
11	Data Analysis.....	24
11.1	Data Validation.....	24
11.2	Factor Analysis .....	24
11.3	Cluster Analysis .....	29
11.4	PLS-SEM Analysis .....	34
11.4.1.	Evaluation of the Measurement Model .....	35
11.4.2.	Results of the Hypothesis testing .....	39
12	Discussion .....	40
12.1	Theoretical Implications.....	40
12.2	Social and Practical Implications.....	41
12.3	Limitations and Suggestions for Future Research .....	42
12.4	Conclusion.....	43
13	References .....	44
14	Appendix.....	48

## LIST OF FIGURES

Figure 1 Conceptual Model .....	18
Figure 2 Population, Target Population and Sample Scheme.....	19
Figure 3 Cronbach Alpha .....	24
Figure 4 Scree Plot.....	27
Figure 5 Final Model.....	38

## LIST OF TABLES

Table 1 Questionnaire and Sources from literature review.....	20
Table 2 Number of Respondents Included after the cleaning criteria.....	22
Table 3 Profile of the Respondents .....	23
Table 4 Cronbach Coefficient Alpha .....	24
Table 5 Factors per variables.....	28
Table 6 Factor Names.....	29
Table 7 Hierarchical Method.....	31
Table 8 Cluster Summary .....	32
Table 9 Voluntary Simplicity Degrees X Scale .....	33
Table 10 Clusters x Voluntary Simplicity Degrees.....	34
Table 11 Measurement Model – Overview, with all the indicators in the conceptual model	35
Table 12 Measurement Model – Overview, with the remaining indicators.....	36
Table 13 Fornell-Larcker Criterion results for the Discriminant Validity .....	37
Table 14 VIF – Variance Inflation .....	37
Table 15 Checking the Final Model – table Overview.....	38
Table 16 Construct Crossvalidated Redundancy.....	39
Table 17 Summary of Hypothesis testing.....	39



# 1 INTRODUCTION

The idea of consumption as a key to a happy life is not new and probably continue to exist for years to come. There is an old saying that “money can’t buy happiness or love” and since ancient times philosophers and religions have tried to understand if it would be a relationship between those two. However, a question surfaces: Does happiness can come from things that money can buy at all (consumption, experiences and etc.)? However, even if the relationship exists that doesn’t mean that would be a strong one. According to Ballantine et al. (2010), the disposition plays an important part role in voluntary simplifier behavior, specially during the initial stages of adopting the lifestyle.

Nowadays, people are more interested in pursuing a different type of consumerism, more positive and guilt-free, that relies on the collaborative economy as a manner to liberate consumers from the bad feeling which consumerism has been always associated with (Zavestoski, 2002). People who follow a sustainable, simple lifestyle are more satisfied with their daily consumption choices than people who have a more consumerist one. (Balderjahn et al. (2021).

The acquisition of experiences instead of products and the constant search for creating memories are defining consumers in this century. When adopting the lifestyle, the adopters kick off a period of de-cluttering where the dispose the goods and end up decoupling notions of identity from theses goods (Nelson et al., 2007). Exceptional experiences are rare to find, and social media amplified the way people communicate and eternalize those memories in a way that the experience itself became a level of status.

The pursuit of the ultimate experience is only possible because there was a shift from traditional consumerism to this new type that tends to follow trends. According to Craig-Lees and Hill (2002), once fully immersed in the lifestyle, voluntary simplifiers exhibit changes in consumptions due to their decreased focus on material wealth, where disposition inevitably plays an ongoing role. The market is more interested in trend innovations that not only produce the products but also allow the consumers to express themselves personally with broader product availability. People can express their individuality through their consumption: in their choice of what to eat, to wear, the music and tv programs they watch. We can summarize this idea by saying that people are seeking status in a not predictable way and the companies have to be in constant seek for change if they want to keep up with this reality.

Voluntary simplicity is nothing new. The idea of voluntary simplicity was first introduced by Gregg (1936: p.4) as the “avoidance of exterior clutter, of many possessions irrelevant to the chief purpose of life”. A more recently definition emphasizes the voluntary simplicity nature of the lifestyle as bonded to the free will and not liked to constraints by the government or due to economic troubled times (Etzioni, 1988; Craig-lees and Hills, 2002 and Leonard-Barton, 1981).

The term is now also known as Minimalism and has been gaining new fans every day. That's why it's not strange that there are countless TV shows on American TV, such as the "Tiny House Movement". According to the Buzz Feed News website, “the 7 small house programs that aired on the FYI American Television Network combined an average of about 5 million viewers”<sup>1</sup>. A considerable niche.

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<sup>1</sup> Shafir, D. (2016). Who Benefits From The Tiny House Revolution? Retrieved from <https://www.buzzfeednews.com/article/doree/who-is-the-small-house-revolution-for>

NETFLIX also adhered to the theme and has a list of related programs, has released a documentary called “Minimalism: A documentary about important things”<sup>2</sup>, tells us the history of Joshua Fields and Ryan Nicodemus. They choose Minimalism and now travel all over America “helping people live meaningful lives with less”.

This theme can be also found in several books such as those by author Marie Kondo. On the internet, Courtney Carver has created a project called “Project 333”<sup>3</sup> with a minimalist fashion challenge: One should wear 33 or fewer pieces of clothing for 3 months. The goal is to get the challenger gradually getting used to having fewer clothes and shoes, and then take that to all areas of your life. Courtney calls it “Unclutter your life”.

According to Google “The Buy Nothing Day is an International Day of Protest against consumerism. In North America, the United Kingdom, Finland, and Sweden. Buy Nothing Day is held the day after U.S. Thanksgiving, concurrent to Black Friday; elsewhere, it is held the following day, which is the last Saturday in November.”<sup>4</sup> This movement invites people to act in a very different way against the excessive shopping, they cut out their credit cards, dance conga in front of the shopping malls, walk like zombies, and march in the parking lots to call the attention of the ones getting inside the stores.

These movements that have been increasing in the last decades are related to the fact that life on Earth is in danger. According to the “Earth Overshoot Day” website<sup>5</sup>, which studies the planet’s biocapacity versus mankind’s ecological footprint, in 2019 the overshoot day is July 29. This means the date when mankind’s demand for ecological resources will exceed what Earth can regenerate that year. Humans are consuming far more than the Earth can generate and soon we will be running out of natural resources.

According to Maslow (1943), modern life has led humanity to need more than its necessities to live. The insertion into a stratified and structured society within an optic of the capitalist production regime has increased the scale of what is considered essential for human life and the constant appeal to consumption has led people to acquire more goods than they need or what their financial life allows them to own, expanding the boundaries of the well-known hierarchy of needs. Therefore, is so important to research and understand consumer behavior in this context, as per Lubowiecki-Vikuk et al. (2021), if the humankind do not change its habits, the changes in our ecosystems will be irreversible.

Several studies seek to understand what leads people to buy and their influencers, whether they are mediators or moderators. However, this study has decided for the opposite direction and aims to understand why people do not buy within the scope of Voluntary Simplicity (Balderjahn et al. (2021). “The essence of voluntary simplicity is living in a way that is outwardly simple and inwardly rich. This way of life embraces frugality of consumption, a strong sense of environmental urgency” (Elgin & Mitchell, 1977, pg. 2). Is this lifestyle a trend that directly influences consumption, or is it just another fad that does not go beyond the end of the century?

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<sup>2</sup> Minimalism: A Documentary About the Important Things (2015). Directed by Matt D’Avella.

<sup>3</sup> Carver, C.(2019).Project 333™. Retrieved from <https://bemorewithless.com/project-333/>

<sup>4</sup> [https://en.wikipedia.org/wiki/Buy\\_Nothing\\_Day](https://en.wikipedia.org/wiki/Buy_Nothing_Day)

<sup>5</sup> Earth Overshoot Day (2019). Retrieved from <https://www.overshootday.org/about-earth-overshoot-day/1>

## 2 BACKGROUND AND PROBLEM IDENTIFICATION

The Academic literature on Voluntary Simplicity is very scarved and most of the papers focusing on defining the term (Maniates, 2002) or discussing the motivations behind the lifestyle (Etzioni, 1998; Iyer and Muncy, 2009; Leonard-Barton, 181 and Zavestoski, 2002) or the experience of the ones that chosen this new way of living (Belkin et al., 2005).

More people in the United States and Europe are joining the voluntary simplicity and minimalism lifestyle. The movement is growing every year. Whether it be through a scenario of economic scarcity and response to repeated market crises, or a conscious and individual choice, what is seen in minimalism is the possibility of being happier with very little, something that St. Francis of Assisi already preached in his famous sermons in the XVII century. According to Schwabe et al. (2018), moral decisions in the marketplace depends on consumers own behavioral history, which means that they are taking into decision moral aspects on their time od purchase.

However, following in the footsteps of St. Francis is not an easy task when living in a society where consumption is often stimulated. Bombarded by advertisements, we live immersed in the concept that the status brought by the new iPhone, the car of the year, or the Dior bag, will take us beyond recognition, emotional encouragement, and increased self-esteem.

There are several studies focused on linking the Millennials with most of the population that has the most tendency to pursue this minimalist lifestyle. In Deborah Weinswig's Forbes Magazine article, "Millennials Go Minimal: The Declining Trend of the Lifestyle That's Taking Over"<sup>6</sup>, the journalist gives the reasons for this trend: since the Millennials grew up during the recession, they are struggling increasingly to enter in the labor market, and therefore have a unique set of values in how to spend money. Demographically they are a larger population than baby boomers, but with less power consumption and highly influenced by technology and social media when it comes to buying. They prefer to spend on experiences rather than products, Kumar et al. (2016).

There are also those who criticize the movement, Zralek (2016), who see in it only a superficial attitude towards sustainability, who claim to be easy for people who have a comfortable financial situation, leave a life of consumption, and follow the downsizing. According to them, the issue of sustainability is even more comprehensive, because living with less does not necessarily mean living sustainably, prioritizing biodegradable materials with less waste and more recycling (Ein-Gar, 2015).

The importance of this study is related to the questions raised about consumption and lifestyle (Mathur et al., 2016). What are the constructs related to this movement of voluntary simplicity? Are they a key to a change that would help minimize those effects on our planet? Our objective is, through causal research, to demonstrate whether there is a relationship between these variables, to understand if this impacts the willingness not to buy more products, and, consequently, to reduce consumption on a large scale.

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<sup>6</sup> Millennials go Minimal: The Decluttering Lifestyle Trend That is Taking Over  
<https://www.forbes.com/sites/deborahweinswig/2016/09/07/millennials-go-minimal-the-decluttering-lifestyle-trend-that-is-taking-over/#886457b37550>

### 3 STUDY OBJECTIVES

As various lifestyle definitions are available and the concept itself has different dimensions, the purpose of this study is to understand the underlying dimensions related to how consumers make their purchasing decisions. Attention is given to the measurement and identification of characteristics<sup>7</sup> that make them more likely or not for purchased products or services (Veronique, V. A., Goodwin, P. & Witlox, F., 2016).

In this sense, we aimed to identify and understand:

- Is it the intention not to buy the result of guilt embedded in the subconscious of those who decide to adhere to this downsizing and the redefinition of values and concepts about what is important and essential for life? Or it is just a trend?
- Who are the people following the minimalism path? Then would be possible to classify their levels as adepts?
- Is society finally realizing that natural resources are increasingly scarce, rethinking their way of life and influencing those around them?
- There is also another intrinsic question that will be addressed in this present work: gender would be decisive when deciding to buy products or not?
- What would be the economic implications of this movement prevails? How society would be organized if minimalism become the predominant lifestyle?

Our goal is to find out which mechanism would influence the likelihood of not buying something, to assess whether environmental and sustainability concerns, social issues such as labor slavery, extreme poverty, and animal cruelty would have a positive or negative persuasion effect on the desire to buy Hayes (2017). These are the questions that we intend to answer throughout this study.

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<sup>7</sup> specific behaviors, person's self-image, aspirations and way of life.

## 4 STUDY RELEVANCE AND IMPORTANCE

The trend towards lower consumption, voluntary simplicity, or minimalism begins to be felt in the economy as the sharing economy has been increasing in recent years. This study aims to contribute to several fields of the market, as we believe that lower consumption is related to improvements not only from the environmental standpoint but from society in general. We intend to create new primary data that could be used for other studies and companies interested in consumer behavior and purchase intentions. A report with the results will be prepared and shared with the academic community, presented at academic fairs and symposiums. From the environmental standpoint, lower consumption would lead to less use of natural resources that are already scarce. Conscious consumption, based only on what you need, can give Earth the time it takes to regenerate and cause overshoot to occur later.

Regarding Market and economy, new types of businesses linked to sustainability can arise linked to the era of voluntary simplicity or minimalism. Another aspect is that people who consume more consciously tend to have a more financially healthy life with less debt. Also, as people are buying more experiences than material goods, they tend to be more willing to share what they have.

The Sharing Economy movement and its growing number of applications such as Uber, Airbnb, Couchsurf, BlaBlaCar, etc., have been gaining new customers and increasing its market share each year. Historically, people were used not to share with someone that they consider as strangers or outside their social networks. The act of sharing was trusted to individuals that belong to the life circle (as family, friends, and neighbors). However, this mindset changed drastically in the last years, because of higher consumption or even by necessity, people are choosing to allow others to use their belongings for an amount of money. "Sharing platforms facilitate sharing among people who do not know each other, and who lack friends or connections in common. The digital platforms can make stranger sharing less risky and more appealing because they source information on users via the use of ratings and reputations. Stranger sharing consequently entails a higher degree of risk, and for many of these platforms, the situations are quite intimate sharing one's home or car." (Frenken & Schor, 2017). Another business that could be created or grow would be companies whose goal is to help customers get rid of the gigantic number of things, the accumulation of impulse purchases, the huge number of things that one buys and does not use.

Although Voluntary Simplicity has many advantages, on the other hand, we have disadvantages and challenges as well, since government regulations, laws and taxes might change due to less consumption or changes developed by the sharing economy. As widely known, Portugal and more specific Lisbon are facing a huge problem related to housing renting, because of the high usage of platforms as Airbnb, the prices went to the sky and many people were forced to live their houses to give place to temporary renting, which were discovered as more profitable than the usual type. Also, the relationship between companies and employees is transforming since the nature of what it means to belong to a company is changing, as studied by Dillahunt et al. (2016). The relevance of this study relies on the fact that understanding these changes in the economy, and how that would affect purchase intentions, would contribute to academic research and business predicting consumer behaviors to improve customer experience and thus satisfaction. We believe that the results allow generalizations since the chosen sample is representative of our target population and the study could be replicated in other countries of the world.

## 5 LITERATURE REVIEW

### 5.1 WHAT IS VOLUNTARY SIMPLICITY?

According to Gregg (1936), the term Voluntary Simplicity describes the way of life marked by a new balance between inner and outer growth. We could summarize by saying that Voluntary Simplicity is related to organizing your life for a specific purpose, that avoids purchasing exterior clutter or to have many possessions to have an abundance of life and happiness with less.

“The essence of Voluntary Simplicity is living in a way that is outwardly simple and inwardly rich. This way of life embraces frugality of consumption, a strong sense of environmental urgency, a desire to return to living and working environments which are of a more human scale, and an intention to realize our higher human potential—both psychological and spiritual—in community with others” (Elgin & Mitchell, 1977, pg. 4).

The idea of going back to a Simpler life is not new. Religious saints as Saint Francis, Saint Claire, Saint Antony, and of course Jesus Christ are good examples to be followed when it comes to being more concerned with your personal inner growth instead of being concerned about possessions and becoming richer. Historically, we have Mahatma Gandhi as the personification of a political leader who not only was attracted to a simple agricultural life but also encourage people to follow his ideas. He was responsible for the creation of 2 rural communities in India in which people lived under his ideas.

Is important to state that the idea or concept regarding the meaning of Simplicity is fluid and malleable ideas related to one’s culture, character, and customs. What could be considered as simplicity for an American would not be the same for a person in India or a South American native. The idea of simplicity is regulated for culture. For Gregg (1936): “in India, everyone, wealthy as well as poor, sits on the floor, and there are no chairs. Many Americans, poor as well as rich, think they have to own a motor car, and many others consider a telephone exceedingly important. A person in a certain rank of society considers it necessary to have several kinds of shoes, hats or other articles of clothing for purposes other than cleanliness or comfortable temperature.”

As already cited, the Voluntary Simplicity and nowadays also called Minimalism is a movement that is emerging with more adepts now and that could represent a major positive transformation towards values, consumer behavior, consumption patterns, social movements, and national policies, changing not only the economy but the political scenario as well.

In the past, we had some movements that we could consider as precursors and contributors to the mindset related to Voluntary Simplicity, such as Consumerism or Environmentalism, however, neither of them intended to become a lifestyle that nowadays can be replicated and, as one of the objectives of this study, being measured. In this sense, we aimed to identify and understand:

- Who are the people following the Voluntary Simplicity path?
- What are their patterns?
- How can we classify their levels, if possible?
- Is Voluntary Simplicity just a trend?
- What would be the economic implications of this movement prevails?
- How society would be organized if Voluntary Simplicity becomes the predominant way of life?

## 5.2 VOLUNTARY SIMPLICITY VALUES

According to concepts presented in Elgin and Mitchell (1977) paper, Voluntary Simplicity has 5 core values that would embed the mindset related to simplicity and a less cluttered lifestyle, that for this study we considered as a foundation to uncover the underlying dimensions of the willingness not to buy and how Minimalism impacts on it. They are:

### 11.2.1. Material Simplicity

A life without many products, cluttering, financial mess, and constant contact with nature. A non-consumerism lifestyle. Where purchasing products are less important than having experiences that contribute to personal inner growth. Here we have the essence of the willingness not to buy, since not only the person is willing to purchase less but also let it go for some goods that thought that would never be able to live without it.

As seen in "Tiny House Movement" or in the NETFLIX documentary called "Minimalism: A documentary about important things"<sup>8</sup>, people are searching for a higher purpose which is to live a meaningful life with less. However, living if less does not necessarily mean life without **technology or innovation**. The consumption criteria are to reduce luxuries in your life, but that does not mean that **durability** and endurance can't be a criterion as well.

Intelligently buying products means buying a product that not only would make your life easier but also would be more durable, reducing the amount of time that you would have to replace that product repeatedly (Lubowiecki-Vikuk et al., 2021). "Although living simply implies consuming quantitatively less (particularly items that are energy inefficient, nonbiodegradable, nonessential luxuries, etc.), this does not mean that the overall cost of consumption will go down drastically. Living simply need not be equated with living cheaply. The hand-crafted, durable, esthetically enduring products that appeal to frugal consumers are oftentimes purchased at a considerable premium over mass-produced items. Therefore, although the quantity of consumption may decrease and the environmental costs of consumption may be considerably moderated, the overall cost of consumption may remain relatively high since our economy is not oriented to producing the kinds of products which fit these criteria" (Elgin & Mitchell, 1977, pg. 5).

Although Thoreau's ideas were very appealing in the past, nowadays, Minimalism Movement adepts don't want to live as if they were pilgrims from the past. In this view, material possessions are a type of support of personal inner growth, since their consumptions patterns are going to fit the model, not the contrary. This is an important adaptation that sets a difference between the movements headed by the saints or Gandhi, in which people lived their lives almost not consuming at all.

### 11.2.2. Human Scale

We can call the adherents of Voluntary Simplicity "Simple Livers". This term was retrieved from Grigsby (2004), who defined them as people that "try to get by on less conspicuous consumption and less income from waged work to buy time for the well-being of the global environment and themselves to pursue more fulfilling and pleasurable activities."

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<sup>8</sup> Minimalism: A Documentary About the Important Things (2015). Directed by Matt D'Avella.

The adherents to Minimalism tend to distance themselves from gigantic scale institutions and live in more local environments, where people are acquainted and care for each other, where they believe community building can be accomplished in a better way (Vita et al., 2020).

The Human Scale value is utterly related to **Social Concerns**, with a preference for a human-sized living that supports people instead of companies or industries. Their pursuit of a more humanized type of doing business is what motivates them to buy goods and services from the locally owned business without withdrawing themselves from the mainstream. What we call Mainstream is the everyday life that we lived. To be a Simple Liver it is not necessary to live apart from the society that you are inserted in. You don't have to go into the wild to live as a Minimalist. Being a Simple Liver is related to your actions and decisions regarding the way you managed consumption and desires, Kumar et al. (2016).

### 11.2.3. Self-Determination

This value is related to Human Scale since it also embraces the intention to be less dependent on large and complex institutions and more focused on controlling itself as well its destiny. We could understand this value as the one that is related to freedom of being, where the person would not be always economically tied to pay installments, taxes, or even living a life according to other people's expectations.

According to Elgin and Mitchell, 1977, pg. 7: "A person may seek to become more materially self-sufficient—to grow his own, to make his own, to do without, and to exercise self-discipline in his pattern and level of consumption so that the degree of dependency (both physical and psychological) is reduced."

The Simple Livers are seeking to being in full control of its life's, without unnecessary State intervention or having to deal with a lot of bureaucracy or corruption, however not becoming an alienated person. Living a less "attached" life doesn't mean that one would not care anymore for the state affairs or what is happening in the World, instead of that, the adherents become more social, economic, and political aware, since being well informed is a prerogative to be in control of their lives (Gilovich et al., 2015).

The Self-Determination value is related to **Self-Realization** since the Simple Livers are expecting this feeling as a result of their simpler behavior.

### 11.2.4. Ecological Awareness

The Simple Livers have a strong sense of Ecological awareness which is tied to the **Environmental, Animal Cruelty Concerns**, being a central value as Material Simplicity. These concerns are related to the fact that natural resources are indeed limited and have a strong **Nature Association** feeling. This value implies the maintenance of the natural resources, the life of the endangered animals, conservation of physical resources, and reduction of pollution and recycling. The Human being is not forgotten in this concept. Its welfare and social justice are part of this idea, Ein-Gar (2015).

The connection between men and nature should not be a war where Humans until now are getting out victorious. Sustainability should be at the core of all actions. Willingness to share instead of buy, as a path to create a connection with the ones that are less fortunate and disadvantaged. According to Elgin & Mitchell (1977), in acknowledging the underlying unity of humans, the growth of an ecological awareness expands the vision of voluntary simplicity outward and brings with it a strong sense of social responsibility and worldly involvement to what otherwise could be a relatively isolated



and self-centered way of life. Some of the more concrete expressions of this awareness might include: a willingness to share resources with those who are disadvantaged; a sense of global citizenship with commensurate adjustments in lifestyle, social vision, and political commitments; a preference for living where there is ready access to nature; and a desire to foster human and institutional diversity at a grassroots level.

