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The impact of the display of a repairability score on consumers' purchase intent

A case study on laptops

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Introduction

Nowadays, many everyday objects, mostly household appliances, break down and have an increasingly limited lifespan. According to the UFC-Que Choisir[1], the average lifespan of common household appliances would vary between 6 and 8 years today, whereas previously it was 10 to 12 years (Fabre & Winkler, 2010). This phenomenon is explained by the rise of planned obsolescence in our societies.

The advent of planned obsolescence is problematic in a sustainable development context. Indeed, the rapid and regular renewal of goods generates an over-consumption that is not without consequences for our environment. With the rise of environmental concerns, the planned obsolescence is attracting growing interest from political authorities who wish to struggle with this practice by promoting sustainable purchasing, repair and better use of products by consumers (RDC Environnement, 2017).

In this perspective, several studies have led to the development of specific labels to better inform and raise consumer awareness in their purchasing decisions. Among the most well-known are the FSC label, the European Ecolabel and the energy efficiency label for household appliances.

The use of labels as a means of combating planned obsolescence seems to be working. A recent study showed that the display of the lifespan of products has a significant influence on consumers' purchasing intention (EESC, 2016). Thus, new labels are being studied and should be implemented in the coming years. This is particularly the case for product repairability.

This thesis falls under this perspective by focusing on products' repairability, a fundamental pillar of the circular economy and still too little exploited today. In view of the paucity of research on the impact of a repairability display on consumers' purchasing intention, this thesis will aim to answer the following question: "How does the display of a repairability score influence consumers' purchase intent?". More specifically, we will focus on the case of laptops.

[1] Consumer association whose purpose is to inform, advise and defend French consumers.

Structure

This thesis is composed of three distinct parts: the theoretical framework, the hypotheses and the empirical research.

We will start by considering in a whole what planned obsolescence is such as its historical evolution, causes, consequences and legal aspects. Then, we will see to what extent product repairability can be a potential solution to the phenomenon of planned obsolescence. Finally, we will focus on interesting theories about how consumers usually perceive labels and how they deal with all the information on it when making a purchase decision.

This literature review will lead us to define the conceptual framework for our empirical research, as well as to present our underlying hypotheses.

Finally, our exploratory and descriptive research will be the third section and aim at testing the repairability index that we created. In this part, we will mainly present our results and analyse how they validate or reject our hypotheses.

At the end of this thesis, all the aspects related to a repairability index will be explained: its relevance against planned obsolescence, its benefits and limitations for the retailer or consumer and especially the extent to which repairability can influence consumers' purchasing intention. We will also indicate the limits encountered during our research and suggest areas for future research.

PART I: Theoretical framework

Chapter 1: Planned obsolescence

This chapter focuses on the planned obsolescence of products, a phenomenon that is widespread in our societies and the subject of numerous debates. It is essential to understand this concept as a whole in order to identify possible courses of action that would make it possible to combat this practice.

1. Definitions

Planned obsolescence is defined in both the academic, professional and public literature as a ploy to accelerate the end of a product's life in order to increase its replacement rate (see Table 1).

Table 1. Definitions of planned obsolescence

« Planned obsolescence is the catch-all phrase used to describe the assortment of techniques used to artificially limit the durability of a manufactured good in order to stimulate repetitive consumption. » (Slade, 2006, p.5).
« Planned obsolescence is a strategy through which the standard lifecycle (average lifespan) of a product is knowingly reduced from its conception, thereby limiting its duration of use (the period during which the product is used), as part of a deliberate business strategy. » (Mudgal, et al., 2012, p.15, own translation).
« Planned obsolescence refers to a wide range of techniques that certain manufacturers might use to shorten the functional lifespan of products and force consumers to make premature replacements in order to continue selling in saturated markets. » (Pachl & Maurer, 2015).

2. Historical context

Planned obsolescence was born in the United States, after the Second Industrial Revolution, in a context of post-war crisis. At that time, the consumption of American households fell sharply, which considerably reduced the turnover of many companies. As a result, some companies found themselves in great difficulty. In order to cope with this and increase their sales, some of them have deliberately shortened the life of their products in order to force consumers to buy goods more regularly (Slade, 2006).

This was the case in 1924 with the birth of the Phoebus cartel. During this period, the main bulb manufacturers developed a ploy to voluntarily reduce the life of bulbs to 1000 hours in order to cope with the considerable drop in their annual sales (Dannoritzer, 2010).

This commercial strategy was the first but not the only case of planned obsolescence observed. In 1940, the company Dupont was also affected by this practice. Indeed, while it produced nylon stockings considered as unbreakable, the company experienced a sales slowdown that prompted it to rethink its product so that it would be more fragile in order to increase its replacement rate (Petit, 2018).

It is in this context of economic crisis that Bernard London, New York agent and promoter, first introduced in 1932 the notion of planned obsolescence in his book entitled *"Ending The Depression Through Planned Obsolescence"*. London (1932) refers to planned obsolescence as a solution to return to growth and criticizes using a product until it is worn out or no longer works. He recommends that governments force consumers to return their products before they died. However, it should be noted that this idea was not considered by the politicians of the time (Lombès & Poubeau, 2014).

In the 1950s, the planned obsolescence concept became popular thanks to the invention of psychological obsolescence by the American industrial designer Brooks Stevens. According to him, planned obsolescence consists in *"instilling in the buyer the desire to own something a little newer, a little better, a little sooner than is necessary" (Brooks Stevens as cited in Lombès & Poubeau, 2014, p.12).* Since then, manufacturers have begun to use range renewal as a marketing argument (Dannoritzer, 2010).

At the end of the 1950s and during the 1960s, the planned obsolescence term became part of everyday language and marked the beginning of ideological opposition to the practice of obsolescence. Kenneth Galbraith, Canadian economist and Harvard professor, was the first to denounce the practice of obsolescence in his book *"The Affluent Society"*. Indeed, he encourages academics to take into account the implications of such approaches, particularly at the social level, and highlights the fact that artificial demands for goods are created and linked to expenditures on unnecessary goods that could be used more effectively for society. For his part, Vance Packard (1960) insisted in his work *"The Waste Makers"* on the ethical dimension that is ignored in the use of such practices and highlighted all the social and environmental problems caused by planned obsolescence. Vance Packard is one of the first to have paved the way for current debates on environmental issues, particularly ecology and sustainable development (Lombès & Poubeau, 2014).

Although many denunciations were subsequently promulgated, it was not until 2012 that the subject raised awareness of the public space with the broadcast of the film *"The Light Bulb Conspiracy"* on ARTE. Today, the phenomenon of planned obsolescence is more than ever at the heart of debates with the rise of environmental concerns.

3. Types of obsolescence

There are many typologies of planned obsolescence in the literature. As part of this thesis, we will develop a typology adapted to the context of electronic product disposal proposed by Déméné & Marchand (2015).

Through this typology, planned obsolescence is defined as *"a set of strategies implemented by the manufacturer so that he can predict the period at the end of which a good should no longer be functional (absolute obsolescence) or desired (relative obsolescence) by its user"(Déméné & Marchand, 2015, p.14, own translation).* Thus, planned obsolescence is articulated around the notions of absolute and relative obsolescence.

3.1. Absolute obsolescence

Absolute obsolescence consists in *"the disposal of electronic equipment that has reached the end of its technical life" (Déméné & Marchand, 2015, p.13, own translation).* According to Grandberg (1997), the technical life of a good is determined by its quality of manufacture, its

ease of maintenance or repairs but also its ability to resist wear and tear (Grandberg, 1997). In this perspective, absolute obsolescence is mainly caused by manufacturers since they are responsible for product design (choice of materials, assembly of components, possibility of repair, etc.) (Déméné & Marchand, 2015). Several techniques are used by manufacturers to reduce the technical life of products. These include the voluntary introduction of a defect, fragility, scheduled shutdown, technical limitation, inability to repair or software non-compatibility (Centre Européen de la Consommation, 2013).

3.2. Relative obsolescence

Relative obsolescence refers to the premature end of the product's life (Déméné & Marchand, 2015). This is generally caused by the consumer and depends essentially on his motivations for changing products (Girard et al., 2018). Indeed, more and more consumers are replacing their products prematurely while they are still functional, whether for technological, psychological, economic or ecological reasons (Arcelus, et al., 2006, Déméné & Marchand, 2015). These reasons are the basis for different forms of obsolescence.

First, there is the technological obsolescence which consists for the consumer in replacing a product because of its technological performance. For example, he will decide to renew a product for its slowness, its low energy autonomy, or its low graphic quality (Déméné & Marchand, 2015).

Secondly, the psychological obsolescence appears during a subjective evaluation of the consumer in relation to the goods they have at their disposal. Indeed, a consumer may consider one of his products outdated and will then wish to change it to a more fashionable product. Other reasons such as aesthetics, the need for change related to social status, a change in family or professional situation may also be at the origin of product replacement (Déméné & Marchand, 2015).

In addition, there is also the economic obsolescence which occurs when the consumer decides to replace a product because of its high cost of use, maintenance or repair (Cooper, 2004)

Finally, the ecological obsolescence consists of changing a product for ecological reasons. For example, a consumer will get rid of a good that consumes too much energy or water (Déméné & Marchand, 2015).

It should be noted that through this typology, only the responsibilities of manufacturers and consumers are involved in the phenomenon of planned obsolescence. Indeed, it seems that the consumer is responsible for the premature end of life of the product and that the manufacturer is responsible for the technical end of life of the product. However, other players are also involved in their own way in reducing the lifespan of our products. This will be the subject of the next section.

4. Actors involved in planned obsolescence

Several actors are regularly mentioned as being involved in shortening the product lifespan. These players include manufacturers, distributors, users and even political authorities.

4.1. The manufacturer

The manufacturer is often pointed out when it comes to planned obsolescence (Cooper, 2004, Guiltinan, 2009). Indeed, through the choice of materials, the assembly of components and the ease of maintenance as well of repair of the products it manufactures, manufacturers can have a considerable influence on the technical lifetime of electronic equipment (Déméné & Marchand, 2015). In order to accelerate the replacement of their products, the manufacturer would use several strategies such as the introduction of a defect that promotes the end of the product's life or the development of a software or technical incompatibility that makes previous versions obsolete. In addition, manufacturers would support the purchase rather than the repair by making spare parts too expensive or unavailable (Tollemer, 2012).

4.2. The distributor

Distributors tend to always highlight the new products they offer. In order to achieve their sales objectives, they use marketing and advertising, the main vectors of psychological obsolescence, to awaken in the consumer the desire to buy (Guiltinan, 2009). In this sense, distributors can also be perceived as accomplices, and sometimes even as the main culprits in the phenomenon of planned obsolescence (Vasseur & Sauvage, 2017).

4.3. The user

The user's behavior also contributes to the reduction of the lifespan of goods. Indeed, it determines the technical lifetime of its goods by the frequency and intensity of use but also the care and maintenance of its products (Déméné & Marchand, 2015). Several studies have shown that consumers do not always behave in such a way as to ensure the durability of the goods they have at their disposal (Cooper, 2004, Cooper & Evans, 2010). In addition, according to these studies, it would appear that those who neglect the care and maintenance of electronic products seem to favor the purchase of new products over the repair of old ones, which favors the phenomenon of planned obsolescence.

Beyond its influence on the technical lifetime of the goods, the user also gives an early end of life to its products. Indeed, the consumer tends to regularly renew his goods for purely aesthetic, functional, economic or social reasons (Cooper, 1994, Cooper & Mayers, 2000). Studies also highlight consumers' fascination for novelty and innovative products (Jackson, 2005, Chapman, 2009).

4.4. Political authorities

Political authorities are involved at two levels in the phenomenon of planned obsolescence.

On the one hand, they encourage a growth model based on overconsumption and therefore the rapid and regular renewal of goods. Indeed, it is in the interest of States to encourage overconsumption since they derive the majority of their tax revenues from value added tax (Vasseur & Sauvage, 2017).

On the other hand, States are also at the root of regulatory obsolescence, which requires the replacement of assets that may still be in existence through laws or regulations. For example, it is worth mentioning the decision of the public authorities to switch to the digital signal, which has led to the massive elimination of cathode-ray television sets using the analogy signal in Western countries (Crosbie, 2008).

5. Consequences

Voluntarily shortening product life through the use of planned obsolescence practices has disastrous economic, environmental and social consequences.

5.1. Economic consequences

The main economic consequence of the planned obsolescence practice is overconsumption, which is particularly prevalent in Western countries and is gradually spreading to developing countries (Fuchs, 2012). Today, people in industrialized countries are buying goods that they don't really need, and that they use in a very short period of time before the release of the newer, more technologically advanced model. The emergence of credit payment methods and consumer credit has largely contributed to the development of this consumption mode. At the end of 2015, total consumer credit outstanding in Europe amounted to €1,124 billion, representing an outstanding amount per person of around €2200 (Groupe Crédit Agricole, 2016).

The problem with overconsumption is that today, the entire economic system is based on this model, and when consumers will be aware of the problem and change their consumption habits, the entire functioning of the economy will be disrupted.

5.2. Environmental consequences

Planned obsolescence has direct consequences for our environment. The most well-known environmental consequences resulting from overconsumption encouraged by planned obsolescence are firstly those of the depletion of raw materials and secondly, the increasing production of waste (Dannoritzer, 2010).

5.2.1. Overexploitation of natural resources

The increasingly rapid renewal of consumer goods due to the phenomenon of planned obsolescence implies an increasing consumption of natural resources. Thus, over the last thirty years, our annual consumption of natural resources has increased by 50% (Fabre & Winkler, 2010). If we continue on this path, by 2050, human beings would consume three times more raw materials than they do today (Devarieux & Moncho, 2013). This would be a real disaster

insofar as the natural resources of our planet are not inexhaustible. In addition, the OECD[2] has estimated that some resources such as silver, copper and lead will disappear within 30 years if primary production continues to grow by 2% per year (Dejong, 2013). In addition, the collection of these resources also leads to the degradation of soil and fertile land and the destruction of fauna and flora (Tollemer, 2012).

5.2.2. Increasing production of waste

Beyond the depletion of natural resources, the shortening of the lifespan of goods also leads to an increasing production of waste. Thus, 10 million tons of electrical and electronic waste would be generated each year in Europe (Libaert & Haber, 2013). In Belgium, it seems that an individual throws on average between 16 to 20 kg of WEEE[3] per year (Braem, 2014). The problem with waste is that it is very little recovered or recycled. As a result, these accumulate and create several environmental and human problems. On the one hand, this non-recycled waste causes pollution problems. On the other hand, they are also the cause of health disasters. Indeed, most of the waste from Western countries is sent to developing countries, creating large illegal landfills where materials are treated with approximate recycling techniques. These techniques generate toxic fumes that threaten people living near these landfills with serious lung diseases, especially children (Fuchs, 2012).

5.3. Social consequences

Beyond environmental considerations, planned obsolescence also affects populations. There are 5 major consequences of planned obsolescence practices on our societies: health problems, social inequalities, debt and social exclusion, geopolitical problems and declining employment (Dejong, 2013).

First, overexploitation of resources and poor management of surplus waste caused by the rapid renewal of assets threaten the health of populations living near raw material extraction sites and landfills (Libaert & Haber, 2013). A study conducted by the Peruvian Ministry in 1999 reported that children living near metal mining facilities in Peru are reported to have blood lead levels

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[2] Organization for Economic Cooperation and Development

[3] Waste Electrical and Electronic Equipment

three times higher than the threshold recommended by the WHO[4] (Giljum, et al., 2009). Similarly, people living in the vicinity of wild WEEE landfills are also exposed to serious diseases. In Bamako, due to the lack of regular waste collection, residents abandon and burn their waste in the street, resulting in recurrent smoke, contamination of water resources, land, agriculture, livestock and increased air pollution (Lozniewski, 2018).

In addition to health problems, planned obsolescence also creates social inequalities. Indeed, the precarious people are the ones who are most confronted with the phenomenon of planned obsolescence because they tend to buy lower quality products at a reduced price, and it is these products that are the most affected by planned obsolescence. As a result, these people have to replace their products more regularly, creating a vicious circle from which it is difficult to break (Dejong, 2013).

A third consequence of planned obsolescence concerns the population's indebtedness. Indeed, following the emergence of credit payment methods and consumer credit, access to goods and services has become easier (Fuchs, 2012). From this perspective, people with low incomes no longer hesitate to borrow money to replace their obsolete products. The problem is that these people have to replace their products regularly because they cannot afford to buy good quality products. This therefore leads to an accumulation of loans and a progressive indebtedness of the population (Girard, et al., 2018).

In addition to the previous consequences, planned obsolescence causes geopolitical problems. As explained above, it causes the depletion of natural resources and leads to their scarcity. This scarcity of resources is at the root of conflicts between regions or states that wish to take control of these resources (Dejong, 2013). An example is the conflict between the Democratic Republic of Congo and its bordering neighbours, Rwanda and Uganda. Indeed, the DRC has long been a victim of social tensions, looting and fraud due to the richness of its natural resources. The country's political instability leads to a lack of control over the eastern part of the country and is at the root of many armed conflicts aimed at access and control resources (Fabre & Winkler, 2010).

Finally, the mass consumption generated by planned obsolescence is leading companies to produce more and more goods. In order to produce at lower costs, they relocate their production

[4] World Health Organization

plants to countries where the workforce is cheap. This offshoring leads to a considerable drop in employment in Western countries (Dejong, 2013; Dejong, Stop à l'obsolescence programmée ! Mode d'emploi, 2014). In addition to offshoring, most individuals favour the purchase of a new product over the repair of the old one, thus reducing work in the repair sector. According to a survey conducted by the ADEME[5], only 44% of devices that fail would be repaired (Mudgal, et al., 2012). However, the repair sector offers the advantage of being non-relocatable and has stable jobs. In this perspective, Europe advocates the use of repair rather than purchase and encourages companies to develop products with a longer lifespan at the expense of less costly, unsustainable products (Libaert & Haber, 2013).

6. Legislative framework governing planned obsolescence

To date, very few texts deal directly with the phenomenon of planned obsolescence. This lack of consideration may stem from the fact that political authorities around the world promote economic growth and thus overconsumption of goods (Vasseur & Sauvage, 2017). Thus, producing a law against planned obsolescence would not be an option for institutions such as the WTO[6] or UNIDO[7] (Tollemer, 2012).

Although there is no specific law at the global level, obsolescence is still indirectly dealt at the international and European level. At the national level, some countries specifically address planned obsolescence in their legislation or into specific action plans.

6.1. The contribution of ISO standards

The IOS[8] indirectly combats planned obsolescence by establishing standards that ensure the circulation of safe, reliable and good quality products. More specifically, these standards "*provide requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose" (as cited in International Organization for Standardization (IOS), 2019).* They are generally in

[5] French Environment & Energy Management Agency

[6] World Trade Organization

[7] United Nations Industrial Development Organization

[8] International Organization for Standardization

the form of a label or sheet that covers the different aspects of product design. These standards, better known as ISO standards, encourage consumers to consume in a more sustainable way by providing them with essential information on different products or services. This additional information is also a way for companies to have a competitive advantage over the quality of the products offered. Finally, these standards also benefit regulatory authorities that wish to make a transition to a more sustainable society.

Therefore, by providing additional information to consumers, ISO standards force manufacturers to improve the quality and durability of their products and indirectly help to combat planned obsolescence.

6.2. The implementation of European directives

Several European directives indirectly address the phenomenon of planned obsolescence.

First, Directive 2002/96/EC[9] on waste electrical and electronic equipment (WEEE) indirectly aims to combat planned obsolescence by calling for a reduction in the quantity of WEEE to be disposed of. To this end, two approaches are envisaged: improving the environmental performance of the actors involved during the life cycle of electrical and electronic products, but also the recovery of reuse, recycling and other forms of recovery of the waste produced.

Similarly, Directive 2008/98/EC[10] on waste aims to protect the environment and human health by preventing or reducing the harmful effects of waste generation and management. In this perspective, a better use of resources and an improvement in the efficiency of this use is required.

Finally, the Ecodesign Directive 2009/125/EC[11] aims to limit pollution by integrating *"environmental characteristics into product design with a view to improving the environmental performance of the product throughout its life cycle"*. This directive is in line with the fight

[9] Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE)

[10] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

[11] Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products

against planned obsolescence by obliging manufacturers to include environmental considerations at each stage of the product, i.e. from the selection of raw materials to the end of its life.

Although these directives indirectly contribute to the fight against planned obsolescence, they are not sufficient to eradicate the practice. This is why some actors are advocating for a legislative proposal against planned obsolescence at European level (Dejong, 2014).

6.3. The contribution of national laws and action plans

Although planned obsolescence is indirectly dealt at European level, some EU countries raise the subject in a specific way. This is the case in France and Belgium in particular (Centre Européen de la Consommation, 2013).

In France, the law on energy transition[12] specifically addresses the phenomenon of planned obsolescence and also proposes a definition of the concept. According to the French legislator, planned obsolescence is defined as *"all the techniques by which a company on the market deliberately aims to reduce the life of a product in order to increase its replacement rate"*. Thus, planned obsolescence is an offence that engages the sole responsibility of the manufacturer and is punishable by a 2-year prison sentence and a fine of 300,000€ in France.

Belgium was the first country to specifically address the problem of planned obsolescence. Indeed, a motion for a resolution to combat the planned obsolescence of energy-related products was tabled in July 2011 by Senator and Regional Deputy Muriel Targnion. This motion for a resolution called for the introduction of labelling of the lifetime of energy-related products (light bulbs, computers, mobile phones, etc.) and their reparability at European level. This proposal was adopted by the Belgian Senate in 2012.[13]

In addition, action plans are also being implemented at the national level. In a recent report, Belgium presented its action plan to combat planned obsolescence. It is based on three main objectives aimed at extending the lifespan: ecodesign and promote sustainable purchasing, repair and better use. These three objectives are supported by specific measures. The most

[12] French law N° 2015-992 of 17 August 2015 on the energy transition for green growth

[13] Document of the Belgian Senate: 5-1251 - 2010/2011: No. 1: Motion for a resolution by Mrs Targnion and others.

effective measures to achieve the first objective would be to make the display of products' lifespan mandatory, but also to provide for an extension of the duration of the legal guarantee (in a variable way depending on the product categories) and to extend the burden of proof by the manufacturer to 2 years. The second objective in terms of repair is to oblige the manufacturer to display the degree of repairability of these products, but also to make it compulsory to make spare parts, product plans and tools necessary for repair available with a reasonable delivery time, availability time and price. It would also be a question of indicating the length of time during which the manufacturer undertakes to supply the spare parts and making this indication mandatory (RDC Environnement, 2017).

7. Conclusion Chapter 1

This first chapter has allowed us to better understand the phenomenon of planned obsolescence and how it took much more importance in a consumer-oriented society. This phenomenon can take many forms and does not put into question the only responsibility of the manufacturers but also the one of various actors such as distributors, users and political authorities. Therefore, we all contribute in a certain way to the significant consequences of planned obsolescence which are mainly economic, environmental and social. Given its consequences, the role of legislation is crucial. Nevertheless, there are very few laws that regulate planned obsolescence. However, some measures have being explored through action plans, in particular the one of Belgium. These measures aimed at improving the use of products, improving transparency in decision-making and finally, aim at making purchases more sustainable. Repairing products rather than buying new ones is also a potential solution to the phenomenon of planned obsolescence that has, in this case, not yet been fully exploited. Consequently, we will analyze this specific solution more specifically in the next chapter.

Chapter 2: Repairability of products

In this chapter, we will tackle the repairability of products, a potential solution to the phenomenon of planned obsolescence that is currently not much exploited due to many barriers. This section will first focus on the importance of repairability before addressing the various obstacles that this solution faces. Finally, the display of reparability as a lever of action will be invoked at the end of this chapter.

1. Why is repairability important?

Extending the lifespan of products is a major lever to solve the planned obsolescence problem. As we have seen previously, the phenomenon of planned obsolescence has significant environmental, economic and social consequences that repairability could mitigate.

First, products' repairability is essential for sustainable development. Indeed, it is important to know that the ecological impact of the life cycle of a product is in most cases at the time of manufacture and not at the time of use (Vasseur & Chasson, 2018). In this perspective, a product designed to last or be repaired maximizes its use and reduces the consumption of raw materials used during manufacture. According to a study, the Fairphone, a modular telephone that can be repaired for 5 years, would result in a reduction in CO2 emissions of approximately 30% compared to a conventional smartphone replaced every 3 years (Fairphone, 2017).

Secondly, the repairability of goods is also an economic opportunity. Indeed, the repairability of products has a significant employment potential. However, today, the sector is losing more and more ground in Europe every year. For example, in the Netherlands, 2,000 jobs have been lost in this sector in 7 years; in Germany, 13% of radio and television repair shops have closed in one year; in Poland, the number of repairers has fallen by 16% in two years... Yet, according to a 2014 Eurobarometer survey, 77% of European citizens would rather repair their goods than buy new ones. Therefore, there would be a real demand for the repair market. Moreover, when we know that 44% of electrical and electronic equipment is not repaired following a breakdown, supporting the repair sector would represent a potential number of jobs that should not be set aside (Durand, 2017).

Finally, at the social level, the product repairability could significantly improve consumers' purchasing power. Indeed, increased repairability could promote the second-hand market and

thus enable low-income individuals to acquire cheaper and better-quality products (Deloitte, 2016).

2. Barriers to repairability

While repairability may be a solution to the phenomenon of planned obsolescence by extending the lifespan of our products, the use of repair is still rare. Several factors may explain the tendency of consumers to favour product replacement over repair.

First, there are more and more technical failures such as poor design, or a poor choice of materials and components that can prevent products' repairability. In addition to these failures, functional obsolescence may be another reason for consumers to replace their product rather than repair it. These include incompatibilities with new technologies, unavailability of spare parts, limited access to repair information and software updates that make some products obsolete (Deloitte, 2016).

Secondly, there are economic constraints that make it cheaper for the consumer to buy a new product rather than repair it. Indeed, the price difference between the repair and the purchase of a new product is minimal, which makes the purchase of a new product more attractive to consumers (Thomas, 2018). Besides repairing a product does not guarantee to the consumer that it will perform as well as before or that it will be protected from a new defect. In addition to that, repair services cost more are in general tailored and manual services with a higher cost than mass production that is highly standardized. Reducing the cost of repairs could improve the situation since 63% of French people say that a lower cost could encourage them to have their products repaired if they break down (Vasseur & Chasson, 2018).

Third, there are also gaps in legislation and other legal barriers to reparation. Indeed, there is currently a lack of legislation requiring manufacturers and retailers to provide consumers or the repair market with technical instructions, information on the expected technical life of the product or on the availability of spare parts. In addition, the many safety standards, existing patents or recycling policy objectives do not motivate consumers to focus on repairability (Deloitte, 2016).

3. What is the plan about repairability?

Given the potential of repairability, new measures are emerging at European level. By 2020, manufacturers of many consumer products, mainly electronics and household appliances, will be required to design and market goods that are easily repairable and durable (Colinet, 2019). In order to inform the consumer about the repairability of products, an index will be placed on each product with the objective of providing useful and pragmatic information at the time of purchase. In this way, this index will likely become a new criterion in consumers' purchasing decisions. In addition, Brune Poirson[14] also hopes that it will provide an incentive for manufacturers but that, if the repairability index does not work, it will then be necessary to move on to sanctions and binding measures (Les Echos, 2018).

3.1. Why display a repairability index?

A study carried out by SIRCOME and the EESC[15] in 2016 analysed consumers' perception of information on the lifespan of products. This study has revealed that the display of product lifespan guides purchasing behaviour. Indeed, when consumers are informed of the longer shelf life of a product via a label, its sales increase by 56% on average (EESC, 2016).

A European study carried out in 2018 confirms these results and goes further by adding that price and sustainability information are two major criteria in consumers' purchasing decisions. The experience of the study shows that consumers were 3 times more likely to choose the products advertised as the most sustainable. Here, durability was presented as an expected lifetime, with an icon associated with a number of months and years. As a result, consumers favour the sustainability of products in their purchasing decisions and are demanding clear and understandable information (European Commission, 2018).

As product sustainability is a crucial issue in the fight against planned obsolescence, a display of it in different forms, which could include information on product repairability, could guide consumers towards more durable and repairable products (Vasseur & Chasson, 2018).

[14] French secretary of State for Ecological and Solidarity Transition

[15] European Economic and Social Committee

3.2. How to display the repairability index?

The repairability index will take the form of a score out of 10 which will be based on a dozen criteria such as the difficulty and the time to repair, the availability of technical documents, the number of tools needed, the price and the availability of parts and so on (Colinet, 2019). The ADEME will then have the mission with all the stakeholders, including manufacturers, but also repair specialists and consumer associations, to think about ten criteria per product family (Les Echos, 2018).

A repairability index has already been created for laptops by LaboFnac[16]. It is evaluated on 100 points and scored out of 10. These points are based on different criteria which can be visualized on Figure 1.

Figure 1. Overview of the Labofnac repairability index for laptops.
Source : https://labo.fnac.com/guide/indice-labofnac-reparabilite-ordinateurs/

First, LaboFnac verifies the availability of official documents (paper version, digital or even video) and if they contain disassembly instructions (10 points) that will allow possible self-repairs. To have 10 other points, it is necessary that the manufacturer provides a diagnostic help

[16] Product testing laboratory opened by Fnac in 1972, which publishes a consumer website aimed at competing with HighTech information sites such as Les Numériques, 01Net, Frandroid, Clubic & co.

by proposing frequent and easily reparable breakdown scenarios. Finally, 5 points are attributed to the presence of maintenance tips and good practices (Renouard, 2018).

Secondly, in the case where it is possible for the user to repair his own laptop, LaboFnac pays then attention to the modular aspect of the machines while checking the type of power supply. The questions to ask are: is the computer easy to disassemble? How many steps? (10 points). In order to have 10 additional points, LaboFnac checks the modularity of the main components of the computer: can the components be replaced individually? Will this replacement impact the working of another component (battery, RAM, screen)? Finally, it remains to know whether an individual can carry out the operation himself. The LaboFnac checks for this that no specific tools or special environment are required, for a total of 5 points (Renouard, 2018).

Third, the LaboFnac notes on 10 points the availability of spare parts generally communicated by the manufacturer. More precisely, more than 6 years of availability equals 10 points, more than 4 years at 8 points, and more than 2 years at 4 points. No points will be awarded to products with an availability less than four years or no existing. 10 additional points may be added if the manufacturer ensures that each of its spare parts does not exceed half of the purchase price of the product. The last five points to have, are about using standardized parts: do the parts that can be changed have a standard interface or type of connector? (Renouard, 2018).

The last criterion focuses on software reinstallation. Indeed, if the computer goes into repair, it must be ensured that it contains a restoration solution in order to be able to return to its original configuration (10 points). In addition to that, the LaboFnac will check if it is possible for the user to customize his machine: is the computer compatible with free operating systems? Finally, to obtain the last 5 points, the reinstallation of the operating system on the computer must include the updates created by the manufacturer (Renouard, 2018).

4. Conclusion Chapter 2

Through this chapter, we have seen the importance of repairability in the fight against planned obsolescence through extending the lifespan of products. This solution faces significant obstacles that need to be overcome. Thus, a repairability index is being studied and will soon be introduced to support sustainable purchases that consumers now seem to prefer. In this perspective, we will study how the display of this index in the form of an ecolabel can influence the consumer's purchasing intention.

Chapter 3: Consumer decision-making and attitude towards ecolabels

Several theories can explain consumers' decision-making and attitudes towards ecolabels. In this section, we will discuss both of them. First, risk theory will be developed to understand how perceived risk influences the way consumers seek information and make decisions. In this perspective, the perception of labels will be invoked and studied. Secondly, we will look at the theory of perceptive fluidity to understand why some ecolabels are more positively perceived by consumers.

1. Risk theory

Many studies have highlighted the importance of perceived risk in understanding consumers' behaviour in purchasing situations (Mitchell, 1992 ; Moulins, 2004). This is why we will consider the concept of perceived risk and its different forms in our study.

1.1. The concept of perceived risk

One of the first definitions of perceived risk was initiated by Bauer in 1960. It states that *"consumer behaviour involves risk in the sense that each purchase will have consequences, sometimes negative, that cannot be anticipated with certainty" (Bauer as cited in Volle, 1995, p.39, own translation)*. Several authors in management science have defined the scope and meaning of perceived risk. According to Volle (1995), perceived risk is *"the subjectively perceived uncertainty by an individual about the total potential losses related to the determining attributes of the choice of a product in a given purchasing or consumption situation" (p.40, own translation).*

Risk perception is a subjective data that varies from one consumer to another and depends not only on personal characteristics but also on the situational factors specific to each purchase decision (Dowling & Staelin, 1994).

According to Liang and Wei (2012), decreasing the customer's perceived risk is the most usual way for increasing the customer's purchasing intention. With this in mind, several studies have

focused on different ways to reduce perceived risk. These have revealed the predominant role of information on consumer's perceived risk reduction (Maziriri & Chuchu, 2017).

1.2. Types of risks perceived by the consumer

When considering the purchase of a new product, the consumer faces a perceived risk (Kotler et al., 2015). According to Taylor (1974), this risk arises from two elements: the uncertainty of decision outcomes and the consequences of making wrong decisions. Kotler et al (2015) distinguishes several consequences related to the purchase of a bad product. These result in various risks for the consumer, such as:

- Functional risk: if the product does not perform as well as expected.
- Physical risk: if the product is likely to threaten the well-being or health of the user or other individuals.
- Financial risk: if the value of the product does not correspond to the price paid.
- Social risk: if the product can cause embarrassment to others.
- Psychological risk: if the product can affect self-esteem or self-confidence.
- Time risk: if a bad purchase requires time and energy to find another product to replace it.

Through this section, we will mainly study the financial, functional and social risks that we considered to be the most relevant with regard to the display of products' repairability.

1.2.1. The financial risk

The willingness to buy a new product is closely linked to the financial risk incurred by the consumer. This risk represents the consumers' uncertainty about wasting money on the product they purchased (Kotler et al., 2015). Financial risk increases with the price of the product. Indeed, the higher the price of the product, the more likely the consumer is to lose money (Kaplan et al., 1974).

In order to minimize risk, consumers are looking for durable and high-quality product. Indeed, today, 82% of Belgian consumers place the highest importance on quality products/services and make their consumption choices according to the quality/price ratio (Gondola, 2018). The label has a role to play here as it is, according to Jeddi and Zaiem (2010), the strongest quality signal helping the consumer during the purchasing process.

However, the high price of a product may also justify an inherently better durability. Indeed, a guarantee that can take many forms in the eyes of the consumer would increase the perception of the value of the product, which would encourage consumers to buy (Sweeney et al.,1999)

1.2.2. The functional risk

Functional risk, also known as performance risk, can be understood as the risk that the product does not meet consumer expectations in terms of performance (Ward, 2008). This risk is associated with the characteristics of the product, its operation, its perceived benefits and also includes concerns about the quality of the product. Indeed, when considering a product, the consumer often has concerns about the product's performance due to a lack of knowledge of the product. For example, a consumer who likes to make cakes for family and friends might wonder if the oven he or she would like to buy, bakes enough cakes at the same time. In the same way consumers want to be sure that their products will satisfy them and will not break down prematurely when we know that nearly 54% of major appliances fail in less than 5 years of use (L'EST Républicain, 2019).

As this risk is associated with the characteristics of the product, adequate and accurate information on the performance and quality of the product would help the consumer to see it more clearly when making a purchase decision (Bhasin, 2018).

1.2.3. The social risk

Another risk to be considered by the consumer when purchasing a new product is the social risk. This risk reflects *"the disappointment in the individual by friends and family in case of a poor product choice" (as cited in Ueltschy et al., 2004, p.62)*. Several elements of social influence can be identified.

First, there are the social norms that push consumers to behave in a way that is consistent with their reference group to avoid rejection. According to Nasir et al (2015), the reference group can have an impact on the consumer when making a decision. Indeed, in a situation of uncertainty of purchase, the consumer is looking for reliable information which, according to him, can come from the opinion of his referents. In addition, consumers tend to orient their purchasing decisions in accordance with the values of their group, all in order to be better able to associate themselves with them (Bearden & Etzel, 1982).

In addition, when making a decision, the consumer will take into account his image. Indeed, consumers tend to buy a product or brand that has similar characteristics to their self-image. This effect is even more important when the product has a public use and less so when it is used privately. Finally, consumers are accustomed to choosing their products with attention to the image they convey to the outside world. The latter will therefore prefer, for example, to buy an electric car rather than a traditional one so that people will consider him as an environmentally friendly individual (Dolich, 1969).

1.3. Conclusion

Risk theory highlights the fact that the willingness to buy a new product is closely linked to the type and degree of risk perceived by the consumer.

The main consequences of the risk consideration by the consumer are anxiety and incertitude, which generate either the postponement of the decision or the search for additional information on the quality and durability of products (Vasseur & Chasson, 2018). In this perspective, ecolabels may have a role to play that could comfort the consumer in his choices as they are usually perceived as the most quality sign. In the next section, we will consider how ecolabels can influence purchasing decisions.

2. Consumers' attitudes towards ecolabels

Ecolabels have emerged with increasing consumer awareness of environmental issues. An ecolabel is a label which ensures that a product or service has a reduced impact on the environment, in comparison with other products in the same category (Global Ecolabelling Network, n.d.).

2.1. Perception of ecolabels

In the face of global warming and the importance of environmental issues, consumer perceptions of ecolabels have changed. Indeed, when making a purchasing decision, consumers will place sustainability and climate change impact issues at the hearth of their thinking (EESC, 2016). Therefore, if two products are considered identical by the consumer, the environmental aspect may be decisive in his choice of product. It is thus potentially recognised that an ecolabel may influence purchasing decisions (Teisl et al., 2006).

Besides, consumers perceive ecolabels as a sign of compliance with certain environmental standards. Therefore, they are generally considered as the best indicators of reliability and performance in terms of respect for the environment, which leads to a positive perception of the product and therefore to a high probability of purchasing the product (EESC, 2016).

Finally, the ecolabel aims to meet not only a demand for goods differentiated by environmental quality, but also to reduce the information asymmetry between producers and consumers, giving products with a strong environmental dimension a credence good nature. The ecolabel is the only way for consumers to collect information on the impact of products. Therefore, consumers tend to trust labels to help them in their purchasing decisions and rely on them to compensate for their lack of knowledge and understanding of the environmental impact of their consumption (EESC, 2016).

2.2. Attitudes towards ecolabels

Jeddi & Zaiem (2010) go further by demonstrating that a positive attitude towards an ecolabel has a positive effect on consumers' purchasing intentions and that there are several factors that can influence this attitude. On the one hand, consumer's positive attitude towards ecolabels depends on intrinsic factors and on the other hand there are also extrinsic factors related to consumer profiles.

2.2.1. Intrinsic factors

Consumers' attitudes towards ecolabels are strongly correlated with the trust and credibility that consumers place in them (Moussa & Touzani, 2008). Brécard et al (2009) adds that the information available, certification or general knowledge of the label are also elements likely to influence consumer attitudes.

Ecolabels certify compliance with characteristics that are not observable at the time of purchase. They may concern belief attributes, which the consumer will never be able to evaluate, or characteristics that the consumer will only be able to evaluate once the product has been purchased, i.e. experience attributes (Lebecque et., 2012). In this situation of information asymmetry, it seems obvious that the consumer's confidence in the label is a determining factor because he must rely entirely on the label and the certification body (Atkinson & Rosenthal, 2014).

As the credibility of the label is an essential element to gain consumer confidence, several studies have examined the factors that can influence it. These revealed the importance of the third party in the consumer's assessment of credibility. Indeed, according to Larceneux (2004), the presence of a third party in the commercial relationship makes it possible to give credibility to the signal emitted. He also adds that the more independent the label is from the producer company, the more credible it will be in the eyes of consumers. These conclusions are confirmed by the CRIOC[17] study conducted by Rousseau (2004), consumers are more likely to trust independent bodies, consumer organisations, environmental organisations or public authorities than producers and distributors. Being perceived as an external signal to the brand, labels enjoy greater credibility than commercial information, which may influence consumers' attitude and guide purchasing decision (Chameroy & Chandon, 2010).

Atkinson and Rosenthal (2014) examined the influence of the level of detail of information on consumer confidence and attitude towards certification. These revealed that consumers more easily trust more detailed and meaningful labels. Specific arguments will therefore lead to greater confidence in the label and induce a positive consumer attitude towards the label and its source.

Finally, according to Larceneux (2004), the credibility of a label depends both on the trust placed in it and on the knowledge of the sign. Thus, for a label to be credible in the eyes of consumers, it is essential that they reach a certain level of notoriety in order to be known and recognized.

2.2.2. Extrinsic factors

Several studies have shown that the consumer's profile also determines his attitude towards ecolabels.

They have shown that men and women do not have the same attitude towards ecolabelled products. Indeed, it would seem that young women are more favourable towards ecolabelled products than young men. In addition, age also shows some effects but indirectly. For example,

[17] Belgian Consumer Research and Information Centre

it would appear that with age, individuals give ecolabels more credibility (Jeddi & Zaiem, 2010).

Nevertheless, some research indicates that there is no consensus on the effect of education level on sustainable purchasing decisions. Indeed, it would seem that the level of education would indirectly influence purchasing by having a positive relationship with the importance given to environmental information in general and with the confidence given to ecolabels. Indeed, the most educated people would also be the most likely to rate ecolabelled products negatively (Abeliotis et al., 2010).

In addition to the socio-economic characteristics that are likely to influence attitudes towards ecolabels, psychographic factors have also been identified. Indeed, the stakes of sustainability and climate change are increasingly important and psychographic determinants are all the more decisive in purchasing intentions and decisions. These factors include: personal values; political values; personal norms; consumer habits; beliefs about social norms; attitudes towards the environment; research to preserve the environment; level of environmental involvement; environmental knowledge (Haws et al., 2014 ; Maniatis, 2016 ; Schumacher, 2010 ; Thøgersen, 2000).

2.3. Conclusion

Attitudes towards ecolabels can be influenced in general by various factors such as the validity and verifiability of the certification process, the credibility of the label, the meaning of the label and the information conveyed by it. Also, the consumer's profile has a determining role in the attitude. All of these can affect the level of confidence that consumers place in ecolabels, which could influence consumers' purchasing intention (Moussa & Touzani, 2008).

More importantly, current research concludes that the effectiveness of an ecolabel depends in part on how the information is presented but also on the consumer's ability to assimilate this information and act with (EESC, 2016). This will be the subject of the next section on the theory of perceptive fluidity.

3. The theory of perceptive fluidity

The theory of perceptive fluidity mainly explains how our preferences for ecolabels can be influenced, on the one hand, by its content but also by the feeling of generating information easily. Perceptive fluidity is *"an intrinsically pleasant metacognitive effect that puts you in a good mood" (as cited in Kervyn, 2018, own translation).* This principle consists of transferring the positive mood state to a stimulus. The simple exposure effect as well as the metacognitive effect will be presented below in order to put the concept of perceptive fluidity into perspective.

3.1. The simple exposure effect

The simple exposure effect consists of becoming more appreciative of the initially neutral stimuli after repeated exposure. In other words, it is the fact that a consumer creates a sense of familiarity with a stimulus to which he or she is frequently exposed. For example, young girls like pink because they often played with pink toys when they were children (Kervyn, 2018).

This effect also highlights the fact that information processing is facilitated when our brain has already been exposed to it, even unconsciously. This information is then more positively assessed. More specifically, Corneille (2010) states that more familiar stimuli are evaluated more positively as a result of easier perceptual treatment. Following this approach, stimuli evoke positive affects when they are easily treated. These positive affects are then transferred to the stimulus.

It should also be noted that the emotional state influences the effectiveness of the simple exposure effect. If the exposure comes at the right time to meet a need, the effect is multiplied tenfold (Kervyn, 2018).

3.2. The metacognitive effect

The metacognitive effect shows how the ease of understanding information influences our perceptions. This effect has an opposite consequence to the one of simple exposure since it makes a stimulus perceived as positive, more familiar. Corneille (2010) confirms this effect by stating that any stimulus whose treatment is facilitated will benefit from a more favourable evaluation. Thus, in this case, it is not familiarity that generates a better perception of the

stimulus but rather the fact that the positive perception of the stimulus due to its easy processing of information creates a sense of familiarity.

For example, surveys and experiments have shown that drugs with a name that is difficult to pronounce (e.g. Levocetrizine) pose a greater threat to the health of survey participants than when the name is more easily pronounced (e.g. Clemastine) (Wagner, 2017).

3.3. Conclusion

People rely on a general evaluative feeling to establish their preference without leaving room for reflection, while they rely on analytical judgment to establish their familiarity judgment. The Whittlesea and Leboe model (2002) goes in this direction by stating that: *"Perceptive fluidity is the basis of the judging process" (as cited in Brouillet et al., 2013).* A stimulus that seems familiar to us, or whose information processing is relatively easy, will be judged positively. On the other hand, according to Berlyne (as cited in Courbet & Fourquet-Courbet, 2014), unknown stimuli that generate psychological uncertainties and discomforts cause negative judgments towards them.

Nevertheless, perceptive fluidity can show different results when:

- People are aware of their repeated exposure to a stimulus. In such a case, these people will stop preferring this stimulus (Kervyn, 2018).
- The stimulus in question is very familiar or not at all neutral at the first exposure.
- People's evaluative judgment is not spontaneous. Under more involved conditions, when we are inclined to detail the reasons for our evaluations, it is likely that perceptive fluidity will no longer affect our judgment.
- The number of exposures exceeds a certain point. Indeed, overexposure to a stimulus could generate a negative appreciation towards it. For example, the summer hit that is played far too often on the radio sometimes becomes irritating for some people (Kervyn, 2018).

Conclusion Part I

Through the literature, we have been able to observe the extent of the phenomenon of planned obsolescence in our societies. The voluntary reduction of products' lifespan is an aberrant practice in a world where environmental concerns are increasingly at the heart of many debates. Indeed, the overconsumption generated by the rapid renewal of goods is at the root of many consequences that have significant effects on a global scale.

Consequently, some measures have been put in place by the political authorities to combat the phenomenon. The latest one is to change the consumers' consumption habits, who prefer to buy new products more often than to repair old ones. From this perspective, access to information in the form of a repairability index could encourage consumers to think differently and move towards more sustainable consumption by opting for repairable products.

Through our third chapter, we have developed several theories that lead us to believe that ecolabels could indeed allow this beneficial transition. First, there is the fact that consumers face a risk at the time of purchase that they will try to reduce by seeking additional information about the quality of the product in question (durability, possibility of repair, etc.). Secondly, we are entering an era where consumers are increasingly positive about ecolabels and they would even guide their attitudes in their purchasing decisions, which is the point of our research question: "How does the display of a repairability score influence consumers' purchase intent?".

To successfully answer the research question of our thesis, we have listed several hypotheses that flow from it, which will allow us to answer our research question. These hypotheses are the object of the next part.

PART II: Hypotheses

The literary review enabled us to define the specific scope of our research and determine the exact variables of interest we want to investigate as part of our quantitative approach. We elaborated one main hypothesis, which forms the basis of the subsequent hypotheses, all of which will be tested during our data analyses.

Main hypothesis

Influence of the repairability display on purchase intention

Hypothesis 1: The display of a repairability score on a laptop increases consumers' purchase intention.

Theoretical basis: According to a recent study, the display of products' lifespan guides purchasing behaviour. Indeed, when consumers are informed of the longer lifespan of a product through a label, its sales increase by 56% on average (EESC, 2016).

Explanation: Given the positive influence of the lifespan display on consumers' purchasing behaviour, we wanted to analyse whether the observed effect would be the same for products' repairability display.

Note: We have considered the level of product's repairability (a score of 7/10 indicating high product repairability) as a control variable for all our hypotheses below.

Underlying hypotheses

Influence of the attitude towards the product

Hypothesis 2: The display of a repairability score positively influences the attitude towards the product, which increases the purchase intention (Attitude towards the product = mediating variable).

Theoretical basis: Consumers perceive labels as a utilitarian aspect of a product, and therefore it can improve product evaluation, especially when the content highlights environmental benefits (EESC, 2016).

Explanation: It would be interesting to analyze whether the display of a repairability score improves the consumer's assessment of the product and then increases his purchasing intention.

Influence of perceived risks

Hypothesis 3: The display of a repairability score reduces the financial risk, which increases the purchase intention (Financial risk = mediating variable).

Theoretical basis: According to Liang and Wei (2012), decreasing the customer's perceived risk is the most usual way for increasing the customer's purchase intention. Financial risk increases with the price of the product. Indeed, the higher the price of the product, the more likely the consumer is to lose money (Kaplan et al., 1974).

Explanation: It would be interesting to study whether displaying a repairability score is a way to reduce the financial risk perceived by the consumer when considering the purchase of a new product.

Hypothesis 4: The display of a repairability score reduces the functional risk, which increases the purchase intention (Performance risk = mediating variable).

Theoretical basis: According to Liang and Wei (2012), decreasing the customer's perceived risk is the most usual way for increasing the customer's purchase intention. When considering a new product, the consumer may have concerns about its performance. Adequate and accurate information about the product and its quality would reassure the consumer when making a purchase decision (Bhasin, 2018).

Explanation: It would be interesting to analyse whether adequate and precise information on the performance of the product (quality, attribute, durability, reparability, etc.) through a label could reassure the consumer in his purchasing decision.

Hypothesis 5: The display of a repairability score reduces the social risk, which increases the purchase intention (Social risk = mediating variable).

Theoretical basis: According to Liang and Wei (2012), decreasing the customer's perceived risk is the most usual way for increasing the customer's purchase intention. When considering the purchase of a new product, the consumer perceives a social risk that reflects *"the disappointment in the individual by friends and family in case of a poor product choice" (as*

cited in Ueltschy et al., 2004). In this case, we consider the choice of a bad product as the choice of a product that would not be designed in a sustainable way.

Explanation: With the rise of environmental concerns, it would be interesting to analyse whether the display of a repairability score is a way to reduce the social risk faced by consumers when considering the purchase of a new product.

Influence of consumers' environmental awareness

Hypothesis 6: A strong involvement in informative labels displayed on a product positively reinforces the influence of the display of a repairability score on purchase intention (Involvement in labels = moderator variable).

Theoretical basis: Jeddy & Zaiem (2010) states that a positive attitude towards an ecolabel has a positive effect on consumers' purchasing intention. According to several studies, consumers' positive attitude towards ecolabels are influenced by psychographic variables related to consumer profile (Haws et al., 2014 ; Maniatis, 2016 ; Schumacher, 2010 ; Thøgersen, 2000).

Explanation: In this research, we would like to know whether a strong involvement in labels reveals a positive influence on the relationship between the display of a repairability score and purchase intention.

Hypothesis 7: A high level of importance given to the environmental impact of a product positively reinforces the influence of the display of a repairability score on purchase intention (Environmental responsibility = moderator variable).

Theoretical basis: Jeddy & Zaiem (2010) states that a positive attitude towards an ecolabel has a positive effect on consumers' purchasing intention. According to several studies, consumers' positive attitudes towards ecolabels are influenced by psychographic variables related to consumer profile (Haws et al., 2014 ; Maniatis, 2016 ; Schumacher, 2010 ; Thøgersen, 2000).

Explanation: Through our study, we would like to analyse whether a high level of environmental involvement has a positive influence on the relationship between the display of a repairability score and purchase intent.

Influence of consumers' perceptions

Hypothesis 8: An easy processing of the information conveyed by the repairability score displayed on the product positively reinforces the purchase intention. (Ease of understanding = moderator variable)

Theoretical basis: Corneille (2012) develops the metacognitive effect of information processing, which stipulates that any stimulus whose treatment is facilitated will benefit from more favourable evaluation.

Explanation: It would be interesting to study whether a repairability score that benefits from easier information processing would positively reinforce the purchase intention due to its favourable evaluation.

Hypothesis 9: A high level of confidence in the repairability score positively reinforces the purchase intention (Trust = moderator variable).

Theoretical basis: Jeddy & Zaiem (2010) states that a positive attitude towards an ecolabel has a positive effect on consumers' purchasing intention. According to Moussa & Touzani (2008), consumer positive attitude towards ecolabels depends on the trust and credibility they place in them.

Explanation: Through our analysis, we would like to know whether a high level of confidence in the repairability score indicates a positive influence on the relationship between the display of a repairability score and purchase intention.

PART III: Empirical research

After having laid out the theoretical groundwork, we uncovered a research gap around the development of a repairability index and its potential influence on consumer decision making. In the second part, we translated this research gap into our main research question and defined various hypotheses that are associated with it. This third part will describe the fieldwork that has been conducted and provide an in-depth analysis of the results emanating from it with the aim of answering our main research question.

Chapter 1: Stimuli

Because our research is built around studying the influence of displaying a repairability index on laptops on consumers' purchase intent, we decided to create specific stimuli for the fieldwork stage. The fact that we created our own stimuli, based on pre-existing technical features and logo designs, allowed us to customize the elements of the advertisement to make sure the variables of interest comply with our research needs and objectives. Different stimuli will be created, each one corresponding to a particular price and logo display condition. These stimuli will be integrated in both our qualitative and our quantitative approach and thus constitute the common thread within this empirical research.

Because this research focuses on Belgian residents, we established all stimuli in French and English for practical reasons. This will enable us to overcome potential language barriers that are present on the Belgian market and increase the span of both our qualitative and quantitative research. However, to avoid repetitiveness, only the English stimuli will be included in the main part of this study as well as in the appendices.

1. Laptop

Our fictive advertisement presents a portable computer from the brand Vizio. We chose this particular brand because its laptops are not commercialized on the Belgian market. On top of that, because the company sells its laptops through online and offline retailers only, we expect the brand to have little awareness among Belgian residents. Nevertheless, this will have to be confirmed by our face-to-face interviews. Choosing a brand that has low awareness among Belgian residents is important to minimize (or even eliminate) respondents' bias towards the

laptop originating from its brand. Indeed, we wanted to make sure consumers' attitudes and purchase intent towards the laptop were not based on their predisposition towards the laptop's brand but relied as much as possible on their evaluation of the advertisement and the laptop's characteristics.

The picture and the characteristics of the Vizio laptop that are presented in our fictive advertisement are based on the Vizio Thin and Light CT15-A2 15.6-Inch Laptop sold on Amazon.com (Amazon, n.d.). In our advertisement, we decided to mention the following five technical specifications: the operating system, the processor, the memory, the hard drive and the display. These five specifications were the ones displayed on the actual online advertisement for this Vizio laptop on Amazon.com. On top of that, they corresponded to five of the six main characteristics most frequently mentioned in standard laptop advertisements in Belgium (Lekeu, 2015). The sixth specification refers to the graphics card, which is an essential feature for heavy gamers. We decided not to include this feature in our advertisement as we are studying the purchase of a new laptop for personal home-use. All of the five technical specifications that were presented in the advertisement were identical to the ones of the actual Vizio laptop sold on Amazon.com, except for the operating system, which we changed from Windows 7 Home 64 bit to Windows 10 Pro 64. The reason for changing the operating system specification was to make to make it look like a realistic advertisement that consumers could come across at the time of the interviews and when filling in the online survey.

Finally, we added the logo of the Intel Core i7 processor on the advertisement to make it look as realistic and credible as possible, while diverting the attention from the repairability logo. That is also the reason why we changed the grey background on the initial picture of the laptop and place a coloured background instead. This emphasized the laptop and balanced out the advertisement in terms of colours. Making sure the repairability logo blended in nicely in the advertisement and did not come across as out of place was crucial for our quantitative research, as we wanted to prevent participants from being aware that repairability was the core subject of our research. This could have biased their responses and therefore negatively affected the quality and validity of our results and associated interpretations.

The advertisement showing the picture of the laptop and its technical specifications, as well as the brand, the model and the Intel Core i7 logo, in comparison to the original ad Amazon.com can be visualized in Figure 2. This forms the basis of our advertisement and will remain identical across the different stimuli conditions that will be created afterwards by adding a specific price and logo.

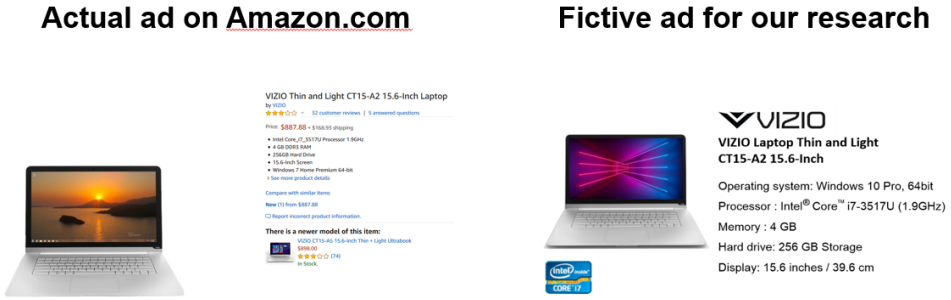


Figure 2. Visual comparison between the actual Vizio ad and our fictive ad

2. Price

Once the basic elements of the advertisement were selected, two distinct prices for the laptop had to be chosen: a reference price P1 and a higher yet within-budget price P2. The reason for displaying the laptop at two distinct prices is to determine if consumers make an association between the price of the product and the repairability logo that is displayed (and if so, the intensity and direction of this relationship). In other words, to evaluate if the price level of the laptop has an effect on the relationship between the display of a repairability index and its impact on consumers' purchase intent (Hypothesis 1), we decided to create separate advertisements which were completely identical with regards to the technical specifications of the laptop except for the price displayed.

The first advertisement showcased a reference price P1 of 699€ while the second advertisement showcased a price P2 of 1099€. These two initial prices were chosen based on the actual price displayed for this laptop on the Amazon.com website (887.88$, which equals to 790.21€ at the 1 USD = 0.89 EUR rate on the 6th June 2019). The actual price of 790.21€ is considered to be the price for a mid-range laptop for personal home-use, which is consistent with its technical specifications. The reference price P1 is therefore around 100€ below the actual price and the price P2 is around 300€ above the actual price. The rationale behind the decision to considerably increase P2 stems from wanting to establish a sufficient price range in order to highlight potential differences between consumers' purchase intent depending on the price. Both advertisements, one with price P1 and the other with price P2, are presented in Figure 3.

Figure 3. Advertisement at the prices P1 (699€) and P2 (1099€)

However, the price levels will have to be investigated during the face-to-face interviews by asking questions about respondents' budget allocation for the purchase of a new laptop for private usage, as well as exploring the acceptable price range for the Vizio laptop in the advertisement according to them. The answers provided by the interviewees will help us adjust these prices for the stimuli that will be used for our quantitative research later on.

3. Logos

In addition to studying the influence of displaying a repairability index on consumers' purchase intent, we also want to investigate potential differences arising from the visual representation of the repairability information (European Economic and Social Committee, 2016). That is why we created three different logos based on the designs of other existing logos and labels. Because the repairability index is a new concept that hasn't been implemented yet, there are no specific logo formats that have been created to convey this type of information. We therefore decided to rely on the design of pre-existing logos that have been established by public authorities, as it provides a framework for our empirical research. However, these logos will be slightly adjusted in terms of both the design and the information that is displayed to meet the needs and objectives of our own research.