To measure green consumption values and to understand green consumer behavior and its impact on the willingness not to buy, we are going to use the concepts cited in Haws et al. (2014) paper, called "Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products." In this article, the authors developed a "Green Scale", that will be used as the source of inspiration to create the questionnaire questions.

### 11.2.5. Personal Growth

The Simple Livers are in constant pursuit of their inner growth to achieve happiness through a simple life. Cleaning the external clutter is just one step in the journey that embraces the other 4 values that are in the end the devices used to remove all the cluttering or impediments to the inner growth. They aimed to achieve freedom, as said before, so they can have more space for which is important in life, and of course, that would allow them to have not only psychology but also spiritual growth. (Balderjahn et al. (2021).

The idea is to live a life not only directed to work or obligations. Not live life as if your know-how is going to end already. Growing spiritually has nothing to do with religion. Voluntary Simplicity is not associated with a specific philosophy or religion, Schwabe et al. (2018). Simple Livers have the same ethical precepts as the great Religions in what is related to obtaining material wealth, being more concerned to have rich and fulfilling life experiences, which would make them inner rich, much more concerned to create quality human relationships. According to Elgin & Mitchell, 1977, pg. 9: "its scope embraces activities ranging from biofeedback, humanistic psychology, transpersonal psychology, Eastern philosophy, fundamentalist Christianity, and more."

Another concern regarding personal growth is the ability to have a Less **Stressful and Anxious Life** which has to do with some aspects of everyday life, such as the amount of work, social pressures, and **Financial** freedom. Simple Livers tend to have a more financially organized life since they have more material goods and purchase less than the average. Living with less clutter also allows people to spend less time cleaning or doing maintenance in the house.

Also, as people are buying more experiences than material goods, they tend to be more willing to share what they have. The sense of **Community Belonging** or the so-called Sharing Economy movement and its growing number of applications such as Uber, Airbnb, Couchsurf, BlaBlaCar, etc., have been gaining new customers and increasing its market share each year.

According to Frenken & Schor (2017), "Historically, although there are some exceptions, people tended not to share with strangers or those outside their social networks. Sharing was confined to trusted individuals such as family, friends, and neighbors. Today's sharing platforms facilitate sharing among people who do not know each other, and who lack friends or connections in common. Stranger sharing consequently entails a higher degree of risk, and for many of these platforms, the situations are quite intimate sharing one's home or car or eating food prepared by unknown cooks. The digital platforms

can make stranger sharing less risky and more appealing because they source information on users via the use of ratings and reputations”.

### **5.3 WHAT IS NOT VOLUNTARY SIMPLICITY?**

The cultural mindset of Voluntary Simplicity is based on what is considered Simplicity. To understand and measure the impact of Voluntary Simplicity is important to avoid any kind of misconception and be able to acknowledge what would not be a part of this type of lifestyle. According to the sources researched we could summarize Voluntary Simplicity as an attempt to go back when everything was simpler, a balance between inner and outer growth, with much less impact on nature, society, and the economy.

To create a better method to evaluate the factor that impacts simplicity and intention not to buy, we went deep into the concepts of what would not be considered as Voluntary Simplicity or Minimalism behavior.

#### **5.3.1. An Environmental Movement**

One must not declare itself as a Minimalist just because moved from the urban city areas to the country, moved to a smaller home, or because choose to buy one of the “Tiny Houses Movement” and put it in its mother-in-law backyard. We can’t equate it with a back-to-nature movement. A person doesn’t need to be taken out its urban existence to be a part of the minimalist movement. This lifestyle is compatible with people who live in the great urban areas that changed their mindset to a much simpler life.

#### **5.3.2. Living in Poverty**

Living with less is not living in poverty. It is spending money more intelligently, only buying what is needed, when it is needed and more durable products that would have less impact on nature and the economy.

#### **5.3.3. A cure for Social Problems**

Although Voluntary Simplicity implies a social evolution to a life with less, this movement itself won’t be the only answer to all the social problems as we know: it won’t eradicate disease or poverty alone or it won’t improve the heal care system just because people are eating organic local food. However, the movement may be a baseline from where we can extract models or some long-term responses that can be used to treat some social problems.

#### **5.3.4. A transitory movement**

Voluntary Simplicity is not new. It is a Cultural Movement that is been present for a long time, however, due to its similarity with other movements, sometimes were confused with them. According to Elgin & Mitchell (1977): “This is the movement towards “voluntary simplicity”—a phrase borrowed from Richard Gregg in 1936. Historically, has its roots in the legendary frugality and self-reliance of the Puritans; in Thoreau’s naturalistic vision at Walden Pond; in Emerson’s spiritual and practical plea for “plain living and high thinking”; in the teachings and social philosophy of several spiritual leaders such as Jesus and Gandhi.”

As mentioned before, the emergence of the movement and its growing awareness in TV programs, websites, films, etc., in the last years is proof that is not a movement that will fade in the years to come. It is a new social and cultural mindset, not a transitory response to a passing social condition.

### **5.3.5. Confined in one Country**

Although it seems a new trend in the United States, many European nations already show the cultural mindset of Minimalism and even export that model to other countries. According to Solomon et al. (2006): "Consumption choices cannot be understood without considering the cultural context in which they are made: culture is the 'prism' through which people view products and try to make sense of their own and other people's consumer behavior". Humans are consuming far more than the Earth can generate and soon we will be running out of natural resources. Therefore, is so important to research and understand consumer behavior in this context.

It would not be strange if we could associate consumer behavior with nationality and culture since the idea of a country is large scale related to both. If you came from a place that has natural resources abundancy it used to be normal not to have concerns about the amount of water spend in a bath or consider other types of energy sources.

An example is Brazil. Until recently, Brazilian people did not worry so much about their natural resources, and even national campaigns related to environmental concerns were not common until 2015 when Brazil faced a huge water crisis<sup>9</sup> that was affecting the population which for the first time saw themselves saving water in their houses. That is because Brazil never experienced scarcity before and was not prepared to deal with this type of crisis.

Nowadays is very common to have educational campaigns and schools are teaching about the importance of natural resources and how scarce they are. According to the "Earth Overshoot Day" website<sup>10</sup>, which studies the planet's biocapacity versus mankind's ecological footprint, in 2019 the overshoot day is July 29. This means the date when mankind's demand for ecological resources will exceed what Earth can regenerate that year.

Countries as Denmark, Finland, and Norway are examples of it and how they are coping already with scarcity and environmental issues. According to (Elgin & Mitchell 1977): "there is evidence that other nations may be opting for voluntary simplicity rather than endure the stress of striving for affluence. For example, a recent poll in Norway found that 74 percent of the total sample claimed they would prefer a simple life with no more than essentials (these were, however, not defined) to a high income and many material benefits if these have to be obtained through increased stress."

A good example is a store called IKEA. If you visit the company's website<sup>11</sup>, one could notice that the concept of the store is related to a minimalist lifestyle towards how to decorate and furnish your home.

### **5.3.6. Fulfilling your primary Necessities**

According to Maslow (1943), modern life has led humanity to need more than its necessities to live. "These necessities are arranged in hierarchies of prepotency as The Basic Needs: The 'physiological' needs; The safety needs; The love needs; The esteem needs; The need for self-actualization. This

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<sup>9</sup> Escassez de água no Brasil <https://brasilecola.uol.com.br/geografia/escassez-agua-no-brasil.htm>

<sup>10</sup> Earth Overshoot Day (2019). Retrieved from <https://www.overshootday.org/about-earth-overshoot-day/1>

<sup>11</sup> Ikea Website: <https://www.ikea.com/>

means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten, or denied. But when a need is well satisfied, the next prepotent ('higher') need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior, since gratified needs are not active motivators. It has been pointed out above several times that our needs usually emerge only when more prepotent needs have been gratified. Thus, gratification has an important role in motivation theory. Apart from this, however, needs cease to play an active determining or organizing role as soon as they are gratified (Maslow, 1943).

A voluntary Simplicity mindset is not a simple return to the basic needs of a person. The lifestyle is not related to only satisfying the hierarchies of prepotency.

According to Gregg (1936), Voluntary Simplicity is not a suppression of instincts. One should not confound Basic Needs with Basic Life. When a person chooses to take into consideration be aware of the impact that each action was taken would have on the environment, in the economy, and other people life's and optioned not to purchase as much as before, it doesn't mean that will be satisfied with the act of eating. This person won't be eating just rice or potatoes just to fulfill its food needs, for instance. This person will buy a proper amount of local and seasoned products since stoking food is not one of the Values of Voluntary Simplicity.

It is important to remind that people, when inserted in the stratified capitalist society, tend to increase the scale of what is considered essential for human life, changing the perspective about what would be considered Basic Needs. If we could compare with other types of societies like the Indian one, which is arranged in Castes, we wouldn't be able to make this affirmation.

According to The Indian Caste Society, could be described as "the ancient code of social stratification known as the caste system has defined how people earn a living and whom they marry. Despite reform efforts, deep-rooted prejudices and entitlement hold firm among higher castes, while those on the lowest rungs still face marginalization, discrimination, and violence"<sup>12</sup>.

The Dalits, a word that means divided or scattered in Sanskrit, is a group at the bottom of the caste system, lives almost in the line of poverty, with its majority earning less than \$2 a day and without access to education and even running water. Most of the time the Dalits don't have even their basic needs fulfilled. And even if they had, they are not allowed to marry people from other higher castes. This heritage regime affects not only the economy but social mobility as well.

### **5.3.7. A political movement or party?**

Voluntary Simplicity is not a political movement or party that is social and regimented organized, which has a board of directors, deputies and leaders, recruits' people, or has guidelines or criteria of inclusion.

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<sup>12</sup> <https://www.bloomberg.com/quicktake/india-s-caste-system> last visited on November 02<sup>nd</sup>, 2019. 12:06

It was not meant to be a movement that changes public policy. Voluntary simplicity is more cultural than an economic or social movement.

#### **5.4 WILLINGNESS TO BUY: A RETROSPECTIVE OF RELATED STUDIES**

Before jumping into our study subject, we believe that is also important to acknowledge what has been studied so far related to the Willingness to Buy behavior.

When you type “Willingness to buy” on the Science Direct website<sup>13</sup> we found 4.425 results with articles or books related to Willingness to buy in 10 Publication types. Without the asps, the results increase to 75.014. However, when you type “Willingness not to buy”, the website shows No Results. The same No Results advice appears when you type "voluntary simplicity and willingness to buy". Based on that, it seems that the Willingness not to buy is not as explored as it should and there is a lack of studies related to it and Voluntary Simplicity. Of course, that we can't rely only on one research website to make such affirmation, however, we will use this assumption to continue in this field.

One of the many papers used to study willingness to buy is “A wonderful life: experiential consumption and the pursuit of happiness” (Gilovich & Jampol, 2015). With this article, we could learn depending on the type of purchase you could be satisfied. This is an important indication that happiness is not always related to the act to buy and neither to the amount of what you buy.

The research goes further on the association between experiential purchase and satisfaction/happiness, saying that there are indications that experiential purchases enhance social relations, form a bigger part of a person's identity, and evoke fewer social comparisons. In this sense experiential purchases when compared with material goods purchases would bring more happiness and personal growth to the ones that chose them. According to Gilovich & Jampol (2015): “We conclude by discussing how social policy might be altered to take advantage of the greater hedonic return offered by experiential investments, thus advancing societal well-being.”

With this concept in mind, we could understand that the willingness not to buy would be also related to the type of purchase one chosen to make and that Voluntary Simplicity and Personal Growth are associated with experiences and the ability to differentiate when this experience exceeds the simple act of buying something since it will evoke feelings related to its identity and the way that this person could be perceived in its community.

One could discuss that there is a very fine line between material and experiential purchase, which would make it difficult the perception both and even more the fillings related to them. Products and Experiences don't come with a label to make it easier to differentiate them. In the end, we are the essence of the experiences we accumulate in life, not a result of the number of things we can buy and we feel more connected or similar with the ones that share or made the same experiential purchase.

In our study, we will use the concepts related to the psychological process in Gilovich & Jampol (2015) paper to measure the amount of happiness and the endurance of the satisfaction related to the Willingness not to buy.

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<sup>13</sup><https://www.sciencedirect.com/search/advanced?qs=willingness%20to%20buy&show=25&sortBy=relevance> visited on October 27<sup>th</sup>, 2019. 17:41

In another study aimed to understand if gender could be a key factor related to willingness to buy. In the paper by Herter et al. (2014): "Man, I shop like a woman! The effects of gender and emotions on consumer shopping behavior outcomes", their research aimed to demonstrate that higher levels of shopping satisfaction are not something related only to the feminine gender. "Results demonstrate that positive (vs neutral) emotions increase shopping behavior outcomes for men, to reach the same level as for women. The findings also indicate that retail environment perception mediates the effects. Moreover, the results show that positive emotions increase levels of hedonic shopping for men and that negative emotions reduce levels of hedonic shopping for women" (Herter et al.,2014).

With that in mind, we can conclude that willingness to buy is not related to a specific gender and satisfaction goes in the same direction, since men are also satisfied at the same level as women. Using this idea in our study, we want to understand if Voluntary Simplicity is not a movement confined or related to gender as well and if willingness not to buy would be somehow following the same direction.

## **5.5 WILLINGNESS NOT TO BUY AND SELF-CONTROL**

To understand what could influence the intentions of not purchasing some product or experience, we must verify what would be considered as regulatory rules for the Simple Livers. The ability to be able to regulate itself to hold back a temptation or desire to buy must be investigated as being a part of the "willingness not to buy" mindset. What types of conflicts would lead a consumer to resist the desire and how would be this experience of self-control serve a greater purpose, so they can achieve real inner growth?

The literature about regulatory power is vast, however, to better serve our study objectives, we are focused in understand the strategies related to exerting self-control (Baumeister et al., 1994) and how would be controlled (Dholakia et al.,2006).

Like the authors, we want to understand what could promote the willingness not to buy and the prevention of doing something that goes against Voluntary Simplicity values. Related to the promotion mindset is our belief that the Simple Liver's actions are motivated by ideals, inspirations, and inner accomplishments that the person would like to achieve. On the other hand, prevention is focused on regulating behavior using preoccupation and responsibilities (Dholakia et al.,2006).

Self-Control plays a major role in willingness not to buy. According to Karlsson (2003) people developed strategies that can be divided into desire-reducing and willpower mindsets to avoid exaggerated consumption. Both have to do with self-determination and personal inner growth development, since reducing desire or having willpower is something that must be learned and incorporated as a behavior.

Those concepts made us investigate what could be the determinant factors of self-control. We have learned that Financial Situation, Age, and Gender could be the answers and for that, we included demographic questions in our questionnaire to better understand their impact on the willingness not to buy.

According to Karlsson (2003): "people with a high degree of self-control also have been found to put more money aside for savings, usually those people are older, and the reason is that they have greater self-control than younger people". Instead of that, the ones whose financial situation is bad tend to consider that they would use self-control to restrict their consumption.

Another variable that may be important when it comes to self-control is gender. As previously stated, gender was always related to many impulsive purchase intention studies, and emotion would play a major role when it comes to gender as well: "For instance, men were found to use more instrumental buying considerations, while women used more emotional considerations. Assuming that, women may be expected to use more desire-reducing strategies than men, and men may be expected to use more willpower strategies than women." (Karlsson, 2003).

Self-Control questions were included in the questionnaire to access those assumptions and to measure their impact. Using the definitions above, the intention of our study is to prime Simplicity, to uncover the cultural mindset related to minimalism, and to understand the factors that impact simplicity and intention not to buy.

## **6 VOLUNTARY SIMPLICITY DEGREES**

If Voluntary Simplicity Influence in Willingness not to Buy, we believe that is also important to measure the level of the influence, to classify the intensity of this relationship (Etzioni, 1998; Elgin & Mitchell, 1977). We defined the Voluntary Simplicity Degrees as:

### **6.1 FULL VOLUNTARY SIMPLICITY ADHERENT**

This group is the true essence of voluntary simplicity as they live their lives fully and wholeheartedly dedicated to a minimalist life. They are the first adopters, the active and passionate leading edge of lifestyle: recycling, eating natural, organic, and many times vegetarian food, dedicated to meditation and other types of the inner growth process, living with less clutter, fewer clothes, using sustainable solutions to go to work, to live their daily lives and, oriented for the simples' values of living.

We believe that this group is constituted by the millennials, however, in the other developed countries, by the older, white, urban, middle age, and middle-class people.

### **6.2 PARTIAL VOLUNTARY ADHERENT**

These groups are called partial adherents because they act on some, however, not in all, of the basic values of Voluntary Simplicity. They perceive the values of the movement, but they have limitations that can't or won't be overtaken since they are, in a way, still attached to their previous lifestyle. This group is constituted by the adult population, probably, by middle age and middle class, as well.

### **6.3 SYMPATHIZERS**

The sympathizers of Voluntary Simplicity are keen on many values of Minimalism, however, because of reasons that were not yet unveiled, this group is not active in this lifestyle. These people could be most of our target population; however, we still can't affirm that.

### **6.4 INDIFFERENT, UNAWARE, OR OPPOSED.**

This group is formed by people that are living in the 2 polos of the income spectrum:

- First, we have the ones living in the highest income extreme. Not interested in living as a Simple liver, since they are oriented for achievement, and being in any other degree of Voluntary Simplicity would be a threat to their current lifestyle.
- On the opposite side, we will find people living in poverty, people who never had the chance to live with more than they need to bear living. They are involuntarily simple because they don't have a choice to live with less since they are already living with almost nothing.

In Portugal, we don't have the numbers of the group's magnitude. Our study aims to verify if these degrees of Voluntary Simplicity would fit, as well, in the country.



## 7 METHODOLOGY

The present study aims to measure whether the trend towards Voluntary Simplicity would be influential, what kind of influence, and how it acts on the willingness not to buy. To better understand if there is or is not a causal relationship between the independent variable and the dependent variable, this study will use hypothesis as a prediction mode, to provide a directional answer for our main goal. The constructs used in this study to better understand the drivers of voluntary simplicity and willingness not to buy were:

- Material Simplicity
- Human Scale
- Self-Determination
- Ecological Awareness
- Personal growth
- Self-Control

To measure if whether there is an influence of Voluntary Simplicity on willingness not to buy, we will use the scale to classify the adherents. We will measure the type of adherence to voluntary simplicity using the scale to position the individual within the levels set out below:

- Full Voluntary Simplicity Adherent
- Partial Voluntary Adherent
- Sympathizers
- Indifferent, Unaware, or Opposed

The more the respondents agree with the statements of the questionnaire, the higher will be the adherence to Voluntary simplicity, which means that the influence on the desire not to buy will also be greater. The methodology to be used to analyze and interpret the data will be Multiple Linear Regression and PLS-SEM.

According to Hair (2014): "Multiple Regression is the appropriate method of analysis when the research problem involves a single metric dependent variable presumed to be related to two or more metric independent variables." The objective of our study is to predict the causal relationship between those variables and to predict the changes in the dependent Variable (Willingness not to buy) in response to the changes in the independent variables (the constructs: Material Simplicity, Human Scale, Self-Determination, Ecological Awareness, and Personal growth). In the end, we want to predict the amount or size of the dependent variable, in our case, the degrees of Voluntary Simplicity, to be able to classify the adherents.

We are also going to use PLS-SEM since our goal is to predict the key target constructs related to that specific behavior. As we elaborate a complex structure model as our target population and sample size are small, PLS-SEM is indicated because of its broad scope and flexibility, as we can intraduct or drop latent variables to keep improving the model if we desire.

## 7.1 CONCEPTUAL MODEL

A Structural Equational Model (SEM) was created as per the model below (Figure 1). The Independent Variable is the Voluntary Simplicity Degree scale and the Dependent Variable is the Willingness not to buy. The other constructs are mediators.

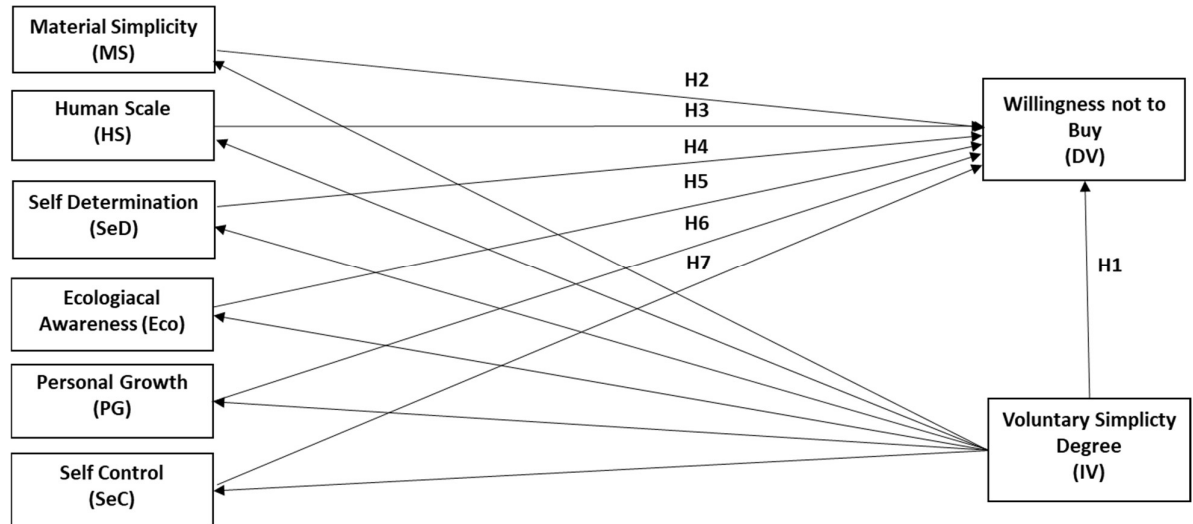


Figure 1 Conceptual Model

## 7.2 HYPOTHESIS

- **H1** – Voluntary Simplicity has an effect on willingness not to buy.
- **H2** – Material Simplicity mediates Voluntary Simplicity in the effect on willingness not to buy.
- **H3** – Human Scale mediates Voluntary Simplicity in the effect on willingness not to buy.
- **H4** – Self-Determination perception mediates Voluntary Simplicity in the effect on willingness not to buy.
- **H5** – Ecological Awareness mediates Voluntary Simplicity in the effect on willingness not to buy.
- **H6** – Personal Growth perception mediates Voluntary Simplicity in the effect on willingness not to buy.
- **H7** – Consumer self-control strategies mediate Voluntary Simplicity in the effect on willingness not to buy.