Even though each logo will have a distinct design, all three logos will have one common feature: the repairability score that is displayed. Indeed, as mentioned in our hypotheses, we decided to treat the level of repairability as a control variable, which means we will not investigate the influence of different repairability scores on consumers' purchase intent. We considered 8/10 to be a score implying a high repairability level of the product. Each of the three logos will thus display the 8/10 score, but whether this score is considered to reflect a high repairability of the product will have to be validated by our one-on-one interviews.

3.1. Logo 1, based on the lifespan label

The design of Logo 1 is based on the label displaying the lifespan of a product (in years or in life cycles) established in a study carried out by the European Economic and Social Committee, which aimed at analysing the potential influence of product lifespan labelling on consumers' purchasing decisions (EESC, 2016). We chose this particular format as it is closely linked to the current planned obsolescence and environmental issues in our society. Moreover, the EECE has investigated the effects of lifespan labelling on consumer decision making for different types of product categories, one of which being high-tech products such as TV's, smartphones and printers. It is thus relevant to use this type of label in our research focused on displaying a repairability index on portable computers.

We thus created Logo 1 by placing the repairability score of 8/10 at the centre and "Repairability index" around the score on top. We did not mention the unit of measurement around the score at the bottom because in our case, the unit of measurement is a score out of 10, which is already included in the score itself. All the other elements of Logo 1 (i.e. the round format, the placement of the informative elements and the colours) remained identical to the official lifespan label. Both the lifespan label and Logo 1 can be visualized in Figure 4.

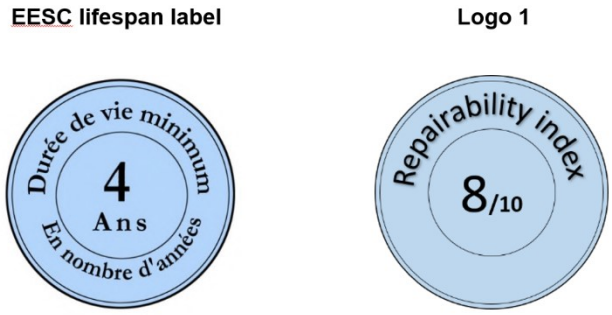


Figure 4. Visual comparison between the lifespan label and Logo 1

3.2. Logo 2, based on the EU energy label

Logo 2 is based on the European Union (EU) energy label, which is displayed on most domestic appliances (e.g. refrigerators, washing machines, etc.). The efficiency of the appliance in terms of energy consumption is rated on a scale from A to G, A corresponding to the most energy efficient category and G corresponding to the least energy efficient category. Additional grades such as A+++, A++ and A+ were introduced in 2010 for various appliances in order to

keep the products and their labelling up-to-date to the latest innovations around energy efficiency technologies (European Commission, n.d.)

However, on the EU energy label, the size of the arrows become bigger as the energy consumption increases, or in other words when the appliance becomes less energy efficient. However, this can be seen as counter-intuitive. For instance, when looking at the Food Pyramid in Figure 5, the healthiest food options such as vegetables and fruits are placed at the bottom of the pyramid in a large green shelf. The least healthy foods such as sodas and sweets are placed at the top of the pyramid in a small red-coloured shelf (Safefood, n.d.). As positive aspects tend to be associated with bigger shapes and the colour green whereas more negative aspects are more likely to be associated with smaller shapes and the colour red, we decided to slightly adapt the EU energy label by making the dark green arrow the biggest, and then having the arrows slowly decrease in length to lead to the smallest arrow in red at the bottom.

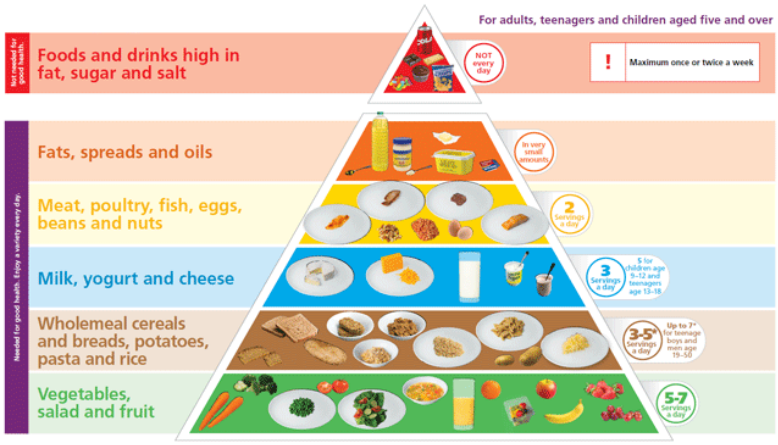


Figure 5. Food Pyramid
Source: Safefood, n.d.

On top of that, because we are studying a repairability score, we replaced the graded A to G scale by a numeric 1 to 10 scale. To avoid having one arrow per score, meaning the label would have 10 arrows in total, we decided to group the scores by pairs to limit the number of arrows to 5 : 1-2 in red, 3-4 in orange, 5-6 in yellow, 7-8 in light green and 9-10 in dark green. The ranking of the colours in Logo 2 (from dark green on top to red on the bottom) is similar to the one of the EU energy label except that there are therefore 5 arrows (and thus 5 colours) instead of 7. The repairability score of the product is indicated by the small black arrow on the right of the coloured scale as in the EU energy label.

We added the statements “Poorly repairable” under the label and “Highly repairable” on top of the label to clearly communicate that the logo is an indication of the repairability of the product

and avoid confusion with the official EU energy label. Both the EU energy label and Logo 2 can be visualized in Figure 6.

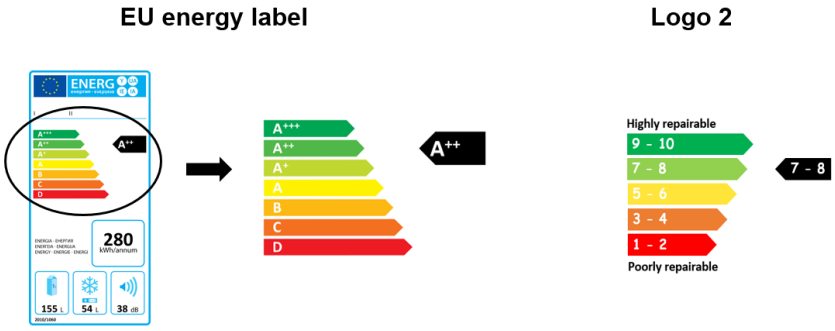


Figure 6. Visual comparison between the EU energy label and Logo 2

3.3. Logo 3, based on the Nutri-score label

The third and final logo, Logo 3, is based on the Nutri-score that has been developed by the Nutritional Epidemiology Research Team, an academic public research unit. The Nutri-score is a five-colour and five-grade front-of-pack nutrition label that indicates the nutritional value of food products. It has been tested in 60 supermarkets in France and has been officially implemented in by the Belgian government as of April 2019 (Julia & Hercberg, 2017). However, the European legislation does not impose the use of food labels (yet), which means food producers and retailers in Belgium remain free to decide if they want to implement the Nutri-score or not. In Belgium, Delhaize, Colruyt and Carrefour have decided to integrate the Nutri-score on their food packaging (Federale Overheidsdienst, 2019).

Food products that have the highest nutritional value (and are therefore considered to be the healthiest) are graded with the letter A, which is represented by the dark green colour on the label. The food products that have the lowest nutritional value (and are therefore considered to be the less healthy) are graded with the letter E, which is represented by the red colour on the label. However, similarly to EU energy label, we decided to replace the 5-letter grade scale by a numeric scale from 1 to 10 as the repairability index conveys a score out of ten. The scores have been grouped in pairs (identically as for Logo 2). In addition to that, because we followed the conventional reading direction that is applied in Belgium (from left to right), the worst score (1-2) will be placed on the extreme-left in red while the most positive score (9-10) will be placed on the extreme-right of the label in dark green.

The grade system has therefore been changed for Logo 3 but the colour system remains the same as the one of the Nutri-score. The statement "Repairability index" was added to communicate that the logo is an indication of the repairability of the product and avoid confusion with the official Nutri-score. Both the Nutri-score implemented by Colruyt and Logo 3 can be visualized in Figure 7.

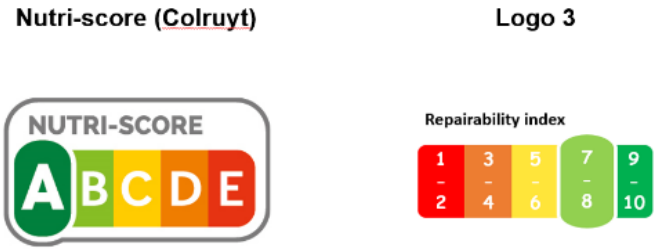


Figure 7. Visual comparison between the Nutri-score from Colruyt[18] and Logo 3

4. Stimuli

Eight stimuli have been created based on the price at which the laptop is offered (P1 or P2) and on which logo is displayed (Logo 1, Logo 2 or Logo 3), if any. The price, the display of a logo and the logo type are our variables of interest as their effect on consumers' purchase intent will be investigated during the hypotheses testing stage. Studying the influence of the brand, the model and the technical specifications on consumers' purchase intent is not within the scope of this research, which means each of the eight stimuli will be based on the same core laptop features, as mentioned in first section of this chapter.

Four advertisements will offer a laptop at price P1 (699€), according to one of the following display conditions: no logo displayed, Logo 1 displayed, Logo 2 displayed or Logo 3 displayed. The same reasoning is followed for the other four advertisement showcasing the laptop at price P2 (1099€). The entirety of the eight advertisements are included in Appendix 1. These stimuli will be the core subject of our face-to-face interviews and will be adjusted based on the interviewees' input before being integrated in our questionnaire to carry out our subsequent quantitative research.

[18] There are some slight differences between the Nutri-scores implemented by each supermarket in Belgium. We decided to base Logo 3 on the Nutri-score from Colruyt (Colruyt Group, n.d.), where all the scores appear in white in opposition to the Nutri-score from Delhaize where the other scores appear in faded colors.

Chapter 2: Qualitative approach

To determine the impact of displaying a repairability index on a laptop on consumers' purchase intent, a fictive advertisement for a laptop offered at a price P1 or P2 has been created, either without logo or with one of the three logos conveying a repairability score of 8/10. These stimuli will be presented to ten respondents during one-on-one interviews to gather their respective opinions and thoughts about them in an in-depth manner. The main purpose of these interviews will be to evaluate the realisticity, the appeal and the overall quality of our advertisement and logos. This preliminary step will allow us to explore consumers' attitudes about our stimuli and adapt these accordingly to elaborate our quantitative research afterwards and improve the quality of our results.

1. Methodology

1.1. Choice of a qualitative approach

Because the stimuli we created constitute the backbone of our quantitative research, as the majority of the questions of our survey will be constructed around the stimuli that will be shown to the participants, it is crucial to guarantee the quality of these stimuli and make sure they will generate the necessary information to answer our main research question. Adopting a qualitative approach seemed the best way to achieve that.

Indeed, in order to understand how these stimuli are perceived by consumers and consequently determine how they could be improved, we need to explore consumers' attitudes towards our stimuli. Our objective in this approach is not to investigate a phenomenon by collecting quantifiable data but rather to gain meaningful insights about consumers' thoughts and feelings towards our stimuli.

1.2. Method of collecting information

This qualitative approach will take the form of individual face-to-face interviews. We have decided to conduct ten interviews in order to have a sufficiently large pool of information to make reliable and relevant adjustments to our stimuli. The choice of conducting individual face-to-face interviews can be explained by putting forward multiple key reasons. The first one is that this type of qualitative data gathering allows us to go in-depth and ask detailed questions about stimuli, which is difficult with online research techniques. The face-to-face interaction

also adds the benefit of being able to adapt our questions and the course of the interview based on the respondent's input and to establish a real relationship with the respondent. The flexible, customizable and personal aspects of face-to-face interviews is the second main reason for choosing this type of technique. The third reason lies in the fact that we will be able to bring our computer to show the stimuli to the participants. In addition to that, the fact that the interview will take place at the respondent's home will improve his/her sense of comfort and make him feel at ease, which will most likely improve the quality of their responses. Finally, because we will ask questions related to the price of the laptop and the budget they are willing to allocate to the purchase of a new laptop, participants might be more willing to answer these openly and honestly in an individual setting. Indeed, monetary topics are considered to be quite private and sensitive which means respondents might not be open to discussing this in a group environment (Chadwick et al., 2008).

These interviews will be semi-structured, which balances out the level of control exercised by the interviewer over the themes that need to be addressed and the level of freedom of the respondent to express his[19] opinions and add other information that he considers relevant to the subject. We believe this type of interview suits our objectives well, as we want the respondent to provide his opinions about pre-defined matters without restricting him/her too much.

We established an interview guide specifying the various themes that need to be covered and some questions that can be asked for each theme. However, these themes do not necessarily have to be investigated in that order, nor do all of the questions need to be asked to the interviewee. Even though the interview guide is quite detailed and extensive, it will act as a guiding thread and does not have to be strictly followed as it is presented in Appendix 2. The main themes that will be covered concern the features of the laptop, its price, the format and information conveyed by each of the three logos and their placement on the advertisement. Each respondent will first be asked to share their thoughts and feelings about each of the three logos sequentially, and then will be presented with the three logos simultaneously to compare them with one another. In addition to that, each logo will be evaluated both in terms of the information conveyed and of its format. This distinction will enable us to collect quite detailed information to establish a refined and in-depth qualitative analysis. Before showing the logos

[19] The word "respondent" is a masculine noun in grammatical terms but refers to interviewees in a gender-neutral manner.

we have created, we will also ask the respondents to share their thoughts on how they would design the repairability index and on what type of information it should convey. This will allow us to gather unbiased information about consumers' ideas of what the index should look like and will be taken into consideration if possible when modifying the stimuli. These additional insights will also be integrated in our final recommendations at the end of this study.

1.3. Choice of the sample

As mentioned previously, we decided to conduct ten individual face-to-face interviews. The respondents did not have to meet certain criteria in terms of having a specific level of IT knowledge or interest in the planned obsolescence phenomenon, as the main purpose of these interviews is to gain a deeper understanding of how our stimuli are perceived and can be improved. This has led us to selecting a sample of respondents that is as varied as possible, especially regarding their respective IT knowledge. Indeed, as the results of our subsequent quantitative research will be based on participants' response to our stimuli, we need to make sure our advertisement is accessible and simple enough to understand for people with a basic IT knowledge while ensuring the realisticity and veracity of the information displayed. That is why we made sure to include people with a standard IT knowledge and without any particular interest in this area in our sample to identify potential aspects that are unclear or too complex about our stimuli. On the other hand, we asked interviewees with a higher level of interest and knowledge in electronic devices to give us their feedback regarding the more technical aspects of the laptop to make sure the advertisement as a whole is consistent and of high-quality.

In addition to that, we wanted to guarantee the diversity of our sample in terms of the socio-demographic characteristics of the respondents. We thus interviewed five men and five women between the age of 22 and 75 with various professional situations. A short summary of the key profiling features of each respondent can be found in the analysis tables in Appendix 13.

Each respondent was given the opportunity to provide his thoughts about the laptop presented in the advertisement and was asked to evaluate each of the three logos that were created and their placement on the ad. However, we showed the advertisement at the price P1 (699€) to half of the respondents and the advertisement at the price P2 (1099€) to the other half of the respondents to explore consumers' evaluation of both prices and adjust them if necessary, as the price is one of the key variables of interest in our quantitative research.

1.4. Method of analysis

At the beginning of each interview, we asked the respondents if they agreed with the conversation being recorded by voice recorder to be able transcribe it afterwards for analyses purposes. Indeed, transcribing the interviews is a fundamental preliminary step to our qualitative analysis, as this enables us to investigate the content of the interviews in the most objective way possible and avoid potential misinterpretations. The transcripts also allow us to quote the exact words of the person being interviewed to support our findings, which guarantees us to remain faithful to the respondent's ideas and vision. The transcripts of each of the ten interviews can be found in Appendix 3 to 12 and are ordered based on the date when the interview was conducted. The average duration of an interview is equal to 26 min.

Once each interview had been transcribed, we created a summary table of the most important findings from each interview. These findings were classified per respondent into different themes, taking the form of short titles indicating the general subject that had been covered and to which the respondent provided relevant information. The analysis table therefore contains the essence of each conversation by restructuring the thoughts conveyed by the respondent. It is important to mention that the analysis table does not include quotes form the respondents but focuses on selecting and paraphrasing the key ideas from each conversation for each theme. This will allow us to adopt to distinct yet complementary approaches to qualitative data analysis, as defined by Thorne (2000). This first approach is referred to as the phenomenological approach and consists in analysing each interview in a stand-alone and in-depth manner. The second approach is titled the constant comparative analysis and aim at uncovering underlying patterns by comparing the interviews with one another for each given theme. Combining these two approaches will allows us to understand each respondent's experience in an extensive and holistic way while conceptualizing the common aspects across the information provided by each individual (Thorne, 2000). Two tables of analysis have been created, according to which price was displayed on the advertisement shown during the interview and have been included in Appendix 13.

Because of the limited number of interviews and their relative short duration, we did not use any software to code the information provided by our respondents but decided to rely on the transcripts and the tables of analysis for our qualitative data analysis.

2. Analysis of the interviews

As mentioned when explaining the criteria that were taken into account when choosing the ten respondents for our face-to-face interviews, we wanted to maximize the diversity within our sample in terms of their IT knowledge, interest in the planned obsolescence phenomenon and the rise of the repairability movement, and their socio-demographic characteristics. Ensuring the heterogeneity improves the generalizability of the wide range of information that has been collected. Because the main objective of the qualitative interviews is to investigate consumers' opinions about the stimuli we created, more specifically about the technical specifications of the laptop, its price and the three logos, a separate section will be devoted to the analysis of respondents' comments regarding each one of these three aspects.

2.1. Laptop

All of the respondents were unanimous regarding the brand of the laptop in the sense that they did know it and had never heard it before. This finding validated our choice of the Vizio brand for our laptop, and we thus assumed that the brand would have a negligible influence on consumers' attitudes and opinion towards the laptop presented in the advertisement.

Then, regarding the technical specifications of the laptop, most respondents who had a certain level of IT knowledge[20] viewed this laptop as being a mid-range laptop with standard performance capabilities. However, these people made three important comments regarding these specifications. The first and most frequently mentioned comment is that the Intel Core i7 processor is a high-performance processor that is most likely to be integrated in laptops used for scientific or gaming purposes. This feature therefore appeared to be a bit out of line for a mid-range laptop compared to the other features. However, these people responded more positively to the laptop once they had seen that a Core i7 processor was included.

« *In terms of the processor, I see that it's a Core i7, that looks good* »
(Alexis La Haye, Male, 27– translation from the French transcript in Appendix 7)

[20] The respondents who showcased a certain level of IT knowledge and who provided useful input regarding the laptop's technical specifications are Alexis La Haye and Michael Cauwenberghe.

On top of that, because most people view the processor as one of the most important features of a laptop and is considered to be one of the main criteria involved in the purchase decision, along with the brand and the storage, we decided to keep the Intel Core i7 feature as it is. The second comment is related to the storage aspect, which should mention an SSD hard drive. This type of hard drive is more recent and typically used for a 256 GB storage (which is considered to be a quite small storage for a laptop).

« With a processor that powerful, it's for computations, maybe for scientific uses or something like that. Or for a really heavy gamer but the graphics card is not mentioned. »
(Michael Cauwenberghe, Male, 43 – translation from the French transcript in Appendix 3)

After having checked this claim with information about this subject, we decided to add "SSD" to the hard drive description. The third and final comment concerned the missing information related to the graphics card of the laptop. During the research phase when creating our stimuli, this feature was the sixth most frequently mentioned feature in standard laptop advertisements in Belgium. At the time, we decided not to include it in our advertisement as this specification is most relevant for (heavy) gamers and not that much for laptops bought for basic private usage. However, because we were told this feature had a considerable influence on the price, we decided to include it based on the specification on the actual Amazon.com advertisement. Both the initial laptop and the modified version based on the interviews results can be visualized in Figure 8.

Figure 8. Comparison between the initial laptop and the modified laptop

2.2. Price

When it comes to the consumers' budget for a new laptop for private usage, we observed that four out of the ten respondents were willing to spend around 500-600€ (which is 100€ to 200€ below the price P1 of 699€) laptop while four other respondents were willing to allocate

around 1000€ (which is 100€ below the price P2 of 1099€). Only one respondent had a budget of 700€ laptop and another one was ready to spend around 2000€ for a new laptop (but mentioned that he would use it for both private and professional purposes and therefore wanted to invest in a high-performance laptop). As a consequence, we decided to reduce P1 and P2 by 100€ in order for both prices to better fit the lower and higher budget categories of consumers. The new P1 price is therefore equal to 599€ and the new P2 price amounts to 999€. The new price range remains equal to 400€ and validates our initial assumption of a 400€ gap between both budget categories. The advertisements at the old and new prices P1 and P2 can be seen in Figure 9.

Figure 9. Advertisements before and after the price changes

In addition to that, three out of the 5 respondents who were presented the laptop at price P1 were willing to spend maximum 500€ on it while three out of the five respondents who saw the laptop at price P2 were willing to spend a maximum of 1099€. It thus seems that the price at which the laptop is offered increases the upper boundary of money respondents are willing to spend to purchase the laptop.

2.3. Logos

Finally, the respondents analysed each of the three logos in a detailed manner and provided a considerable amount of information regarding both their design and the repairability information that they convey. Even though the opinions about each logo are quite diversified within our sample of ten respondents, some common key insights can be derived from the gathered data.

The most important observation concerns the repairability score and how it is indicated on the different logos. When we asked respondents how they would design and present a repairability index on a laptop, they looked a bit lost and did not understand what was expected from them. One of the reasons that can explain their lack of ideas and vision for this task is related to the use of the word "index".

« [Interviewer] If you are responsible for the development of a repairability index, which format would it take?

[Antoine] A drawing, I think that's the most visible way

[Interviewer] And what would be indicated on this drawing?

[Antoine] That's hard, I have no idea. »

(Antoine Faubert, Male, 22 – translation from the French transcript in Appendix 5)

Indeed, after having conducted a few interviews, we realized that the concept of a repairability index created some confusion among respondents and was seen as vague and unclear. We then switched to using the concept of a "repairability score" and witnessed some significant improvements in the ideas respondents came up with. This can be justified by the fact that word score makes a direct to the format of the repairability information (in this case, a score out of 10) whereas the word index does not clearly communicate nor the information, nor the format of the logo. Consequently, we replaced the information "repairability index" by "repairability score" in Logo 1 and will use this last denomination in our forthcoming quantitative research. In addition to that, almost all of the respondents considered the laptop to be highly repairable if a repairability score of at least 7/10 is displayed on the logo. We also adjusted this in the second part of this research when presenting our hypotheses, as the level of repairability of the laptops is treated as a control variable in our main and sub-hypotheses. This change has also been brought to the title of our thesis.

Moreover, even though Logo 2 already displayed a score of 7-8 in the black arrow, some participants mentioned this arrow was not clearly visible, which made them wonder what the actual repairability score. On top of that, the participants that did notice it expressed some concerns about the lack of precision of the score, as it indicates both the 7 and the 8 in opposition to Logo 1 where a single score is displayed. Because the black arrow is part of the design of the EU energy label, we decided not to change it to stay true to the official design. We did however change the 7-8 inside the black arrow to a 7.

« [Interviewer] Do you think the score is clear with this logo? [shows Logo 2]
[Mia] Less than with Logo 1. The black arrow is not the first thing you see. The first thing you see is the coloured part, and you have to really look for the black arrow. Like, what is the actual score?
[Interviewer] And do you think this logo is complete?
[Mia] Complete but less precise because here, it is between 7 and 8. It's less precise than 7 or 8. »

(Mia Schotte, Female, 57 – translation from the Dutch transcript in Appendix 4)

Finally, the same concern can be applied to Logo 3. However, it appeared from our interviews that Logo 1 was seen as the most clear and straightforward in terms of the repairability information conveyed while Logo 2 was perceived as the most appealing visually thanks to its colors, the most reliable thanks to its familiar and EU energy label-based design, and the most complete in terms of the repairability information displayed. Logo 3 on the other hand did not generate particularly strong feelings and emotions, neither for its content or format. Respondents mentioned it looked visually quite similar to Logo 2 as it used the same grading system and colors, but some preferred to vertical pyramid format as they found it more intuitive. On top of that, they mentioned there was more information displayed on Logo 2 than on Logo 3, which made the former the preferred logo in terms of the precision and comprehensiveness of the repairability information.

« [Interviewer] Is there a logo that conveys the repairability information more clearly?
[Francis] Yes, I would say that the Logo 1 is simple and efficient but lacks some colour.
[Interviewer] And which logo is the most comprehensible?
[Francis] Logo 2. It's the most complete and it's easier to understand the information with the scale. »

(Francis De Cuyper, Male, 75 – translation from the French transcript in Appendix 10)

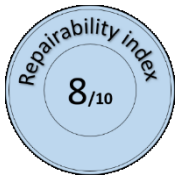
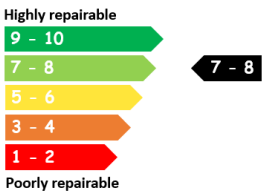
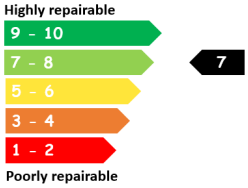
« [Interviewer] Is there any one of those logos that you would trust more?
[Simona] The second instinctually, it's something that you are more familiar with. People know what an energy label is.[…] It's kind of seen like a standard certification, you can't just put any number you want there. It has to be approved by like an official committee. »

(Simona Salcudeanu, Female, 28 – translation from the transcript in Appendix 8)

« [Interviewer] What do you think about this logo? [shows Logo 3]
[Patricia] I have to admit, I don't really like it. It's less appealing than the two others.
[Interviewer] Does the information seem reliable to you?
[Patricia] It could be, but the way it is presented, I don't find I particularly trustworthy »
(Patricia Merckx, Female, 51 – translation from the transcript in Appendix 11)

Finally, only one participant mentioned that it looked like the Nutri-score, which implies this design is less recognizable than the EU energy label and is therefore not seen as particularly reliable. We therefore decided to discard Logo 3 from our research and base our quantitative study only on the modified versions of Logo 1 and Logo 2. The initial and adapted designs for each logo can be found in Table 2. The complete advertisements based on the reviewed laptop, price and logos can be found in Appendix 14.

Table 2. Comparison between the initial three logos and their adjusted versions after the interviews

	Before	After
Logo 1		
Logo 2		
Logo 3		/ (Not included in our subsequent quantitative research)

2.4. Additional information about the repairability score

The respondents provided us not only with relevant information regarding our stimuli but also discussed the concept of the repairability score in itself. From our discussions, it appears that most respondents find the information around the repairability score to be too vague and

too limited. Indeed, a considerable amount of the interviewees suggested or requested extra information, beside the score, about the repairability of the laptop. Likewise, when asked about what a 7/10 score actually means in terms of repairability, almost all of the interviewees expressed they did not know. However, some would associate it with a probability of 70% of the laptop being repairable in case of a dysfunction. This finding will be included in our questionnaire later on as an additional option to the question related to the understanding of the repairability score.

3. Conclusion

The qualitative analysis conducted around the information provided during our ten individual face-to-face to face interviews has allowed us to improve and validate our stimuli for our ensuing quantitative research. On top of that, the input provided by our respondents also proved to be extremely valuable in terms of gaining a deeper understanding of consumers' perception of the repairability score. Indeed, most consumers expressed their concerns regarding the lack of information around the repairability score, which confirms the relevance of this present research. These qualitative insights will contribute to the elaboration of our questionnaire hereafter and will be used to confront our quantitative findings.

Chapter 3: Quantitative approach

After having adjusted our stimuli based on the input we received from respondents during our face-to-face interviews, we will integrate these reviewed stimuli (see Appendix 14) into our quantitative research that will take the form of an online questionnaire. Participants will be confronted to one of the six advertisements we created and will have the opportunity to share their answers regarding their purchase intent of the laptop displayed on the advertisement as well as other factors related to the repairability concept. The data collected through this online questionnaire will first be subject to the cleaning and preparation processes, before serving as the basis for our various hypothesis' tests and other statistical analyses. The results from our quantitative data analysis will then be confronted to the insights we gathered from our qualitative research in the discussion part of this study to provide an answer to our main research question.

1. Methodology

1.1. Choice of a quantitative approach

The quantitative research will allow us to verify and quantify the insights that were uncovered through the one-on-one interviews we conducted. Indeed, while the main objectives of our qualitative research were to check the quality of our stimuli and gain an initial understanding of consumers' thoughts and feelings about the display and meaning of a repairability score, our quantitative research will allow us to go deeper into this by exploring the potential relationship between the display of a repairability score and consumers' purchase intent. The influence of other variables of interest, for instance elements that were included in our advertisement and others factors related to the behavioural theories that were exposed in our literary reviews, will be investigated as well to either confirm our infirm our hypotheses. On top of that, adopting a quantitative approach will enable us to reach a bigger sample of consumers, therefore increasing the potential generalizability of our results and associated interpretations.

1.2. Survey design and measurement scales

Based on the hypotheses that were presented in the second part of this research, we determined the variables and measurement scales that needed to be included in our

questionnaire to gather relevant data to test these hypotheses. Most of the measurement scales from our questionnaire were drawn from secondary resources in order to guarantee the validity of our constructs. The complete list of questions, variables and measurements scales in our questionnaire, including the sources of the scales, are presented in Table 3. A matrix displaying the correspondence between each question and hypothesis, indicating which questions will be used to test each hypothesis during the analysis stage, can be found in Appendix 16.

Table 3. Overview of the measurement scales included in the questionnaire

Question coding	Variables/Information	Number of items	Measurement scale	Source
INT	Purchase intention	5	7-point Likert scale[21]	Own source, based on Spears and Singh, 2004
PRIX	Price check (in terms of visibility and acceptability)	2	7-point semantic differential scale	2 bipolar statements based on Lee and Aaker, 2004
ATTORDI	Attitude towards the laptop	3	7-point semantic differential scale	3 bipolar statements based on MacKenzie & Lutz, 1989
AD	Advertisement check (in terms of realisticity)	3	7-point Likert scale	Own source

[21] All of the 7-point Likert scales that were used in our questionnaire ask the participants to indicate their level of agreement of disagreement with the items of the construct, where 1 means "Entirely disagree" and 7 means 'Entirely agree".

RFIN	Financial risk	4	7-point Likert scale	Own source, based on Grewal et al., 1994
RPERF	Functional risk	4	7-point Likert scale	Own source, based on Grewal et al., 1994
RSOC	Social risk	3	7-point Likert scale	Own source, based on Grewal et al., 1994
INDVU	Filtering question	/	Nominal	Own source
COMPRLOGX COMPRLOGX_1/2	Repairability information conveyed	/ /	Nominal Open question	Own source Own source
FLULOG	Ease of understanding of the logo	5	7-point semantic differential scale	Graph et al., 2017
CONFLOG	Trust towards the logo	5	7-point Likert scale	Shu and Carlson, 2014
NOTELOG	Repairability score check (in terms of visibility and acceptability)	2	7-point semantic differential scale	2 bipolar statements based on Lee and Aker, 2004
SIGN1 SIGN2	Meaning repairability score	/	Open question Nominal	Own source Own source

IMPLAB	Involvement towards labels	4	7-point Likert scale	Barbato, 2015
RESPENV	Environmental responsibility	4	7-point Likert scale	Haws et al., 2014
AGE SEXE EDU, STAPRO, BELG, ZONE	Socio-demographic profile	/	Open question Nominal Ordinal Nominal	Own source

We created six versions of our main questionnaire, each based on one of the six advertisements we created as a result of our qualitative findings. We will refer to these different questionnaires by using the term "Version" and a letter from A to F to refer to the specific stimuli condition included in the survey. An overview of the six versions of the questionnaire is presented in Table 4.

Table 4. Questionnaire versions according to display condition and the price

	Price (€)	**Display of logo**
Version A	P1 : 599€	No logo displayed
Version B	P1 : 599€	Logo 1
Version C	P1 : 599€	Logo 2
Version D	P2 : 999€	No logo displayed
Version E	P2 : 999€	Logo 1
Version F	P2 : 999€	Logo 2

These survey versions are completely identical in terms of content and only differ in the stimulus that is included in the presentation section of the questionnaire. Questions about participants' attitude towards the advertisement and their purchase intent were placed at the beginning of the questionnaire as these were perceived as simple and basic. We then included specific questions around the understanding of the logo and the repairability score that it conveys, as this constitutes the core subject of our research. We also added some questions related to participants' views on the informative labels and their point of view regarding current

environmental issues, before closing off with more sensitive questions regarding their socio-demographic profile. Version A of the questionnaire along with a detailed explanation of the structure and coding of the questions has been included in Appendix 15.

1.3. Method of data collection

We created our questionnaire by using the Qualtrics software, which enabled us to duplicate our survey six times for our research purposes. Each participant had been randomly assigned to one of the six versions. However, to make sure that the number of respondents for each version was large enough (minimum 30 per version), we implemented a quota to ensure the software would assign the versions in a random yet balanced way.

We decided to launch our questionnaire online, mainly sharing it on social media and asking our close friends and families to share it with their own network. This survey method has several benefits. It is easy to administer and allows us to gather sufficient data by reaching a large number of people. In addition to that, it does not come with any bias related to the interviewer, as opposed to the interviews conducted as part of our qualitative research. Finally, it allows us collect standardized data which facilitates comparative analyses between the data. This is especially useful for this research to compare the responses of the six sub-samples. The main issue related to the collection of data via online surveys is the low response rate, as people often do not fill in the questionnaire completely. Finally, the use of online channels implicitly includes a sampling bias as only people having access to the Internet and owning a social media account can respond. This bias will negatively impact the generalizability of our results and will be taken into account when investigating the limits of this research.

1.4. Survey sample

We resorted to a convenience sampling technique to gather our data, which means participants are selected based on convenience elements instead of on a fixed probability. This sampling technique has several advantages, mainly that it cost and time-efficient to implement. On the other hand, due to the convenience nature of the sample, it is not representative of the population which means the results from our quantitative analyses cannot be generalized. However, we aimed at reducing this effect by launching the questionnaire in French and English to increase the variety within our sample, as people from another country currently residing in Belgium are also a part of our target group and research scope. However, the convenience

sampling technique fits our research thanks to its exploratory nature. Indeed, we aim at gaining a deeper understanding of the new repairability score and its influence on consumer attitudes and decision-making.

2. Analysis

In this part, we will dive into the analysis of the data we collected via our online questionnaire, with the aim of answering our main research question and associated sub-research questions by confirming or infirming the hypotheses we laid out previously. We will first go over the manipulations that were executed on the initial data, which ensure the data that will serve as the basis for our statistical analyses is of high-quality while being consistent and relevant. Once the data has been prepared and cleaned, we will go over the statistical tests that have been used to analyse this data and explore the results that were generated. Both the data preparation manipulations and the statistical analyses were carried out using the IBM SPSS Statistics 25 software. The comments to the two open questions regarding participants' understanding of the logo (questions A_COMPRLOGX_1 and A_COMPRLOGX_2, response optional) and the repairability score it conveyed (question A_SIGN1, response mandatory) were not included in the appendices, as the volume of the input is too substantial. We will however go through these comments and include them in our discussion part to confront our findings and provide additional insights.

2.1. Data cleaning and recoding

When closing the survey on the 19th July, after having re-launched it on the 11th July to ensure there were at least 50 initial complete respondents for version F (i.e. the progression rate of these participants was equal to 100%), we recorded a total of 708 participants. However, to ensure the validity of our database, we discarded participants who did not comply with the following criteria. First, we deleted all participants who did not finish the survey (i.e. participants for which the progression rate was lower than 100%), which was equal to 287 participants. Then, out of the 421 complete respondents, we deleted all those who answered they were currently not living in Belgium, which amounted to 79 participants. Finally, from the 342 participants having completed the survey and currently living in Belgium, we decided to discard participants who spent less than 4 minutes or more than 30 minutes on the questionnaire, which equalled to 15 participants. We believe that it was not feasible to answer our survey

attentively in less than 4 minutes and that the survey would not have been completed in one go (i.e. the answers would have been given in an intermittent manner) if its total duration exceeded 30 minutes. Finally, out of the remaining 327 participants, we decided to discard the ones who did not correctly answer the question about which logo they had seen in the advertisement (i.e. question INDVU) for our statistical analyses. The reason for deleting these participants, in addition to it implying that they did not pay that much attention to the content of the survey, is that their answers regarding the perception of the logo in Part II of the survey are not related to the stimuli that was actually presented to them at the beginning of the survey, which prevents us from investigating the potential influence of their understanding of the logo and their trust level towards the repairability score on their purchase intent. However, even if these answers are excluded from our statistical analyses, they still have a qualitative value as to the general understanding of the logos and the score, which is why we decided to include the open comments from these participants for the COMPRLOGX_1, COMPRLOGX_2 and SIGN1 questions in Appendix 17.

Table 5 indicates the number of participants remaining after the first three filters were applied to the database (survey completed, living in Belgium, duration between 4 and 30 minutes) for each type of stimuli shown to the respondents, before discarding the ones who did not answer the question INDVU correctly.

Table 5. Number of participants before discarding the ones who did not answer the INDVU question correctly

	Version A	**Version B**	**Version C**	**Version D**	**Version E**	**Version F**
Number of participants	53	56	51	54	63	50
TOTAL	327					

Table 6 shows the number of participants, for each survey version, who did not answer the question INDVU correctly. We can observe that the number of participants who did not answer the question INDVU correctly is the highest when no logo was displayed and is the lowest when Logo 2 was displayed, for both prices. Indeed, the number of incorrect answers to the question INDVU is systematically lower when participants were confronted to an ad showcasing the price P2 of 999€. In total, 47 did not answer the INDVU question correctly and were therefore discarded from our database for our statistical analyses.

Table 6. Number of participants who did not answer the INDVU question correctly

	Version A	**Version B**	**Version C**	**Version D**	**Version E**	**Version F**
Number of participants (in %)	12 (22.6 %)	10 (17.9 %)	5 (9.8 %)	9 (16.7 %)	8 (12.7 %)	3 (6 %)
TOTAL (in %)	47 (14.4 %)					

Finally, after having applied all of the filters described above, a total of 280 people remain in our database as can be seen in Table 7.

Table 7. Number of participants after having discarded the participants who did not answer the INDVU question correctly

	Version A	**Version B**	**Version C**	**Version D**	**Version E**	**Version F**
Number of participants	41	46	46	45	55	47
TOTAL	280					

Because the answers were mandatory to all of the questions (except for the COMPRLOGX_1 and COMPRLOGX_2 questions) and because we only kept participants who completely finished the survey (i.e. progression of 100%), we expected there to be no missing values amongst the cleaned data. However, to verify the absence of any missing values in the six versions of our questionnaire, we clustered the data from the six versions into a single one. Indeed, because each participant was confronted to only one of the six stimuli (see Appendix 14), and therefore answered to the questions of only one of the six survey versions, a considerable amount of missing values were present for the variables for a given version. For example, we had initially coded each question and its related items of a given version with the letter of the version at the front (e.g. A_INT for the overall question about purchase intention and A_INT_1, A_INT_2, A_INT_3, A_INT_4, and A_INT_5 for its five items) to be able to identify the responses for each stimuli. This meant that all of our variables were duplicated six times, therefore generate a large amount of missing values in our database. However, it was not possible to distinguish actual missing responses from missing values indicating which participants had not responded to each survey version. This hindered us in having a good visibility of the collected data (and therefore prevented us from identifying actual missing values) and would have created issues later on when executing factor analyses and creating new

variables. That is why we decided to create four new variables allowing us to clearly determine which participant had been presented with which stimuli. An overview of these four identification variables can be found in Table 8.

Table 8. New variables enabling participant identification

Identification variables	Coding
Version*	Value 1 : "Version A" Value 2 : "Version B" Value 3 : "Version C" Value 4 : "Version D" Value 5 : "Version E" Value 6 : "Version F"
Price	Value 0 : "Price P2"** Value 1 : "Price P1"
Logo	Value 0 : "No logo" Value 1 : "Logo 1" Value 2 : "Logo 2"
Display	Value 0 : "No display of logo" Value 1 : "Display of Logo 1 or Logo 2"

** Each participant can be solely be identified based on the value of the Version variable (as the version of the questionnaire indicated which logo had been displayed, if any, as well as the price on the advertisement presented at the beginning of the survey). However, the additional Price, Logo and Display variables will be of use when testing our hypotheses later on.*

*** Even though a value of 2 would have been a more intuitive version for Price P2, we decided to code it by given it a value of 0 in order the make the Price variable a binary variable and therefore facilitating its manipulation in the statistical manipulations afterwards.*

After that, we created a single variable for each question and its related items, regrouping all of the data coming from the six survey versions, which eliminated all of the missing values related to the separation of the six survey versions' data. We were then able to check if there were any missing values among our database, except for the variables COMPRLOGX_1 and COMPRLOGX_2 (which were optional option questions) as well as for the variables SIGN2_1, SIGN2_2, SIGN2_3, SIGN2_4, SIGN2_5, SIGN2_6, SIGN2_7, SIGN2_8, and SIGN2_9. Indeed, the SIGN2 question being a multiple-choice question allowing multiple responses, the Qualtrics software had automatically created a separate binary variable for each answer option, 1 indicating that the option had been ticked and 0 indicating that the option had not been ticked.

The descriptive statistics of the rest of the variables confirmed our initial assumption that there were no missing values among our dataset.

In addition to that, because the AGE variable was the only metric variable for which participants could answer in an open comment box (the other metric variables being 7-point Likert scales), it was only relevant to check for potential outliers for this variable using a boxplot graph for each version of the survey. There were no inconsistent values, except for version A which had a participant of the age of 14. As the sample for this study should only consist of people able to make a purchasing decision for a laptop, we decided ton only keep participants above the age of 18 years old. We therefore discarded the 14-year old participant from our database, leading to a final database of 279 participants as can be seen in Table 9. However, to provide a better overview of the different stimuli conditions with respect to the age of the participants, we created a new categorical age variable titled "AgeCateg". This will be of use when describing the profile of our overall and sub-samples later on.

Finally, because all of the items measured on a 7-point Likert scale (interval measurement scales) were already coded as numeric values in the questionnaire in Qualtrics (1 referring to the label "Entirely disagree" and 7 referring to the label "Entirely agree"), we did not have to recode these items. The same applied for all of the multiple-choice questions (nominal measurement scales), where each possible answer had already been coded with a numeric value instead of using the textual label. The AGE variable was the only variable that was recoded from a string value into a numeric value by keeping the actual age entered in the open comment box without any residual text, which is necessary in order to check for potential outliers later on. However, some of our items that were measured on a 7-point Likert scale had to be reverse-coded in order for all of the items to be measured in the same direction. Indeed, the items RFIN_1, RFIN_2, RPERF_3, RPERF_4, RSOC_1, RSOC_2 and RESPENV_4 were worded in a negative manner and were therefore recorded in order to be consistent with the other items as well as with the coding of the binary scales (where the number 7 referred to the positive aspect placed on the right side) to ensure the accuracy of the interpretation of the results.

Our initial objective was to gather 300 participants, 50 for each questionnaire version, which is not the case in our final cleaned database as can be seen in Table 9. This can be explained by the high number of unfinished surveys (40.5% out of all the surveys that were started, meaning that someone clicked on our anonymous link), and the fairly high number of people who did not answer the question checking which type of logo they had seen in the advertisement

correctly. This will be taken into account when reviewing the limits to our empirical research later on. However, because there are at least 30 participants remaining for each version in the final cleaned database, we can still state that the sample sizes are sufficient enough to carry out the factor analyses as well as the statistical inference tests.

Table 9. Number of participants in the final cleaned database

	Version A	**Version B**	**Version C**	**Version D**	**Version E**	**Version F**
Number of participants	40	46	46	45	55	47
TOTAL	279					

The next section will present additional manipulations that have been executed on the cleaned dataset to prepare the data for the testing of the hypotheses afterwards.

2.2. Data preparation and measurement scales validation

Before testing our hypotheses to provide an answer to our main and sub research questions, it is crucial to carry out several statistical manipulations on the cleaned dataset. These manipulations ensure our data complies with the conditions of homogeneity and normality on which our statistical data analysis tools rely, while verifying the validity and reliability of our measurement scales.

The variables in our dataset are either nominal scales assigning a specific number to a given category, text entry questions or constructs based on multi-item scales (except for the AGE variable which has been transformed into both a ratio variable and a categorical variable). All of the items are 7-point Likert scales, meaning that each item has seven response categories ranging from “Entirely disagree” to “Entirely agree” to measure participants’ attitudes towards specific statements (Malhotra et al., 2017). We assumed the distances between each of the seven responses categories are equal, therefore considering Likert scales as interval variables. This will allow us to use descriptive statistics such as the mean and the standard deviation for our analyses afterwards.

2.2.1. Homogeneity between samples

First of all, to make sure our sub-samples can be compared with one another, the homogeneity between the six sub-samples has to be verified regarding the socio-demographic

variables AGE, SEXE, EDU, STAPRO and ZONE. We carried out an independent samples Chi-Square test for the categorical variables (SEXE, EDU, STAPRO and ZONE) testing the following hypotheses:

H_0 : There is no association between one of those four socio-demographic variables and the stimulus shown in the survey

H_1 : There is an association between one of those four socio-demographic variables and the stimulus shown in the survey

Because the p-value of the Chi-Square test for each of the non-metric socio-demographic variables (SEXE, EDU, STAPRO and ZONE) is lower than the significance level of 0.05[22], we can reject H_0 meaning that there is no significant association between each of these socio-demographic variables and the stimulus condition. However, it is important to note that more than 20% of the expected frequencies for the EDU and STAPRO variables are below 5, which can negatively impact the reliability of the Chi-Square tests. The exact results of each Chi-Square test can be found in Appendix 18.

After that, we conducted a one-way ANOVA to determine if the six stimuli conditions were also homogenous regarding the AGE of the participants, which is our only ratio socio-demographic variable. The hypotheses for this statistical test are as follows:

H_0 : There is no difference between the means of the AGE variable across the six stimuli conditions

H_1 : There is at least one mean of the AGE variable that is different from the other means across the six stimuli conditions

However, before executing the ANOVA test, we had to verify that the following assumptions were verified for the AGE variable.

[22] A significance level of 0.05 was chosen for the entirety of the statistical tests conducted in the quantitative research. This means that if the p-value of a given statistical test is below 0.05, the null hypothesis H_0 is rejected (Malhotra *et al.,* 2017).

Assumption 1: The residuals of AGE are normally distributed.

To check this condition, we created a new variable titled “ResAge” and followed a similar procedure to the one described in the data preparation section for our interval variables. The Skewness and Kurtosis measures of the residuals of AGE are respectively equal to 0.334 and - 1.175 and its Q-Q plot in Figure 10 shows that the quantiles are close to the diagonal. We can therefore assume the distribution of ResAge approaches a normal distribution, which allows us to carry out the ANOVA test.

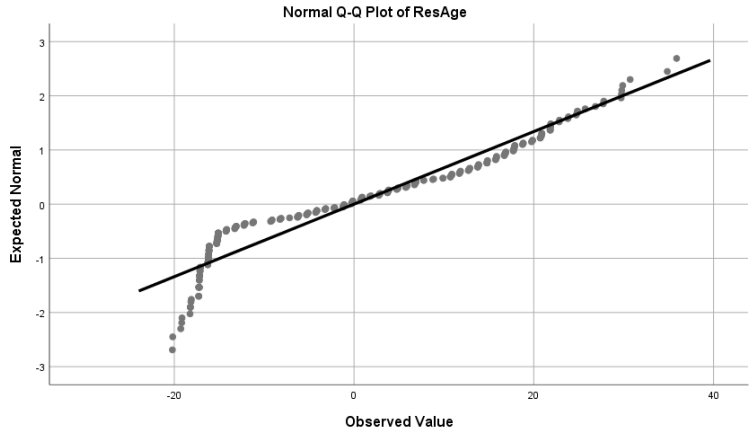


Figure 10. Q-Q plot of the residuals of AGE

Assumption 2: The residuals are independent from each other.

This can be assumed thanks to the independence of our six samples, meaning that they were drawn randomly from different populations.

Assumption 3: The variances of the AGE variable are equal across the different categories (i.e. homoscedasticity)

This is the case based on the p-value of Levene’s test in Figure 11 which is above 0.05, indicating that the null hypothesis stating that the variances of the AGE variable are identical across all six stimuli conditions cannot be rejected at the 0.05 significance level. The homoscedasticity of the AGE variable is therefore verified.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
AGE	Based on Mean	,839	5	273	,523
	Based on Median	,652	5	273	,660
	Based on Median and with adjusted df	,652	5	264,126	,660
	Based on trimmed mean	,820	5	273	,537

Figure 11. Homogeneity of variances for the AGE variable within the Version variable

Because all three conditions were verified, we conducted the ANOVA test in Figure 12. Its p-value being above 0.05, we cannot reject the null hypothesis stating that there is no significative difference between the means of the AGE variable between the six stimuli conditions.

ANOVA

AGE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	779,883	5	155,977	,696	,627
Within Groups	61209,049	273	224,209		
Total	61988,932	278			

Figure 12. One-Way ANOVA to test the homogeneity of the AGE variable across the six stimuli conditions

Based on these results, we can conclude that the six stimuli conditions do not present any significative differences in terms of the socio-demographic features of their participants. This means that the sub-samples are homogeneous in terms of their socio-demographic characteristics, therefore enabling a comparison of the results stemming from the hypotheses tests.

2.2.2. Normality of the metric variables

After having verified the homogeneity between our six sub-samples, we determined if our metric variables were approaching or even following a normal distribution, as it is the basis for classical statistical inference and the factor analyses that will be executed afterwards. The condition of normality was assessed by using several tools, the first one being a frequency histogram. This chart depicts the occurrence of the entirety of possible values for a given variable and compares theses frequencies with the normal curve. The second tool that was used to assess if a variable follows a normal distribution are Q-Q plots, which displays the quantiles of the dataset along with a diagonal line indicating the expected values for a normal distribution.

If the data points on the Q-Q plot are positioned on or around this diagonal, then it can be assumed the variable follows a normal distribution. Finally, both of these visual tools can be completed by evaluation the Skewness and Kurtosis values of each variable. The Skewness of a distribution is an indicator of the symmetry of the distribution around the mean of the data, while the Kurtosis value indicates if the data's distribution curve is rather peaking or flat. If both the values of Skewness and Kurtosis fall within -2 and +2, then we can conclude the variable's distribution is normal (Malhotra et al., 2017).

A combination of these tree indicators has been used to assess the distribution of our variables. The assessment of the distribution of the item ATTORDI_3, measuring participants' first impression of the laptop showcased in the advertisement, will be used as an example. Figure 13 presents the histogram and the Q-Q plot for ATTORDI_3, which are both clearly in line with the assumption of a normal distribution. This is confirmed by the Skewness and Kurtosis measures in, respectively -0.285 and -0.148, which are both negative (indicating that the item's distribution curve is slightly skewed to the right and flat) but fairly close to 0. We can therefore assume that the distribution of ATTORDI_3 approaches a normal distribution.

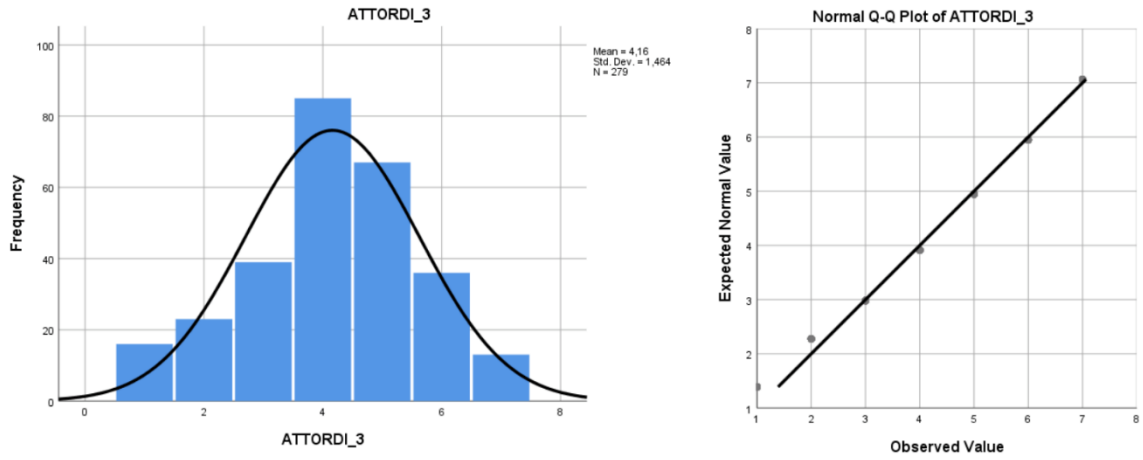


Figure 13. Normal distribution of the ATTORDI_3 item

This is the case for all of our dataset's variables, except for the item PRIX_1 which as a Skewness measure of -1.877 and a measure of Kurtosis of 2.535 meaning its distribution is skewed to the right and peaking. However, as this item reflects respondents' evaluation of the price displayed on the advertisement (a score of 7 meaning that the price of the laptop is totally acceptable), this means that the price was seen as fairly acceptable. This outcome had been expected after having adjusted the price of the laptop based on the analysis of our face-to-face interviews, and implies the price is in line with the visual and factual elements displayed on the

advertisement. Moreover, as this item was included in the questionnaire to check the quality of our stimulus and will not be used in any further statistical tests, it was not relevant to transform its distribution to make it fit a normal one.

We can therefore conclude that the metric scales that are relevant for our upcoming factor analyses and hypotheses testing are following (or at least approaching) a normal distribution. This will be in favour of generalizing the results coming from our analyses beyond our total sample of 279 participants.

2.2.3. Factor analyses

Factor analysis refers to several techniques that can be used to summarize the data coming from different items measuring the same construct into fewer variables, and rely on the following assumptions (Malhotra et al., 2017).

Assumption 1: In order for the factor analysis to be reliable, the sample size on which it is performed must be sufficient.

Many different rules exist on what the minimum sample size should be to perform a factor analysis, but Comrey and Lee (1992) and Tabachnick and Fidell (2007) agree on the fact that 300 participants is a satisfactory sample size to perform a factor analysis (Field , 2009). Because our cleaned dataset contains 279 participants in total, all of which having indicated their level of agreement or disagreement on the various items in our questionnaire, we can conclude that our sample size is sufficient to perform a factor analysis for each multi-item construct. It is important to mention that the factor analysis will be performed on the entirety of the database (i.e. 279 answers for each item), regardless of the version of the questionnaire. As a consequence, the same factors will be created for all six of the stimuli conditions.

Assumption 2: The items on which the factor analysis is performed should follow a normal distribution.

This condition is verified for all of the items measured on a 7-point Likert scale in our questionnaire. Please refer to the beginning of the data preparation section for more details.

Assumption 3: The items on which the factor analysis is performed should be measured on the same interval level and be coded in the same direction.

This is the case as all of the items of a given construct were either measured on a 7-point Likert scale, which we assumed corresponded to an interval scale, or on a 7-point semantic differential

scale (i.e. with bipolar labels at the two extremes). Moreover, the recoding of the items was performed during the data cleaning stage. Please refer to that section for more information.

Because all of the multi-item constructs that are involved in our hypotheses testing meet these three criteria, we can proceed with the factor analyses. These are be based on the Principal Components Analysis (PCA) method, which estimates the minimum number of factors needed to account for the maximum variance in the data. The new factors that are created are referred to as "principal components" (Malhotra et al., 2017). The constructs for which a PCA has been performed can be found in Table 10.

Table 10. Overview of the multi-items constructs in our questionnaire

Construct	Number of items	PCA
INT	5 : INT_1, INT_2, INT_3, INT_4, INT_5	Yes
PRIX	2 : PRIX_1, PRIX_2	No*
ATTORDI	3 : ATTORDI_1, ATTORDI_2, ATTORDI_3	Yes
AD	3 : AD_1, AD_2, AD_3	No*
RFIN	4 : RFIN_1, RFIN_2, RFIN_3, RFIN_4	Yes
RPERF	4 : RPERF_1, RPERF_2, RPERF_3, RPERF_4	Yes
RSOC	3 : RSOC_1, RSOC_2, RSOC_3	Yes
FLULOG	5 : FLULOG_1, FLULOG_2, FLULOG_3, FLULOG_4, FLULOG_5	Yes
CONFLOG	5 : CONFLOG_1, CONFLOG_2, CONFLOG_3, CONFLOG_4, CONFLOG_5	Yes
NOTELOG	2 : NOTELOG_1, NOTELOG_2	No*
IMPLAB	4 : IMPLAB_1, IMPLAB_2, IMPLAB_3, IMPLAB_4	Yes
RESPENV	4 : RESPENV_1, RESPENV_2, RESPENV_3, RESPENV_4	Yes

** Performing a PCA on these constructs was not relevant as these items were included in the questionnaire as manipulation checks, to verify the quality of our stimuli. They will therefore not be used in the hypotheses testing phase. However, a short summary of the answers provided to these items will be given in the section hereafter.*

The process that has been followed to reduce and summarize the data from the multi-item scales is similar for each of the nine constructs listed in Table 10. We will therefore go over the whole procedure for the INT construct only (i.e. the independent variable in all of the hypotheses developed in Part II) and gather the most interesting results from the other factor analyses in Appendix 19 to avoid repetitiveness.

However, before performing the PCAs, construct validity must be verified. The validity of a multi-item construct refers to whether the items actually measure what they are set out to measure (Field , 2009). Because each of the nine constructs is based on pre-existing scales established in former research studies (see Table 3 for a detailed overview of the sources of each scale), we assume the validity of our constructs is verified. We did not look deeply into the descriptive statistics of each item as these statistics are computed across all six versions of the questionnaire and are therefore hiding the potential differences between the stimuli conditions. These differences will be explored during our hypotheses testing.

We started by looking at the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity to determine if performing a factor analysis is relevant. The KMO is a measure between 0 and 1 informing us about the adequacy of performing a factor analysis, with values above 0.5 implying that a factor analysis is appropriate. Bartlett's test of sphericity tests if the items of a given construct are sufficiently correlated with one another (the null hypothesis being that there is no correlation between the items). If the p-value of Bartlett's test is below the significance level of 0.05, then the null hypothesis can be rejected meaning that the items correlated with one another and that a factor analysis can be useful (Malhotra *et al.,* 2017).