The rationale for each hypothesis were presented at the Literature Review chapter, where the explanations for each one of the Voluntary Simplicity Values and their definitions can be found. I have added Self-Control as value as its plays an important part when it comes to purchase intentions. The hypothesis were based on previous researches and papers, however the goal it was to understand how they would mediate the effect of the willingness not to buy a product or an experience and not to study if they had an direct effect.

## 8 TARGET POPULATION AND SAMPLE FRAME

### 8.1 TARGET POPULATION

The target population of the study: Millennials, with ages between 18-34, both genders, actively studying and working, and living in Portugal. Our sample will be formed by Millennials living in Greater Lisbon.

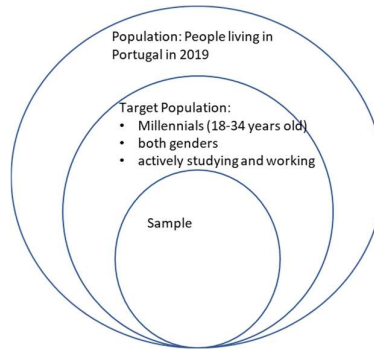


Figure 2 Population, Target Population and Sample Scheme

We choose this target population since younger people are usually motivated by philosophical concerns, more activists regarding their causes, and more willing to promote the behavior that they consider as a right. Since we didn't find any survey that could properly define Millennials as more adherent to Voluntary Simplicity, our study wants to create a profile of the Simple Livers, based on the results of our survey.

Due to the lack of research and survey to explicitly to define the demographics of adherents to Voluntary Simplicity, we should use as stating point their characteristics based on the attributes of related group, such as environmentalists, consumerists, members of "human potential" movements, on which some data are available, Elgin and Mitchell (1977). Using these concepts, the Simple Livers appears to have some characteristics that belong to the Millennial's group such as:

- Age between 18-34 years old
- Well-educated
- No difference among the sexes
- The majority are singles or belong to a young family
- Uncomfortable with political or any other type of label
- Urban residents that want someday to move to a small town in the country
- Not huge incomes as earnings
- With a middle-class background

### 8.2 ALTERNATIVE TARGET POPULATION

As an alternative target population, we believe that families in Portugal that voluntarily chose a simpler life could be considered as part of the sample frame as well since they make drastic changes in their lifestyle that could serve as a model to others to emulate their behavior. The calculations regarding the sample frame and maximum error will be analyzed further in the study.

## 9 MEASURES

As we are conducting a study to understand the cause-effect relationship between the Voluntary Simplicity and the Willingness not to buy, we decided to use a Conclusive Research test specific hypothesis and for that, we designed a questionnaire with closed questions. Our goal is to discover what would be the mechanism that leads to a likelihood of not buying after being exposed to messages that shows the advantages and disadvantages of consumption, “instead of buy something and have a momentaneous satisfaction” (Hayes, 2017). Could this cultural movement have a persuasive effect that impacts the willingness not to buy?

To study the phenomenon, marketing research will be conducted through an online questionnaire using Qualtrics software to measure people’s behavior. An advantage of using this type of research design is because is easier to access many people, is faster, cheaper, and easier to analyze, code, and interpret. We will measure how environmental and sustainability concerns, social issues such as work slavery, extreme poverty, and animal cruelty would have a persuasiveness effect, whether positive or negative, in their desire not to buy.

To elaborate the questions, we divided the Questionnaire, according to all the sources gathered to elaborate the ideas in this thesis, we use secondary data papers and books related to Voluntary Simplicity concepts. Demographic questions related to age, educational level, and gender will be present to measure whether it would have influence as well. The full constructs, their items, questions, and sources can be found in appendix 1.

Variables/Constructs (Independent Variables)	Sources				
	Source 1	Source 2	Source 3	Source 4	Source 5
Material Simplicity (MS)	(Elgin & Mitchell, 1977)	Maslow (1943)	Gregg (1936)		
Human Scale (HS)		Dillahunt et al. (2016)	Solomon et al. (2006)		
Self-Determination (SeD)			Gilovich & Jampol (2015)	Karlsson (2003)	
Ecological Awareness (Eco)		Haws et al. (2014)	Solomon et al. (2006)		
Personal growth (PG)		Baumeister et al. (1994)	Ballantine & Creery (2010)	Frenken & Schor (2017)	Karlsson (2003)
Self-Control (SeC)	Karlsson (2003)				
Gender	Herter et al. (2014)	Karlsson (2003)			
Age	Karlsson (2003)				
Voluntary Simplicity Degrees	(Elgin & Mitchell, 1977)				

Table 1 Questionnaire and Sources from literature review

## **10 ANALYSIS METHOD**

### **10.1 SCALE**

If Voluntary Simplicity Influence in Willingness not to Buy, we believe that is also important to measure the level of the influence, to classify the intensity of this relationship. We defined the Voluntary Simplicity Degrees as presented in Elgin & Mitchell (1977) paper:

- Full Voluntary Simplicity Adherent
- Partial Voluntary Adherent
- Sympathizers
- Indifferent, Unaware, or Opposed

For our study and to measure the degrees of Voluntary Simplicity, we choose a 7-point Likert Scale for the entire questionnaire besides the Demographic questions. Since we want to stipulate the levels of Voluntary Simplicity influence in a person, we need also to better understand the nuances of someone's thinking. To measure attitudes, the Likert Scale is recommended since it would allow the respondents to express the intensity (how much they agree or disagree) about a statement in the Questionnaire. Going further in our analysis, we want to be able to measure the variance present in our results.

This type of scale offers 7 different answer options that are distinct enough for the respondents to not get confused about how they should respond. Another important aspect of this scale is that including a neutral point would allow us to have more precise feedback about their opinions on the subject.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither Agree nor Disagree
- Somewhat Agree
- Agree
- Strongly Agree

The Decision Criteria to define the voluntary simplicity of the respondent is related to the number of responses they have for each point of the scale. If the respondent has more responses like Strongly Agree, we could infer that this person is most likely to be influenced by Voluntary Simplicity lifestyle and therefore a higher probability of not to buy.

### **10.2 DATA COLLECTION**

The survey was conducted from May 4<sup>th</sup>, 2020 until January 19<sup>th</sup>, 2021. During this period, 282 people responded to a questionnaire with 72 questions. The full questionnaire is in appendix 2.

### **10.3 DATA CLEANING**

To prepare the data to be processed in the analysis' software tools, we implemented Data Cleaning procedures such as removing respondents outside the survey's geographic parameters, in this case, people that are not currently living in Portugal, and the ones that did not complete the survey inside

the accepted percentage rate and the ones that. That was the first criteria used to eliminate 8,87% of the respondents, as can be seen in the below table that represents the absolute and the percentage value of the responses considered valid or not, after the cleaning.

<b>Number of Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Valid	257	91%
Excluded	25	9%
<b>Total</b>	<b>282</b>	<b>100%</b>

Table 2 Number of Respondents Included after the cleaning criteria

#### **10.4 DEMOGRAPHIC INFORMATION**

The sample is consistent with the target population of the study: Millennials, with ages between 18-34, both genders, actively studying and working, and living in Portugal, with slight changes in the demographic characteristics of the respondents that are shown in Figure 4. The gender ratio for the sample was skewed towards a higher proportion of females (37%). We can also notice that most of the respondents held a Master's (30%) or a Bachelor's (24%) degree since most of the sample was above 25 years. The most frequently reported age group was between 35-44 (24%) and 25-34 (17%), while other groups were represented in smaller proportions. Portuguese accounted for a greater number of the sample with 42%, followed by Brazilians (6%). Unfortunately, many of the respondents did not want to disclose their personal information, which was a problem, especially regarding nationality. The study wanted to consider the correlation measure; however, it was not possible since the number of non-responses.

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Don't know - Didn't want to respond	115	41%
Female	104	37%
Male	63	22%

<b>Educational Level</b>	<b>Frequency</b>	<b>Percentage</b>
Don't know - Didn't want to respond	113	40%
Master's degree	86	30%
Bachelor's degree	67	24%
Professional degree	8	3%
Undergraduate student	4	1%
High school	3	1%
Doctorate degree	1	0%

<b>Age Range</b>	<b>Frequency</b>	<b>Percentage</b>
Don't know - Didn't want to respond	117	41%
35-44	69	24%
25-34	48	17%
55-64	31	11%
18-24	17	6%

<b>Nationality</b>	<b>Frequency</b>	<b>Percentage</b>
Don't know - Didn't want to respond	124	44%
Portuguese	118	42%
Brazilian	17	6%
American	2	1%
German	2	0,7%
Spanish	2	0,7%
Brazilian/Portuguese	1	0,4%
Canadian	1	0,4%
Croatian	1	0,4%
Dutch	1	0,4%
Greek	1	0,4%
Indian	1	0,4%
Italian/Portuguese	1	0,4%
Lithuanian	1	0,4%
Macedonian	1	0,4%
Mexican	1	0,4%
Romanian	1	0,4%
Russian	1	0,4%
Serbian	1	0,4%
Slovak	1	0,4%
UK/Portuguese	1	0,4%
Ukranian	1	0,4%
Venezuelan - Dutch	1	0,4%

Table 3 Profile of the Respondents

## 11 DATA ANALYSIS

### 11.1 DATA VALIDATION

After conducting the survey, it is important to assess the reliability of the questions used in the questionnaire, especially if you are using different scales, which is not the case of this study, as the Likert Scale was used among a few demographic questions. "The reliability of any given measurement refers to the extent to which it is a consistent measure of a concept, and Cronbach's alpha is one way of measuring the strength of that consistency. Cronbach's alpha is thus a function of the number of items in a test, the average covariance between pairs of items, and the variance of the total score."<sup>14</sup>

$$\alpha = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2} \right)$$

Figure 3 Cronbach Alpha

As we wanted to measure the consistency and the efficiency of the questionnaire, we used SAS® to assess the reliability of the internal consistency of the set of questions presented to the respondent. Cronbach's Alpha coefficient is a way of estimating the reliability of a questionnaire applied in research. In other words, the Alpha assesses the quality of the questionnaire. This coefficient measures the internal consistency of a test or scale. It works by measuring the correlation between the responses in a quiz through the analysis of the profile of responses given by the respondents.

Alpha's results for this study are as per the below figure:

Cronbach Coefficient Alpha	
Variables	Alpha
Raw	0.816430
Standardized	0.846664

Table 4 Cronbach Coefficient Alpha

The results range from 0 to 1. The ideal reliability values are above the threshold of 0.70. As the value for the coefficient is above 0.80, we can interpret this result as meaning that the questionnaire holds a good internal consistency.

### 11.2 FACTOR ANALYSIS

Factor Analysis is used in marketing to explore the underlying dimensions of the data to understand consumer behavior to understand certain psychological states that cannot be measured directly, but in the meantime need to be captured somehow.

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14 Using and Interpreting Cronbach's Alpha (2015) retrieved from: <https://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/>



This method is used because perceptions regarding satisfaction, loyalty, perceived quality, or even attributes of a certain product or service are not directly measured. For this reason, we use a scale to measure attitudes and perceptions across a set of observed variables, which will allow us to access a smaller set of unobserved variables.

The objective of factor analysis is to explain the correlations between the variables and not the total variation between the data. We can also say that the second objective of Factor Analysis would be to explain the correlation between the variables using a smaller number of latent variables, which results in a reduction of data. This reduction of data into smaller groups of correlated or associated variables we call Factors.

Due to the reasons mentioned above, we consider the technique adequate to the marketing problem addressed since by reducing the original variables to a smaller set of dimensions, minimizing the loss of information, we reach dimensions that are more easily interpretable from a marketing point of view.

Based on the list of variables, we will measure the type of adherence to voluntary simplicity using the scale to position the individual within the levels set out below:

- Full Voluntary Simplicity Adherent
- Partial Voluntary Adherent
- Sympathizers
- Indifferent, Unaware, or Opposed

We expect to find factors that will relate to those levels and that can be used to position the individuals and their degree of adherence as a Minimalist.

Considering that the Factor Analysis contemplates how the original variables are correlated with each other, Thus, we resorted to the analysis of the correlation matrix in the SAS.

As in the marketing studies, one of the most frequently used scales are the Ordinal ones (Likert scale are used very often), the Spearman rank-order correlation coefficient is the recommended statistic to use when dealing with ordinal scales. Spearman's correlations allow us to measure the strength and the directions of the monotonic association between variables, although it might not be linear.

As small p-values are strongly indicative of evidence against the null hypothesis (H0), using the below scale and evaluating the p-values in the above table, we can affirm that we have statically evidence to reject the null hypothesis, as the relationship between the collected data is significantly different than what it is «stated in the H0.

At this point, based on the results of the Correlation Matrix (appendix 3), we can make some statements about the suitability of the data for the use of Factor Analysis. When looking at the values in the table cells, we found that there are high correlations between the variables, meaning that these can be grouped into evidence sets of association between the variables.

High correlations can be grouped in such a way that each set represents a hidden dimension, while low correlations show that the original variables do not have much in common, that is, they form a heterogeneous group of variables.

In this sense, it is noteworthy that the greater the correlation between the variables, the greater the probability of the Factor Analysis results being satisfactory. On the opposite, when the correlations are weak, it means that it will not be possible to carry out a significant data reduction, without this causing a considerable loss of information.

In addition to the statistical bases for the correlations of the data matrix, there are other ways to ensure that the data has sufficient correlations to justify the application of factor analysis. The partial correlations matrix should also be visually inspected to notice if it contains values above 0.70. Partial correlation is the correlation that is unexplained when the effects of other variables are considered. According to Hair (2014): "If "true" factors exist in the data, the partial correlation should be small, because the variable can be explained by the variables loading the factors. If the partial correlations are high, indicating no underlying factors, then the factor analysis would not be appropriated."

Another test to determine the appropriateness of factor analysis is Bartlett's Test of Sphericity, which is a statistical test that measures the presence of correlations among the variables. As this test is not suitable in the case of large samples, as it tends to reject the H<sub>0</sub>, we choose not to use this test for measuring the correlations.

As we are not going to use Bartlett's test, we will apply another measure to quantify the degree of intercorrelations among the variables and the appropriateness of EFA, called Measure of Sampling Adequacy or MSA.

KMO (Kaiser-Meyer-Olkin) or Measure of Sampling Adequacy, is an index that measures the ability of Factor Analysis to reduce or summarize the information provided by the original variables into a small number of factors. The higher the value of the index, the more likely it is that the Factor Analysis will derive distinct and reliable factors.

The KMO measures the adequacy of the sample and is an indicator of the homogeneity of the variables. This index ranges from 0 to 1. Although there are no formal statistical techniques to assess the value of the KMO, we must consider the generally accepted thresholds, as per the table in appendix 4.

The result sought by the researcher for the **Overall MSA** value should be always above 0.5. In our case, the value found for solutions with 7 and 5 factors **was 0.78**, which can be considered as Good. The researcher should also visually examine the variable's correlations with the other variables and extend the MSA guidelines to the individual ones and exclude those who fall in the unacceptable range. As a measure of correction, we should always start deleting the lowest MSA and then recalculating the factor analysis. We also observed the KMO value of each variable separately, to see if any of them should be removed from the dataset, as they have an inadequate value for the analysis. We noticed that the **KMO of the 8 variables was below 0.50** (appendix 5). In this sense, we decided that we would remove the chosen variables and run the factor analysis again. Once the individual variables achieve an acceptable level, then the overall MSA can be evaluated again.

First, we removed the variable **PG 10** and so on and so far, each one that displayed as results values below the threshold was being removed. After that, a reminiscent **SD5** presented a value below 0.50 it was the last one removed, after 10 consecutive tests.

The final KMO achieved had a value of **0.84** which is considered Great. The KMOs for each one of the reminiscent variables were also above 0.50.

After assessing the correlation between the variables, the next step in the Exploratory Factor Analysis is to verify the number of factors to retain.

When analyzing the SAS output, another important decision we face is the number of factors to retain that are needed to explain the correlations between the variables.

The most used criteria are the Kaiser (Eigen Values), the Pearson coefficient, and the Scree Plot. Despite having 20 different solutions for this study, based on the Accumulative proportion rule, we realized that in marketing there is no ideal solution and we considered, based on the scree plot, that 6 factors would be the number to retain was always recommended and the most suitable for the continuation of the Analysis.

The Eigen Value for standardized data must be greater than 1 and, in this case, the value for 6 factors has a value of 1.90 (appendix 6). We can also note that this number of factors can explain about 51% of the accumulated variation. It is worth noting that when it comes to human variables, it is normal to consider that the solutions represent at least 50% of the variation in the original data. Which for our marketing problem, 51% means that is an acceptable value.

In the Scree Plot, originally known as the successive decomposition of eigenvalues plot, the criterion to be used is to retain a series of factors after which there is a sharp decline in the slope of the curve. In other words, an "elbow". In all solutions, we ran (6 and 7 factors), the 6 factors appeared as the ideal number.

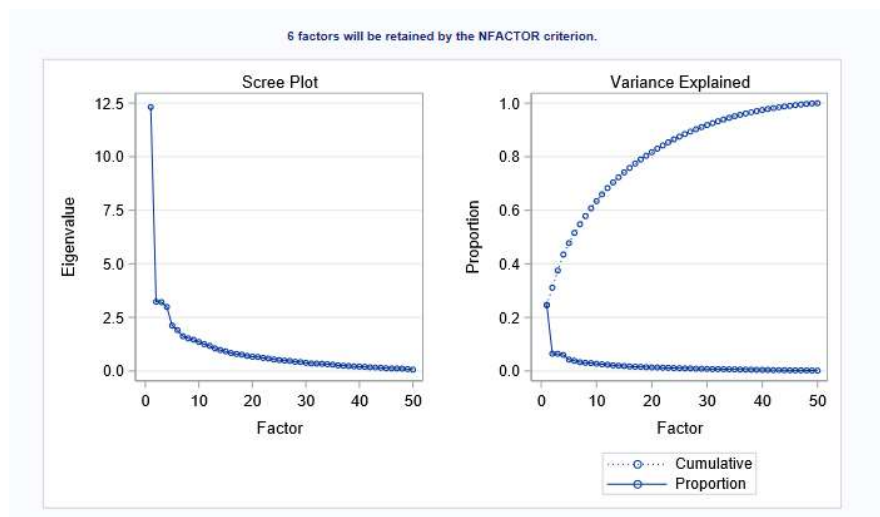


Figure 4 Scree Plot

As the objective of this study is to use the results of FA in other subsequent multivariate analyses, the chosen method to extract the factors was the Principal Components Analysis (PCA). This method was considered as more suitable as the objective of the analysis is to reduce the number of the variables to the minimal number of components that will represent the variation of the original variables, since it considers the total variance and derives factors that contains small portions of the unique variance and error variance.

After that, we moved forward and used the oblique rotation mode, and chose the Promax method. This rotation is the most suitable for obtaining several significant factors because in practice few variables are not correlated. This method starts with a Varimax rotation, which is later removed so that the factors can correlate with each other.

Finally, as we look deeper into the tables: Rotated factor pattern; Factor structure, and Inter-factor correlations, to finally understand which rotation would be more appropriate.

Another way to know more about the correlations and the best rotation to use is to compare the values of the loading in the Rotated factor structure tables (which shows the partial correlations) and the Factor structure correlations (which shows the total correlations), we saw that they were different. This indicates that the factors are correlated and means that the oblique rotation is the most suitable for the study. If the values of the loadings were equal, it means that the factors would be perfectly uncorrelated and that the orthogonal rotation would be the most appropriate, which did not happen in this case.

In this step, we will interpret the factors from the “Rotated factor pattern” table (appendix 7).

As the “goodness of fit” measures displayed non-suitable values, we aimed for the possible solutions, as per below:

- Delete some variable
- Try other rotation methods
- Increase the number of retained factors

As we observed that some variables had loadings below the thresholds established for each criterion: 0.50 for loadings and Communalities, and above the established value for the residual table (above 0.05), we concluded that the best option would be to exclude these variables from the solution.

After removing the above variables (Appendix 7 - colored in red) we notice a slight increase in the Overall KMO value, going from 0.84 to **0.85**, as the individual KMOs for each one of the remaining variables also went up, as per the table in appendix 8. The Eigen Value for 6 factors decreased from 1.90 to **1.39** and was able to explain about **62%** of the accumulated variation.

We remain with our choice of keeping the Oblique Promax Rotation, and again, we got back to the phase where we should interpret the Factors using the table “Rotated factor pattern”. As the values were above the threshold of 0.50, what is considered the ideal result, we choose moving forward with the analysis, please see appendix 9. The final solution regarding the factors and the questions is below and the full question is in appendix 10.

Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
HS6	Eco 7	MS2	PG 1	MS5	HS1
HS8	Eco 8	MS3	PG 2	SeD 2	HS2
Eco 1	Eco 9	MS4	PG 3	PG 5	
Eco 2	Eco 10	MS7		PG 7	
Eco 3	Eco 11	MS10		SeC 5	
Eco 4	Eco 12	MS11			
Eco 5		SeD 1			
Eco 13					
Eco 15					
PG 9					

Table 5 Factors per variables

We have named the factors accordingly the variables allocated in each one of them (table 5). We also have taken into consideration the fact that the names of the factors chosen were very similar to the ones of the constructs that we have in our Structural Equation Conceptual Model. In this regard, to keep the same logic used to create the structure model, it was decided that we would use constructs' names in the following analysis, Cluster, and PLS-SEM.