We can observe in Figure 14 that both the KMO measure and the Bartlett's test of sphericity result are in favour of conducting a factor analysis on the 5 items of the INT construct. Indeed, the KMO measure is equal to 0.871 (>0.5) and the null hypothesis of Bartlett's test of sphericity can be rejected (p-value = 0.000 < 0.05), indicating a sufficient correlation between the various items.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,871
Bartlett's Test of Sphericity	Approx. Chi-Square	933,046
	df	10
	Sig.	,000

Figure 14. KMO and Bartlett's Test for the INT construct

This is confirmed when looking at the correlation matrix for all of the INT items in Figure 15, showing that the correlations between each pair of items ranges from 0.551 to 0.786, which is considered to be a moderate to high degree of correlation (Field , 2009). It is important to note

that all of the correlations are assumed to be positive as construct validity is assumed and all of the items are coded in the same direction.

Correlation Matrix[a]

		INT_1	INT_2	INT_3	INT_4	INT_5
Correlation	INT_1	1,000	,786	,668	,710	,643
	INT_2	,786	1,000	,733	,696	,625
	INT_3	,668	,733	1,000	,587	,551
	INT_4	,710	,696	,587	1,000	,704
	INT_5	,643	,625	,551	,704	1,000
Sig. (1-tailed)	INT_1		,000	,000	,000	,000
	INT_2	,000		,000	,000	,000
	INT_3	,000	,000		,000	,000
	INT_4	,000	,000	,000		,000
	INT_5	,000	,000	,000	,000	

a. Determinant = ,034

Figure 15. Correlation matrix for the items of the INT construct

Before moving on to the selection of factors, we also looked at the communalities of each item, which represent the amount of variance the item shares with all of the other items. A general rule of thumb is to discard an item with a communality lower than 0.5 from the factor analysis. This is not the case here as can be seen in Figure 16, as all of the INT items have communalities above the satisfactory level of 0.5.

Communalities

	Initial	Extraction
INT_1	1,000	,793
INT_2	1,000	,806
INT_3	1,000	,677
INT_4	1,000	,743
INT_5	1,000	,667

Extraction Method : Principal Component Analysis.

Figure 16. Communalities of the items for the INT construct

After that, three criteria were taken into account when choosing the number of factors to retain for a given construct. The first being to select all factors with an eigenvalue greater than 1, as eigenvalues represent the amount of the total variance within the construct that can be explained by the associated factor (Malhotra *et al.,* 2017). For the INT construct, we would therefore only

select the first factor as it has an eigenvalue equal to 3.686. Based on that, we checked if the (cumulative) variance explained by chosen factor(s) is equal to or higher than 60%, which is considered the satisfactory level. This is indeed the case as the first factor accounts for 73.72% of the total variance within the INT construct. Finally, to validate our choice, we observed the scree plot of the eigenvalues against the number of factors, which clearly highlights the first factor for the INT construct as shown in Figure 17.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,686	73,720	73,720	3,686	73,720	73,720
2	,514	10,289	84,009			
3	,331	6,615	90,624			
4	,266	5,329	95,953			
5	,202	4,047	100,000			

Extraction Method: Principal Component Analysis.

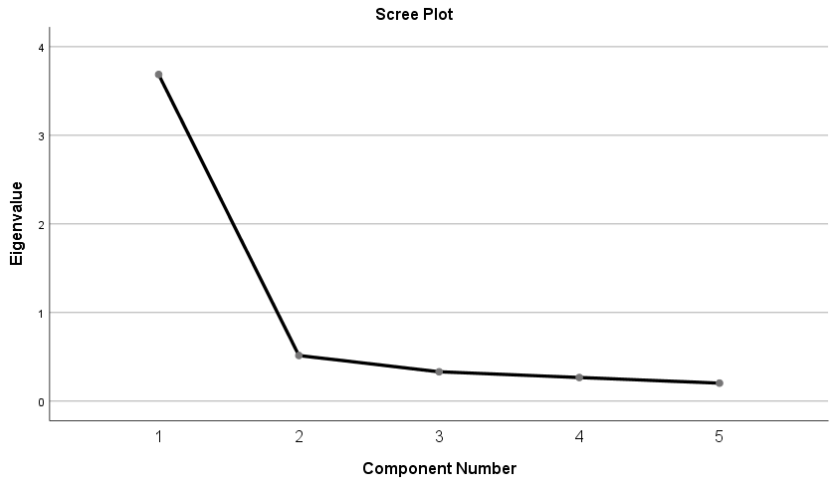


Figure 17. Number of factors for the INT construct based on the eigenvalues, the variance explained and the scree plot

Finally, we looked at the component matrix in Figure 18 indicating the proportion of the variance of each item explained by the retained factor. When the number of factors retained is higher than one, this matrix has to be rotated via the varimax procedure. This method is an orthogonal rotation that enhances the interpretability of the factors by making sure each item has a high loading for only one of the retained factors (Maholtra *et al.,* 2017). Because there is only one factor retained for the INT construct, the rotation is not possible nor relevant as each item as a high loading for the chosen factor.

Component Matrix[a]

	Component 1
INT_1	,891
INT_2	,898
INT_3	,823
INT_4	,862
INT_5	,817

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Figure 18. Component matrix showing the loadings of each item included in the new factor for the INT construct

Based on the PCA for the INT construct, we would therefore retain one factor based on the scores for all of the five items. However, before actually creating the new factor, we have to make sure these items are consistent with one another in measuring the purchase intent of consumers by executing an internal consistency reliability analysis at the hand of the Cronbach's alpha. If the value of the Cronbach's alpha is greater than 0.7, then it means the degree of homogeneity between the items included in the new factor is satisfactory. The higher the value of the Cronbach's alpha, the better the internal consistency of the new factor (Malhotra *et al.,* 2017).

In the case of the INT construct, the reliability analysis in Figure 19 shows that the five items are highly homogeneous between one another as the Cronbach's alpha is equal to 0.909. Moreover, it appears that this value cannot be increased by deleting one of the items, which means the values of the new factor will be equal to the mean of the scores of the INT_1, INT_2, INT_3, INT_4 and INT_5 items. The purchase intent of participants will therefore be evaluated at the hand of this new factor, titled "Purcahse intent", instead of being measured by the five initial items.

Reliability Statistics

Cronbach's Alpha	N of Items
,909	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
INT_1	11,77	29,553	,816	,880
INT_2	11,70	28,758	,827	,877
INT_3	11,76	29,255	,721	,899
INT_4	11,40	28,507	,778	,887
INT_5	11,39	29,434	,718	,900

Figure 19. Reliability analysis for the new Purchase intent factor

A summary of the new factors that have been created for each of the nine multi-item constructs can be found in Table 11. Because each construct included between two and five items, only one factor had to be retained to satisfy all three criteria that were discussed previously (eigenvalue greater than 1, explained variance greater than 60% and analysis of the scree plot). In addition to that, when multiple factors were retained by the PCA for a given construct, we looked at the statements of the items and concluded that it made more sense to keep these items together rather as they measure the same concept rather than separating them into distinct factors.

Table 11. Overview of the new factors created and associated reliability analyses

Construct	**Number of items included in the construct**	**New factor**	**Number of items included in the factor**	**% of explained variance**	**Cronbach's Alpha**
INT	5	Purchase intention	5	73.7 %	0.909
ATTORDI	3	Attitude towards the laptop	3	85.2 %	0.911
RFIN	4	Financial risk	2 : RFIN_3 and RFIN_4	77.7 %	0.713 (Pearson correlation of 0.555 is significant) *
RPERF	4	Functional risk	2 : RPERF_3 and RPERF_4	80.1 %	0.750 (Pearson correlation of 0.601 is significant) *

RSOC	3	Social risk	2 : RSOC_1 and RSOC_2	92.5 %	0.918 (Pearson correlation of 0.850 is significant) *
FLULOG	5	Ease of understanding	5	77 %	0.925
CONFLOG	5	Trust	4 : All except CONFLOG_5	85.8 %	0.945
IMPLAB	4	Involvement in labels	4	62.4 %	0.797
RESPENV	4	Environmental responsibility	3 : All except RESPENV_4	67.5 %	0.755

Note: The order of appearance of the newly created factors corresponds to the order of appearance of the constructs on which they are based in the questionnaire, which is in line with the order in which our hypotheses were presented in Part II.

** te Grotenhuis and Pelzer (2012) claim that the Cronbach's alpha is not relevant when evaluating the degree of homogeneity between two items. Even though the Cronbach's alpha is superior than 0.7 for the "Financial risk", "Functional risk" and "Social risk" factors, we looked at the significance of the Pearson correlation between each of these two items to validate our new factors. The results of the Pearson correlation analyses can be found in Appendix 19.*

In addition to the standard factor analyses that were performed on the items of each construct, we also performed a factor analysis on the eleven items related to the perceived risks by consumers, with the aim of potentially identifying new underlying concepts or dimensions that were measured with these items. It clearly appeared from this PCA that the three items of RSOC were not related to the other two types of risks, while some of the items of RFIN and RPERF would have been grouped together in a new factor. This makes sense as the concepts of financial and functional risk are inherently linked together. For instance, RFIN_2 states that the purchase of the laptop is risky due to the costs linked to a potential repair while RPERF_4 states that the laptop will most likely have to be repaired 2 years after the date of the purchase. However, when looking at the statements of these specific items in our questionnaire, we were not able to identify an overarching dimension. We therefore decided to keep the RFIN and RPERF items separate and solely linked to the construct they were initially associated with. Additional information and explanations about this specific factor analysis, as well as about our decision to create the factors "Financial risk", "Functional risk" and "Social risk" that are all based on only two out of their initial number items as a result of this, can be found in Appendix 19.

Our nine multi-item constructs were therefore transformed into unidimensional scales, which will enhance the interpretability of our hypotheses test results.

2.3. Manipulation checks

As mentioned before, we did not perform a factor analysis on the PRIX, AD and NOTELOG constructs as these have been included in our questionnaire to check the quality of our stimuli and are not relevant for our hypothesis's tests. The PRIX and NOTELOG constructs invited participants to share their opinion towards the visibility and the acceptability of the price of the laptop and of the repairability score displayed on the logo[23] respectively on a 7-point bipolar scale. The AD construct asked participants to indicate their level of agreement with several statements regarding the realisticity of the ad as a whole.

The PRIX_1 item has a mean[24] equal to 6.04 on the 7-point Likert scale, which indicates that the price was highly visible on the advertisement, while the mean of the PRIX_2 item (4.39) suggests that the price was seen as neither particularly acceptable nor particularly unacceptable. The latter can be explained by the fact that each participant was shown either an advertisement at a price P1 of 699€ or an advertisement at a price P2 of 999€. Because the mean lies around the neutral point of the 7-point Likert scale, this would imply that respondents' opinions regarding the price were balanced out. This result validated our decision to change the prices P1 and P2 for our questionnaire based on the input from our interviewees, in order for both prices to remain in the acceptable pricing range of a laptop while potentially each conveying a distinct image and quality of the product.

As for the AD_1, AD_2 and AD_3 items, they had a mean of 5.32, 5.32 and 4.95 respectively. These items were therefore highly consistent with one another, and we can therefore presume that the average realisticity of the advertisement was around 5 on a 7-point Likert scale. This result is satisfactory and implies our advertisement complied with participants' expectations from a standard advertisement for a laptop,

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[23] The logo that was presented to participants depended on their answer to question INDVU about which logo they had seen on the advertisement. The various criteria that were taken into account to decide which logo had to be presented to a participant based on their answer to the INDVU question and on the stimuli that had been shown are explained in detail in Appendix 15.

[24] The mean for each of these items was computed based on all of the 279 participants, as these aspects were not related to each stimuli in specific but were mostly related to the elements common to all of the six stimuli.

Finally, when observing the means of the NOTELOG_1 and NOTELOG_2 items, which are equal to 5.21 and 4.35 respectively, we can conclude that the repairability score was fairly visible while not being considered particularly acceptable or unacceptable. In addition to that, there was no significant difference between the means for each logo that had been shown to participants as can be seen in Table 12.

Table 12. Mean scores for the NOTELOG_1 and NOTELOG_2 items for each logo

	Mean scores (on a 7-point Likert scale)	
Items	**Logo 1** **Shown to 141 participants**	**Logo 2** **Shown to 138 participants**
NOTELOG_1 : Visibility of the score	5.23	5.19
NOTELOG_2 : Acceptability of the score	4.25	4.43

Based on these results, we can conclude that the both the price and the repairability score were enjoying a good visibility while their acceptability remained quite neutral, which were in line with our expectations after having adjusted the stimuli based on our face-to-face interviews. On top of that, the ad looked fairly realistic, which most likely enabled the participants to answer the other questions in an honest and precise manner.

2.4. Sample description

Once the data had been cleaned and prepared for the hypotheses testing part, we looked into the socio-demographic characteristics of our total sample of 279 respondents to determine its representativeness. First of all, our sample is not evenly represented in terms of gender as 63.4 % of the 279 respondents are women. As for the age, as mentioned before, we created a categorical variable for the AGE in order to visualize the data with more ease. The age of the participants ranges from 19 years to 75 years, with almost one third of our participants (32.3%) belong to the youngest age category (18-25 years old). On top of that, given the fact that the average age in our sample is equal to 38 years old, in addition to almost half of the respondents being younger than 35, we can say that our sample of participants is rather young, which makes sense considering the fact that our questionnaires were mainly sent out via social media platforms. Regarding the education level of our participants, 72% possess a higher education

diploma (from university or higher education institutions), 27.2 achieved a certificate of higher or lower secondary education (or equivalent) and 0.7% completed their primary education. The majority of the respondents (49.5%) are employed part of full-time, 30.1 % of the participants are student and 10.8% are currently inactive on the labour market. As for the residential area, 42.4% of the participants currently live in the Flemish region whereas 30.8% live in the Walloon region and 26.8% reside in the Brussels-capital region. Finally, the total number of respondents are quite evenly spread out across the four types of residential areas, the average or small city being the most represented (34.1%) and the suburban area being the least represented (15.8%). The pie charts depicting the splits among each socio-demographic variable can be found in Appendix 20.

When comparing these results with the official data from the Federal Belgian federal government as of the 1st of January 2019 (Statbel, 2019), we can conclude that our sample is not representative of the Belgian population, especially in terms of age, gender and education. Indeed, our sample gathers mostly people under the age of 35 whereas the 50-59 age category is the one gathering the highest number of Belgian residents. Moreover, women are over-represented in our sample while the percentage of respondents having completed a higher education program is too high. These findings will be taken into account when interpreting our results and reviewing the limits of our research.

3. Hypothesis testing

This final section of our quantitative analysis will present the results from the testing of the hypotheses that were established in the second part of this study. This hypothesis testing stage will make use of statistical inference tests and aims at confirming or infirming our various hypotheses based on our cleaned and prepared dataset. All of our hypotheses were constructed around the same single continuous dependent variable, the Purchase intent. Please refer to Table 11 to examine how this new variable has been created based on the results of the factor analysis on the five items of the INT construct. Appendix 21 to 29 gather all the detailed results of our hypotheses tests.

3.1. Influence of the repairability display on purchase intention (H1)

***H1**: The display of a repairability score on a laptop increases consumers' purchase intention.*

This hypothesis forms the basis of all our subsequent hypotheses, as the impact of potential mediating and moderating variables will be investigated on this relationship.

To test to this hypothesis, we used the General Linear Model (GLM) which is a statistical model that incorporates the n-way ANOVA technique. Indeed, even if the display of the repairability score is the only independent variable referred to in Hypothesis 1, we wanted to explore the influence of several independent variables on consumers' purchase intent simultaneously, as well as investigate the potential interaction effects between these independent variables. As mentioned when explaining the process of creating our stimuli for our quantitative research, the technical features of the laptop were treated as a single control variable and remained identical across the different advertisements. The Price, Display and Logo variables created during the data cleaning stage on the other hand are the key determinants for our six stimuli conditions and are therefore the categorical independent variables included in our various ANOVA models. Please refer to Table 8 for an overview of the coding and meaning of each of these three variables. We did not include the Version variable into our set of independent categorical variables as each category of this variable is a summary of the associated Display, Price and Logo categories. Investigating the potential influence of the survey version on consumers' purchase intent will thus not enable us to pinpoint the exact elements of our advertisement that are responsible for the generated results. The Version variable is therefore not included in any of our hypotheses tests and is merely used to facilitate the identification of the participants in our database.

The GLM model is, as its name suggests, based on the assumption of linearity between the variables of interest. However, because the three dependent variables included in this model are categorical (all taking values of 0, 1 or 2), this assumption is not applicable in this case. The n-way ANOVA model on the other hand is based on the assumptions of normality and independence of the residuals and the homoscedasticity between the samples. As the procedure to verify these assumptions is similar to the one that was followed to investigate the homogeneity between our six survey samples in the data cleaning stage, we included the detailed results in Appendix 21 to avoid cumbersomeness.

Because the three conditions have been verified, we are able to carry out the associated ANOVA tests. We first conducted three independent one-way ANOVA tests to examine the influence of each categorical variable on the Purchase intent separately.

The results of the three separate ANOVA tests indicate that there is a significant difference between the means of the categories of the Display variable only (p-value = 0.025 < 0.05, we can reject H_0). This means that, on average, the purchase intent is significantly higher for consumers having been confronted to an advertisement without logo (mean: 3.17[25]) than for consumers having been presented an advertisement with a logo on it (mean: 2.78). It is also important to note that the means across the categories of the three variables are all around 3 on a 7-point Likert scale, which indicates a somewhat low purchase intent overall.

After that, we conducted two-ANOVA tests to investigate the simultaneous effect of a pair of categorical variables on the purchase intent while exploring the possible interaction effect between these independent factors. Two separate two-way ANOVA tests have been conducted based on the following linear regression models[26]:

a) Purchase Intent = β_0[27] + Price + Display + Price*Display + ε

First, the equality of variances between the four samples (P1/No display, P1/Display, P2/No display, P2/Display) has been verified with the p-value of Levene's test (p-value = 0.956 > 0.05, we cannot reject H_0).

Based on the Fischer statistics, we estimated that the Price + Display + Price*Display model significantly influences the purchase intent (p-value = 0.06 ≈ 0.05, we can reject H_0), which implies that the means of the purchase intent between the four samples (No display/P1, P1/Display, P2/No display, P2/Display) are significantly different. More specifically, the purchase intent is on average the highest for the No display/P1 group and the lowest for the Display/P2 group. Furthermore, the Price and Display variables have no significant interaction

[25] The means of each category have been computed based on the scores given on the 7-point Likert scales, thus ranging from 1 to 7.

[26] The ANOVA tests are based on multiple linear regression models, where β_0 represents the intercept and ε refers to the normally distributed error terms.

[27] The intercept β_0 represents the expected mean value of the dependent variable when the values of all the independent variables included in the model are equal to 0. However, because the values of the independent variables can never be equal to 0 as they were measured on a 7-point Likert scale from 1 to 7, the value and significance of the intercept β_0 are not relevant in our research.

effect on the purchase intent (p-value = 0.658 > 0.05, we cannot reject H_0), which means the effect of the Price on the Purchase intent is independent of the level of the Display variable, and vice versa. The Display variable is the only term in the multiple regression model that has a significant effect on the purchase intent (p-value = 0.026 < 0.05, we can reject H_0), which is in line with the results we obtained from the one-way ANOVA tests we carried out previously. This is confirmed when looking at the descriptive statistics, as the mean of the purchase intent is higher when no logo is displayed, no matter the price level.

b) Purchase Intent = β_0 + Logo + Price + Logo*Price + ε

Once again, the equality of the variances between the six samples (No logo/P1, No logo/P2, Logo1/P1, Logo1/P2, Logo2/P1 and Logo2/P2) has been verified with the p-value of Levene's test (p-value = 0.703 > 0.05, we cannot reject H_0).

Based on the Fischer statistics, the Logo + Price + Logo*Price model does not significantly influence the purchase intent (p-value = 0.182 > 0.05, we cannot reject H_0), which implies that the means of the purchase intent between the six samples (No logo/P1, No logo/P2, Logo1/P1, Logo1/P2, Logo2/P1 and Logo2/P2) are not significantly different. Furthermore, the Logo and Price variables have no significant interaction effect on the purchase intent (p-value = 0.901 > 0.05, we cannot reject H_0) which means the effect of the Logo on the Purchase intent is independent of the level of the Price variable, and vice versa. In fact, none of the independent variables have a significant influence on the purchase intent (p-value for Logo = 0.078 < 0.05, and p-value for Price = 0.146 > 0.05, we cannot reject H_0), which is in line with the results we obtained from the one-way ANOVA tests we carried out previously. The results of the Post Hoc tests based on the Bonferroni adjustment for the Logo variable were therefore not significant nor relevant.

We did not perform a two-way ANOVA test on the Display and Logo variables simultaneously as the Logo variable corresponds to a more detailed version of the Display variable. Indeed, the "No display" category corresponds to the "No logo" category whereas the 'Display" category includes both the "Logo 1" and Logo 2" categories. This results in three different groups, which correspond to the initial categories of the Logo variable, meaning that there is inherently no interaction between the Display and Logo variables. Conducting a three-way ANOVA test on Display, Price and Logo variables simultaneously is therefore not possible nor relevant as well.

The most detailed ANOVA model is thus based on both the Logo and Price variables, which defines the six categories corresponding to our six questionnaire versions and stimuli.

To summarize, it appears that the Display condition (No display/Display) is the only variable which has a significant effect on the purchase condition, as it is higher when no logo is displayed. The simultaneous effect of the Price level and the Display conditions are considered to be at the limit of the 0.05 significance level, meaning that the purchase intent is higher when no logo is displayed, and more specifically when the price P1 is indicated. The distinction between the two logos on the other hand does not seem to have a significant impact on the purchase intent.

3.2. Influence of the attitude towards the product (H2)

H2: *The display of a repairability score positively influences the attitude towards the product, which increases the purchase intention (Attitude towards the laptop = mediating variable).*

Through this hypothesis, we wish to study whether the consumer's attitude towards the laptop mediates the relationship between the display of repairability and the intention to purchase. In other words, we would like to know if the attitude towards the product helps to better explain the relationship between our independent variable and our dependent variable.

By analysing the SPSS outputs obtained for hypothesis 1, we were able to see that the display of a repairability score significantly reduces consumers' purchase intention for the laptop presented. We will try to understand the mechanism by which the display of reparability negatively affects consumers' purchasing intentions by testing the mediating role of attitude towards the laptop in this relationship.

In order to test this hypothesis, we used the model 4 of Hayes PROCESS macro Version 3 (2019). This model can be represented in the form of a diagram (see Figure 20). We have completed this model with the SPSS outputs obtained (see Appendix 22).

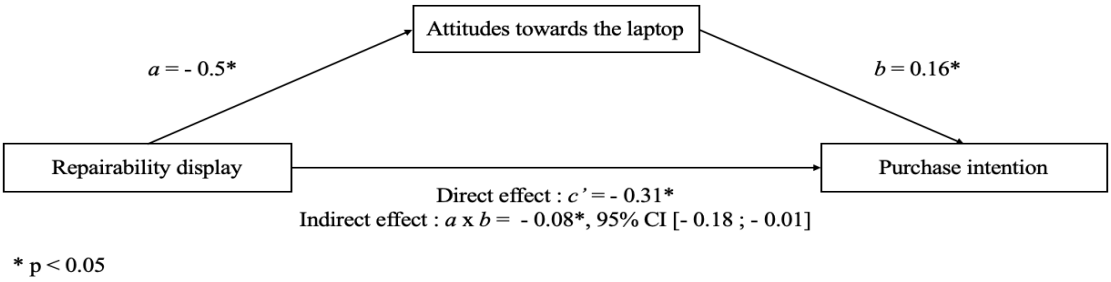

Figure 20. Mediation diagram (Attitudes towards the laptop)

Regression analysis was used to investigate the hypothesis that consumer's attitude towards the laptop mediates the effect of a repairability display on purchase intention. Results indicated that repairability display was a significant predictor of consumer's attitude towards the laptop (a = - 0.5 ; t = -2.37 ; p < 0.05) and that attitude towards the laptop was a significant predictor of purchase intention (b = 0.16 ; t = 3.3 ; p < 0.05). These results support the mediational hypothesis. However, repairability display remains a significant predictor of purchase intention after controlling for the mediator, attitudes towards the laptop (c'= - 0.31; t = - 1.81 ; p < 0.05). This is consistent with partial mediation. The partial indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples, implemented with the PROCESS macro Version 3 (Hayes, 2019).These results indicated that the partial indirect effect was negative and significant (a x b = - 0.08 , 95% CI = [- 0.18, - 0.01]).

In conclusion, seeing repairability display was associated with purchase intention scores that were approximately 0.08 points lower as mediated by attitudes towards the laptop.

3.3. Influence of perceived risks (H3, H4 & H5)

H3: *The display of a repairability score reduces the financial risk, which increases the purchase intention (Financial risk = mediating variable).*

Through this hypothesis, we wish to study whether the financial risk perceived by the consumer mediates the relationship between the display of a repairability and the intention to purchase. In other words, we would like to know if the financial risk helps to better explain the relationship between our independent variable and our dependent variable.

By analysing the SPSS outputs obtained for hypothesis 1, we were able to see that the display of a repairability score significantly reduces consumers' purchase intention for the laptop

presented. We will try to understand the mechanism by which the display of reparability negatively affects consumers' purchasing intentions by testing the mediating role of financial risk in this relationship.

In order to test this hypothesis, we used the model 4 of Hayes PROCESS macro Version 3 (2019). This model can be represented in the form of a diagram (see Figure 21). We have completed this model with the SPSS outputs obtained (see Appendix 23).

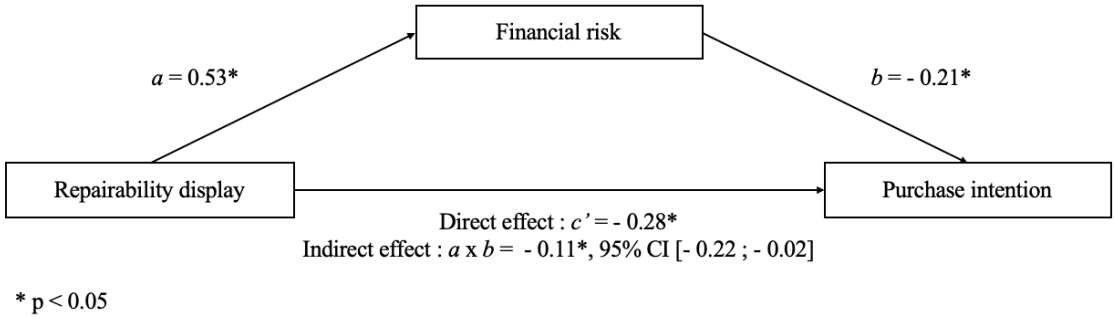

Figure 21. Mediation diagram (Financial risk)

Regression analysis was used to investigate the hypothesis that consumer's perceived financial risk mediates the effect of a repairability display on purchase intention. Results indicated that repairability display was a significant predictor of financial risk (a = 0.53 ; t = 2.59 ; p < 0.05) and that financial risk was a significant predictor of purchase intention (b = - 0.21 ; t = - 4.28 ; p < 0.05). These results support the mediational hypothesis. However, repairability display remains a significant predictor of purchase intention after controlling for the financial risk mediator (c' = - 0.28; t = - 1.64 ; p < 0.05). This is consistent with partial mediation. The partial indirect effect was tested using a percentile bootstrap estimation approach with 5000 samples, implemented with the PROCESS macro Version 3 (Hayes, 2019). These results indicated that the partial indirect effect was negative and significant (a x b = - 0.11, 95% CI = [- 0.22, - 0.02]).

In conclusion, seeing repairability display was associated with purchase intention scores that were approximately 0.11 points lower as mediated by financial risk.

H4: *The display of a repairability score reduces the functional risk, which increases the purchase intention (Functional risk = mediating variable).*

Through this hypothesis, we wish to study whether the functional risk perceived by the consumer mediates the relationship between the display of repairability and the intention to purchase. In other words, we would like to know if the functional risk helps to better explain the relationship between our independent variable and our dependent variable.

By analysing the SPSS outputs obtained for hypothesis 1, we were able to see that the display of a repairability score significantly reduces consumers' purchase intention for the laptop presented. We will try to understand the mechanism by which the display of reparability negatively affects consumers' purchasing intentions by testing the mediating role of functional risk in this relationship.

In order to test this hypothesis, we used the model 4 of Hayes PROCESS macro Version 3 (2019). This model can be represented in the form of a diagram (see Figure 22). We have completed this model with the SPSS outputs obtained (see Appendix 24).

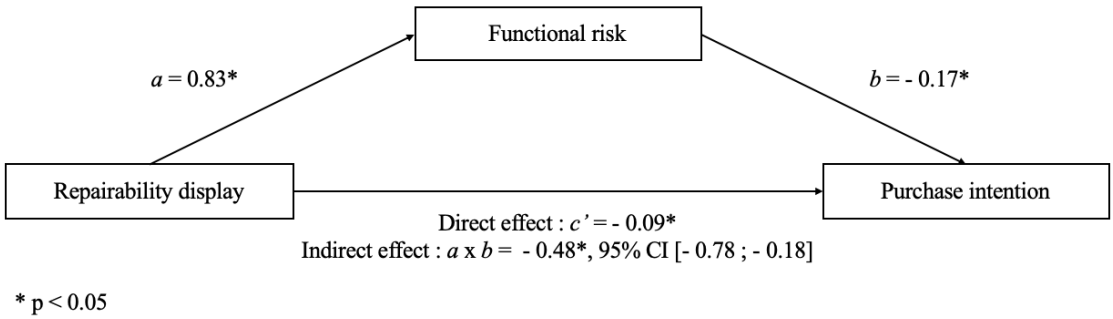

Figure 22. Mediation diagram (Functional risk)

Regression analysis was used to investigate the hypothesis that consumer's perceived functional risk mediates the effect of a repairability display on purchase intention. Results indicated that repairability display was a significant predictor of functional risk (a = 0.83; t = 2.77 ; p < 0.05) and that functional risk was a significant predictor of purchase intention (b = - 0.17 ; t = - 3.47 ; p < 0.05). These results support the mediational hypothesis. However, repairability display remains a significant predictor of purchase intention after controlling for the functional risk mediator (c'= - 0.09; t = - 0.44 ; p < 0.05). This is consistent with partial mediation. The partial indirect effect was tested using a percentile bootstrap

estimation approach with 5000 samples, implemented with the PROCESS macro Version 3 (Hayes, 2019). These results indicated that the partial indirect effect was negative and significant (*a* x *b* = - 0.48, 95% CI = [- 0.78, - 0.18]).