	<b>Factor Name</b>	<b>Construct Name</b>
<b>Factor 1</b>	Sustainability concern	Material Simplicity
<b>Factor 2</b>	Animal Cruelty concern	Ecological Awareness
<b>Factor 3</b>	Purchase Habits	Consumer Self Control
<b>Factor 4</b>	Economic Impact concern	Personal Growth
<b>Factor 5</b>	Psychological concern	Self Determination perception
<b>Factor 6</b>	Solidarity economy concern	Human Scale

Table 6 Factor Names

The final part of the Factor Analysis was to assess the Quality of the Adjust, which means the quality of the solution. After we have analyzed which factorial solution we are going to use, we must also check if the factors describe the correlation between the indicators well enough to know how good the solution is from a technical point of view.

The criteria used was the observation of the Residual Correlations Matrix - This matrix consists of the correlations between the variables excluding the effects of the extracted factors, in this sense it represents the part of the correlation that was not accounted for in the analysis.

There is no rule for the conclusive value of this measure, but in general, a solution with the RMSR that does not exceed the value of 0.05 is advisable. In the table in appendix 11, we can see that the RMSR value is **0.0546** which indicates that the factorial solution obtained through the Principal Components extraction method explains well the correlations between the variables. We can also observe that the individual RMSR of each variable is quite low.

### **11.3 CLUSTER ANALYSIS**

Before moving forward to the PLS-SEM analysis, we considered Cluster Analysis as a possible method to find segments within the data. Clustering can be a valuable tool to identify latent patterns by suggesting useful groupings (clusters) of objects that are not discernable throughout other multivariate techniques (Hair, 2014).

The focus of cluster analysis is on the comparison of the objects based on the variate not on the estimation of the variate itself, as it uses the variable specified by the researcher. The classification is done according to the relationship among the objects, based on the characteristics they possess. By objects, we mean respondents, products, or other entities.

The cluster variates represent a mathematical representation of the selected set of variables that compares the similarities of the objects.

As we don't use a definition for Segment, as there are many, we will consider as good segment, objects that can respond well to the same range of products and that can be easily reached by communication channels without spending additional budget.

Segmentation is one of the most important concepts that we have in Marketing, and it allows us to find groups with homogeneous needs to treat them as serve them separated, instead of considering the whole market.

In the case of this study, we aim to identify groups and measure their levels of adherence to voluntary simplicity, which makes cluster analysis an interesting and enticing method to be explored.

Even though using the Factor Analysis scores to execute Cluster Analysis, to minimize or even eliminate problems related to multicollinearity, we have started our analysis using the original variables, as we didn't want to lose variability and to find real clusters.

However, to make sure that we took the best decision, even though there is no unique solution when it comes to statistical analysis, we have decided to run 3 more solutions and, this time, using the 6 factors.

In the end, we choose to keep the results for the analysis based on the factors as the ones for creating the clusters. The Factorial Analysis carried out before the Cluster Analysis is because the variables showed a strong correlation with each other. This high correlation between two or more variables is called multicollinearity. According to Hair et al. (2014), "it is a form of implicit weighting, acting as a weighting process not apparent to the observer, but affecting the analysis of clusters." We choose to use the Factor Analysis to reduce the number of variables to be used by using factor scores as cluster variables.

As we didn't have any secondary research to base the number of clusters, we resorted to the 2 Steps Method: Hierarchical and Non-Hierarchical Method to finish the final number of clusters.

In the literature, the combination of the two methods is recommended because in this way the advantages of some methods would outweigh the weaknesses of the other. The advantage of the hierarchical in determining the number of clusters is complemented by the ability of the non-hierarchical to refine the results through the possibility of switching cluster members.

First, in the SAS program, we performed the hierarchical procedure that forms clusters from two types: the agglomerative method and the divisive method. The most common and most used is the Agglomerative method, all observations are treated as a cluster. There is no heterogeneity, but as observations are combined to form clusters, heterogeneity increases. As the number of clusters decreases, heterogeneity increases and indicates that 2 dissimilar clusters have been grouped. This procedure continues until a single cluster exists.

Initially, we used the hierarchical method with the variables that correspond to the 6 factors and used as proximity criterion the 3 methods present in the SAS: the centroid method, as this is less sensitive to outliers. The Average Linkage method measures the distance between all points and tends to combine clusters with small variances. Finally, the Ward method, in this case much more sensitive to outliers, since it produces a solution with low inter-cluster variance and does not consider the distances between groups. In this way, it forms clusters by maximizing homogeneity within the cluster. The tables created for the three methods are found in Appendix 12.

To facilitate the analysis, we created a table that summarizes the number of clusters to be chosen based on the results of each criterion.

	Semipartial R-Squared	R-Square	CCC	Pseudo F Statistic	Final Decision
Average Linkage	5	5	5	5	<b>5</b>
Centroids	7	7	7	7	<b>7</b>
Ward's	5	3	5	5	<b>5</b>

Table 7 Hierarchical Method

It is also usually possible to use the tree diagram (Dendrogram), in which each vertical line represents the measure of loss of homogeneity within the cluster when they are clustered. The height of the lines represents the distance between two clusters. However, the SAS output dendrogram for the 3 methods was not very conclusive and we chose to concentrate the analysis on the graphs and cluster history tables.

- **Ward's Method** was chosen as it presented the best values for the criteria selected for the number of clusters:

- **Semi Partial R Squared** - This value measures the loss of homogeneity by joining 2 groups. The value presented in the table indicates that a solution with 5 clusters would be more suitable since we expect the SPR2 values to be small.

- **Cubic clustering criterion** - The higher the CCC value, the better the clustering. In this case, we have a value for 4 clusters, which indicates that it would be the best option.

- **Pseudo-F-Statistics** - This value must also be large, in this case for 5 clusters the value is acceptable

According to Hair et Al (2014), "given the number of stopping rules available and the lack of evidence to support any single stop rule, it is suggested that the researcher employ several stopping rules and look for a solution to consensus grouping."

Taking this suggestion into account, the final decision was to proceed with the analysis with 5 clusters, as we must consider that we are testing a hypothesis's that we would have different groups of people with different levels of adherence to voluntary simplicity.

The next step is to use the Non-Hierarchical method that is based on the K- Means algorithm. For this Non-Hierarchical method, the seeds of the Wards method and the **6 Factors** of Factor Analysis were chosen to proceed with the Non-Hierarchical method using the K-Means algorithm. K-Means works by splitting the data into several user-specified clusters and then iteratively distributing as needed to the clusters until a numerical criterion is met and minimizing the distance of calls within the cluster and maximizing the distance between clusters.

We won't be standardizing the data in this case, because they are already standardized, as you can see in the table Summary Statistics.

In the Statistics for Variables table, we should use the criteria below to decide if we should keep all the variables and if the solution for 5 clusters is acceptable. However, based on the table for the 5 clusters, we were able to identify the criteria as not being acceptable, since the results were very poor and some of the clusters were not well discriminated as per their dissimilarity. After running 2 more

solutions with 4 and 6 clusters, the chosen one was the solution with **6 clusters**. With the 6 clusters, we can assure that he has enough similarity within the clusters, and it will be easier to interpret the cluster with diversity between the variables. Please find the tables in appendix 13.

- **R - Square** - Represents how much variance it is possible to explain with the solution and in this case, the general value is 0.45, which means that the model can explain about 45% of the variance, which is considered not the ideal, however, for marketing research, as an acceptable value.
- **RSQ / (1-RSQ)** - The RSQ represents the variance between clusters and the 1-RSQ the variance within the clusters. We want the RSQ value to be as high as possible and the 1-RSQ to be as small as possible. We want this value to be greater than the threshold, which is 1, to consider the solution acceptable. In this case, the global value is 0.82, which is the closest to the threshold without having too many clusters.
- **Cubic clustering criterion** - The higher the CCC value, the better the clustering. In this case, we have the absolute value of (0.756) for 6 clusters, which indicates that it would be the best option.
- **Pseudo-F-Statistics** - This value must also be large, in this case for 6 clusters the value is acceptable (26.57)

When looking at the Cluster Summary table, we can see that some of the clusters are very similar when we look at the Distance Between Clusters Centroids and Nearest Clusters columns, we saw that some of them have similar distances, which we could consider as indicative of possibly clustering. However, based on the criteria presented above and the fact that 3 clusters could be a small number in terms of representativeness of the population, we chose to remain and to proceed with the 6 cluster solution.

Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	17	0.8960	3.4995		6	2.1118
2	24	0.8742	3.8739		4	2.4122
3	38	0.7188	2.7463		4	1.8897
4	47	0.6647	2.9727		5	1.7684
5	18	0.7128	2.8563		4	1.7684
6	24	0.7590	2.8316		1	2.1118

Table 8 Cluster Summary

Since we used the factors scores to create the clusters, we also used them to create bar graphs as a means of characterization. The bar charts for the 6 clusters are in appendix 14 of this report, as they were many. As the main objective of the Cluster Analysis is the realization of an offer, we have proceeded with the characterization of the clusters and for this, it uses SAS and Excel as tools for the elaboration of the groups.



In SAS, bar graphs were created based on 6 Factor Analysis factors. To characterize each of the clusters, we created a table that summarizes the interpretation that was made from the values in the graphs and the signs, whether positive or negative. We used the Cluster method to identify the levels of voluntary simplicity, to understand the degrees, based on the results, we would have found the 4 ones as stated in our study and mentioned previously in the Elgin & Mitchell (1977) paper as Full Voluntary Simplicity Adherent, Partial Voluntary Adherent, Sympathizers and Indifferent, Unaware, or Opposed. To summarize, we have created the table below.

In a marketing-wise context and as per the above Cluster Summary table, we could corroborate the idea that clusters 1 and 6 could be grouped in 1, however, the other groups can be differentiated by their levels of adherence and clusters 5 and 2, even though not listed as being a possible group could be also identified in our analysis as a likely to be one too. To identify the levels, we took into consideration if the individual was concerned or not with the underlying dimensions (factors). The score was based on the amount of concern, as per the following example: to be a Full Voluntary Simplicity Adherent the individual should have at least 90% of the score, which means being concerned with 5 in 6 of the factors. On the contrary, to be considered as being Indifferent, Unaware, or Opposed, the individual should have none or very low concern. Based on the results we were also able to differentiate the scale Indifferent, Unaware or Opposed, as we notice that the level could also be discriminated.

According to Etzioni (1998), the voluntary simplicity consumers can adopt the lifestyle on sliding scale of involvement, in 3 levels of intensity: Downshiffters (moderate simplifiers, forgoing some consumer goods while maintaining the majority of their consumer lifestyle), Strong simplifiers (those that give up high paying jobs to live with much less income and that restricting their consumption accordingly) and Holistic Simplifiers (adjusted their life entirely to fit the Voluntary simplicity ethic, with the total intension of living a simple life). Those levels would not be considered for the purpose of this study, as they would reduce the degrees in only 3 and would not be enough to classify behaviors that we have nowadays.

<b>Voluntary Simplicity Degree</b>	<b>Scale</b>
Full Voluntary Simplicity Adherent	Very much concerned or concerned
Partial Voluntary Adherent	Concerned and Somewhat Concerned
Sympathizers	Concerned or not much concerned
Indifferent	Neutral or somewhat concerned
Unaware	Somewhat or not concerned
Opposed	Not much concerned

Table 9 Voluntary Simplicity Degrees X Scale

<b>Opposed</b>	<p><b>Cluster 1</b></p> <p>not concerned with sustainability  not concerned with Animal cruelty  not concerned with its purchase habits  not much concerned with the economic impact  not much concerned with the psychological concerns  concerned with the solidarity economy</p>
<b>Unaware</b>	<p><b>Cluster 2</b></p> <p>not much concerned with sustainability  somewhat concerned with Animal cruelty  somewhat concerned with its purchase habits  concerned with the economic impact  not concerned with the psychological concerns  not concerned with the solidarity economy</p>
<b>Full Voluntary Simplicity Adherent</b>	<p><b>Cluster 3</b></p> <p>very Concerned with sustainability  very Concerned with Animal cruelty  concerned with its purchase habits  concerned with the economic impact  concerned with the psychological concerns  not concerned with the solidarity economy</p>
<b>Partial Simplicity Adherent</b>	<p><b>Cluster 4</b></p> <p>concerned with sustainability  very Concerned with Animal cruelty  somewhat concerned with its purchase habits  somewhat concerned with the economic impact  somewhat concerned with the psychological concerns  concerned with the solidarity economy</p>
<b>Sympathizers</b>	<p><b>Cluster 5</b></p> <p>not concerned with sustainability  not concerned with Animal cruelty  concerned with its purchase habits  concerned with the economic impact  concerned with the psychological concerns  concerned with the solidarity economy</p>
<b>Indifferent</b>	<p><b>Cluster 6</b></p> <p>Neutral</p> <p>somewhat concerned with Animal cruelty  not much concerned with its purchase habits  not concerned with the economic impact  somewhat concerned with the psychological concerns  somewhat concerned with the solidarity economy</p>

Table 10 Clusters x Voluntary Simplicity Degrees

#### 11.4 PLS-SEM ANALYSIS

The data analysis moves forward for the PLS-SEM. The PLS-SEM also called PLS path modeling is primarily used to develop theories in explanatory research. It does this by focusing on explaining the variance in the dependent variables when examining the model.

Multivariate Analysis involves the application of statistical methods that simultaneously analyze multiple variables representing measurements associated with individuals, companies, events, activities, situations, and so on. SEM is used to either explore or confirm a theory. As the objective of this study is to confirm a theory, SEM is an appropriate technique to test our hypothesis. The method is known to minimize the amount of unexplained variance, as it maximizes the R2 values and has high levels of statistical power.

The Structure Model tests the Mediating Effect caused by the constructs. The objective is to predict based on the variance of the dependent variables. Used with the measured nominal, ordinal, interval, and ratio scales. In this case of this study, the interval scale was the chosen one. In the case of PLS-SEM, generally, it does not make assumptions about the data distributions. As the model is quite complex this is not going to be an issue for the PLS-SEM, especially because we followed the appropriate rules regarding the minimum sample size requirements. The independent variable present in the conceptual model (Voluntarily Simplicity Degree) is measured through the Clusters obtained in the previous analysis.

#### 11.4.1. Evaluation of the Measurement Model

The first step when analyzing the results from the PLS-SEM is to evaluate the measurement model, which is responsible to represent the relationships between the constructs and their corresponding indicator variables. As the direction of the arrows goes from the construct to the indicators, this type of measurement model is referred to as Reflective. The Reflective measurement approach aims at maximizing the overlap between interchangeable indicators.

The first step was to check the Internal Consistency, the composite reliability, the Convergent validity (AVE – Average variance extracted), and the Discrepant Validity. Checking the composite reliability and convergent validity we notice values below the threshold.

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
Eco	0.5148	0.9402	0.0463	0.9334	0.5148	0.0192
HS	0.2562	0.6012	0.0006	0.4171	0.2562	0.0005
MS	0.3288	0.0438	0.0406	0.0382	0.3288	0.0153
PG	0.3020	0.7208	0.0040	0.6339	0.3020	0.0011
SeC	0.2128	0.1891	0.0311	0.1731	0.2128	0.0078
SeD	0.2078	0.0237	0.0036	0.1728	0.2078	0.0006
Voluntary Simplicity Degree	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Willingness not to buy	1.0000	1.0000	0.4798	1.0000	1.0000	0.0176

Table 11 Measurement Model – Overview, with all the indicators in the conceptual model

The composite reliability values fluctuate between 0 and 1, with higher values indicating higher levels of reliability, however, according to Nunally & Bernstein, 1994, values of 0.60 to 0.70 are acceptable in exploratory research, while in more advanced stages of research, values between 0.70 and 0.90 are identified as satisfactory. When the researcher finds values below 0.60 indicate a lack of internal consistency reliability, which was the case when we calculate the loadings for all the indicators in each construct.

As a rule of thumb, the latent variable should explain a substantial part of each indicator's variance, usually at least 50%. This also implies that the variance shared between the construct and its indicator is larger than the measurement error variance. This means that an indicator's outer loading should be above 0.708 since that number squared (0.7082) equals 0.50, and in most cases, 0.70 is considered close enough to 0.708 to be acceptable.

Since the first calculations displayed several indicators below the threshold value, removing indicators was considered and carried on, as the elimination of one or more indicators might improve the reliability or discriminant validity but at the same time decrease the measurement's content validity. Generally, indicators with outer loadings between 0.40 and 0.70 should be considered for removal from the scale only when deleting the indicator leads to an increase in the composite reliability.

A common measure to establish convergent validity on the construct level is the average variance extracted (AVE). This criterion is defined as the grand mean value of the squared loadings of the indicators associated with the construct (i.e., the sum of the squared loadings divided by the number of indicators). Therefore, the AVE is equivalent to the communality of a construct. Using the same logic as that used with the individual indicators, an AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct.

We started by removing the indicators with loadings below 0.4: HS4, SEC1, SEC3, SEC5, MS9, SeD2, SeD3, SeD5, SeD8, SeD7, MS5, PG4, PG5, PG10, HS9, HS10, and HS11. As the results were not satisfactory, we moved forward and removed the loadings below 0.50: HS2, MS1, MS4, MS8, and PG7. We continued and removed the values below 0.60, as the results were not yet the ones expected: SeD6, PG8, PG9, PG6, MS6, MS10, HS7, HS5, HS1, Eco11, and Eco15. The last values removed were the ones below 0.70: SeD1, SeC4, Eco 10, Eco 12, Eco14, Eco5, Eco,6, Eco7, Eco8, and Eco9.

After removing the referred indicators, the values for the Internal Consistency and the Convergent Validity were improved and they were above their established thresholds, with exception of MS (**0.67**), however, as the presented study is exploratory research, the value between 0.60 and 0.70 are considered acceptable. The indicator gender was also removed as its value was below 0.60.

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
Eco	0.7296	0.9308	0.0634	0.9064	0.7296	0.0458
HS	0.6418	0.842	0.0064	0.723	0.6418	0.0036
MS	0.633	0.6714	0.0174	0.1459	0.633	0.0125
PG	0.8182	0.931	0.0536	0.8898	0.8182	0.0454
SeC	1.0000	1.0000	0.0171	1.0000	1.0000	0.0171
SeD	1.0000	1.0000	0.0034	1.0000	1.0000	0.0034
Voluntary Simplicity Degree	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Willingness not to buy	1.0000	1.0000	0.5146	1.0000	1.0000	0.0851

Table 12 Measurement Model – Overview, with the remaining indicators

The last thing is the Discriminant Validity. Establishing Discriminant Validity implies that a construct is unique and captures phenomena not represented by other constructs in the model, Hair et al., (2014). In practice, we use the Fornell-Larcker criterion measure. In this method, we need to compare the square root of each construct's AVE (in red) with the latent variable correlation, the AVE should be greater than its highest correlation with any other construct. In the below table we display the results.

	Eco	HS	MS	PG	SeC	SeD	Voluntary Simplicity Degree	Willingness not to buy
<b>Eco</b>	0.8542							
<b>HS</b>	0.6954	0.8011						
<b>MS</b>	0.3722	0.3727	0.7956					
<b>PG</b>	0.2842	0.3411	0.2205	0.9045				
<b>SeC</b>	0.3011	0.1892	0.1631	0.0268	1.0000			
<b>SeD</b>	0.4403	0.4491	0.4341	0.3900	0.0857	1.0000		
<b>Voluntary Simplicity Degree</b>	0.2519	0.0803	0.1321	-0.2315	0.1307	0.0581	1.0000	
<b>Willingness not to buy</b>	0.4346	0.4479	0.6472	0.2828	0.1557	0.5044	0.0146	1.0000

Table 13 Fornell-Larcker Criterion results for the Discriminant Validity

The next step is the evaluation is of the Structure Model. To assess the results for the structural model, it is important to evaluate collinearity, bootstrapping for path coefficients, coefficient of determination (R2), and total effect, according to Hair et al., (2017). First, we checked the existence of collinearity issues using the VIF, at SAS. All the values are satisfactory, as the threshold for the independent variables, should be below 5.

Variable	DF	Parameter Estimates				Tolerance	Variance Inflation
		Parameter Estimate	Standard Error	t Value	Pr >  t		
Intercept	1	-0.00002029	0.05508	-0.00	0.9997	.	0
Eco	1	0.11241	0.08409	1.34	0.1832	0.42903	2.33082
HS	1	0.09947	0.08029	1.24	0.2172	0.47066	2.12467
MS	1	0.49034	0.06357	7.71	<.0001	0.75079	1.33193
PG	1	0.00811	0.06437	0.13	0.8999	0.73210	1.36593
SeC	1	0.01876	0.05816	0.32	0.7474	0.89692	1.11492
SeD	1	0.19834	0.06837	2.90	0.0042	0.64907	1.54067
Voluntary Simplicity Degree	1	-0.09857	0.06077	-1.62	0.1068	0.82152	1.21726

Table 14 VIF – Variance Inflation

When analyzing the proposed structural model (appendix 15) together with the Path Coefficient table (appendix 16), that not all the paths were statically significant, based on the results presented in the T-Statistics test, at the 10% Level of Significance. The removed paths are PG -> Willingness not to buy (0.1265), SeC -> Willingness not to buy (0.2762), Voluntary Simplicity -> SED (0.6558), Voluntary Simplicity -> HS (0.8353), HS -> Willingness not to buy (0.2149), Voluntary Simplicity -> MS (1.4608) and Voluntary Simplicity -> SEC (1.4771), and the final model is below.

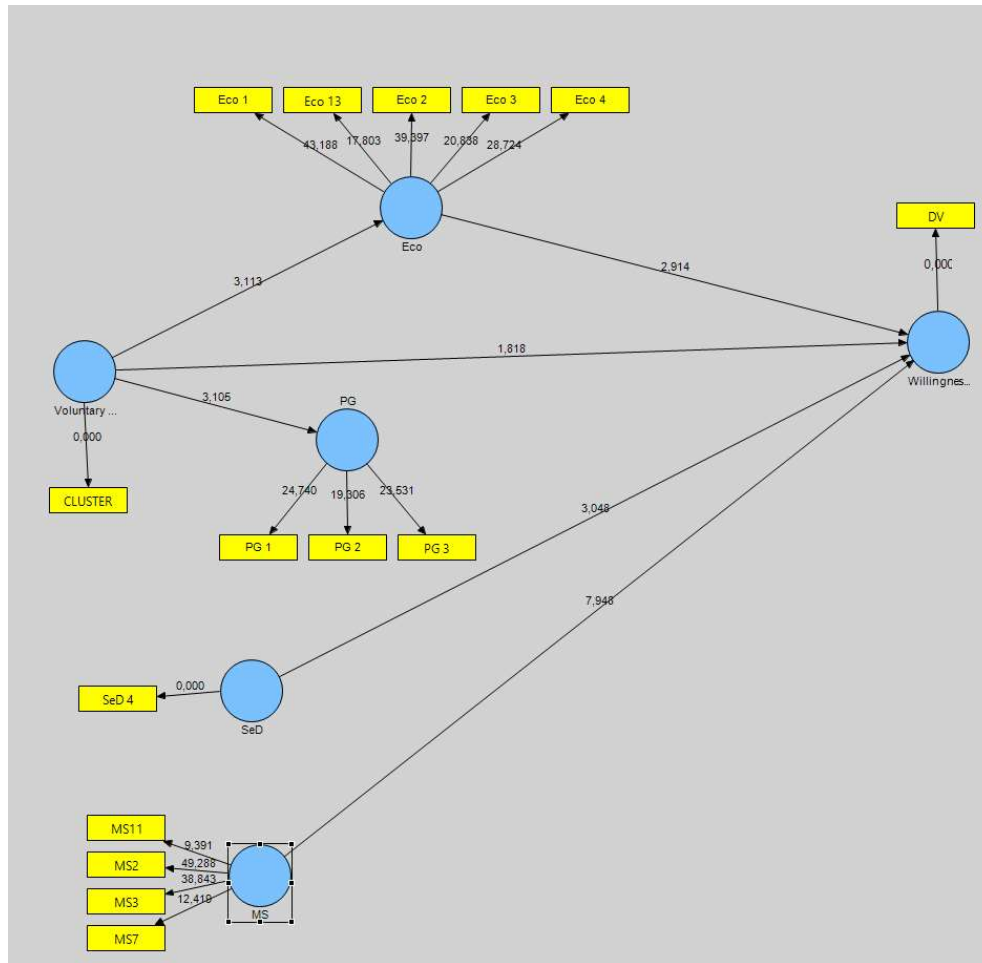


Figure 5 Final Model

The Coefficient of Determination (R<sup>2</sup>) represents the amount of variance in the endogenous constructs explained by the exogenous constructs. The model has 51.22% of the variation. It is difficult to provide rules of thumb for acceptable R<sup>2</sup> values as this depends on the model complexity and the research discipline. Whereas R<sup>2</sup> values of 0.20 are considered high in disciplines such as consumer behavior, in success driver studies (e.g., in studies that aim at explaining customer satisfaction or loyalty), researchers expect much higher values of 0.75 and above. In scholarly research that focuses on marketing issues, R<sup>2</sup> values of 0.75, 0.50, or 0.25 for endogenous latent variables can, as a rough rule of thumb, be respectively described as substantial, moderate, or weak (Hair, Ringle, & Sarstedt, 2014).

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R Square</b>	<b>Cronbachs Alpha</b>	<b>Communality</b>	<b>Redundancy</b>
Eco	0.7296	0.9308	0.0634	0.9064	0.7296	0.0458
MS	0.6315	0.6745	0.0000	0.1459	0.6315	0.0000
PG	0.8177	0.9308	0.0581	0.8898	0.8177	0.0458
SeD	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Voluntary Simplicity Degree	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Willingness not to buy	1.0000	1.0000	0.5122	1.0000	1.0000	0.1250

Table 15 Checking the Final Model – table Overview

The Q2 value for the assessment of predictive relevance was assessed by using the blindfolding procedure. The omission distance (D) has been specified as 7 respecting the fact that D is not a multiple of the number of observations (168), otherwise, the blindfolding procedure could not be executed. After running the blindfolding procedure, the resulting Q2 value is greater than 0 which indicates the predictive relevance is under consideration. Precisely, the value of 0.4678 has been obtained for the construct of Willingness not to buy which indicates a large predictive relevance. The results of the assessment of predictive relevance Q2, together with the obtained cross-validated redundancy measures are presented in table 16.

<b>Total</b>	<b>SSO</b>	<b>SSE</b>	<b>1-SSE/SSO</b>
Eco	840	801.5364	0.0458
PG	504	480.9044	0.0458
Willingness not to buy	168	89.4151	0.4678

Table 16 Construct Crossvalidated Redundancy

#### 11.4.2. Results of the Hypothesis testing

Considering these results together with the results from data examination, the assessment of measurement model and the assessment of higher-order construct all constructs as well as the model as a whole exhibit satisfactory levels of quality. The constructs HS and SeC were removed from the model and all the hypotheses where the mediation was tested, were rejected excepted, H5 (Ecological Awareness mediates Voluntary Simplicity in the effect on willingness not to buy). The hypothesis H1 (Voluntary Simplicity has an effect on willingness not to buy) presents evidence of being statistically relevant at a 10% significant level. Self-Control (Karlsson, 2003) and Material Simplicity (Elgin & Mitchell, 1977; Maslow, 1943 and Gregg, 1936) dimensions have an impact on the Willingness not to buy, however, without mediating the Voluntary Simplicity Degrees. Personal growth Dimension (Elgin & Mitchell, 1977; Baumeister et al., 1994; Karlsson, 2003; Ballantine & Creery, 2010 and Frenken & Schor, 2017) is influenced by the Voluntary Simplicity degrees, however, without serving as its mediator, as per the below table:

<b>Hypothesis</b>		<b>Supported?</b>
<b>H1</b>	Voluntary Simplicity have an effect on willingness not to buy.	<b>Yes</b>
<b>H2</b>	Material Simplicity mediates Voluntary Simplicity in the effect on willingness not to buy.	No
<b>H3</b>	Human Scale mediates Voluntary Simplicity in the effect on willingness not to buy.	No
<b>H4</b>	Self-Determination perception mediates Voluntary Simplicity in the effect on willingness not to buy.	No
<b>H5</b>	Ecological Awareness mediates Voluntary Simplicity in the effect on willingness not to buy.	<b>Yes</b>
<b>H6</b>	Personal Growth perception mediates Voluntary Simplicity in the effect on willingness not to buy.	No
<b>H7</b>	Consumer self-control strategies mediate Voluntary Simplicity in the effect on willingness not to buy.	No

Table 17 Summary of Hypothesis testing

## **12 DISCUSSION**

The findings indicate that the final conceptual model has strong predictive power on the Voluntary Simplicity Degrees and its impacts in Willingness not to buy. The Theoretical, Social, and Practical Implications will be addressed in this chapter as per the results that arise from the analysis applied in the study: Factor Analysis, Cluster, and Partial Least Squares (PLS-SEM).

### **12.1 THEORETICAL IMPLICATIONS**

Despite becoming a well-known subject nowadays, Minimalism and Voluntary Simplicity studies are, undoubtedly, a field to be explored, as many theories can emerge related to consumer behavior linked to this mindset. The objective of this study was to provide a conceptual framework that could serve as a base for future studies and research.

The present study aimed to measure whether the trend towards Voluntary Simplicity would be influential, what kind of influence, and how it would affect the willingness not to buy (Vita et al., 2020; Lubowiecki-Vikuk et al., 2021; Kang et al., 2021 and Balderjahn et al., 2021). To better understand if there was or not a causal relationship between the independent variable and the dependent variable, this study used hypothesis as a prediction mode, to provide a directional answer for our main goal. The object was to understand what would be the constructs that impact voluntary simplicity and willingness not to buy.

Theoretically, this research makes four important contributions to the literature. First, based on the results, we have learned that our proposed model validated the relationship between Voluntary Simplicity Degrees (Elgin & Mitchell, 1977) and Ecological Awareness (Elgin & Mitchell, 1977; Haws et al., 2014 and Solomon et al. 2006) as its mediator as it tested significantly in our prediction. Voluntary Simplicity degrees do have an impact on Willingness not to buy and the Ecological Awareness dimension acts as a mediator that plays an important effect on that relationship, influencing the Willingness not to buy. We also noticed that Self-Control (Karlsson, 2003) and Material Simplicity (Elgin & Mitchell, 1977; Maslow, 1943 and Gregg, 1936) dimensions have an impact on the Willingness not to buy, however, without mediating the Voluntary Simplicity Degrees. Personal growth Dimension (Elgin & Mitchell, 1977; Baumeister et al., 1994; Karlsson, 2003; Ballantine & Creery, 2010 and Frenken & Schor, 2017) is influenced by the Voluntary Simplicity degrees, however, without serving as its mediator.

In The present study, we can verify the importance of the Voluntary Simplicity Degrees as a factor that positively influences the willingness not to buy. The Degrees were extended from 4 to 6, as we learned that we could split the Indifferent, Unaware, or Opposed into 3 different categories. With that in mind, the use of these clusters should be taken into consideration, as we are supporting previous work that suggested the existence of these Degrees as per the Elgin & Mitchell (1977) paper, but going further, as we found more dissimilarities in the population. This means that, with the growth of environmental education, more access to information, and with society more concerned about the impacts of human actions in the environment, that in our generation, people are taking into consideration Ecological concerns when buying products or consuming experiences.



Another theoretical implication of the study is that results provide meaningful insights regarding the other dimensions and even though Self-Control and Material Simplicity our research model results did not show a significant relationship when mediating the relationship, they are keen to the intention of not buying, as being able to control the desire of buying frivolous and luxury items in addition of considering itself a person that only buys what is needed and that people may perceive and consider as a minimalist have a positive effect when influencing people. However, the other hypothesis could not be accepted as they have shown no evidence of statically significance to reject the null hypothesis.

Finally, the third contribution of the study is that we can state that people that are more concerned with the environment and animal cruelty and not buying without a need are more likely to consume less and hold the desire of purchasing being more self-controlled as the perception of seeing as a minimalist and not expendable person is also important. Sustainable consumption would be the main objective of those the Voluntary simplicity degree has an effect on the willingness not to buy as this can be seen even more in the actual conjuncture as the world economy suffered a major impact due to Covid-19 pandemic.

## **12.2 SOCIAL AND PRACTICAL IMPLICATIONS**

As various lifestyle definitions are available and the concept itself has different dimensions, the purpose of this study is to understand the underlying dimensions related to how consumers make their purchasing decisions.

In this sense, regarding the study objectives, our final model confirmed that the intention not to buy is not a result of guilt embedded in the subconscious of those who decide to adhere to this downsizing and the redefinition of values and concepts about what is important and essential for life or a trend that is not here to stay. More people are changing their mindset related to the importance of developing sustainable consumption behavior.

Meanwhile, when trying to understand the population that is following the minimalism path, we can say that there were slight changes from the previous profile presented in Elgin & Mitchell (1977), and with the sample being consistent with the target population of the study. The gender ratio for the sample was skewed towards a higher proportion of females (37%). We can also notice that most of the respondents held a Master's (30%) or a Bachelor's (24%) degree since most of the sample was above 25 years. The most frequently reported age group was between 35-44 (24%) and 25-34 (17%), while other groups were represented in smaller proportions. Portuguese accounted for a greater number of the sample with 42%, followed by Brazilians (6%).

Another important social implication brought for our study is the confirmation that is possible to classify their levels as Voluntary Simplicity adepts and we have been able to even identify and split a group that was previously grouped. In the end, we were able to have 6 instead of 4 degrees: Full Voluntary Simplicity Adherent, Partial Voluntary Adherent, Sympathizers, Indifferent, Unaware, and Opposed. The work also contributes to several fields of the market, as we believe that lower consumption is related to important movements not only from the environmental standpoint but from society in general. We have created new primary data that could be used for other studies and companies interested in consumer behavior and purchase intentions.

When accessing the intrinsic question of whether gender would be decisive when deciding to buy products or not and if society would be organized to adopt minimalism as its predominant lifestyle and

rethink their way of life and influence others around them, there is not yet enough evidence in our study to state that this could be addressed in future studies to come.

The present work offers a new perspective regarding consumer behavior and how the mindset of the consumers is changing through time. No previous studies have validated a conceptual model using these specific dimensions with Willingness not to buy as most of the studies are related to the intention to purchase. Furthermore, we have not found previous research predicting Voluntary Simplicity Degrees as impacting Willingness not to buy. In this sense, the main theoretical contribution of this research was understanding the levels of Voluntary Simplicity, testing its relationship with the likelihood of not buying something, by revealing the mechanism that would influence it.

Besides its substantial theoretical contributions, this study also reveals practical implications related to the questions raised about consumption and lifestyle, as they are a key to a change that would help minimize those effects on our planet to reduce consumption on a large scale. It has been proved among numerous research that a consumer's cultural orientation affects not only the nature of the information that comes with a message but also the role of effect in the process and the type of goals that will motivate consumers (Shavitt et al., 2006).

Regarding Market and economy, new types of businesses linked to sustainability can arise linked to the era of voluntary simplicity or minimalism. Another aspect is that people who consume more consciously tend to have a more financially healthy life with less debt. Also, as people are buying more experiences than material goods, they tend to be more willing to share what they have.

### **12.3 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

Although the study provides significant contributions to the field of consumer behavior, several limitations should be addressed in future studies. The first is the lack of studies and implications regarding Voluntary Simplicity, Minimalism, and Intention is not to buy. TV programs, Documentaries, and News were used to support the elaborate theoretical part of the research.

Another limitation was the lack of people interested in participating in responding to the survey. It was hard work finding people that would have enough time to respond to more than 50 questions. As known, a small sample size can cause issues in generalizing the results to the larger target population. However, according to Hair et al. (2014), the PLS-SEM results are supported even if the sample size is small, and for that reason, we believe that the results allow generalizations since the chosen sample is representative of our target population and the study could be replicated in other countries of the world.

This study also has some limitations and suggestions for further research. It would be interesting to examine the model in a sample that represents different cultures and countries, as the culture aspect could represent an underlying dimension that could impact the results.

The disadvantages and challenges of Voluntary Simplicity could be the subject of future research to examine if they would be major constraints to its adoption. The COVID-19 Pandemic is one of those examples, as the situation brought to light the 2 faces of the same coin, one we had people that were forced to face and deal with the clutter in their homes, forcing them not to go complete minimalist but to rethink their consumption and sometimes downsizing or organizing it. On the other hand, people

that were already living in tiny spaces were also forced to admit that sharing the space with the spouse, kids, and pets during the confinement was not an easy task. As the companies embraced remote work and some suddenly had their jobs in an outstanding suspension, the isolation put an augmentative lens in our lives, many divorces were reported to be filed during the crisis, as also the rise of domestic violence and child abuses. As humanity was obliged to spend time with their families and get to know each other, the reality of not having more space became too much for some.

## **12.4 CONCLUSION**

This study provided valuable insights into the key factors influencing the Willingness Not to buy. The model explains 51% of the variance of variables presented, which is a good value in market research, still, some important factors might not be included in the research model that could have been useful to further studies in the field of consumer behavior.

This study contributes to the current literature by highlighting the significant role of Minimalism and Voluntary Simplicity in society and its potential to be a lifestyle to be adopted if the mindset continues to shift in the next generations. As environmental warnings are being given in the news every day, with global warming, ocean levels rising, and other possible catastrophes that might impact our lives earlier than we think.

It is important to mention that this study was conducted before the COVID-19 Pandemic and the confinement that took place in Portugal and all over the world.

## 13 REFERENCES

- Ahlfeldt, G. M., Maennig, W., & Ölschläger, M. (2014). Measuring and quantifying lifestyles and their impact on public choices: The case of professional football in Munich. *Journal of Economic and Social Measurement*, 39(1–2), 59–86. <https://doi.org/10.3233/JEM-140387>
- Lubowiecki-Vikuk A., Dąbrowska A., Machnik A. (2021). Responsible consumer and lifestyle: Sustainability insights. *Sustainable Production and Consumption*, Volume 25, Pages 91-101. <https://doi.org/10.1016/j.spc.2020.08.007>.
- Ballantine, P. W. and Creery, S. (2010), The consumption and disposition behaviour of voluntary simplifiers. *Journal of Consumer Behaviour*, 9: 45-56. <https://doi.org/10.1002/cb.302>
- BİL, E., & SAYGILI, M. (2017). the Investigation of Voluntary Simplicity Lifestyle from the Point of Personality Characteristics: a Research on Clothing (Garments and Shoes) Product Group. *Journal of Life Economics*, 4(4), 239–260. <https://doi.org/10.15637/jlecon.237>
- Brick, J., & Kalton, G. (1996). Handling missing data in survey research. *Statistical Methods in Medical Research*, 5(3), 215–238. <https://doi.org/10.1177/096228029600500302>
- Carver, C. (2019). Project 333™. Retrieved from <https://bemorewithless.com/project-333/>. Visited on 10/06/2019.
- Craig-Lees, M. and Hill, C. (2002), Understanding voluntary simplifiers. *Psychology & Marketing*, 19: 187-210. <https://doi.org/10.1002/mar.10009>
- Cronbach, Lee J. (1951). "Coefficient alpha and the internal structure of tests". *Psychometrika*. Springer Science and Business Media LLC. 16 (3):297334. doi:10.1007/bf02310555. hdl:10983/2196. ISSN 0033-3123.
- Dholakia, U. M., Gopinath, M., Bagozzi, R. P., & Natarajan, R. (2006). The Role of Regulatory Focus in the Experience and Self-Control of Desire for Temptations. *Journal of Consumer Psychology*, 16, 163-175. [https://doi.org/10.1207/s15327663jcp1602\\_7](https://doi.org/10.1207/s15327663jcp1602_7)
- Dillahunt, T. R., Lampinen, A., O'Neill, J., Terveen, L., & Kendrick, C. (2016). Does the Sharing Economy do any Good? 197–200. <https://doi.org/10.1145/2818052.2893362>
- Earth Overshoot Day (2019). Retrieved from <https://www.overshootday.org/about-earth-overshoot-day/1>. Visited on 15/06/19.
- Ein-Gar, D. (2015). Committing under the shadow of tomorrow: Self-control and commitment to future virtuous behaviors, *Journal of Consumer Psychology*, Volume 25, Issue 2, Pages 268-285 <https://doi.org/10.1016/j.jcps.2014.08.006>.
- Elgin, Duane & Mitchell, Arnold. (1977). Voluntary simplicity. *Strategy & Leadership*. 5. 13-15. <https://doi.org/10.1108/eb053820>.
- Escassez de água no Brasil (2014). Retrieved from <https://brasilecola.uol.com.br/geografia/escassez-agua-no-brasil.htm>. Visited in 08/11/2019.

Frenken, K., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Societal Transitions*, 23, 3–10. <https://doi.org/10.1016/j.eist.2017.01.003>

Vita G., Ivanova D., Dumitru A., García-Mira R., Carrus G., Stadler K., Krause K., Wood R., Hertwich E.G. (2020). Happier with less? Members of European environmental grassroots initiatives reconcile lower carbon footprints with higher life satisfaction and income increases. *Energy Research & Social Science*, Volume 60. <https://doi.org/10.1016/j.erss.2019.101329>.

Gilovich, T., Kumar, A. and Jampol, L. (2015), A wonderful life: experiential consumption and the pursuit of happiness. *Journal of Consumer Psychology*, 25: 152-165. <https://doi.org/10.1016/j.jcps.2014.08.004>

Goforth, Chelsea. Statistical Consulting Associate University of Virginia Library. Using and Interpreting Cronbach's Alpha (2015) retrieved from: <https://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/> (Visited on 09/08/2021)

Gregg, R.B. (1936). *The Value of Voluntary Simplicity*. Pendle Hill Essays.

Grigsby, Mary. (2004). *Buying Time and Getting By: The Voluntary Simplicity Movement*.

Haws, K. L., Winterich, K. P., & Naylor, R. W. (2014). Seeing the world through GREEN-tinted glasses: Green consumption values and responses to environmentally friendly products. *Journal of Consumer Psychology*, 24(3), 336-354. <https://doi.org/10.1016/j.jcps.2013.11.002>

Balderjahn I., Seegebarth B., Lee M.S.W. (2021). Less is more! The rationale behind the decision-making style of voluntary simplifiers, *Journal of Cleaner Production*, Volume 284. <https://doi.org/10.1016/j.jclepro.2020.124802>.

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd edition). New York: The Guilford Press.

Herter, M. M., dos Santos, C. P., & Pinto, D. C. (2014). "Man, I shop like a woman!" The effects of gender and emotions on consumer shopping behavior outcomes. *International Journal of Retail and Distribution Management*, 42(9), 780–804. <https://doi.org/10.1108/IJRDM-03-2013-0066>

Holbrook, M. B. (1999). *Consumer value: a framework for analysis and research*. Psychology Press. 22-40.