In conclusion, seeing repairability display was associated with purchase intention scores that were approximately 0.48 points lower as mediated by functional risk.

H5: *The display of a repairability score reduces the social risk, which increases the purchase intention (social risk = mediating variable).*

Through this hypothesis, we wish to study whether the social risk perceived by the consumer mediates the relationship between the display of repairability and the intention to purchase. In other words, we would like to know if the social risk helps to better explain the relationship between our independent variable and our dependent variable.

By analysing the SPSS outputs obtained for hypothesis 1, we were able to see that the display of a repairability score significantly reduces consumers' purchase intention for the laptop presented. We will try to understand the mechanism by which the display of reparability negatively affects consumers' purchasing intentions by testing the mediating role of social risk in this relationship.

In order to test this hypothesis, we used the model 4 of Hayes PROCESS macro Version 3 (2019). This model can be represented in the form of a diagram (see Figure 23). We have completed this model with the SPSS outputs obtained (see Appendix 25).

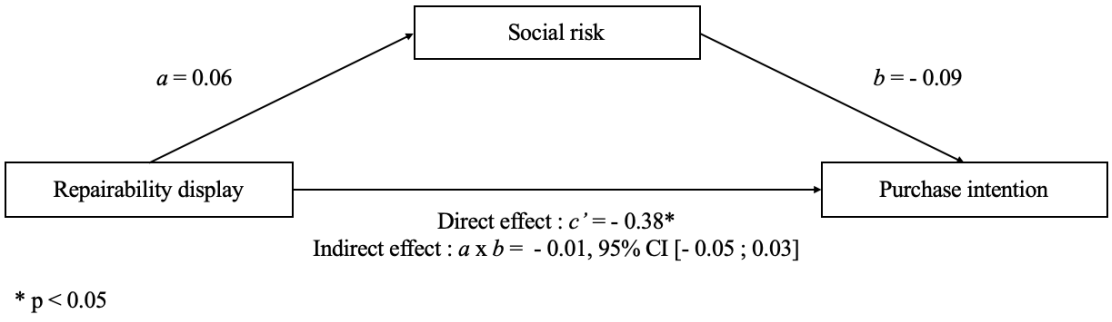

Figure 23. Mediation diagram (Social risk)

Regression analysis was used to investigate the hypothesis that consumer's perceived social risk mediates the effect of repairability display on purchase intention. Results indicated that repairability display was not a significant predictor of social risk (a = 0.06; t = 0.40 ; p > 0.05) and that social risk was not also a significant predictor of purchase intention (b = - 0.09 ; t = - 1.56 ; p > 0.05). In addition, the direct effect remains significant after controlling for the social risk mediator (c' = - 0.38; t = - 2.22 ; p < 0.05) whereas the indirect effect is insignificant (a x b = - 0.01 , 95% CI = [- 0.05, 0.03]). These results do not support the mediational hypothesis.

3.4. Influence of consumer's environmental awareness (H6 & H7)

H6: *A strong involvement in informative labels displayed on a product positively reinforces the influence of the display of a repairability score on the purchase intention (Involvement in labels = moderator variable).*

Through this hypothesis, we first want to analyse whether the involvement in labels moderates the relation between the display of repairability and the intention to purchase. If it turns out that this is the case, we then want to know if a high level of involvement in labels translates a greater purchase intention towards the laptop with repairability display.

The model 1 of Hayes PROCESS macro is used to test this hypothesis. This model can be represented in the form of the following diagram (see Figure 24).

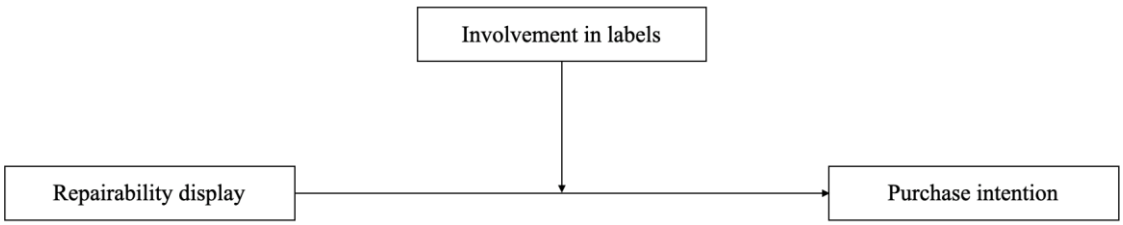

Figure 24. Moderation diagram (Involvement in labels)

Regression analysis was used to investigate the hypothesis that involvement in labels moderates the effect of repairability display on purchase intention (see Appendix 26). Results indicated a significant interaction effect between the level of involvement in labels and repairability display on purchase intention (β = 0.36; t = 2,94 ; p < 0.05). This effect is represented on the following graph (see Figure 25).

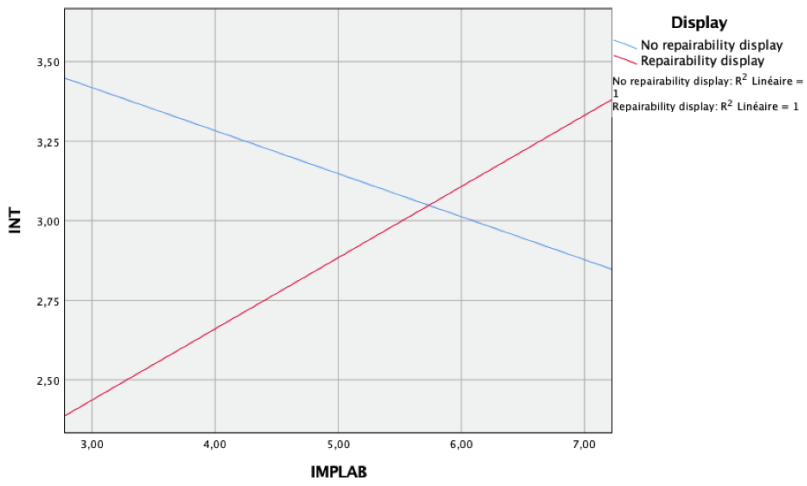

Figure 25. Moderating effect of involvement in labels on the relationship between the display of repairability and purchase intention

In order to decompose this interaction, we examine the slope of involvement in labels with and without repairability score display. On the one hand, the slope is significant and positive when repairability is displayed ($\beta = 0.36$; $t = 2,94$; $p < 0.05$) and on the other hand it is significant and negative when repairability is not displayed ($\beta = - 0.36$; $t = - 2,94$; $p < 0.05$).

We also conducted a floodlight analysis using the Johnson Newman (JN) technique to identify the area of involvement in labels for which there are significant differences in purchasing intentions between the experimental conditions (repairability display vs. no repairability display). For individuals with a level of involvement below 4.81 ($\beta_{JN}= - 0.33$; $t = - 1.97$; $p = 0.05$), the effect of the display of a repairability score on purchase intention is significant and negative. This effect is positive but not significant for individuals with a high level of involvement (6.25) in labels ($\beta = 0.18$; $t = 0,74$; $p > 0.05$).

In conclusion, even if the effect of the display of a repairability score on purchase intention is positive for individuals with a high level of involvement in labels, this effect is not significant. Therefore, our hypothesis is not supported.

H7: *A high level of importance given to the environmental impact of a product positively reinforces the influence of the display of a repairability score on the purchase intention (Environmental responsibility = moderator variable).*

Through this hypothesis, we wish to study whether the environmental responsibility moderates the relationship between the display of repairability and the intention to purchase. Then, if this moderation exists, we would like to know if a strong environmental responsibility reflects a greater purchase intention towards the laptop with a repairability display.

The model 1 of Hayes PROCESS macro is used to test this hypothesis. This model can be represented in the form of the following diagram (see Figure 26).

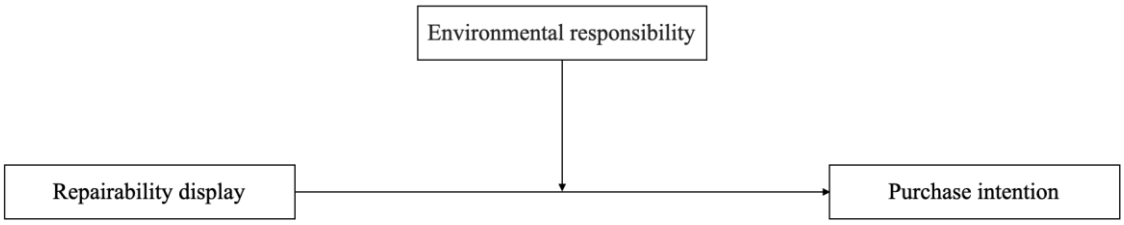

Figure 26. Moderation diagram (Environmental responsibility)

Regression analysis was used to investigate the hypothesis that environmental responsibility moderates the effect of repairability display on purchase intention (see Appendix 27). Results indicated that there is no significant interaction effect between the level of environmental responsibility and repairability display on purchase intention ($\beta = 0.11$; $t = 0.96$; $p > 0.05$). Therefore, it is impossible to draw conclusions about the influence of the level of environmental responsibility on purchase intentions. Our hypothesis is then not supported.

3.5. Influence of consumers' perceptions (H8 & H9)

H8: *An easy processing of the information conveyed by the repairability score displayed on the product positively reinforces the purchase intention (Ease of understanding = moderator variable).*

Through this hypothesis, we wish to study whether ease of understanding moderates the relationship between the display of repairability and the intention to purchase. For this hypothesis, we will more specifically consider the "Logo" variable (0 = no logo ; 1 = logo 1 ;

2 = logo 2) as our independent variable rather than the “Display” variable in order to perform moderation on the two types of logos developed in the framework of our thesis.

The model 1 of Hayes PROCESS macro is used to test this hypothesis. This model can be represented in the form of the following diagram (see Figure 27).

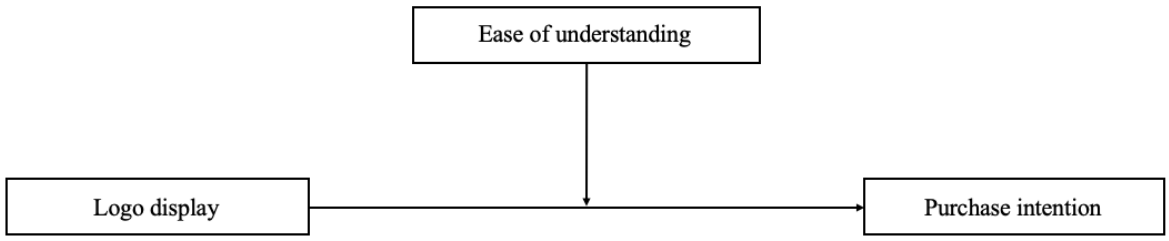

Figure 27. Moderation diagram (Ease of understanding)

Regression analysis was used to investigate the hypothesis that an ease of understanding of labels moderates the effect of logo display on purchase intention (see Appendix 28). Results indicated that there are no significant interaction effects between the ease of understanding of and logo display on purchase intention ($\beta_{X1} = 0.05$; $t = 0.47$; $p > 0.05$ | $\beta_{X2} = 0.17$; $t = 1.51$; $p > 0.05$). Therefore, it is impossible to draw conclusions about the influence of the ease of understanding of labels on purchase intentions. Our hypothesis is then not supported.

H9: *A high level of confidence in the repairability score displayed on the product positively reinforces the purchase intention (Trust = moderator variable).*

Through this hypothesis, we wish to study whether trust in labels moderates the relationship between the display of repairability and the intention to purchase. For this hypothesis, we will more specifically consider the “Logo” variable (0 = no logo ; 1 = logo 1 ; 2 = logo 2) as our independent variable rather than the “Display” variable in order to perform moderation on the two types of logos developed in the framework of our thesis.

The model 1 of Hayes PROCESS macro is used to test this hypothesis. This model can be represented in the form of the following diagram (see Figure 28).

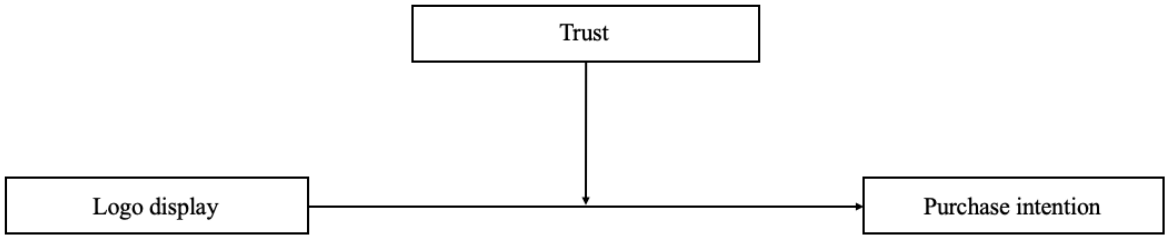

Figure 28. Moderation diagram (Trust)

Regression analysis was used to investigate the hypothesis that the level of confidence in labels moderates the effect of logo display on purchase intention (see Appendix 29). Results indicated that there are no significant interaction effects between the level of confidence in labels and logo display on purchase intention ($\beta_{X1} = 0.03$; $t = 0.25$; $p > 0.05$ | $\beta_{X2} = 0.08$; $t = 0.63$; $p > 0.05$). Therefore, it is impossible to draw conclusions about the influence of the level of confidence in labels on purchase intentions. Our hypothesis is then not supported.

Conclusion

1. Research context

We started by contextualizing the main subject of this research within the planned obsolescence phenomenon. This phenomenon has been a part of the economic landscape of our society for over than 50 years but has started to meet different forms of resistance. Indeed, with the environmental concerns taking a more central place in societal debates and with the rise of alternative forms of economic activity, planned obsolescence has become a much-talked about and relatively controversial topic. This is this case especially in the area of consumer electronics, as the fast-paced consumption and switch between electronic devices to remain trendy and up-to-date on the latest technologies are in conflict with the depletion of natural resources, especially regarding rare minerals and precious metals which are involved in the manufacturing of most devices.

Various counter-movements have emerged to provide alternative solutions to our current consumption habits, such as the repairability of products. There are two main steps in guaranteeing the repairability of products. The first one is to adopt an eco-design approach which takes into consideration the environmental impact of the product throughout its whole lifecycle during the manufacturing process. The second step is related to provide sufficient, relevant and transparent information about the environmental impact of products as well as regarding their repairability potential. However, public and private organizations have been relatively slow to take corrective actions to fight the planned obsolescence phenomenon. On the other side, it appears that consumers highly value their comfort and are quite reluctant to adjust their attitudes and behaviors towards a more responsible and environmentally-friendly one.

Through this research, we investigated the launch of a new repairability measure aimed at encouraging consumers to opt for alternative eco-friendly solutions when it comes to the purchase of electronic devices, and more specifically laptops. The scope of this research did not include the eco-design stage but rather focused on the informative aspect by exploring the influence of the display of a repairability score on consumers' purchase intent.

2. Interpretation of the results

Following the literary review and our qualitative and quantitative studies, we are now able to answer our research question “How does the display of a repairability score influence consumers' purchase intent?”, which we investigated specifically on laptops.

Firstly, the analysis of our quantitative results demonstrated that the display of a repairability score did influence consumers' purchasing intentions. However, our main discovery is that the purchase intention for the laptop presented in our fictive advertisement was significantly lower in the presence in the presence of a repairability logo than in the absence of any logo being displayed. Consequently, this finding did not confirm our main hypothesis. However, we observed an almost significant interaction between the price level of the laptop and the display condition of a logo. This does not support the finding of the EESC (2016) which concluded that lifespan labelling had a positive impact on the purchase intent irrespective of the price range. Because the price in itself has no significant effect on the purchase intent, this might imply that consumers associate the repairability score to a higher price of the laptop.

We have tried to further understand this adverse effect by studying the mediating role of certain variables such as consumers’ attitude towards the product and the risks they perceive as related to its purchase. First, it turned out that in the presence of logo, consumers' positive attitudes towards the laptop decreased significantly. This decrease could therefore partly explain the negative effect of the display of repairability on purchase intent. These results contradict the theory of the EESC report (2016), which states that consumers perceive labels as a utilitarian aspect of a product that improves its evaluation. Secondly, we have also been able to find other interesting explanation leads through the risk theory. Indeed, it would seem that the display of a repairability score significantly increases the financial risk, which in turn reduces the purchase intention. The same effect applies to the functional risk. As for the social risk, it increased with the display of a repairability score, which had a negative impact on the purchase intention, but not in a significant way. These findings are consistent with the ones of Liang and Wei (2012), who have stated that decreasing the consumer's perceived risk is the most usual way for increasing the customer's purchase intention. In our case however, this relationship between the perceived risks and the purchase intent has the opposite effect: individuals perceive a higher risk in the presence of a repairability score on the laptop which reduces their willingness to buy it.

Some theories in the literature have also led us to further investigate the existence of certain variables that could amplify the effects of a label being displayed on consumers' purchase intent. To do this, we have explored the potential moderating effects of four variables of interest. First, we found that there was an interaction effect between the display of a repairability score and consumers' involvement in product labels on their purchase intention. This interaction effect is significant and negative for low and medium levels of implication towards these product labels. The theories of Jeddy & Zaiem (2010) related to the positive effect of the attitude towards an ecolabel on consumers' purchase intention led us to correctly believe that consumers' implication towards labels can positively influence their purchase intention. However, the influence of the environmental impact of a product, the understanding of the information conveyed by the repairability logo and the level of trust in the repairability score on the purchase intent have not been substantiated by our quantitative results.

The fact that the perception of the repairability score does not significantly influence consumers' purchase intention could be explained by our findings from our qualitative research as well as from the analysis of the open comments in the questionnaire. Indeed, a considerable amount of people expressed some concerns about the lack of information around the repairability score and its unknown true meaning. They requested additional and detailed information about the meaning of the logo and about the organization responsible for its implementation before taking position on their purchase intent of the laptop. This lack of information negatively impacted their understanding of the score and therefore seemed to have prevented them from evaluating the reliability of the logo.

To conclude, our fieldwork experiments made us discover an unexpected finding concerning the effect of displaying a repairability score on a laptop on consumers' purchase intention. Indeed, while many theories suggested that the display of repairability score could be a way to increase the consumers' purchase intention, the results of our quantitative research mainly demonstrated us the opposite, which is supported by the insights generated from our qualitative research as well. More precisely, displaying a repairability score on products seem to discourage consumers to buy it. This can partly be explained by the fact that the consumers' attitude towards the product is more negative and that the perceived risks related to its purchase are heightened in the presence of a repairability score, which could be attributed to the lack of communication around the origin and the meaning of the score.

3. Managerial implications and recommendations

The combination of a qualitative and quantitative approach allowed us to gain a deeper understanding of the results from our quantitative analyses based on our main findings form our qualitative research. This extensive fieldwork has led us to make a few recommendations regarding the creation and implementation of the repairability score on laptops.

First of all, it appeared from both our qualitative and quantitative studies that most consumers do not know on which criteria the repairability score is based on and what it actually means in terms of repairability of the laptop. Around 40% of consumers think a 7/10 score indicated a 70% chance of the laptop being repairable in case of defect. Nevertheless, most consumers mentioned they would like to receive additional information about the meaning of the score in order to make a better evaluation of the product and communicate a more accurate purchase intent. We would therefore recommend the organization responsible for the creation of the score to provide sufficient relevant information to allow consumers to make a fully-informed decision.

Following up on this idea, we would also suggest a more transparent and clear communication regarding the organization and institutions involved in the establishment and launch of the repairability score from the manufacturers and/or retailers of the laptop. Indeed, some consumers feared that the score had been created by the manufacturer itself, therefore leading them to think the score would be biased and unreliable. They acknowledged that an official certification of the label on which the score is conveyed as well as transparent information regarding the computation of the score would increase their feelings of trust towards it.

We would like to make a final recommendation regarding the format used to convey the repairability score. Even though our research did not enable us to make any formal conclusions around the influence of the design of the logo on consumers' purchase intent, we noticed a clear preference for a logo with colors conveying complete yet simple to understand repairability information. One of the reasons that could explain our inability to make significant conclusions around the format might come from the fact that all or our logos were based on pre-existing labels, therefore increasing the level of confusion among consumers. In order to improve consumers' attitudes towards the logo, we would therefore suggest creating an entirely new and certified design specifically for the repairability score.

4. Limits of our research

The results and interpretations inferred from our research should be assimilated by taking into account a few limitations.

First, as mentioned throughout the entirety of this report, the generalizability of our results is not possible because of several reasons. The main reason is related to the convenience sampling technique that has been used for both our qualitative and quantitative research. Because this is a non-probabilistic sampling technique, it is by nature not possible to generalize our results to the Belgian population. This is reinforced by the fact that our sample is not representative of the Belgian population, especially in terms of age, gender and education.

Moreover, we cannot exclude the influence of specific biases on the data we gathered during our fieldwork, especially during our face-to-face interviews. Indeed, the interviews we conducted contain an inherent bias linked to the interviewer, and overall to the way the interviews have been conducted. Aspects related to the establishment of a connection between the interviewer and the respondent as well as the context in which the interview has been conducted (location, time, emotional state of both parties, etc.) have an inherent influence on the quality of our insights.

As for our quantitative research, we observed that 40.5% of the initiated surveys had been interrupted and not filled in completely. This led us to discard a significant amount of participants from our dataset, therefore reducing our sub-sample sizes below our objective of 50 respondents for each stimuli. A pre-test of the questionnaire to identify potential issues could have been conducted to improve the completion rate while improving the quality of our results.

Finally, we mentioned that the logos we designed were based on pre-existing formal labels. However, based on the input from our interviews, instead of slightly adjusting the elements of our stimuli while conserving the underlying design of the logo, we could have taken into account the insights from consumers to create and design logos of our own, which would have been used and investigated solely and specifically in the scope of this research. These new logos could have therefore been integrated in our questionnaire and provided us with entirely different results, as it could have decreased the level of confusion related to the use of pre-existing labels.

5. Futures perspectives

Throughout this study and based on the limitations of our research, we identified a couple of opportunities for further research.

The first one is related to the repairability score conveyed by the logo. Within the scope of our research, we treated the repairability level as a control variable, meaning we did not investigate the influence of various repairability scores on consumers' purchase intent. In this specific case, we conducted our quantitative research and interpreted the associated results based on a repairability score of 7/10, which refers to a high repairability of the laptop according to the input gathered from our face-to-face interviews. It could be interesting to extend the analysis of the influence of one specific repairability score to several levels of repairability to provide some nuances to our results and interpretations.

The second suggestion for further research concerns the investigation of the price sensitivity related to the stimuli, and more particularly to the display of a repairability logo. Indeed, as mentioned in our results summary, it would seem that the price of the product would enhance the effect of the display condition on consumers' purchase intent even more. We cannot fully corroborate this assumption based on the output from the face-to-face interviews we conducted, as respondents provided their opinions about the price levels and the repairability logos separately. Because the price in itself has no significant effect on the purchase intent, it might be interesting to go deeper into the examination of the relationship between the display condition and the price level. In this research, we only studied the effect of two different prices. Our results concerning the interaction effect between the price level and the display condition could be refined by studying a larger range of price levels and be including specific measurement scales regarding the price variable.

We hope the combination of these qualitative and quantitative results have shed some light on this new repairability score concept and will encourage further research on the subject in the fight against planned obsolescence.

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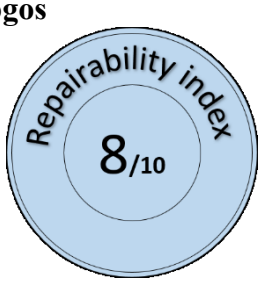
Appendices

Appendix 1: Stimuli presented during the interviews (ENG)

Logos



Logo 1 **Logo 2** **Logo 3**

Advertisements

<u>At the price P1 of 699€</u>

<u>Price P1 of 699€, without logo</u>

VIZIO

699 €

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit

Processor : Intel® Core™ i7-3517U (1.9GHz)

Memory : 4 GB

Hard drive: 256 GB Storage

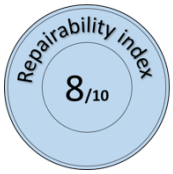
Display: 15.6 inches / 39.6 cm

<u>Price P1 of 699€, with Logo 1</u>

VIZIO

699 €

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch



Operating system: Windows 10 Pro, 64bit

Processor : Intel® Core™ i7-3517U (1.9GHz)

Memory : 4 GB

Hard drive: 256 GB Storage

Display: 15.6 inches / 39.6 cm

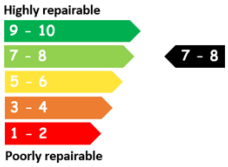
Price P1 of 699€, with Logo 2

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Hard drive: 256 GB Storage
Display: 15.6 inches / 39.6 cm

699 €



Price P1 of 699€, with Logo 3

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Hard drive: 256 GB Storage
Display: 15.6 inches / 39.6 cm

699 €

At the price P2 of 1099€

Price P2 of 1099€, without logo

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Hard drive: 256 GB Storage
Display: 15.6 inches / 39.6 cm

1099 €

Price P2 of 1099€, with Logo 1

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit

Processor : Intel® Core™ i7-3517U (1.9GHz)

Memory : 4 GB

Hard drive: 256 GB Storage

Display: 15.6 inches / 39.6 cm

1099 €

Price P2 of 1099€, with Logo 2

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit

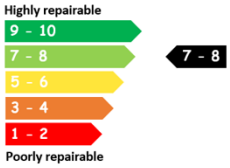
Processor : Intel® Core™ i7-3517U (1.9GHz)

Memory : 4 GB

Hard drive: 256 GB Storage

Display: 15.6 inches / 39.6 cm

1099 €



Price P2 of 1099€, with Logo 3

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit

Processor : Intel® Core™ i7-3517U (1.9GHz)

Memory : 4 GB

Hard drive: 256 GB Storage

Display: 15.6 inches / 39.6 cm

1099 €

Appendix 2 : Interview guide (FR)

INTRODUCTION ET PRÉSENTATION DE L'OBJECTIF DE L'ENTRETIEN

- Se présenter, expliquer brièvement le contexte (mémoire) & l'objectif (opinion vis-à-vis de l'annonce publicitaire, du prix et des logos) de l'entretien
- Demander l'autorisation d'enregistrer (afin de retranscrire l'entretien pour l'analyser)
- Assurer la confidentialité des données
- Remercier le répondant de sa participation

ENTRETIEN

Profil de l'interviewé
Objectif : Introduire la discussion en mettant le répondant à l'aise

- Pouvez-vous vous présentez en quelques mots ?

Budget pour l'achat d'un nouvel ordinateur portable à usage privé
Objectif : Connaître le budget alloué à l'achat d'un nouvel ordinateur portable à usage privé ainsi que les facteurs déterminants de ce budget

Situation 1: Vous envisagez d'acheter un nouvel ordinateur portable.

- Quel serait votre budget pour l'achat d'un nouvel ordinateur portable ?
- Quelles sont les aspects/caractéristiques de l'ordinateur portable pour lesquelles vous être prêt à payer plus que votre budget initial ?
- Quelles sont les aspects/caractéristiques de l'ordinateur pour lesquelles vous n'êtes pas prêt à payer plus que votre budget initial ?

Impression vis-à-vis de l'ordinateur portable présenté dans l'annonce
Objectif : Comprendre l'attitude des répondants vis-à-vis de l'ordinateur portable présenté dans l'annonce (au niveau de la marque, du modèle, des caractéristiques techniques, du prix, du design, etc.)

Situation 2 : Vous tombez sur l'annonce suivante.

[Montrer l'annonce pour l'ordinateur au prix P1 ou P2]

- Quelle est votre première impression de cet ordinateur portable ?
- Avez-vous déjà vu l'ordinateur portable présenté dans cette annonce ?
  - Que pensez-vous de son design ?
  - Avez-vous l'impression que c'est un ordinateur de haut ou de bas de gamme ?
- Connaissez-vous la marque de cet ordinateur portable ?
  - Cette marque, vous inspire-t-elle confiance ?
- Que pensez-vous des caractéristiques techniques de cet ordinateur portable ?
  - Quelle est votre première impression par rapport à la performance de l'ordinateur ?

- Que pensez-vous du prix demandé pour cet ordinateur portable ?
  - Quel serait le prix minimum que vous seriez prêt à payer pour cet ordinateur portable ?
  - Quel serait le prix maximum que vous seriez prêt à payer pour cet ordinateur portable ?

Création d'un indice de réparabilité
Objectif : Explorer comment les participants visionneraient l'indice de réparabilité au niveau de sa forme et de son contenu

Situation 3 : Imaginez que vous êtes responsable du développement d'un indice de réparabilité pour l'ordinateur portable présenté dans l'annonce publicitaire ci-avant.

- Quelles informations devraient contenir cet indice ?
- Comment représenteriez-vous cette information de manière visuelle ?