India's Caste System By Archana Chaudhary (2019). Retrieved from <https://www.bloomberg.com/quicktake/india-s-caste-system>. Visited on 02/11/19

Kang J., Joyner Martinez C.M., Johnson C. (2021). Minimalism as a sustainable lifestyle: Its behavioral representations and contributions to emotional well-being. *Sustainable Production and Consumption*, Volume 27, Pages 802-813. <https://doi.org/10.1016/j.spc.2021.02.001>

Karlsson, N. (2003). Consumer Self-Control Strategies: An Empirical Study of Their Structure and Determinants. *Journal of Consumer Policy*, 26, 23-41. Published 2003 <https://doi.org/10.1023/A:1022631106077>

- Kumar A., Gilovich, T. (2016). To do or to have, now or later? The preferred consumption profiles of material and experiential purchases. *Journal of Consumer Psychology*, Volume 26, Issue 2, Pages 169-178. <https://doi.org/10.1016/j.jcps.2015.06.013>.
- Mathur, P., Chun, H., Maheswaranc, D. (2016). Consumer Mindsets and Self-Enhancement: Signaling versus Learning. *Journal of Consumer Psychology*. 26. <https://doi.org/10.1016/j.jcps.2015.06.007>.
- Maslow A.H. (1943). A Theory of Human Motivation. *A Theory of Human Motivation*, (50), 370–396.
- McDonald, S. (2014). Voluntary simplicity. *The Routledge Companion to Alternative Organization*, (December 1977), 210–219. <https://doi.org/10.4324/9780203725351>
- Minimalism: A Documentary About the Important Things (2015). Directed by Matt D'Avella. With Dan Harris, Ryan Nicodemus, Rick Hanson, Jesse Jacobs. Netflix. Released in 2015. Seen on 25/03/2019.
- Nelson, Don & Adger, W. & Brown, Katrina. (2007). Adaptation to Environmental Change: Contributions of a Resilience Framework. *Annual Review of Environment and Resources*. 32. [10.1146/annurev.energy.32.051807.090348](https://doi.org/10.1146/annurev.energy.32.051807.090348).
- Nunnally, J.C. and Bernstein, I.H. (1994) *The Assessment of Reliability*. *Psychometric Theory*, 3, 248-292. New York: McGraw-Hill.
- Oehlert, Gary W. (2000). *A first course in design and analysis of experiments*. W. H. Freeman. 13-28.
- Oliveira, T., & Martins, M. F. (2010). Understanding e-business adoption across industries in European countries. *Industrial Management and Data Systems*, 110(9), 1337–1354. <https://doi.org/10.1108/02635571011087428>
- Penn, J., Wihbey, J. (2019). Uber, Airbnb and consequences of the sharing economy: Research roundup. Retrieved from <https://journalistsresource.org/studies/economics/business/airbnb-lyft-uber-bike-share-sharing-economy-research-roundup/> Last (visited on 15/06/19)
- Richins, M. (2010). Possessions, materialism, and other-directedness in the expression of self. *Consumer Value*. <https://doi.org/10.4324/9780203010679.ch4>
- Schwabe, M., Dose, D., & Walsh, G. (2018). Every saint has a past, and every sinner has a future: Influences of regulatory focus on consumers' moral self-regulation. *Journal of Consumer Psychology*, 28, 234-252. <https://doi.org/10.1002/JCPY.1025>
- Shadish W. R., Cook T. D. & Campbell D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. HOUGHTON MIFFLIN COMPANY, Boston New York, 2002
- Shafir, D. (2016). Who Benefits From The Tiny House Revolution? Retrieved from <https://www.buzzfeednews.com/article/doree/who-is-the-small-house-revolution-for> (Visited on 10 /06/2019)
- Shavitt, S., Torelli, C. J., and Riemer, H. (2011b). Horizontal and vertical individualism and collectivism: implications for understanding psychological processes, in *Advances in Culture and Psychology*, eds M. Gelfand, C.-Y. Chiu, and Y.-Y. Hong (Oxford: Oxford University Press), 309–350.

Solomon, M., Bamossy, G., Askegaard, S., & Hogg, M. K. (2006). *Consumer Behaviour: A European Perspective*. (3rd edition). London: Prentice Hall. 35-79

Th, M., Frank, E., Jm, P., & Dj, K. (2016). A simple way to measure daily lifestyle regularity. 1–2.

Uysal, H. T., Aydemir, S., & Genç, E. (2017). Maslow's S Hierarchy of Needs in 21St Century: the Examination of. *Researches on Science and Art in 21st Century Turkey*, (April 2018), 211–227.

Van Acker, V., Goodwin, P., & Witlox, F. (2016). Key research themes on travel behavior, lifestyle, and sustainable urban mobility. *International Journal of Sustainable Transportation*, 10(1), 25–32. <https://doi.org/10.1080/15568318.2013.821003>

Weinswig, D. (2019). Millennials go Minimal: The Decluttering Lifestyle Trend That is Taking Over. Retrieved from <https://www.forbes.com/sites/deborahweinswig/2016/09/07/millennials-go-minimal-the-decluttering-lifestyle-trend-that-is-taking-over/#886457b37550> Last visited on 15/06/19.

Zavestoski, S. (2002), The social–psychological bases of anticonsumption attitudes. *Psychology & Marketing*, 19: 149-165. <https://doi.org/10.1002/mar.10007>

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>

Zralek, J. (2016). Challenges of Sustainable Consumption: Voluntary Simplicity as a Social Movement. Retrived from: <http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.desklight-6cd4c125-ce9a-48f8-8ba9-7b959e40052a>

## 14 APPENDIX

### Appendix 1 – Construct Items and references

Construct	Items	Questions	Reference
Material Simplicity (MS)	MS1	I buy more than my monthly earnings allow me to.	Elgin & Mitchell (1977) Maslow (1943) Gregg (1936)
	MS2	I consider myself a minimalist person.	
	MS3	I think others perceive me as a minimalist person.	
	MS4	I feel happiness or extended satisfaction when I buy products.	
	MS5	I feel more satisfied when purchasing experiences than products.	
	MS6	I don't mind paying more money for a product with more quality and durability if it impacts less the environment.	
	MS7	I consider myself a person that tends to buy more than I need.	
	MS8	I tend to clutter products at home.	
	MS9	My consumption patterns are basically satisfying.	
	MS10	I buy much that serves no real need.	
	MS11	I consider myself as a person that just buys what is needed.	
Human Scale (HS)	HS1	I usually buy products from local producers.	Elgin & Mitchell (1977) Dillahunt et al. (2016) Solomon et al. (2006)
	HS2	I usually buy products from big distributors.	
	HS3	I am concerned with the companies' sizes when I am purchasing products or experiences.	
	HS4	I often purchase from Sharing platforms like Airbnb, Blabla car, Uber, etc.	
	HS5	I care more for the people than for the companies.	
	HS6	I always take into consideration the impact of my consumption behavior on others and the planet's environment.	
	HS7	I support crowdfunding as a way to empower people.	
	HS8	I avoid buying products from companies not socially responsible.	
	HS9	I am a single person living with my own earnings.	
	HS10	I am part of a family and I am the only provider.	
	HS11	I have a partner and we both provide for our family.	
Self-Determination (SeD)	SeD1	I feel happiness or satisfaction feelings when I buy products.	Elgin & Mitchell (1977) Dillahunt et al. (2016)



	SeD2	I feel happiness or satisfaction feelings when I purchase experiences.	Gilovich & Jampol (2015) Karlsson (2003)
	SeD3	I don't feel regret not buying products that I don't need.	
	SeD4	My consumption criteria aim to reduce frivolity and luxuries in my current lifestyle.	
	SeD5	I am attached to my current life: my current job, endless monthly installment payments to maintain my present lifestyle.	
	SeD6	I am always concerned about the expectations that others have about me.	
	SeD7	What I own induces me to passivity and dependence.	
	SeD8	I am aware of the consequences of huge financial debts has in my life.	
Ecological Awareness (Eco)	Eco1	It is important to me that the products I use do not harm the environment.	
	Eco2	I consider the potential environmental impact of my actions in my daily decisions.	
	Eco3	My purchase habits are affected by my concern for our environment.	
	Eco4	I am concerned about wasting the resources of our planet.	
	Eco5	I would describe myself as environmentally responsible.	
	Eco6	I am willing to be convinced to take actions that are more environmentally friendly.	
	Eco7	It is important to me that the products I use are animal cruelty-free.	
	Eco8	I consider the potential animal cruelty impact on my actions when making many of my decisions.	
	Eco9	My purchase habits are affected by my concern for animal harm.	
	Eco10	I am concerned about testing products on animals.	
	Eco11	I would describe myself as an animal cruelty-free person.	
	Eco12	I am willing to take actions that are more animal cruelty-free friendly.	
	Eco13	I consider myself as a Nature Associated person.	
	Eco14	I appreciate companies' efforts in environment conservation.	
	Eco15	I consider myself an aware person of climate change and its impact on life on Earth.	

Personal Growth (PG)	PG1	I buy used products in order to save money.	Elgin & Mitchell (1977) Baumeister et al. (1994) Ballantine & Creery (2010) Frenken & Schor (2017) Karlsson (2003)
	PG2	I buy used products because of my environmental concerns	
	PG3	The sharing economy impacts the way I buy.	
	PG4	I experience stress when buying products.	
	PG5	I experience stress because I am not able to buy something that I like.	
	PG6	It is important for me to be a part of my local community.	
	PG7	For me it is important to share my belongings with others less fortunate.	
	PG8	I feel happiness when I share my belongings.	
	PG9	I consider the sharing economy as a path to save nature resources.	
	PG10	I feel anxiety when I buy more than I can.	
Self-Control (SeC)	SeC1	I avoid places that I am tempted to consume in excess.	Karlsson (2003)
	SeC2	I have power over my willingness to buy.	
	SeC3	My financial situation impacts my willingness to buy.	
	SeC4	As I get older, I see changes in my willingness to buy.	
	SeC5	I consider shopping excessively a women's thing.	

## Appendix 2 - Questionnaire Questions

My nationality is \_\_\_\_\_

Are you currently living in Portugal? If yes, where? \_\_\_\_\_

If the respondents are not living currently in Portugal, then, they will no longer be able to be part of the study, since the target population must be living in the country.

**DV Question:** My purchase intentions are influenced by a Minimalist (Voluntary Simplicity) lifestyle?

- **Material Simplicity (MS) Questions:**

MS1 – I buy more than my monthly earnings allow me to.

MS2 - I consider myself a minimalist person.

MS3 - I think others perceive me as a minimalist person.

MS4 - I feel happiness or extended satisfaction when I buy products.

MS5 – I feel more satisfied when purchasing experiences than products.

MS6 - I don't mind paying more money for a product with more quality and durability if impacts less the environment.

MS7 - I consider myself a person that tends to buy more than I need.

MS8 – I tend to clutter products at home.

MS9 – My consumption patterns are basically satisfying.

MS10 – I buy much that serves no real need.

MS11 - I consider myself as a person that just buys what is needed.

- **Human Scale (HS) Questions:**

HS1 - I usually buy products from local producers.

HS2 - I usually buy products from big distributors.

HS3 – I am concerned with the companies' sizes when I am purchasing products or experiences.

HS4 - I often purchase from Sharing platforms like Airbnb, Blabla car, Uber, etc.

HS5 – I care more for the people than for the companies.

HS6 – I always take into consideration the impact of my consumption behavior on others and in the planet's environment.

HS7 – I support crowdfunding as a way to empower people.

HS8 – I avoid buying products from companies not socially responsible.

HS9 – I am a single person living with my own earnings.

HS10 – I am part of a family and I am the only provider.

HS 11- I have a partner and we both provide for our family.

- **Self-Determination (SeD) Questions:**

SeD 1 – I feel happiness or satisfaction feelings when I buy products.

SeD 2 – I feel happiness or satisfaction feelings when I purchase experiences.

SeD3 – I don't feel regret not buying products that I don't need.

SeD4 - My consumption criteria aim to reduce frivolity and luxuries in my current lifestyle.

SeD5 – I am attached to my current life: my current job, endless monthly installment payments in order to maintain my present lifestyle.

SeD6 - I am always concerned about the expectations that others have about me.

SeD7 - What I own induces me to passivity and dependence.

SeD8 – I am aware of the consequences of huge financial debts has in my life.

- **Ecological Awareness (Eco) Questions:**

Eco1 - It is important to me that the products I use do not harm the environment.

Eco 2 - I consider the potential environmental impact of my actions in my daily decisions.

Eco3 - My purchase habits are affected by my concern for our environment.

Eco4 - I am concerned about wasting the resources of our planet.

Eco5 - I would describe myself as environmentally responsible.

Eco6 - I am willing to be convinced to take actions that are more environmentally friendly.

Eco7 - It is important to me that the products I use are animal cruelty-free.

Eco8 - I consider the potential animal cruelty impact on my actions when making many of my decisions.

Eco9 - My purchase habits are affected by my concern for animal harm.

Eco10 - I am concerned about testing products on animals.

Eco11 - I would describe myself as an animal cruelty-free person.

Eco12 - I am willing to take actions that are more animal cruelty-free friendly.

Eco13 – I consider myself as a Nature Associated person.

Eco14 - I appreciate companies' efforts for environment conservation.

Eco15 – I consider myself an aware person about climate change and its impact on life on Earth.

- **Personal growth (PG) Questions:**

PG1 - I buy used products in order to save money.

PG2 - I buy used products because of my environmental concerns

PG3 - The sharing economy impact the way I buy.

PG4 - I experience stress when buying products.

PG5 - I experience stress because I am not able to buy something that I like.

PG6 – It is important for me to be a part of my local community.

PG7 – For me is important to share my belongs to others less fortunate.

PG8 – I feel happiness when I share my belongings.

PG9 – I consider sharing economy as a path to save nature resources.

PG10 – I feel anxiety when I buy more than I can.

- **Self-Control (SeC) Questions:**

SeC1 – I avoid places that I am tempted to consume in excess.

SeC2 – I have power over my willingness to buy.

SeC3 – My financial situation impacts my willingness to buy.

SeC4 – As I get older, I see changes in my willingness to buy.

SeC5 – I consider shopping excessively a women's thing.

- **Demographic Questions:**

- Please select your gender

Male  Female

- Please tell us your age:

Under 18 years old

18-24 years old

25-34 years old

35-44 years old

45-54 years old

55-64 years old

65-74 years old

75 years or older

- Educational Level

No school

high school

Undergraduate student

Bachelor's degree

Master's degree

Professional degree

Doctorate degree



#### Appendix 4 – KMO Criteria

KMO Value	Level of Acceptance
Above 0.90	Superb
0.80 to 0.90	Great
0.70 to 0.80	Good
0.50 to 0.70	Mediocre
Below 0.50	Unacceptable

#### Appendix 5 – KMO results below 0.5

Kaiser's Measure of Sampling Adequacy: Overall MSA = 0.78429029	
MS9	0.48886480
HS9	0.43986081
HS10	0.43837990
HS11	0.40334885
SeD 8	0.45923978
PG 4	0.45134758
PG 10	0.31225235
SeC 1	0.43182356

#### Appendix 6 – Eigen Values

Factor Analysis Results				
The FACTOR Procedure				
Initial Factor Method: Principal Components				
Prior Community Estimates: ONE				
Eigenvalues of the Correlation Matrix: Total = 50 Average = 1				
	Eigenvalue	Difference	Proportion	Cumulative
1	12.3140282	9.0843825	0.2463	0.2463
2	3.2296457	0.0211451	0.0646	0.3109
3	3.2085006	0.2193923	0.0642	0.3750
4	2.9891083	0.8740155	0.0598	0.4348
5	2.1150928	0.2112491	0.0423	0.4771
6	1.9038437	0.2825612	0.0381	0.5152
7	1.8212825	0.0957131	0.0324	0.5476
8	1.5255995	0.0669142	0.0305	0.5781
9	1.4586652	0.1072413	0.0292	0.6073
10	1.3514140	0.0998010	0.0270	0.6343
11	1.2516130	0.0817022	0.0250	0.6594
12	1.1699108	0.1177524	0.0234	0.6828
13	1.0521584	0.0775003	0.0210	0.7038
14	0.9746581	0.0601986	0.0195	0.7233
15	0.9144596	0.0760154	0.0183	0.7416
16	0.8384441	0.0439930	0.0168	0.7584
17	0.7944511	0.0318895	0.0159	0.7743
18	0.7625816	0.0574123	0.0153	0.7895
19	0.7051693	0.0401634	0.0141	0.8036
20	0.6650060	0.0140739	0.0133	0.8169



**Appendix 7 – Rotated Pattern 6 Factors – Obliqua Promax rotation initial**

Rotated Factor Pattern (Standardized Regression Coefficients)						
	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
MS1	0.10690	-0.18651	0.37740	-0.27791	0.19962	0.10833
MS2	0.05459	0.02841	-0.63965	-0.09256	0.22051	0.03654
MS3	-0.00041	0.04442	-0.63787	-0.13931	0.32280	0.07583
MS4	-0.02832	0.17436	0.61656	-0.04884	0.05743	-0.23568
MS5	-0.26916	0.10218	-0.00536	0.69637	0.24935	0.16429
MS6	0.23200	0.06565	-0.21984	0.33754	-0.03136	0.11398
MS7	0.03513	-0.06227	0.72736	-0.15970	-0.08353	0.08187
MS8	-0.08815	-0.05107	0.47072	-0.17185	0.12518	0.30630
MS10	-0.00881	-0.15399	0.51216	-0.20382	0.11693	0.09700
MS11	0.05719	0.04867	-0.63969	-0.10199	0.16356	-0.00640
HS1	0.34408	-0.01258	0.12867	0.07487	-0.11805	0.57498
HS2	-0.15409	0.02327	0.01435	-0.06625	0.00219	-0.54563
HS3	0.22037	-0.03098	-0.07505	0.18021	0.27993	0.24399
HS5	0.22247	-0.01791	-0.00924	0.44127	-0.13970	0.37447
HS6	0.59697	0.12035	-0.00675	-0.00939	0.09873	0.26559
HS7	-0.10588	0.09314	0.03424	0.43085	0.33200	0.44293
HS8	0.53066	0.11046	0.07486	0.11224	-0.02650	0.35919
SeD 1	-0.00428	0.17374	0.67687	0.17776	0.01844	-0.21414
SeD 2	-0.09768	0.14266	0.18847	0.68629	0.13342	-0.11979
SeD 3	-0.10249	0.16971	-0.24826	0.06306	-0.11828	0.26769
SeD 4	0.27655	0.03132	-0.31469	-0.07748	0.39125	0.04002
SeD 6	-0.15635	0.13180	0.36918	-0.14383	0.02797	-0.02249
SeD 7	0.12114	-0.13503	0.41149	-0.22886	0.15395	0.06558
Eco 1	0.79318	0.15381	-0.00330	-0.03061	-0.05176	0.16870
Eco 2	0.82998	0.10426	0.05823	-0.05226	0.04068	0.00358
Eco 3	0.74312	0.13563	0.01599	-0.08360	-0.03715	0.16387
Eco 4	0.87118	0.01960	-0.05782	-0.10944	-0.05067	-0.08275
Eco 5	0.82543	0.03390	-0.06261	-0.09563	-0.01632	0.07255
Eco 6	0.49188	0.13006	-0.09722	0.15256	-0.01235	-0.16842
Eco 7	0.00067	0.89697	0.03689	0.07784	-0.00632	0.02456
Eco 8	0.07991	0.86654	0.01256	-0.01644	0.05080	0.09589
Eco 9	0.08584	0.85318	-0.03574	-0.01597	0.06807	0.04363
Eco 10	0.08468	0.76878	0.00147	0.05208	0.02610	0.08966
Eco 11	0.08783	0.75887	-0.01658	-0.12008	-0.03487	-0.01488
Eco 12	0.17289	0.69384	0.01418	0.09153	0.06030	-0.09880
Eco 13	0.68364	0.22049	-0.00244	-0.13192	0.01332	-0.00194
Eco 14	0.47501	0.25718	0.03615	0.12560	-0.01481	-0.30933
Eco 15	0.61382	-0.03585	-0.03501	0.12159	-0.05576	-0.30943
PG 1	-0.10281	-0.06358	-0.02430	-0.06686	0.92038	-0.15551
PG 2	0.08919	0.10717	-0.04871	0.02387	0.77728	0.02635
PG 3	0.07623	0.09279	0.02102	0.04601	0.83610	-0.13471
PG 5	-0.04496	0.00160	0.23466	-0.52595	0.13703	-0.15845
PG 6	0.37535	-0.10529	0.04810	0.20664	0.16050	0.19799
PG 7	0.37537	-0.37358	-0.06649	0.54127	0.02420	0.01449
PG 8	0.37240	-0.24875	-0.04461	0.42843	0.14007	-0.07266
PG 9	0.52050	-0.15101	0.03499	0.23083	0.27071	-0.08160
SeC 2	0.20447	0.06282	-0.16442	0.31264	-0.11609	-0.17642
SeC 3	0.15545	-0.10743	0.15605	0.11604	0.08667	-0.49667
SeC 4	0.30858	-0.01963	0.17934	0.23129	0.08735	-0.37913
SeC 5	0.00109	-0.09160	0.05582	-0.51090	0.18146	-0.01389

**Appendix 8 – Final KMO**

<b>Kaiser's Measure of Sampling Adequacy: Overall MSA = 0.85262034</b>	
<b>MS2</b>	0.76702488
<b>MS3</b>	0.81418155
<b>MS4</b>	0.61252442
<b>MS5</b>	0.61475685
<b>MS7</b>	0.82899862
<b>MS10</b>	0.82909518
<b>MS11</b>	0.86448252
<b>HS1</b>	0.65925545
<b>HS2</b>	0.76205983
<b>HS6</b>	0.94277388
<b>HS8</b>	0.88885694
<b>SeD 1</b>	0.54659112
<b>SeD 2</b>	0.63469467
<b>Eco 1</b>	0.90937163
<b>Eco 2</b>	0.89297897
<b>Eco 3</b>	0.89345661
<b>Eco 4</b>	0.89768625
<b>Eco 5</b>	0.93111949
<b>Eco 7</b>	0.91557484
<b>Eco 8</b>	0.89584052
<b>Eco 9</b>	0.88888667
<b>Eco 10</b>	0.90710829
<b>Eco 11</b>	0.92306190
<b>Eco 12</b>	0.88792593
<b>Eco 13</b>	0.94999990
<b>Eco 15</b>	0.79764118
<b>PG 1</b>	0.63374356
<b>PG 2</b>	0.79168419
<b>PG 3</b>	0.81803352
<b>PG 5</b>	0.78330132
<b>PG 7</b>	0.79418396
<b>PG 9</b>	0.85047155
<b>SeC 5</b>	0.63482130