Impressions vis-à-vis de chaque indice
Objectif : Comprendre comment les répondants interprètent l'information véhiculée par les trois indices de réparabilité ainsi que leur attitude vis-à-vis de chacun des trois formats.

Situation 4 : Observez à présent l'indice ci-dessous, indiquant une note de réparabilité de 8/10.

[Montrer le Logo 1, puis le Logo 2, puis le Logo 3]

- Quelle est votre première impression de cet indice ?

Au niveau de l'information de réparabilité :

- Que comprenez-vous lorsque vous voyez cet indice ?
  - Que signifie pour vous un ordinateur portable ayant une note de réparabilité de 8/10 ?
  - Quels sont les critères pris en compte pour obtenir une note globale de 8/10 ?
  - Y a-t-il selon vous un lien entre cet indice de réparabilité et la garantie de l'ordinateur ?
  - Quelles sont les questions que vous vous posez face à cet indice ? Qu'attendez-vous comme informations sur la réparabilité d'un produit (et plus précisément, d'un ordinateur) ?
- Trouvez-vous que l'information est claire ?
  - Si oui, pourquoi ?
  - Si non, comment rendre l'information de réparabilité (plus) claire ?
- Trouvez-vous que l'information est complète ?
  - Si oui, pourquoi ?
  - Si non, comment rendre l'information de réparabilité (plus) complète ?
- Trouvez-vous que l'information est fiable ?
  - Si oui, pourquoi ?
  - Si non, comment rendre l'information de réparabilité (plus) fiable ?

Au niveau du format de l'indice :

- Que pensez-vous du format de cet indice (au niveau du design, des couleurs, de la police, etc.) ?
  - Trouvez-vous ce format visuellement attrayant ? Pourquoi ?
- Trouvez-vous ce format véhicule l'information de réparabilité de manière claire ?
  - Si oui, pourquoi ?
  - Si non, comment véhiculer l'information de manière (plus) claire ?
- Trouvez-vous ce format véhicule l'information de réparabilité de manière complète ?
  - Si oui, pourquoi ?
  - Si non, comment véhiculer l'information de manière (plus) complète ?
- Trouvez-vous ce format véhicule l'information de réparabilité de manière fiable ?
  - Si oui, pourquoi ?
  - Si non, comment véhiculer l'information de manière (plus) fiable ?

Comparaison des 3 indices

Objectif : Comprendre les raisons pour lesquelles un des indices est mieux perçu au niveau de son contenu et/ou de son format.

Situation 5: Observez maintenant les 3 indices de manière simultanée.

[Montrer les trois logos ensemble]

- De manière générale, quel indice préférez-vous ? Pourquoi ?

Comparaison au niveau de l'information de réparabilité

- Trouvez-vous que l'information est identique pour les 3 indices ?
  - Si non, quelle information vous semble la plus claire ? Pourquoi ?
  - Si non, quelle information vous semble la plus complète ? Pourquoi ?
  - Si non, quelle information vous semble la plus fiable ? Pourquoi ?
- Quel indice préférez-vous au niveau de son information ? Pourquoi ?

Comparaison au niveau du format

- Quel est l'indice qui attire le plus votre attention ? Pourquoi ?
- Trouvez-vous que les 3 formats d'indices véhiculent l'information de réparabilité de manière identique ?
  - Si non, quel est le format qui véhicule l'information de la manière la plus claire ?
  - Si non, quel est le format qui véhicule l'information de la manière la plus complète ?
  - Si non, quel est le format qui véhicule l'information de la manière la plus fiable ?
    - [Si répond Logo 2 ou Logo 3] Est-ce parce que le format de l'indice vous est familier ?
- Quel format d'indice préférez-vous ? Pourquoi ?

Idées au niveau de l'affichage de l'indice
Objectif : Explorer comment les répondants afficheraient l'indice de réparabilité

Situation 6 : Après avoir vu l'ordinateur portable présenté dans l'annonce et les différents indices de réparabilité, réfléchissez à l'affichage de cet indice.

- Comment voudriez-vous que l'indice de réparabilité soit affiché ?
  - À choisir, afficheriez-vous l'indice sur l'annonce, sous forme d'un autocollant sur l'ordinateur ou sur les deux ?
    - [Si affichage sur l'annonce] Lequel de ces trois formats trouvez-vous le plus adapté pour être présenté dans l'annonce ? Expliquez.
    - [Si affichage sur l'ordinateur sous forme d'un autocollant] Lequel de ces trois formats trouvez-vous le plus adapté pour être affiché sous forme d'un autocollant sur un ordinateur portable ? Expliquez.

Affichage de l'indice sur l'annonce
Objectif : Comprendre l'attitude des répondants vis-à-vis de l'affichage de l'indice de réparabilité sur l'annonce

Situation 7 : Observez maintenant l'annonce publicitaire suivante, présentant l'ordinateur portable accompagné des différents indices de réparabilité.

[Montrer les trois annonces, chacune présentant un des trois logos, au prix étudié]

- Que pensez-vous de l'affichage de l'indice sur cette annonce ?
- Trouvez-vous que l'affichage de cet indice est clair ?
  - Si oui, pourquoi ?
  - Si non, comment afficheriez-vous l'indice de manière (plus) claire ?
- Trouvez-vous l'affichage de cet indice rend l'annonce fiable ? Pourquoi ?
- A partir de quel score considérez-vous qu'un ordinateur est fortement réparable? De manière similaire, à partir de quel score considérez-vous qu'un ordinateur est faiblement réparable ?

CLÔTURER L'ENTRETIEN

- Si pas encore mentionné, demandé informations de profilage (sexe, âge, secteur de travail, conscience environnementale, etc.)
- Demander s'il/elle a encore des questions/remarques/critiques/choses à ajouter ?
- Remercier le répondant de sa participation

Appendix 3 : Transcript of the interview with Michael Cauwenberghe (FR)

Michael Cauwenberghe: Man, 43 years old, Belgian living in Limelette, currently inactive on the labour market

Date and location: 21st June 2019, Limelette

Language: French

Duration: 29 min 02

Advertisement shown: Laptop priced at 1099€

Alors tout d'abord, est-ce que tu pourrais te présenter en quelques mots ?

Oui. Je m'appelle Michael Cauwenberghe, donc j'ai 43 ans, j'habite à Limelette. Je travaille pas, voilà.

Ok nickel. Maintenant, je vais te mettre en situation qui est : tu envisages d'acheter un nouvel ordinateur portable.

Oui.

Quel serait le budget que tu mettrais pour cet ordinateur portable ?

Ouais mais ça dépend de beaucoup de paramètres ça !

Selon tes exigences envers un ordinateur?

Vraiment le maximum ?

Quel budget tu serais prêt à mettre pour un ordinateur portable ?

Alors mettons 800€.

Et quels seraient les aspects de l'ordinateur portable pour lesquels tu serais prêt à payer plus que ton budget initial ?

Le processeur évidemment. La rapidité du processeur, la RAM, le fait qu'il y a un SSD, quel volume il occupe, la marque. Il y a des marques qui donnent plus confiance que d'autres.

Lesquelles ?

Asus, MSI, Lenovo, tout ça. Ça va ?

C'est parfait ! Et à l'inverse, quels seraient les aspects pour lesquels tu ne serais pas prêt à payer plus que ton budget initial ? Donc en fait, quels sont les aspects qui sont moins voire pas importants pour toi ?

Ah oui, j'ai oublié certaines choses pour l'aspect positif. La durée de la garantie déjà. Si c'est que 2 ans, bon ben c'est la moyenne. Maintenant si c'est pour 5 ans, d'office ça rentre en ligne de compte. Il y a aussi la diagonale de l'écran, le poids, … oui il y a beaucoup de paramètres qui rentrent en ligne de compte en fait.

Et du coup, pour les caractéristiques pour lesquelles tu serais pas prêt à payer plus… Donc en fait, les caractéristiques auxquelles tu prêtes pas plus attention que ça quand tu achètes un ordinateur portable ?

C'est un sujet qui me tombe à pic, parce que j'aime bien l'informatique tu vois. Je tiens compte de beaucoup de paramètres. Il n'y a pas vraiment de paramètres que je ne prends pas en compte en fait. Mmmmh je sais pas, pour le moment j'ai pas d'idées. Je vais peut-être retomber dessus.

Non mais t'inquiètes, c'est pas de soucis. Maintenant, je vais te présenter une annonce. Donc imagines que tu tombes sur cette annonce, et je vais te demander quelles sont tes impressions par rapport à celle-ci.

Ok !

Ok, donc voilà. Ça c'est l'annonce *[montre l'annonce au prix de 1099€].*

C'est complètement… Fin ça n'existe pas ?

C'est fictif !

Ah ok.

Mais c'est censé être plus ou moins réaliste. Donc du coup, quelle est ta première impression par rapport à cet ordinateur ?

Par rapport à l'affiche tu veux dire ?

Par rapport à l'ordinateur de manière générale.

Mmmh le prix est exagéré, ça c'est clair. Ah non, c'est un Core i7, j'avais pas vu. C'est quand même élevé. La première remarque qui me vient à l'esprit, c'est le prix.

Et par rapport à l'ordinateur-même, sans nécessairement faire attention aux caractéristiques ?

Oui, ça peut être pas mal. Ça dépend l'utilisation qu'on en fait. Avec un processeur aussi puissant, c'est plus pour du calcul, des applications peut-être scientifiques des trucs comme ça. Ou alors vraiment un gros gros joueur, mais on voit pas ce qu'il y a comme carte graphique donc.

Pas de carte graphique ?

Si si, il y en a une dedans d'office, sinon il n'afficherait rien. Mais ici, il n'est pas mentionné dans l'annonce.

Ah ok, c'est peut-être un truc qu'on doit rajouter. Très bien. Que penses-tu du design de l'ordinateur ?

Passe partout, ni moche, ni super beau.

Et as-tu l'impression que c'est un ordinateur haut ou bas de gamme ? Juste en voyant l'ordinateur, peut-être pas spécifiquement par rapport aux caractéristiques.

Hein juste la photo ? Ça c'est impossible à dire. Il y a des ordis portables à bas prix à 500€ qui pourraient ressembler à ça.

Mais donc pour toi ?

Non, la photo ne me donne pas d'indications.

Ok ! Connais-tu la marque de cet ordinateur ?

Ben non, puisque c'est fictif.

Oui, mais ça n'empêche que c'est quand même une marque réelle.

Vizio ? Ah je connais pas du tout.

On doit prendre une marque qui ne va pas être connue en Belgique, pour éviter que la marque biaise les réponses des participants.

As ok. Et ça vient d'où ?

C'est une marque américaine.

Ah oui, j'ai jamais entendu.

Que penses-tu du fait que cet ordinateur portable fonctionne avec le système d'exploitation Windows 10 ?

Ben en fait, tous les PC qui sortent aujourd'hui sont fournis avec Windows 10, c'est le plus récent de Microsoft. Donc c'est normal.

Donc tu trouves ça positif ?

De toute façon, Windows 7 arrive en fin de vie l'année prochaine au mois de janvier. Et puis Windows 8, c'était plutôt un échec pour Microsoft donc logiquement. C'est trop technique peut-être ?

Non non, ç'est parfait ! Et que penses-tu des caractéristiques techniques de cet ordinateur ?

Pas beaucoup de RAM. Ça aurait pu être utile d'avoir un deuxième disque dur mais pas SSD. Ah c'est un disque dur, c'est pas un SSD ?

Oui, c'est un disque dur.

Non non, à 256 giga, ça ne peut être qu'un SSD sinon c'est vraiment beaucoup trop faible.

Oui, mais c'est un disque dur interne ça ?

Il y a disque dur comme on emploie depuis les années 70-80, et le SSD qui est quelque chose d'assez récent. Qui a maintenant 10 ans peut-être et qui est beaucoup plus véloce, rapide, ...

Donc ça, ça serait un SSD alors ?

Ben c'est pas mentionné donc on peut pas savoir. Mais logiquement quand je vois la taille, je me dis que c'est un SSD. Parce que si c'est un disque dur classique, à 15 pouces, seulement un 4 giga mais bon, un Core i7, le prix est quand même trop exagéré.

Mais justement, on va en venir au prix !

Ok.

Et du coup, par rapport aux caractéristiques techniques, tes impressions par rapport à la performance ?

Bah de nouveau, le processeur doit vraiment donner une bonne puissance au PC. Mais à part ça, le reste, je peux pas savoir tant que je vois pas la carte graphique.

Ok. Que penses-tu du prix de cet ordinateur ?

Surfait.

D'accord. Quel serait le prix minimum que tu serais prêt à payer pour cet ordinateur ?

Il faudrait d'autres caractéristiques. Comme ça, je peux pas…

Comme la carte graphique ?

La carte graphique entres autres, le poids, le fait de savoir si c'est un disque dur classique ou un SSD. Qu'est-ce qu'il y a encore ? La connectique : combien de ports USB, les ports USB 3.0 voire 3.1. Et sinon, la dernière question que tu m'avais posée au début, c'était quoi ?

Tes impressions par rapport à la performance ?

Ah oui, la performance. Peut mieux faire.

Ok. Et du coup maintenant, ça serait le prix minimum que tu serais prêt à payer pour ça, mais tu sais pas dire ? Mais bon, en fonction des caractéristiques qu'il y a là déjà ?

En fonction de ce que je vois… Attends, faut que je réfléchisse.

Vous êtes un connaisseur !

Oui ça tombe à pic ! Tu m'aurais montré des photos de voiture, j'aurais pas du tout été qualifié ! Le prix minimum… 700€ je dirais.

Et le prix maximum ?

On y est déjà là !

Alors, ok merci. Ça, c'était pour la première partie de cet entretien. Maintenant, on va passer à la deuxième partie qui concerne justement la réparabilité et l'indice en question. Donc, on imagine que tu es responsable du développement de cet indice.

De réparabilité ?

De réparabilité, oui. Doc quelles informations devraient contenir cet indice selon toi, par rapport à l'ordinateur portable ?

Tu peux un peu préciser ? Parce que c'est un peu flou.

Donc en fait tu es responsable du développement d'un indice de réparabilité. Et donc tu vas créer un espèce de label en mentionnant la réparabilité du produit.

Mais un indice de quoi, de 1 à 10 par exemple ?

Par exemple, oui. Et bien du coup, quelles informations devraient contenir cet indice ?

Dont le consommateur aurait connaissance ?

Oui voilà, oui. Quels seraient les facteurs que tu prendrais en compte pour faire cet indice de réparabilité pour les ordinateurs portables ?

La marque, premièrement. Ça, c'est clair. Une marque comme Acer par exemple, j'en voudrais pas, même gratuit. Le prix…

Mais là, on parle de la réparabilité. Donc quels facteurs tu prendrais en compte pour créer l'indice de réparabilité? Parce que en soi, quand tu dis oui la marque, mais Acer aura peut-être un faible indice de réparabilité. Mais tu sais pas que contiens cet indice tu vois ?

Et c'est ça que tu voudrais savoir ?

Quels sont les éléments que tu prendrais en compte tu vois ?

Donc les éléments du PC tu veux dire, ou encore d'autres éléments ?

Plein d'éléments. Je sais pas, comme la documentation, l'accessibilité aux pièces détachées, … C'est plus dans ce sens-là. En vrai, ça en soi, ce sont des questions un peu plus complexes.

Oui, parce que j'arrive pas vraiment à cerner ce que tu attends de moi à ce sujet-là en fait.

En fait, c'est simple. Quand on te dit, voilà, nous on crée un indice de réparabilité avec des lettres.

Oui, comme les certificats PEB là.

On dit, tiens A c'est fortement réparable. Et bien, qu'est-ce qui va faire qu'un ordinateur soit fortement réparable ?

Bah déjà la marque. Je pense que certains services d'après-vente sont meilleurs pour certaines marques que d'autres.

Ah ben voilà, donc c'est ça, c'est le service après-vente. Donc qualité du service après-vente.

Oui, tout à fait, oui. C'est normal.

Ben en fait, c'est ça.

Mais d'une marque à l'autre, c'est ça que je veux dire, le service n'est pas le même.

Oui ok, mais c'est pas la marque au final qui est contenue dans l'indice. Tu vois ce que je veux dire ?

Ok.

Mis à part ça, tu as d'autres idées ?

Est-ce que l'âge du PC peut rentrer en ligne de compte ? Par exemple, un PC qui a un an, ça va forcément être plus réparable qu'un PC qui en a 5 ou 6.

Oui, mais ça ne fait pas partie du contexte de notre étude puisqu'on étudie les indices de réparabilité affichés sur les PC neufs. Tu vois un PC neuf avec un indice de réparabilité, et donc tu sais plus ou moins dire : ce produit-là, s'il tombe en panne dans 2 ans, moi je sais le réparer parce que les pièces seront peut-être plus facilement disponibles, accessibles. Parce que parfois, comme Apple un moment avec leur IPod, ils avaient soudé les batteries dans l'appareil et du coup, tu savais pas remplacer la batterie tu vois. Et genre par exemple ça, c'est un problème d'obsolescence programmée et de réparabilité du coup.

Oui.

Et donc, c'est là-dedans qu'il faut poursuivre.

Oui, donc je sais pas c'est quoi comme appareil ici [*montre l'ordinateur de Julien]*.

C'est un Mac.

Il me semblait bien.

Oui, donc le fait qu'il soit réparable par la personne elle-même, ça c'est important.

Ah voilà, ok. Donc ça veut dire, des informations précises. Guide manuel quoi, de la documentation sur le PC.

Documentation oui, forcément, pour savoir comment le démonter. Et le remonter c'est encore mieux.

Ok, parfait. Je pense qu'on va passer à la question suivante. Par rapport à l'indice de réparabilité en question, comment tu la représenterais, cette information-là pour le consommateur?

Visuellement ?

Visuellement, et au niveau du contenu aussi. Genre tu sais que demain tu veux afficher la réparabilité du produit, donc d'un ordinateur, mais comment tu vas le faire ? Par quel moyen ?

Ben déjà, une note de 1 à 10, 10 étant évidemment le plus réparable.

C'est effectivement ce qui a été choisi, c'est une note de 1 à 10. Maintenant, on sait pas du tout quelle forme prendra l'indice sur le produit. Et donc c'est pour ça aussi que nous, on va tester différents types d'indice dans cet entretien.

Il va falloir être créatif !

Donc maintenant, je vais te présenter les indices en question. Le premier, c'est celui-ci *[montre le Logo 1].*

Oui, ça c'est pas mal. C'est peut-être un peu grand, mais c'est très parlant.

Oui oui, mais là, c'est juste pour te montrer à toi, pour que ça soit bien clair. Je te montrerai l'annonce avec l'indice dessus, et là tu pourras me donner ton avis sur son placement et sa taille. Donc par rapport à cet indice-là, quelle est ta première impression ?

C'est parlant, ça attire le regard. Peut-être que la couleur est un peu trop neutre. Un bleu-gris, c'est moins attrayant.

Ok d'accord. Et pour toi, que signifie un produit ayant une note de réparabilité de 8/10 ?

Euh, je peux faire confiance. Ca influencerait mon achat.

Ok, d'accord. Associes-tu cet indice avec une garantie du produit ?

Oui !

Est-ce que pour toi, ça signifie aussi une garantie ?

Ah, on parlait de la garantie…

Ouais, en fait, cette question-là, on pourrait la prendre dans les deux sens. Genre, est-ce que c'est une garantie pour toi d'avoir un indice de réparabilité de 8/10 ? Et aussi, est-ce que ça veut pas dire autre chose, 8/10 ? Est-ce que ça veut pas dire que la réparabilité est garantie ? Tu vois ce que je veux dire ?

Oui oui, tout à fait. Ben, je réponds oui aux deux questions.

Ok d'accord. Et quelles sont les questions que tu te poses par rapport à cet indice ?

Forcément, qu'est-ce qui se cache derrière ? Si on n'affiche que ça sur le produit, on va se dire : « 8/10, qu'est-ce que ça veut dire » ?

Qu'est-ce qui se cache derrière, d'accord. Trouves-tu que l'information est claire ?

Oui.

Qu'elle est complète ?

Mmmh. Bah disons que je veux acheter un nouveau lave-vaisselle, c'est clair que tout le monde a certains facteurs en tête mais loin de s'imaginer tout ce qui s'y cache derrière.

Exactement, ouais. Ok, parfait. Et que cette information est fiable ?

Ça, c'est le futur qui nous le dira !

Ok, d'accord. Donc ça, c'était au niveau de l'information de l'indice. Et maintenant, au niveau du format. Parce que j'ai entendu que tu parlais des couleurs etc. Donc là, ça va être le moment de dire pourquoi. Donc trouves-tu ce format attrayant et pourquoi ?

Oui, il attire le regard, il dit bien ce qu'il a à dire. Mais je reviens sur la couleur qui est peut-être un peu trop tristounette.

Ok. Et trouves-tu que ce format véhicule l'information de réparabilité de manière claire ?

Euh, t'en a d'autres à proposer pour que je réponde à cette question ? Ou c'est le seul ?

Non non, il y en a d'autres.

Ah.

Mais c'est pour ça. Après nous, on va choisir ceux qui véhiculent le plus facilement l'information.

Donc ta question c'est. J'ai oublié.

Donc trouves-tu que ce format véhicule l'information de manière claire ?

Oui, je réponds oui.

D'accord. Bon ben maintenant, on va passer au suivant *[montre le Logo 2]*. Ça va être les mêmes questions, plus ou moins. Donc, pareil, quelle est ta première impression ?

Oui, oui, c'est comme les certificats.

Oui voilà, ça c'est comme les certificats. Sauf que nous, on a inversé. Parce que au final, c'était contre-intuitif.

Le rouge est le moins bon.

Le rouge était le plus long.

Ouais c'est pas tout à fait logique.

Ouais, c'est pas logique. Donc voilà, quelle est ta première impression par rapport à celui-là ?

Oui, je lui fais confiance aussi. Il inspire confiance.

Ok. Trouves-tu que l'information est claire ?

En fait, c'est le 7-8 en noir qui… Parce que comme on a déjà affiché 7-8, pourquoi redire l'information ? Ça c'est mon avis, c'est tout à fait subjectif.

Oui oui, mais là effectivement, ça c'est pour afficher la réparabilité du produit. Parce qui sinon, comment tu l'affiches ici ?

Simplement mettre un truc comme …. mais noir de nouveau, c'est peut-être un peu agressif.

Mais c'est parce que en fait, on s'est basé sur le label existant qui est l'énergie.

Ok.

Et l'énergie, ils le font comme ça en fait.

Ah ok, j'ai pas fait attention.

Parce que là, est-ce que tu comprends clairement que 7-8, c'est la note du produit ?

C'est un peu moins parlant que le précédent, mais pour moi pas grand-chose. L'autre, l'information arrive directement, ça nous frappe. Ici, il faut commencer un peu à réfléchir. Ah oui tiens, 7-8, pourquoi c'est mis deux fois ?

Ok, ça marche. Du coup, trouves-tu que l'information est complète ?

Complète oui.

Ok, et que cette information est fiable.

De nouveau, ça je peux pas savoir à l'avance.

Et qu'est-ce que tu trouves par rapport au format ?

Le noir est peut-être un peu déplaisant. Sinon, la taille est bien, les couleurs sont attrayantes.

Ok nickel. Maintenant on va passer au dernier *[montre le Logo 3]*. Par rapport à celui-ci, quelle est ta première impression.

Euh moins plaisant. Fin, c'est pas une question de plaire.

Oui mais c'est ton avis hein.

Premier truc, c'est moins parlant j'ai l'impression.

Du coup, trouves-tu que l'information est claire ?

Oui, mais ça aurait pu être mieux ?

Et comment tu la rendrais plus claire ?

J'agrandirais le 7-8 dans ce cas-ci, ça sera plus frappant.

D'accord. Que l'information est complète ?

Oui.

Et que l'information est fiable, ben pareil que les deux précédents. Et au niveau du format ?

Oui, le 7-8 pourrait être un peu plus grand. En fait, c'est le fait que les couleurs soient attachées les unes aux autres, il y a pas d'espace entre. C'est moins agréable.

Parfait. Donc maintenant, on va passer à la comparaison des trois indices *[montre les trois logos ensemble].* Alors, de manière générale, quel indice préfères-tu et pourquoi ?

Alors quand je vois les trois… Donc c'est fait exprès que dans ce cas-ci *[montre le Logo 1]* ce soit marqué « Indice de réparabilité », là *[montre le Logo 2]* on le dit plus indice et là score *[montre le Logo 3] ?*

C'est fait exprès, oui.

Oui, je reste, celui que je préfère c'est le premier. Mais de nouveau, si les gens voient ça, ils vont se dire : « D'accord, mais qu'est-ce que c'est cet indice ? Ça signifie quoi ? Qu'est-ce qui se cache derrière ? » Il faut une autre information en plus.

Ok, je suis d'accord. Donc au niveau de l'information de réparabilité de ces indices, trouves-tu que l'information est identique pour ces trois indices ?

Oui, ça oui.

Ont-ils la même signification ?

Oui oui. Sauf qu'ici *[montre le Logo 1]* il est marqué 8 et là *[montre les Logo 2 et 3]*, c'est 7-8, ça peut changer.

Oui, c'est ça. Quel indice préférez-vous au niveau de son information ?

Le premier, toujours le premier.

Et comparaison au niveau du format maintenant, quel est l'indice qui attire le plus ton attention ?

Alors forcément, quand il y a plus de couleurs, l'œil est directement attiré vers là. Parce que c'est comme ça, c'est humain. Je dirais le deuxième ?

Trouvez-vous que les trois formats d'indice véhiculent l'information de réparabilité de manière identique ? Là on parle du format de nouveau, le fait que là ce soit plus des échelons…

Oui oui.

Aussi, t'as répondu que le deuxième format attirait le plus ton attention. Est-ce que c'est parce que ce format t'est familier ?

Est connu, voilà c'est ça. Oui, certainement. Forcément, si on l'a créé comme ça, c'est parce qu'on a fait effectivement des enquêtes dessus auparavant et qu'à mon avis c'est celui qui a le mieux donné. Oui si tu prends des trucs qui existent déjà, c'est clair qu'ils ont déjà été travaillés.

C'est sûr ! Ok maintenant, on va explorer un peu comment tu penserais afficher cet indice, donc plus une question de positionnement. Sur le produit, ou plutôt sur une fiche.

Sur une fiche.

Ok, donc toi tu indiquerais plus ça sur une fiche. Pas sur les deux ? Sur une annonce et sur une fiche ?

C'est de la redondance de l'information, c'est inutile.

Oui mais l'information peut être par exemple présentée d'une manière globale à l'achat du produit et aussi ensuite plus précise dans la fiche de description ?

Oui mais non, pourquoi redire deux fois la même chose, je trouve que ça un peu inutile. Ça va, t'est d'accord ?

Oui oui. Donc du coup, afficherais-tu l'indice dans la fiche de description de l'ordinateur ou sous forme d'un autocollant sur l'ordinateur, ou sur les deux?

Non, je pense pas que mettre quelque chose sur le produit soit une bonne idée. Je pense que la fiche doit vraiment être très soignée, très pensée.

Donc la fiche de description, toi tu parles de l'annonce par exemple ?

Qu'est-ce que t'appelles annonce en fait ?

Ben l'annonce, c'est par exemple ça *[montre l'annonce au prix de 1099€].*

Ah ok. Parce que ça aussi, c'est un peu une fiche de description. Oui, je l'afficherais là-dessus, ça clairement.

Ok donc plutôt là et c'est tout ?

Oui, pour moi oui. Il faut pas que l'indice de réparabilité prenne le dessus sur tout, ça n'aurait pas beaucoup de sens. On donnerait trop d'importance. Je pense pas que ce soit judicieux.

Et donc du coup, lequel de ces trois formats trouve-tu le plus adapté pour être présenté dans la fiche du produit ?

Tels qu'ils sont là ?

Oui.

Non, je resterais sur le premier.

Ok. Donc au niveau du positionnement maintenant, c'est plus concernant l'annonce en elle-même, donc là c'est un tout. Nous on les a positionnés de cette manière-là sur l'annonce *[montre les trois annonces, chacune avec un des trois indices].* Du coup, que penses-tu de l'affichage des indices sur ces annonces ? Si tu trouves qu'il est placé de manière judicieuse et si non, où tu le placerais ?

En réalité, l'affiche aurait plus ou moins cette dimension-là ?

Oui.

C'est dommage qu'on l'a pas en taille euh… parce que là c'est assez petit quand même. Sachant que moi je préfère le rond, je mettrais le rond en bas. C'est une bête question d'esthétique.

Et trouves-tu que l'affichage de cet indice rend l'annonce fiable ?

C'est tout nouveau, donc on sait pas avoir si ça va jouer un rôle ou pas. Mais qu'est-ce que tu dirais par fiable ?

Mais disons que si tu vois cette annonce-là, tu te dis ah tiens, c'est peut-être… C'est subjectif.

En fait qu'est-ce que tu dois faire avec les 300 personnes tu m'as dit ?

Là du coup on va comparer des personnes qui n'ont pas vu d'indice avec des personnes qui en ont vu un,

Ah oui, voilà c'est ça.

Et peut-être que on va voir une différence au niveau de l'intention d'achat.

Ok.

Ça veut dire que peut-être ça va inspirer confiance ou des trucs comme ça.

Moi personnellement, fin je réponds à ta question, la réparabilité c'est quelque chose auquel j'accorderais pas ma confiance. Parce que je dis, si ça vient du fabriquant, il marque ce qu'il veut. Il faudrait que ça soit une société tierce qui teste tous les appareils pour être neutre.

C'est intéressant ce que tu dis parce que, de toute manière, nous on proposera des recommandations.