**Appendix 9 – Rotated Pattern 6 Factors – Obliqua Promax rotation final**

Rotated Factor Pattern (Standardized Regression Coefficients)						
	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6
MS2	0.12359	0.02028	0.69222	0.09181	-0.12421	0.05357
MS3	0.07369	0.03056	0.70180	0.21668	-0.19160	0.04709
MS4	0.10371	0.12542	-0.59069	0.04863	-0.17265	0.37706
MS5	-0.10908	0.02367	-0.02190	0.27425	0.67041	-0.00688
MS7	-0.01391	-0.06037	-0.73344	0.00380	-0.23532	-0.12322
MS10	-0.05615	-0.16187	-0.51629	0.18133	-0.26242	-0.17190
MS11	0.08314	0.05824	0.72967	0.03760	-0.05215	0.14477
HS1	0.21581	0.05011	-0.17756	0.00141	-0.02695	-0.66458
HS2	-0.00354	-0.02988	0.00390	-0.08998	-0.04083	0.70213
HS6	0.60102	0.08950	0.05785	0.09347	0.01207	-0.15537
HS8	0.50054	0.10183	-0.04621	-0.00223	0.11976	-0.29298
SeD 1	0.14163	0.09238	-0.63277	0.06002	0.07705	0.39422
SeD 2	0.09791	0.04200	-0.19088	0.14236	0.66645	0.29342
Eco 1	0.79219	0.11535	0.00897	-0.04947	0.02591	-0.11808
Eco 2	0.87423	0.04481	-0.05662	0.04540	-0.02750	0.01344
Eco 3	0.72103	0.10687	-0.03194	-0.01180	-0.03929	-0.19036
Eco 4	0.92856	-0.05656	0.08016	-0.07814	-0.05808	0.13581
Eco 5	0.88507	-0.04566	0.06550	0.00246	-0.06021	-0.01118
Eco 7	-0.02394	0.90974	-0.00992	-0.02870	0.06595	0.07980
Eco 8	-0.00549	0.91569	0.01193	0.03561	-0.02536	-0.08702
Eco 9	0.00903	0.90368	0.05138	0.03459	-0.02367	-0.03912
Eco 10	-0.02517	0.82804	0.00675	0.01337	0.08254	-0.09451
Eco 11	0.09031	0.77949	-0.01364	-0.04567	-0.14712	0.08347
Eco 12	0.05534	0.76951	0.00967	0.00295	0.09081	0.00309
Eco 13	0.63835	0.20322	0.06324	-0.00784	-0.06936	0.00522
Eco 15	0.61181	-0.05439	-0.00077	-0.08879	0.18283	0.13938
PG 1	-0.09517	-0.10884	0.05981	0.93985	-0.03893	0.04161
PG 2	0.06993	0.07268	0.05244	0.82096	0.06440	-0.14143
PG 3	0.06527	0.08175	-0.00459	0.84581	0.03565	-0.00580
PG 5	-0.03039	-0.03297	-0.14990	0.09145	-0.57619	0.17206
PG 7	0.35426	-0.28962	0.04470	-0.02657	0.50095	-0.09296
PG 9	0.54016	-0.13664	-0.02018	0.21559	0.18030	0.02589
SeC 5	0.03311	-0.11967	-0.00019	0.16610	-0.62306	0.06035

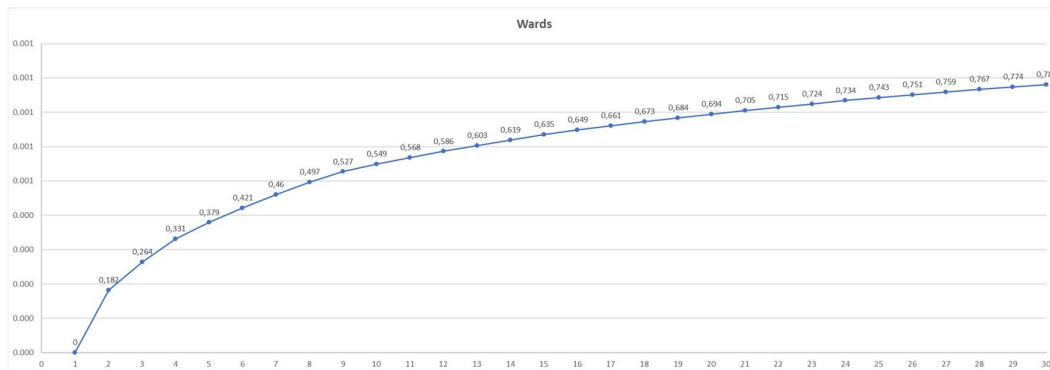
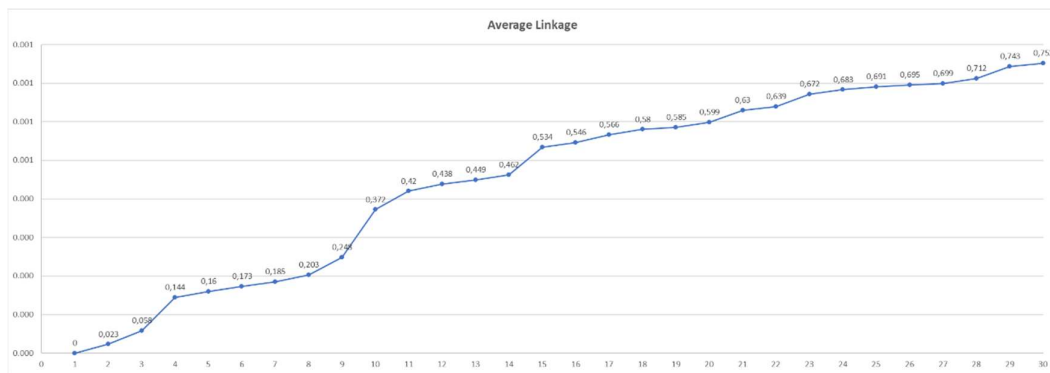
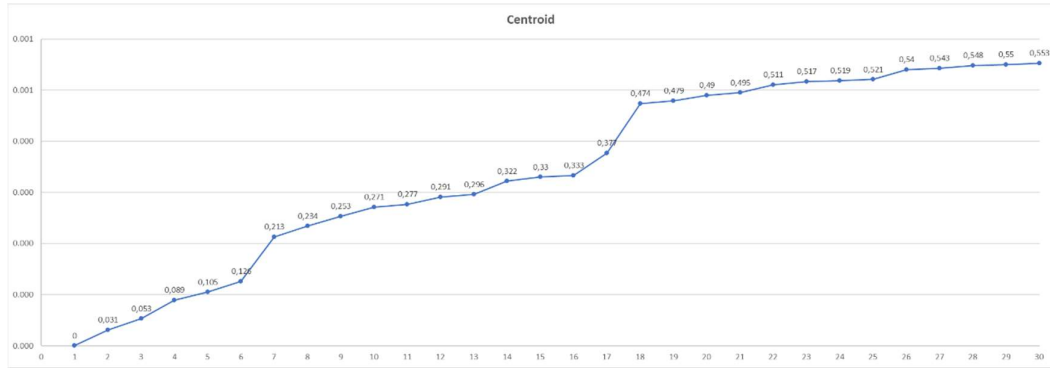
## Appendix 10 – Factors and their related questions

Factor 1 - Sustainability concern	
HS6	I always take in consideration the impact of my consumption behavior on others and in the planet's environment.
HS8	I avoid buying products from companies not socially responsible.
Eco 1	It is important to me that the products I use do not harm the environment.
Eco 2	I consider the potential environmental impact of my actions in my daily decisions.
Eco 3	My purchase habits are affected by my concern for our environment.
Eco 4	I am concerned about wasting the resources of our planet.
Eco 5	I would describe myself as environmentally responsible.
Eco 13	I consider myself as a Nature Associated person.
Eco 15	I consider myself an aware person about climate change and its impact on life on Earth.
PG 9	I consider sharing economy as a path to save nature resources.
Factor 2 - Animal Cruelty Concerns	
Eco 7	It is important to me that the products I use are animal cruelty free.
Eco 8	I consider the potential animal's cruelty impact on my actions when making many of my decisions.
Eco 9	My purchase habits are affected by my concern for animal harm.
Eco 10	I am concerned about testing products in animals.
Eco 11	I would describe myself as an animal cruelty free person.
Eco 12	I am willing to take actions that are more animal cruelty free friendly.
Factor 3 - Purchase Habits	
MS2	I consider myself as a minimalist person.
MS3	I think others perceive me as a minimalist person.
MS4	I feel happiness or extended satisfaction when I buy products. <i>It is the contrary - The person does not feel hapiness or satisfaction.</i>
MS7	I consider myself a person that tends to buy more than I need. <i>It is the contrary - The person does not buy more than its needs.</i>
MS10	I buy much that serves no real need. <i>It is the contrary - The person does not buy products that serves no real needs.</i>
MS11	I consider myself as a person that just buy what is needed.
SeD 1	I feel happiness or satisfaction feelings when I buy products. <i>It is the contrary - The person does not feel hapiness or satisfaction.</i>
Factor 4 - Economic Impact concerns	
PG 1	I buy used products in order to save money.
PG 2	I buy used products because of my environmental concerns
PG 3	The sharing economy impact on the way I buy.
Factor 5 - Psychological concerns	
MS5	I feel more satisfied when purchasing experiences than products.
SeD 2	I feel happiness or satisfaction feelings when I purchase experiences.
PG 5	I experience stress because I am not able to buy something that I like. <i>It is the contrary, the person does not experience stress.</i>
PG 7	For me is important to share my belongs to other less fortunate.
SeC 5	I consider shopping excessively a women thing. <i>It is the contrary. Shopping excessively it is not a women thing.</i>
Factor 6 - Solidarity economy concerns	
HS1	I usually buy products from local producers. <i>It is the contrary. The person does not buy from the local distributors.</i>
HS2	I usually buy products from big distributors.

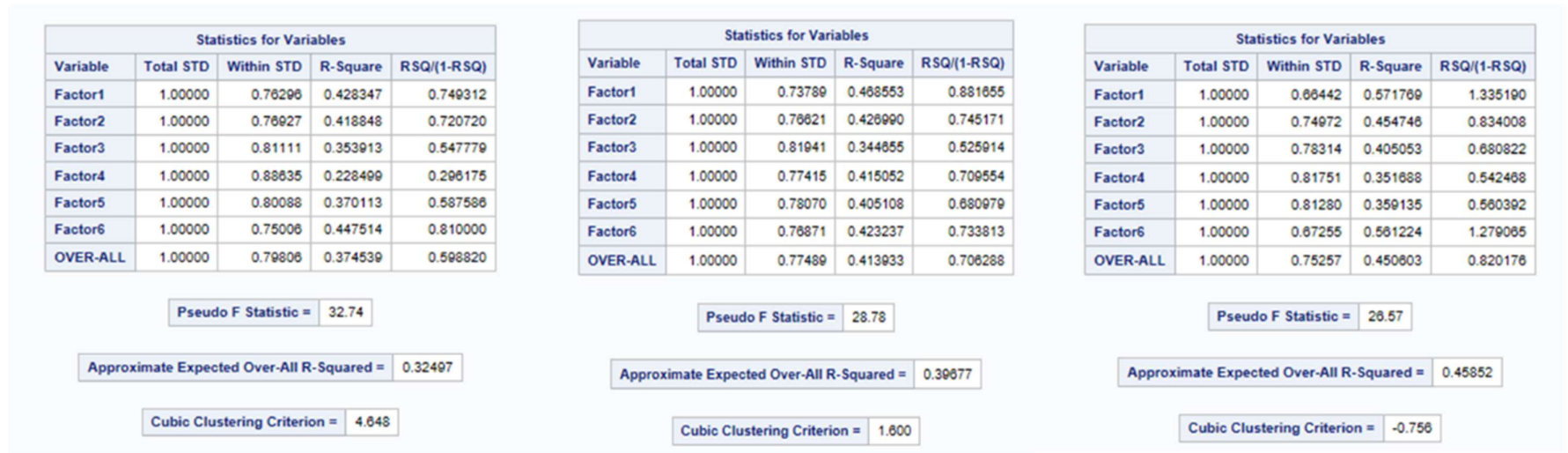
**Appendix 11 – Root mean square of diagonal residuals**

<b>Root Mean Square Off-Diagonal Residuals: Overall = 0.05468276</b>	
<b>MS2</b>	0.07448300
<b>MS3</b>	0.06543990
<b>MS4</b>	0.07693678
<b>MS5</b>	0.07609585
<b>MS7</b>	0.05116105
<b>MS10</b>	0.05970530
<b>MS11</b>	0.04709986
<b>HS1</b>	0.06639545
<b>HS2</b>	0.07054994
<b>HS6</b>	0.04684901
<b>HS8</b>	0.05872694
<b>SeD 1</b>	0.07588028
<b>SeD 2</b>	0.06833954
<b>Eco 1</b>	0.03696317
<b>Eco 2</b>	0.04133898
<b>Eco 3</b>	0.04874639
<b>Eco 4</b>	0.03569573
<b>Eco 5</b>	0.03482083
<b>Eco 7</b>	0.02892078
<b>Eco 8</b>	0.02206673
<b>Eco 9</b>	0.02432293
<b>Eco 10</b>	0.04421273
<b>Eco 11</b>	0.04214593
<b>Eco 12</b>	0.04813510
<b>Eco 13</b>	0.04070397
<b>Eco 15</b>	0.07094993
<b>PG 1</b>	0.03466269
<b>PG 2</b>	0.04350963
<b>PG 3</b>	0.04248922
<b>PG 5</b>	0.05758734
<b>PG 7</b>	0.06726060
<b>PG 9</b>	0.06058894
<b>SeC 5</b>	0.06538947

## Appendix 12 – Hierarchical method



### Appendix 13 – Factors x Clusters Characterization



Summary Statistics for 4 Clusters

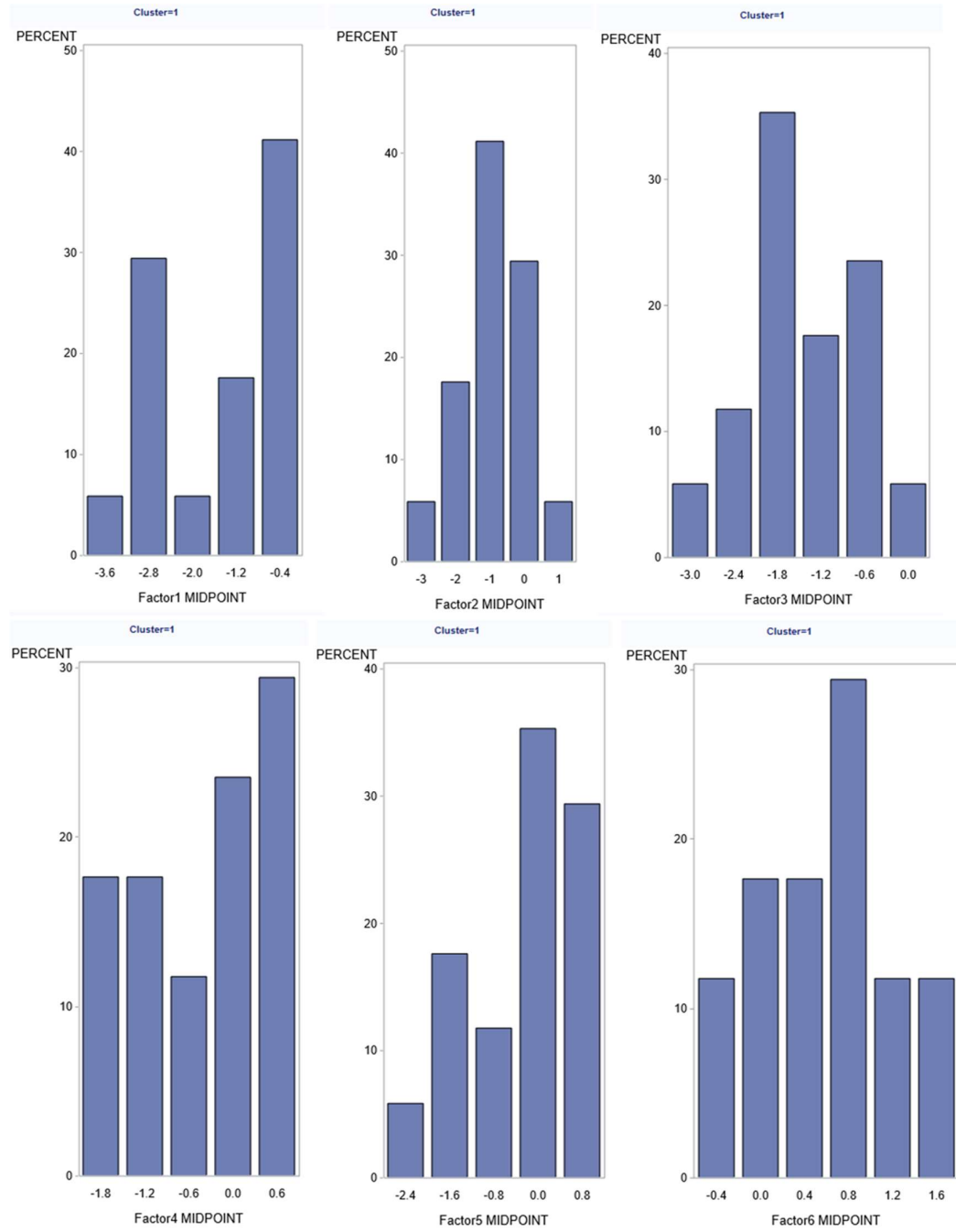
Summary Statistics for 5 Clusters

Summary Statistics for 6 Clusters

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Cluster 1	not concerned with sustainability	not concerned with Animal cruelty	not concerned with its purchase habits	not much concerned with the economic impact	not much concerned with the psychological concerns	concerned
Cluster 2	not much concerned with sustainability	somewhat concerned with Animal cruelty	somewhat concerned with its purchase habits	concerned with the economic impact	not concerned with the psychological concerns	not concerned
Cluster 3	very Concerned with sustainability	very Concerned with Animal cruelty	concerned with its purchase habits	concerned with the economic impact	concerned with the psychological concerns	not concerned
Cluster 4	concerned with sustainability	very Concerned with Animal cruelty	somewhat concerned with its purchase habits	somewhat concerned with the economic impact	somewhat concerned with the psychological concerns	concerned
Cluster 5	not concerned with sustainability	not concerned with Animal cruelty	concerned with its purchase habits	concerned with the economic impact	concerned with the psychological concerns	concerned
Cluster 6	Neutral	somewhat concerned with Animal cruelty	not much concerned with its purchase habits	not concerned with the economic impact	somewhat concerned with the psychological concerns	somewhat concerned

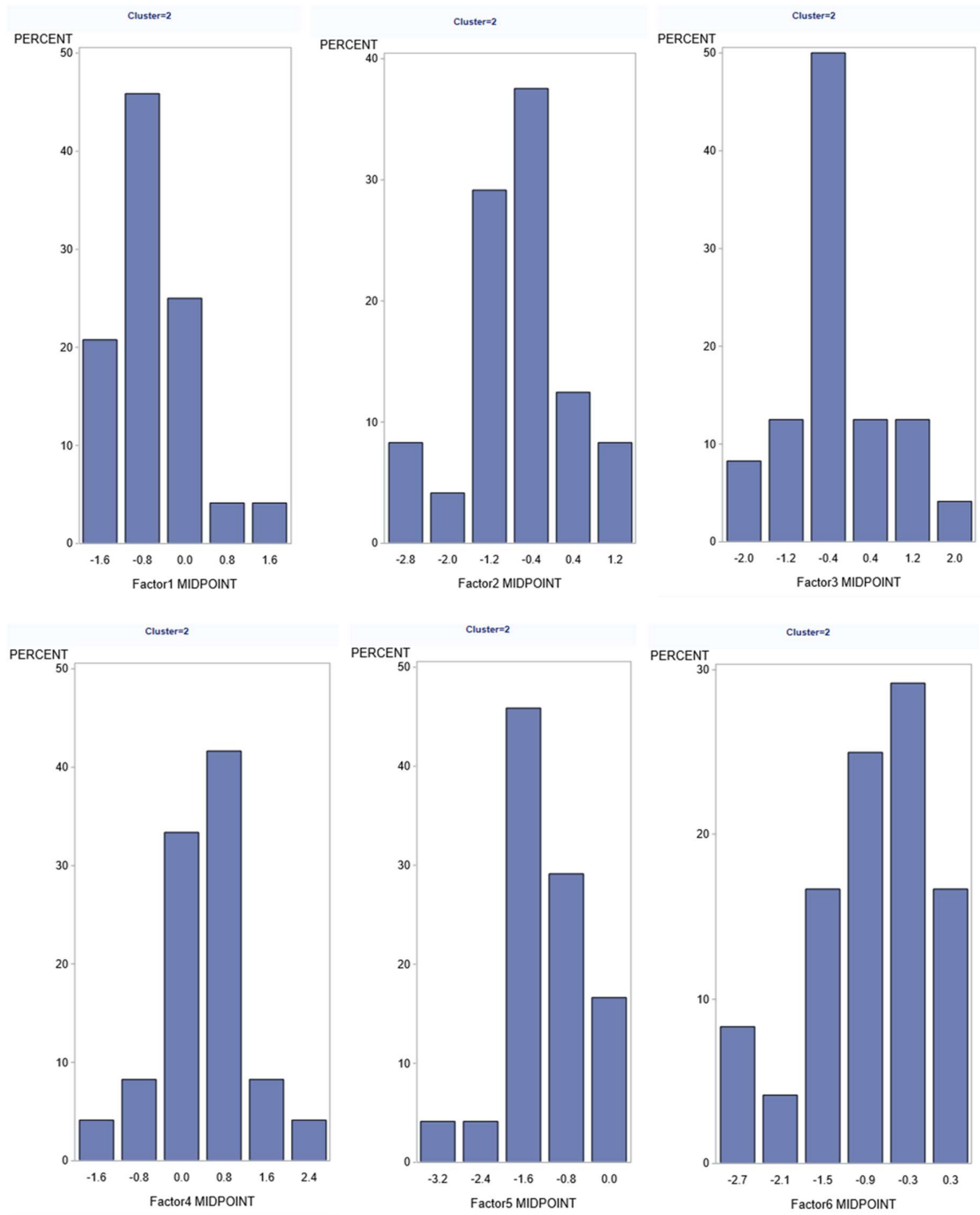
## Appendix 14 – Clusters Bar Charts

### Cluster 1

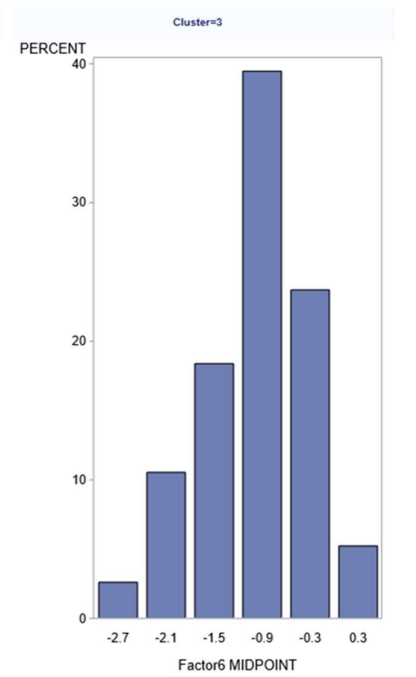
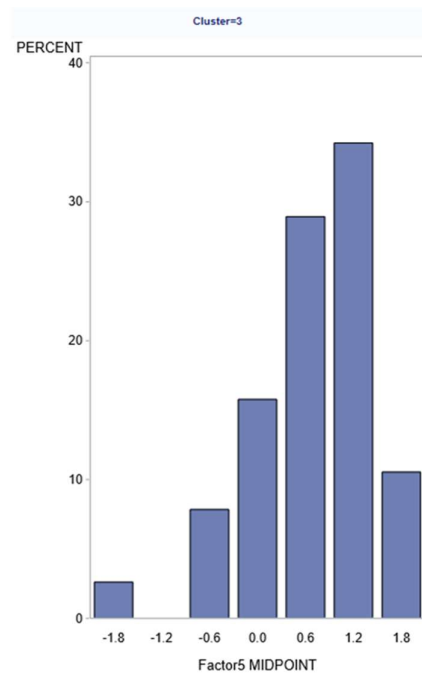
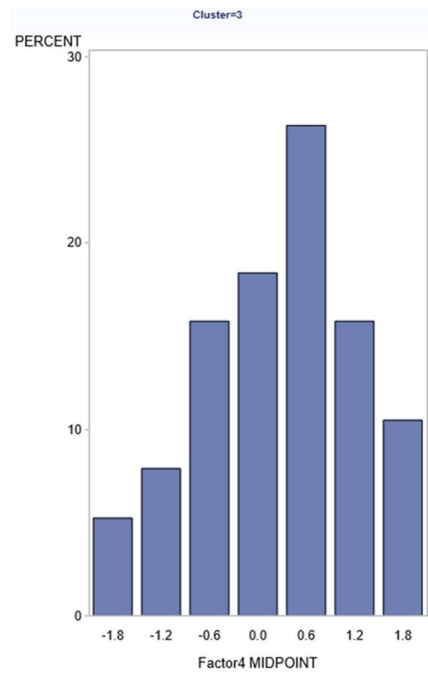
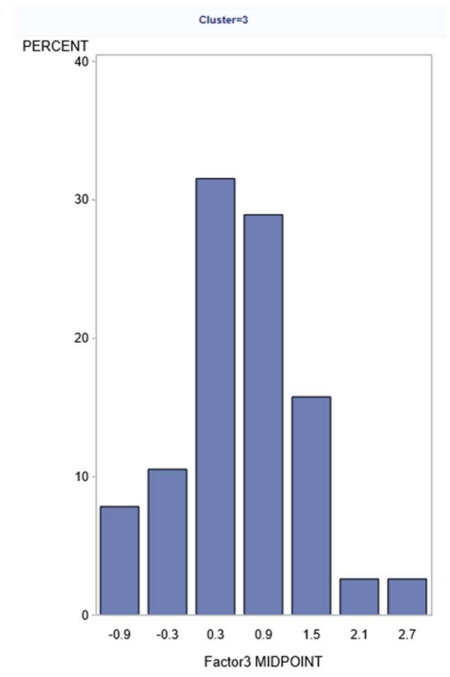
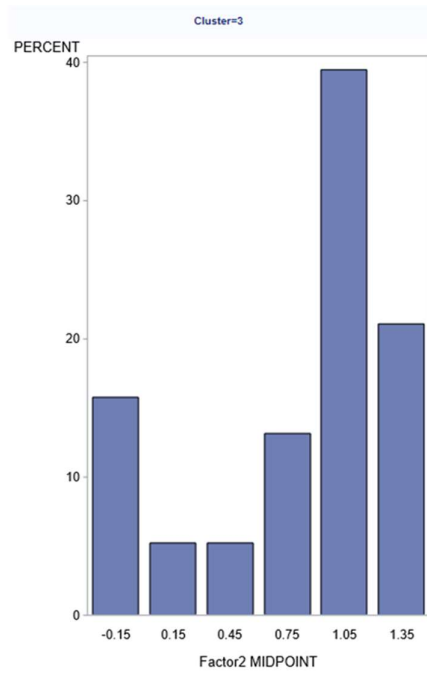
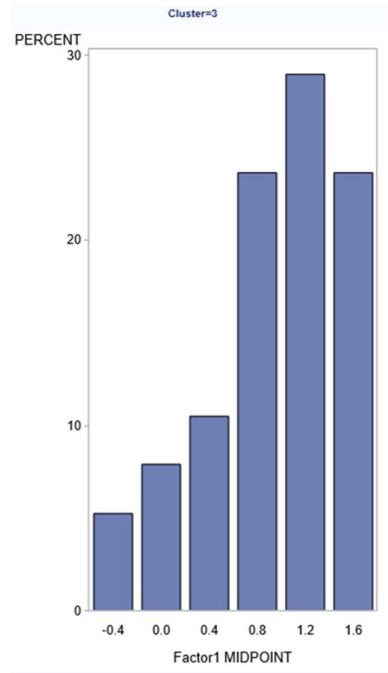




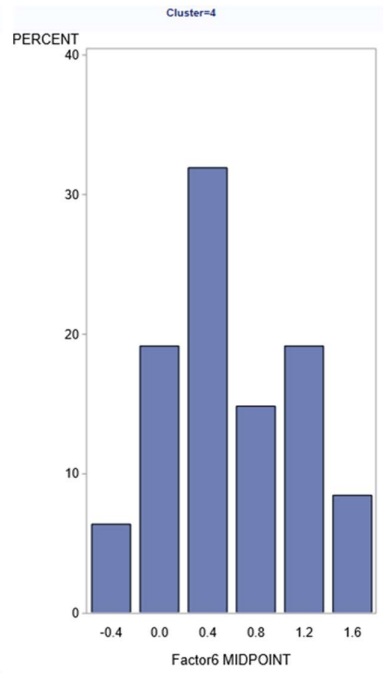
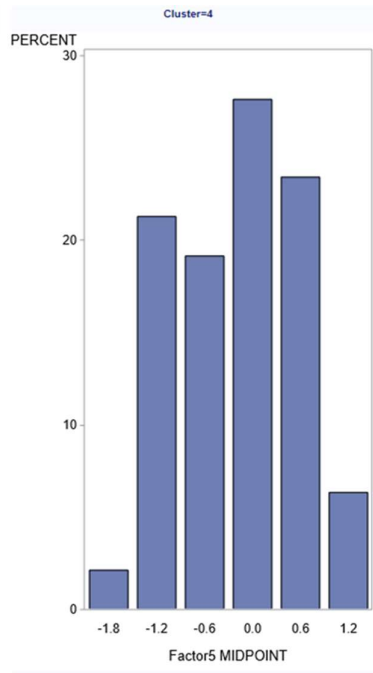
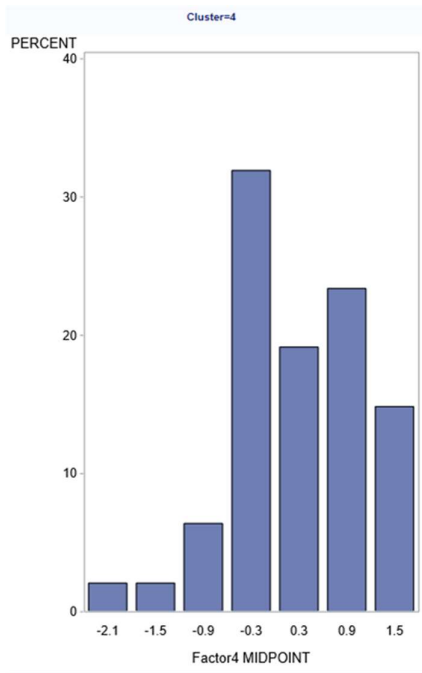
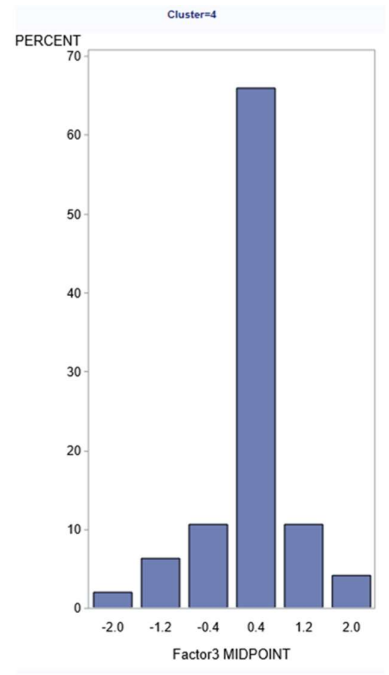
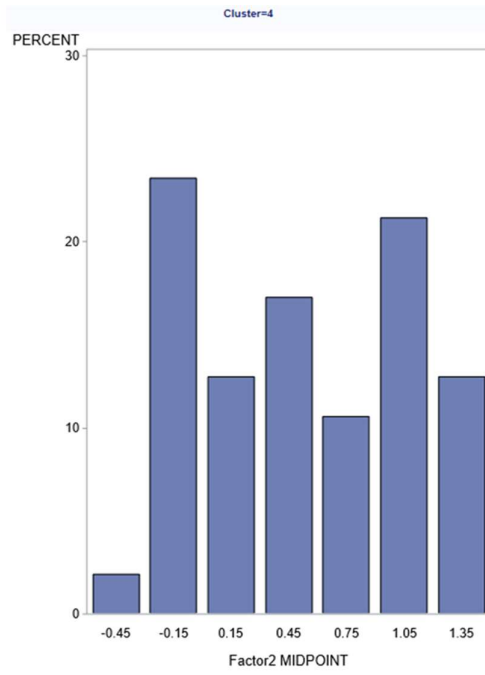
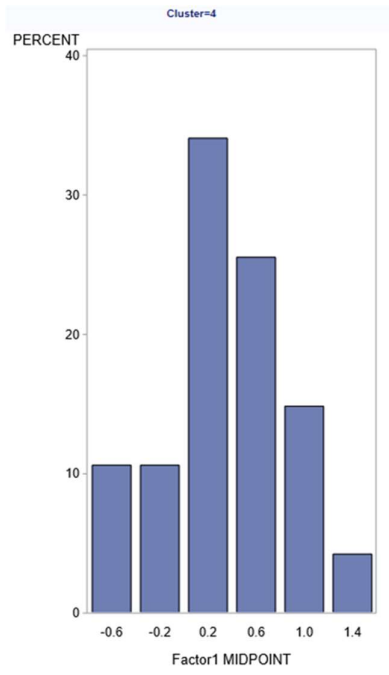
## Cluster 2



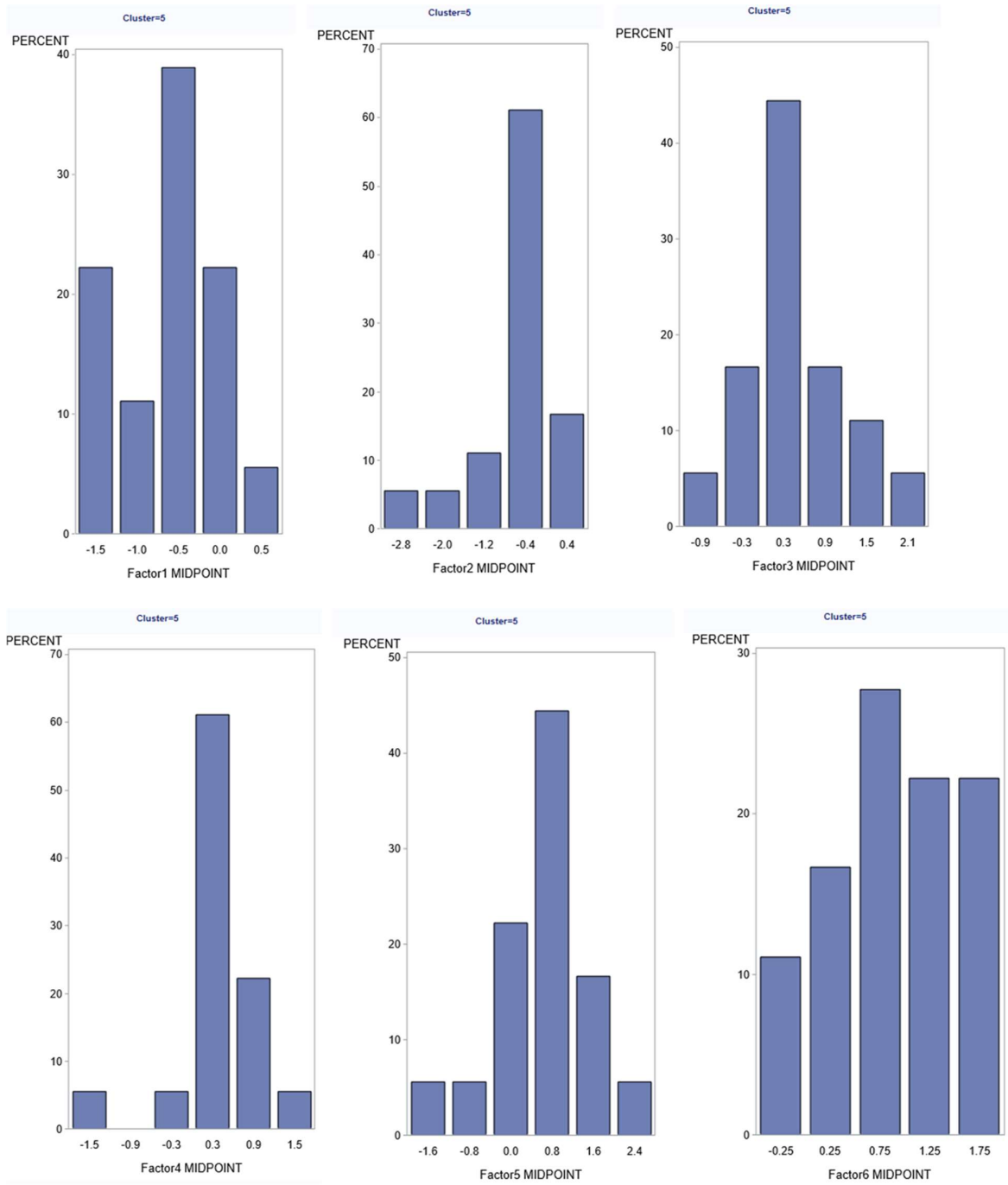
### Cluster 3



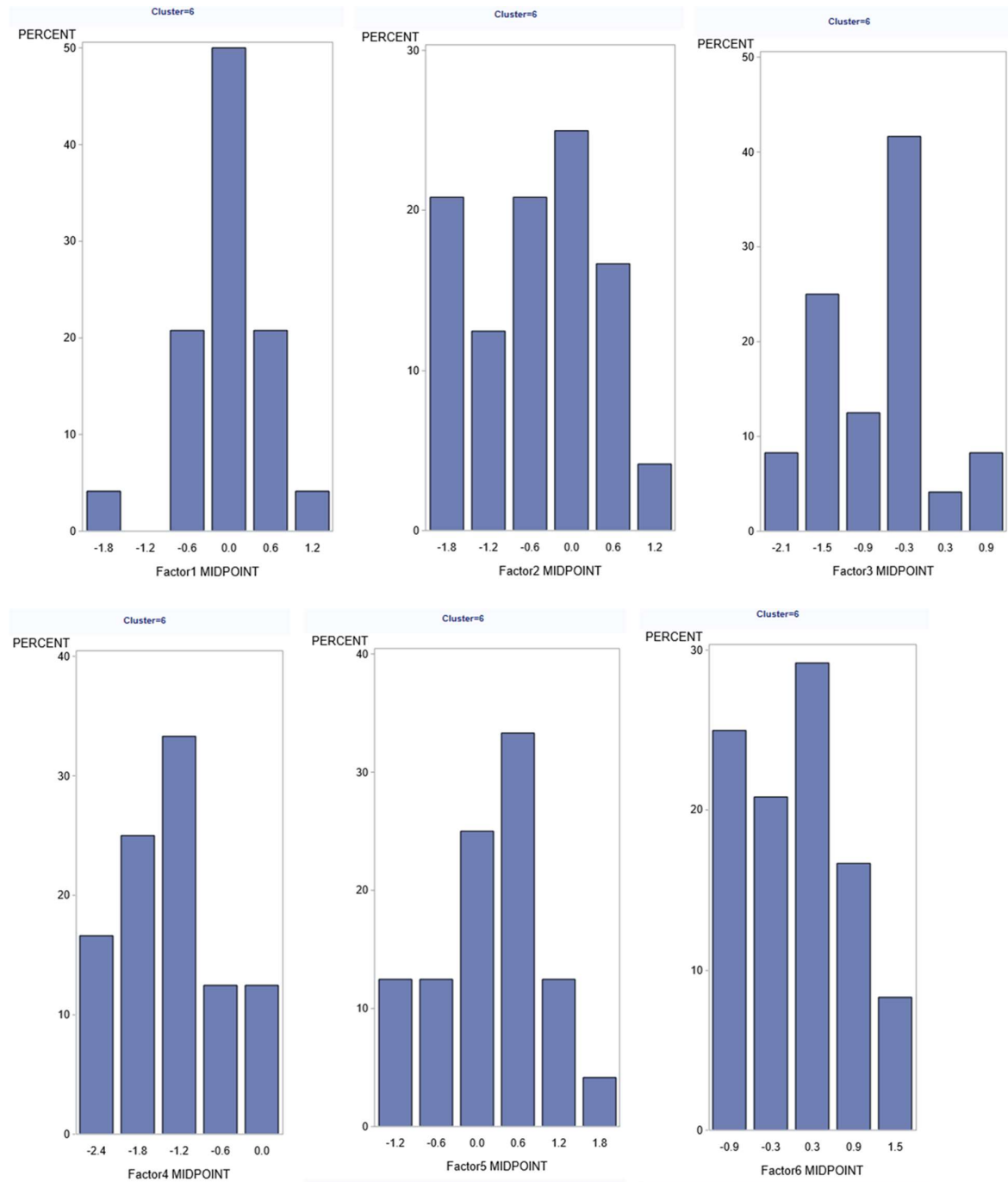
## Cluster 4



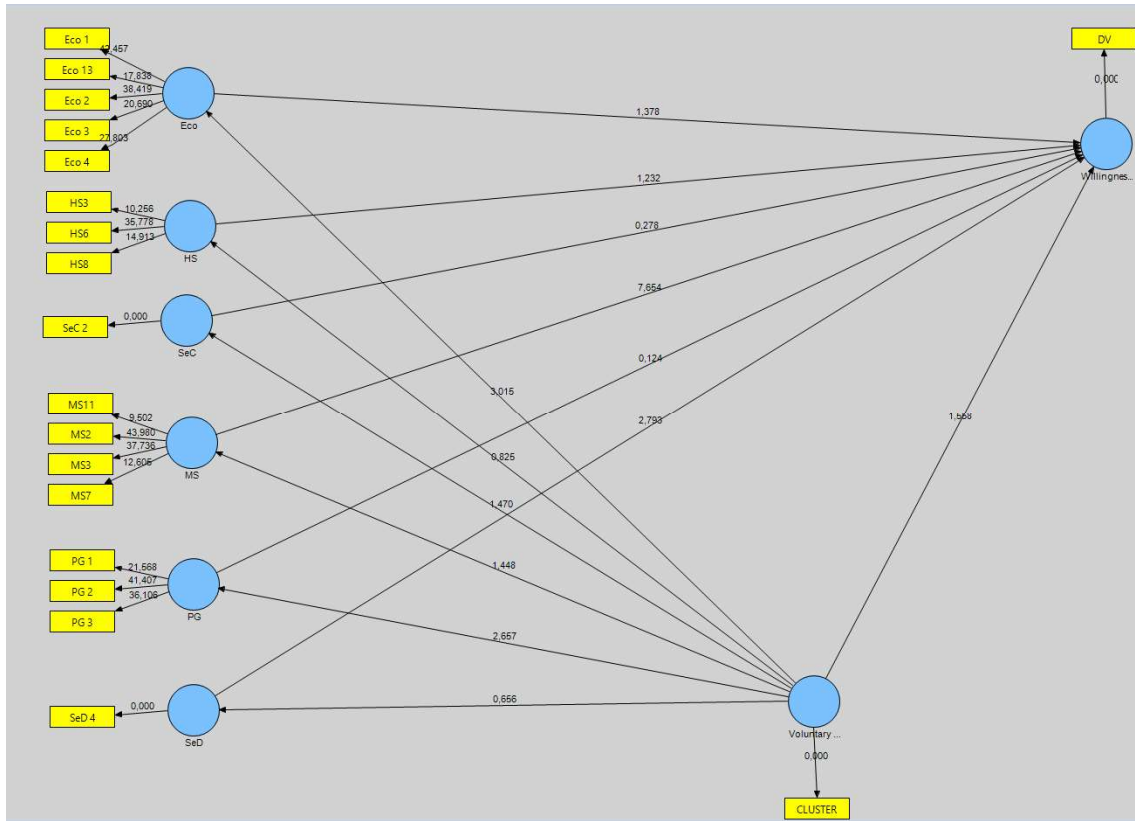
## Cluster 5



## Cluster 6



## Appendix 15 – Conceptual Model



## Appendix 16 – PLS Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics ( O/STERR )
Eco → Willingness not to buy	0.1124	0.1125	0.0814	0.0814	1.3815
HS → Willingness not to buy	0.0995	0.1008	0.0819	0.0819	1.2149
MS → Willingness not to buy	0.4903	0.4899	0.0629	0.0629	7.7969
PG → Willingness not to buy	0.0081	0.0122	0.0642	0.0642	0.1265
SeC → Willingness not to buy	0.0188	0.0164	0.0680	0.0680	0.2762
SeD → Willingness not to buy	0.1983	0.1942	0.0707	0.0707	2.8063
Voluntary Simplicity Degree → Eco	0.2519	0.2513	0.0805	0.0805	3.1287
Voluntary Simplicity Degree → HS	0.0803	0.0799	0.0961	0.0961	0.8353
Voluntary Simplicity Degree → MS	0.1321	0.1316	0.0904	0.0904	1.4608
Voluntary Simplicity Degree → PG	-0.2315	-0.2316	0.0855	0.0855	2.7072
Voluntary Simplicity Degree → SeC	0.1307	0.1322	0.0885	0.0885	1.4771
Voluntary Simplicity Degree → SeD	0.0581	0.0587	0.0887	0.0887	0.6558
Voluntary Simplicity Degree → Willingness not to buy	-0.0986	-0.0977	0.0629	0.0629	1.5670