Non, si c'est le fabriquant qui marque ça, il va mettre 8 ou min 7 à ses articles, il va jamais mettre un 4 ou un 3, ça n'a aucun sens. Donc moi, ça ne m'inspire pas confiance. Fin oui, je vais dire ça comme ça.

Et à partir de quel score considérerais-tu qu'un ordinateur est fortement réparable ? Et de manière similaire, à partir de quel score considérerais-tu qu'un ordinateur est faiblement réparable ?

Je mettrais 7 en côte supérieure et en côte inférieure …. 5, 4-5.

Ok nickel. Voilà c'est fini, merci pour cet entretien !

C'était un chouette sujet!

Appendix 4 : Transcript of the interview with Mia Schotte (NL)

Mia Schotte: Woman, 57 years old, Belgian who lives in Louvain-La-Neuve, translator FR-NL

Date and location: 21st June 2019, Louvain-La-Neuve

Language: Dutch

Duration: 27 min 04

Advertisement shown: Laptop priced at 699€

Hallo! Mijn naam is Emilie en ik wil u eerst en vooral bedanken om deel te nemen aan dit gesprek. Ik ga u gewoon een paar vragen stellen over een fictieve advertentie die wij gemaakt hebben. Maar eerst, om u een beetje op uw gemak te brengen, kunt u uzelf efkes kort voorstellen? Gewoon in een paar woorden: wie bent u, wat doet u graag in het leven?

Ik ben Mia Schotte, ik ben een vrouw van 57. Ik ben vertaalster van opleiding, ik heb een dochter van 22, ik ben gescheiden. En ik ben gepassioneerd door talen, literatuur en reizen.

Leuk om u te leren kennen Mia! Ik stel voor dat we dan nu beginnen met de kern van de zaak. Stel voor dat u een nieuwe computer moet kopen voor privégebruik, geen desktop maar een laptop. Hoeveel bent u dus bereid te betalen om een nieuwe laptop te kopen? En waarom die prijs?

Ik denk dat 1000 euro voor mij een redelijke prijs is. En daar kunnen dan misschien nog een paar dingen aan toegevoegd worden die de prijs eventueel nog een beetje kunnen verhogen, maar dat lijkt mij een goede basisprijs.

En wat zijn volgens u elementen die de prijs van een laptop bepalen?

De kwaliteit, de levensduur, de opslagcapaciteit. Dat is het zo ongeveer.

Voor uw huidige computer, hebt u min of meer 1000 euro uitgegeven?

Ja, ik denk het wel. Ik herinner mij niet meer de exacte prijs, maar ik denk dat dat de beginprijs was. En dan zijn er nog opties, zoals bij een auto, die je er ook graag bij wilt omdat je die belangrijk vindt, en dat loopt dan nog een beetje op.

Wat zijn die extra's waarvoor u bereid bent meer te betalen dan 1000 euro bijvoorbeeld? Zijn er bepaalde dingen waar u spontaan aan denkt?

Nee, dat is meer bij de bestelling. Als je de bestelling maakt, dan zijn er bepaalde dingen die je kunt aanvinken, zoals een garantie, maar dat is er vaak inbegrepen.

Een antivirus soms.

Ja, inderdaad! Een antivirus, dat moet er zeker bij zijn.

Bent u ook bereid meer te betalen voor een Microsoft Office Suite, dat dat geïntegreerd wordt in uw computer?

Ja, dat is een van mijn basisvereisten voor een laptop.

En zijn er sommige dingen waar u niet voor bereid bent meer te betalen dan 1000 euro? Bijvoorbeeld een groter scherm met een betere resolutie, een beter geheugen, een touchscreen, enz.

Dat beschouw ik dan eerder als gadgets, dat hoeft voor mij niet. Zelfs het scherm, als het een standaard-scherm is, is het ok.

Ok, dat was het voor uw budget voor een computer, en nu ga ik u een advertentie tonen die we zelf gemaakt hebben van een computer *[toont advertentie met een prijs van 699€].* Wat is uw eerste indruk van de advertentie? Wat komt er spontaan bij u op?

In een korte, kleine ruimte lijkt mij dat al een goeie indruk te geven van de laptop.

En denkt u dat de laptop verkocht zou kunnen worden aan een hogere prijs dan degene die nu op de advertentie staat?

Ja, ik denk het wel.

En wat vindt u van het merk, Vizio?

Ik ken het merk niet, dus daar kan ik niet veel over zeggen.

En als u de specificaties van de laptop bekijken, hoe goed zal de laptop functioneren volgens u? Lijkt dat een goeie laptop?

Ja.

Zou u deze laptop kopen?

Afgezien van het merk, dat ik niet ken. Ik zou wel eerst opzoeken of het een betrouwbaar merk is, maar de kenmerken vind ik goed.

U zei dat de prijs niet overeenstemt met wat u vindt van de laptop. Wat zou dan de maximumprijs die u bereid zou zijn te betalen om de laptop te kopen?

1000 euro, met eventueel nog een paar extra's.

En wat is de prijs waarvan u denkt dat de laptop van slechte kwaliteit is en hem dus niet zou kopen?

Deze prijs vind ik al laag voor een laptop, vind ik niet echt betrouwbaar.

Als het 799 euro was, zou u het dan kopen?

Nee, niet echt.

899?

Dat komt al in de buurt.

Dat was het voor de advertentie. Trouwens, als u vragen of opmerkingen hebt kunt u mij gerust onderbreken!

Wat er nu in mij opkomt is: is het een bezwaar als je eigenlijk niet zoveel weet van laptops?

Normaal gezien hebben we de advertentie gemaakt zodat iedereen onze vragen kan beantwoorden. Maar, we hebben wel al opmerkingen gekregen van een paar mensen, en toch vooral vrouwen, die zeiden dat ze er niet veel van kennen van laptops en van al die technische specificaties, en dat ze dus eigenlijk niet kunnen zeggen of de prijs overeenstemt op basis daarvan.

Ik zie wel dat de capaciteit hoger is dan die van de laptop die ik nu heb. Dat geeft mij dan toch een idee. Maar de mijne is ook al bijna 4 jaar. Dus dit is waarschijnlijk gewoon een recentere

versie. Maar in elk geval, als ik hem vergelijk met mijn huidige laptop, is deze beter. Het hangt er ook van af waarvoor je hem wilt gebruiken.

Stel u nu voor dat u een herstelbarheidsscore moet ontwikkelen die op deze advertentie zal verschijnen. Die score zou moeten aangeven hoe herstelbaar de laptop is en als u de designer was, hoe zou u deze schetsen maken? Welke vorm zou de logo nemen, welke kleuren zou hij krijgen?

Ik zou geen kleuren gebruiken denk ik, iets heel simpel. Iets dat in het oog springen en onmiddellijk te begrijpen is.

En waar zou u de logo op de advertentie zetten?

Onderaan, rechts. Omdat er aan de rechterkant al iets staat, en aan de rechterkant is het nog de enige lege hoek die overblijft. Dus misschien daar.

En zou u de logo alleen op de advertentie plaatsen of ook op de laptop-zelf (met een sticker bijvoorbeeld, zoals bij Intel)?

Ja, een sticker lijkt mij ook goed.

En qua informatie, zou u veel informatie willen op de logo?

Zoals ik zeg, iets heel simpel dat je onmiddellijk begrijpt als je het ziet. Dat je niet moet beginnen zoeken van wat is dat hier. Liefst met cijfers.

Ik ga u nu, een voor een, drie verschillende logos tonen die wij ontwikkeld hebben met een bepaalde herstelbaarheidsscore. Dat is de eerste logo *[toont Logo 1]*, het is wel in het Engels. Er zou dus "Herstelbaarheidsindex" moeten staan. Dus nu, hetzelfde zoals voor de advertentie, wat is uw eerste indruk van dit logo?

Ik vind die heel simpel en heel duidelijk.

En wat betekent dat voor u, een herstelbarheidsindex van 8/10?

Dat betekent volgens mij, als er een defect is aan de computer, dat er dan toch een vrij goede kans is dat die kan worden hersteld.

En betekent dat voor u iets anders dan, bijvoorbeeld, de product heeft een garantie van 2 jaar? Zijn dat twee verschillende types informatie?

Ja, ik denk het wel.

En zijn er bepaalde opmerkingen of vragen die bij u opkomen als u dit logo ziet?

Nee, niet echt.

U zei daarnet dat de logo heel duidelijk was, maar vindt u ook dat de logo compleet is?

Ja.

En betrouwbaar?

Ja.

Ok, dat was dus meer over de informatie. En nu wat meer rond de design. Vindt u deze logo visueel aantrekkelijk qua vormen, qua kleuren, enz. Vindt u dat het een goede formaat is om de informatie over te brengen?

Ja, de ronde vorm vind ik goed. En de neutrale achtergrond ook. Je wordt niet afgeleid van de informatie. De informatie is het eerste wat in het oog springt, en zo moet dat ook.

Ik ga nu dezelfde vragen stellen voor de tweede logo *[toont Logo 2]*. Wat is uw eerste indruk van dit logo?

Deze doet mij denken aan de energiescore van huishoudapparaten. Dus donkergroen is heel goed en rood is slecht. Dus die komt mij wel bekend voor, maar vind ik toch ook een beetje verwarrend omdat het hier niet gaat over de…

Omdat het hier over een computer gaat?

Ja, en het gaat niet over de energiescore maar wel over de herstelbaarheid. En dat kan volgens mij verwarring scheppen.

En vindt u het ook duidelijk wat de score is met dit logo?

Minder dan bij de eerste logo. Dat is de score? [toont het zwart pijltje op de logo aan].

Ja dus, normaal gezien met de energie labels van huishoudtoestellen wordt de score met het zwart pijltje aangeduid.

Ja, maar dat is niet het eerste dat je ziet. Het eerste dat je ziet is dat *toont het gekleurde deel van Logo 1]*. En dat hier *[toont het zwarte pijltje van Logo 1*], dat moet je al een beetje zoeken eigenlijk. Zo van, wat is de score hier nu eigenlijk?

Dus dit logo creëert verwarring met de energie labels van huishoudtoestellen. Vindt u dit logo compleet?

Compleet maar minder precies omdat het hier tussen 7 en 8 is. Dat is minder precies dan 8 of 7.

En betrouwbaar?

Betrouwbaar denk ik wel.

En u zei voor het vorige logo dat het een neutrale achtergrond was. Hier zijn duidelijk kleuren gebruikt: leid het af of brengt het iets meer?

Nee, ik vind dat de kleuren afleiden van de eigenlijke score. De kleuren zijn wel duidelijk, maar ik zou dan die score in dezelfde kleur zetten.

Ok, en nu voor de laatste logo*[toont Logo 3]*, wat is uw eerste indruk van dit logo?

Hier is minder verwarring met de energiescore en die vind ik ook duidelijker omdat de eigenlijke score eruit springt, groter is. Hier zie je direct welke score het toestel heeft en bij de vorige toch minder. Dus die is beter dan de vorige.

Dus u vindt hem duidelijker dan de tweede logo. En is hij compleet?

Dat is hetzelfde.

En betrouwbaar?

Dat is ook hetzelfde. Betrouwbaarheid, ik veronderstel dat dat dan gebaseerd is op bepaalde criteria. Voor mij is er geen verschil tussen de drie qua betrouwbaarheid. Ik denk, als die score daarop staat, dat die dan gebaseerd is op bepaalde criteria en dat die dan betrouwbaar is.

Onafhankelijk van het formaat en van de design van de logo dan?

Ja.

Ok, tot nu toe heb u de drie logos apart gezien. Ik zal ze dus nu alle drie een keer samen tonen *[toont de drie logos samen]*. In het algemeen, welk logo hebt u het liefst en waarom?

Logo 1, die is volgens mij het duidelijkst.

Ok, en bij welk logo is de informatie het meest compleet?

Ze zijn alle drie compleet, maar de eerste is preciezer.

En qua betrouwbaarheid?

Zoals ik heb gezegd, volgens mij zijn ze alle drie betrouwbaar.

Dus als ik het goed begrepen heb, hebt u de kleuren niet zo graag omdat het afleidt van de informatie-zelf en dus hebt u daarvoor ook liever het eerste logo omdat de kleur daarvan neutraler is en de informatie er goed uitkomt.

Ja, inderdaad.

Ok, dat was het dus voor de logos. Om te eindigen ga ik gewoon de advertentie samen met elk van de logos tonen *[toont de drie verschillende advertenties, elk met een van de drie logos]*. En ik zou gewoon graag weten wat u vindt van de vertoning van de logo op de advertentie en wat u misschien zou veranderen?

Ik zou hem zoals gezegd meer naar beneden zetten.

En is het groot genoeg, kan u het duidelijk lezen?

Toch minder duidelijk dan de lettergrootte van de specificaties van de laptop. Daar moet je toch al een beetje dichterbij gaan kijken. De kleuren ok, maar de echte score moet je toch al een beetje minder van dichtbij gaan bekijken.

En vindt u dat de advertentie betrouwbaarder is met of zonder logo?

Dat verandert niet veel aan de betrouwbaarheid zou ik zeggen, dat geeft extra informatie.

En denkt u dat u meer geneigd zou zijn de laptop te kopen als u de eerste advertentie zag, zonder logo, of met de advertentie met de logo?

Ik vind het logo wel een pluspunt.

En dan, om te eindigen: hier hebben we een score van 8/10. Vanaf welke score vindt u dat een laptop sterk herstelbaar kan zijn (op 10)?

Zeven vind ik al een goede score. Zes is te weinig. Vanaf zeven is het een goeie score voor mij.

Voilà, dat was het. Dit is het einde. Ik weet niet of u nog vragen hebt, of commentaar?

Nee, ik denk dat ik alles gezegd hebt in de loop van het interview.

Hartelijk bedankt voor uw deelname! En als u nog verdere informatie wenst over onze studie, aarzel niet contact met ons op te nemen. Ik ga u straks mijn gegevens geven. En ik wens u een prettige dag nog verder!

Graag gedaan, en ik wens u veel succes met uw scriptie!

Appendix 5 : Transcript of the interview with Antoine Faubert (FR)

Antoine Faubert: Man, 22 years old, Belgian who lives in Céroux-Mousty, student in Catering Management

Date and location: 22nd June 2019, Céroux-Mousty

Language: French

Duration: 26 min 28

Advertisement shown: Laptop priced at 699€

Alors je t'explique, dans le cadre de notre mémoire, en fait on souhaite étudier l'impact d'un indice de réparabilité sur l'intention d'achat. Donc jusque-là pas de souci, et en fait on a créé quelques stimuli qui sont des annonces, des logos, etc. afin de tester notre étude. On va pouvoir commencer. Alors la première chose que je vais faire, c'est te montrer une annonce, celle-ci. Sur base de cette annonce, je vais te poser quelques questions.

La situation c'est que tu envisages d'acheter un ordinateur portable, quel serait ton budget pour l'achat d'un ordinateur portable ?

Ça dépend de ce que l'ordinateur peut apporter mais environ entre 400 et 500 euros.

Ok et quels sont les aspects de l'ordinateur portable pour lesquels tu serais prêt à payer plus ?

La mémoire du pc, la taille et euh… la rapidité du pc.

Ok et quels sont les aspects de l'ordinateur pour lesquels tu ne serais pas prêt de payer plus que ton budget initial ?

Euh …

Donc ça pourrait être dans le design par exemple.

Dans ce sens-là je ne vois pas trop, euh… J'ai pas vraiment d'idées.

Ok nickel pas de souci. Alors maintenant tu tombes sur cette annonce *[montre l'annonce au prix de 699€].* Et donc quel est ta première impression par rapport à cet ordinateur portable ?

Ben il est assez euh.. Il est assez bien décrit. Donc tout ce que j'avais cité précédemment est là en fait. Il y'a une photo mais se serait bien d'en avoir plus qu'une de face, genre aussi ouverte, fermée ou de profile. Question de mieux voir le clavier parce que là on ne sait pas si c'est un Qwerty ou Azerty.

Ok, euh .. Alors as-tu déjà vu auparavant cet ordinateur portable quelque part?

Non jamais.

Que penses-tu de son design ?

Ça il est beau par contre.

Penses-tu que c'est un ordinateur haut de gamme ou bas de gamme ?

Haut de gamme.

Connais-tu la marque de cet ordinateur portable ?

De nom oui mais après j'en ai jamais eu personnellement.

Cette marque t'inspire-t-elle confiance ?

Ouais

Que penses-tu du fait que cet ordinateur portable fonctionne avec le Windows 10 ? Pas de problème ? Problème ?

Euh non je m'en fous ahaha.

Ok. Ensuite que penses-tu des caractéristiques de l'ordinateur ?

Donc de la mémoire et tout ça ?

Oui

Euh je m'y connais absolument pas pour la mémoire…Mais ça me semble plus ou moins correct... Disque dure interne m'a l'air normal… Pour un écran sans clavier à droite c'est totalement correcte.

Ok ça marche, alors maintenant que penses-tu du prix de cet ordinateur ?

Ben en sachant pas trop ce que représente mémoire, disque dure interne et tout ça euh … Pour moi ça me semble quand même élevé oui. Après il y'a que 5 caractéristiques qui sont mises en avant donc…

Donc quel serait le prix minimum que tu serais prêt à mettre ?

En vue de ce qu'il y'a là, je dirai 350 euro.

Ok et le prix maximum ?

500 si j'ai un peu plus d'informations.

Nickel, on peut passer à la suite. Donc … Maintenant en fait, tu dois t'imaginer que tu es responsable du développement d'un indice de réparabilité. Donc pour l'ordinateur présenté ici, toujours le même, quelles informations devraient contenir cet indice pour toi ?

Euh.. quel indice ?

Ben quelles informations tu aimerais voir dans l'indice de réparabilité d'un ordinateur portable ?

Euh…Déjà un indice de réparabilité je ne vois pas trop ce que c'est quoi ...

C'est un label qui te dit si ton produit est réparable ou pas. C'est un truc global tu vois. Ca comprend plusieurs trucs. Du coup que devrais contenir cet indice ? Quel serait les facteurs qui détermineraient cet indice.. euh .. pour l'ordinateur portable juste ici ?

Euh … Déso je ne vois pas …

Après si tu sais pas y répondre c'est pas grave. Mais du coup comment tu représenterais cette information de manière claire et compréhensible ?

Comment du coup je le mettrais ?

Oui voilà si tu es responsable de développer cet indice.

Je le mettrais alors en avant-plan de la photo.

Sous quelle forme ?

Sous la forme d'un dessin je pense que c'est la manière la plus visible.

Et sur ce dessin qu'est-ce qu'il serait marqué ?

C'est chaud... euhhh.

Pas d'idées ?

Ben non.

Ok bon ben alors nous…Ce que nous proposons c'est ça. Voici un premier indice de réparabilité *[montre le Logo 1]*. Et alors par rapport à cet indice, je vais te poser plusieurs questions. Premièrement, quel est ton impression par rapport à cet indice ?

C'est bien fait après j'avais du mal à comprendre ce que tu demandais mais peut-être pas que j'aurais fait ça.

Ok tu aurais fait comment ?

Peut-être plus de … euh … Fin juste dire indice de réparabilité c'est un peu trop peu comme information. Après la note sur 10 c'est bien.

Faut se dire que le consommateur va voir un produit avec cet indice et en tirer des conclusions sur sa réparation.

Mais donc dans ce cas-ci, il est réparable 8/10 mais il y'a quand même 2 chances sur 10 qu'il est pas réparable pour certaines choses. Du coup, je préciserais ce qui est réparable ou pas réparable tu vois ?

Oui mais ça on ne fait pas. C'est une information globale, c'est un score. C'est juste pour donner une information supplémentaire aux consommateurs que le produit est plus ou moins réparable. Donc au niveau de l'information que tu vois là, que comprends-tu quand tu vois cet indice ? Qu'est-ce que cela signifie ?

Le 8/10 ?

Oui.

Ça signifie que l'appareil a de fortes chances d'être réparé.

Donc que signifie pour toi un produit avec une note de réparabilité de 8/10 ? C'est que le produit est fortement réparable ?

Oui voilà.

Quels sont les critères pris en compte pour obtenir une notre globale de 8/10 ?

Ben que si tu mets 8/10, c'est que les choses habituellement cassées soient réparables et que les choses plus inhabituels donc rare ne soit pas réparables quoi … Mais quoi exactement ? Je ne sais pas…

Mais imaginons ton pc tombe en panne demain, de quoi tu aurais besoin au final pour réparer ton ordinateur ?

Euh des logiciels ? Ou alors je prendrais ici l'exemple que si ton z de clavier a sauté et que tu ne sais pas le réparer, ben tu vas dans un magasin pour le faire parce que ce sont des choses qui ont l'habitude d'être réparées et voilà.

Alors euh .. Associes-tu cet indice avec une garantie du produit ?

Oui ça d'office.

Quelles sont les questions que tu te poses face à cet indice ?

Ben comme j'ai dit qu'est ce qui est réparable et qu'est ce qui ne l'est pas ?

Ok donc que signifie le 8/10 en gros ?

Oui le 8/10 de réparabilité ça veut dire qu'il y'a de forte chances que ton pc soit réparable mais il y'a quand même 2 chances sur 10 que ça ne l'est pas et j'aimerais savoir dans quel cas ?

Trouves-tu que l'information est claire dans cet indice et si oui, pourquoi ? Et si non, comment tu la rendrais plus claire ?

Oui c'est claire mais on ne sait toujours pas ce qui est réparable ou pas … C'est juste un indice mais après peut-être tu l'as indiqué ou pas mais là je ne vois pas.

Trouves-tu que l'information est complète ?

Juste pour la réparabilité oui.

Ok trouves-tu qu'elle est fiable ?

Euh .. Oui …Fin ça ne me semble pas … Fin après il n'y a pas de marque connue. Peut-être que s'il y'avait une société de réparabilité connue … Fin juste mettre un indice et mettre 8/10 ne permet pas vraiment de dire si convaincant ou pas ? Qui met-cela, etc. ?

Alors maintenant on ne parle plus de l'information en elle-même mais du format. Alors, que penses-tu du format de l'indice ?

Le format j'aurais fait ça, un rond aussi. C'est plus visuel… Après les couleurs j'aime aussi.

Donc tu trouves ce format visuellement attrayant ?

Oui !

Et euh… Trouves-tu que ce format véhicule l'information de réparabilité de manière claire ?

Ben oui …Le format oui.

Ok ça roule. Alors maintenant, on va passer sur un autre logo et voir ce que tu en penses… Donc celui-ci *[montre le Logo 2]*. Je vais te poser les mêmes questions. Alors quel est ton impression par rapport à cet indice ?

Euh … Ben c'est tout autre chose que l'autre haha. Plus de possibilités on va dire hein. L'autre c'était vraiment 8/10, tu as qu'une possibilité donc c'est juste fortement réparable. Ici plus de possibilité… 6, moyen et 3, bof … Mais c'est quoi le 7-8/10 là sur le côté ?

C'est juste pour définir la note.

Hein ok !

Du coup tu trouves l'information claire ?

Oui

Ok trouves-tu qu'elle soit complète ?

Oui

Pourquoi ?

Parce que tu as toutes les étapes de la réparabilité de l'objet.

Trouves-tu qu'elle soit fiable ? Pourquoi ?

Oui parce qu'au plus tu as de possibilités, en gros de l'information de savoir si réparable, au plus c'est fiable. Du coup le précédent pour moi était un peu moins fiable car juste 8/10.

Que penses-tu du format de l'indice ? Les couleurs, etc. ? Attrayant ?

Oui pas mal, vert veut dire bien, rouge pas bien, donc les couleurs ont leur importance.

Trouves-tu que ce format véhicule l'information de réparabilité de manière claire ?

Oui

Ok d'accord. Passons au dernier *[montre le Logo 3]*. Alors que penses-tu de l'information par rapport à cet indice-ci ?

Celui-là, je le mettrai en dernier par rapport aux trois autres… euh… pourquoi ? Parce que c'est pas une bonne manière de faire. C'est pas visuellement parlant … C'est pas top quoi.

Du coup, trouves-tu l'information claire ?

Non.

Comment rendrais-tu l'information plus claire sur base de cet indice ?

Plus comme le précédent… Des pyramides c'est plus claire.

Penses-tu que l'information est complète ?

Complète oui.

Ok et trouves-tu que l'information est fiable ?

Ben fiabilité c'est toujours la même chose oui.

Au niveau du format de l'indice, tu penses quoi ?

Ben au niveau du format, j'aurais plus fait sous forme de pyramide qu'horizontale.

Ok, maintenant on va passer à l'étape suivante. Donc tu as vu l'ordinateur portable dans l'annonce précédente et l'indice de réparabilité associé. Maintenant, je vais te demander de réfléchir sur la manière d'afficher cet indice. Donc où tu le mettrais sur une annonce ?

En-dessous du logo du pc.

A choisir, afficherais-tu l'indice dans la fiche de description des caractéristiques de l'ordinateur, sous forme d'un autocollant sur l'ordinateur ? Ou sur les deux ?

Non juste avec les écrits.

Donc sur l'annonce ?

Oui, sur l'annonce.

Et lequel de ces trois formats trouves-tu le plus adapté pour être présenté dans l'annonce ?

Si c'est pour être mis avec les descriptions à côté se serait plutôt celui-là (le premier) mais alors pas sous forme de logo mais juste écrire « indice de réparabilité 8/10 » mais si c'est sur l'ordinateur je mettrai celui-là (le deux).

Ok nickel… Maintenant je vais te demander d'observer ces trois indices *[montre les trois indices ensemble]* et de manière générale quel indice préfères-tu ? Pourquoi ?

Le deuxième parce que c'est celui qui est le plus représentatif et contient le plus d'informations.

Ok trouves-tu que l'information pour les trois indices a la même signification.

Non … Le deuxième et troisième ont la même euh …

Ok donc si tu réponds non quel indice contient l'information la plus claire et pourquoi ?

Celui le plus claire est le deuxième car plus précis.

Ok quelle information est la plus compréhensible ?

Toujours la deuxième car de nouveau beaucoup plus d'informations et mieux représentée.

Et quelle information est la plus complète ?

Toujours la deuxième.

Du coup, je comprends que le deuxième format est celui que tu préfères au niveau de son information ok…Et maintenant on va parler au niveau format. Quel indice attire le plus ton attention ?

Toujours le deuxième.

Ok et trouves-tu que les trois formats véhiculent l'information de manière identique ?

Euh …

Donc bien le format hein.

Niveau format je prendrai le deuxième puis le premier et puis le troisième.

Donc pour toi, ces trois formats ne véhiculent pas l'info de manière identique ?

Non.

Ok et donc lequel des formats véhicule l'information de manière la plus claire ?

Le deuxième.

Ok et de la manière la plus compréhensible ?

Le deuxième.

De la manière la plus fiable ?

Le deuxième.

Ok, aussi pour le deux, tu dis que ce logo te semble fiable mais est-ce que c'est aussi parce que ce format te semble familier ?

Oui surement.

Très bien c'est bon. Juste on avait parlé d'idées d'affichage sur la description en écrit. Donc toi tu souhaiterais afficher l'information sur la description en écrit ?

Oui voilà si c'est sur la description, je mettrais « indice de réparabilité autant sur 10 » mais si c'est à mettre sur le pc, je mettrai le deuxième. Le troisième, je ne mettrais pas. Juste parce que le troisième n'est pas du tout visuel.

Ok maintenant je vais te montrer les trois annonces avec trois indices différents et te demander ce que tu en penses *[montre les trois annonces, chacune avec un des trois indices].* Donc que penses-tu de l'affichage de l'indice sur cette annonce ? L'affichage est-il clair ?

Oui.

Pourquoi ?

Ben ils sont bien visuellement, bien positionnés, en-dessous du prix. Maintenant si c'est vraiment juste comme ça peut-être que les indices sont un peu petits.

Oui parce que c'est un power point.

Hein alors oui, ils sont bien mis.

Trouves-tu que l'affichage de l'indice rend l'annonce fiable et pourquoi ?

Oui… Ça peut pousser à l'achat.

À partir de quel score considères-tu qu'un ordinateur est hautement réparable ?

À partir de 7-8/10.

De manière similaire à partir de quel score est un ordinateur faiblement réparable ?

3-4/10.

Ok super alors merci c'est fini ! Merci pour ta participation.

Avec plaisir.

Appendix 6 : Transcript of the interview with Alice Holvoet (FR)

Alice Holvoet: Woman, 56 years old, Belgian living in Uccle, psychologist

Date and location: 23rd June 2019, Uccle

Language: French

Duration: 16 min 37

Advertisement shown: Laptop priced at 699€

Alors, avant de commencer, je vais te demander de te présenter en quelques mots.

Je m'appelle Alice, j'ai 56 ans, je suis mère de famille mais je travaille comme psychologue pour enfants, adolescents, ou adultes.

Ok parfait. Pour la suite, je vais te mettre dans une situation qui est celle d'acheter un nouvel ordinateur portable.

J'adore.

Ok, quel serait le budget que tu serais prête à mettre pour un nouvel ordinateur portable ?

Euh… 700 euros.

Ok d'accord, et quels sont les aspects et caractéristiques de l'ordinateur pour lesquelles tu serais prête à payer pus que ce montant ?

Poids léger, donc facilement transportable. Un design sympa.

Quels sont les caractéristiques auxquelles tu ne serais pas prête à payer plus que ton budget initial ? En d'autres mots, celles qui t'importent le moins ?

Trop lourd, trop noir, banal. J'aime les choses qui sortent un peu de l'ordinaire.

Maintenant que tu t'es faite une idée par rapport à ton achat. Tu tombes sur l'annonce suivante *[montre l'annonce au prix de 699€].* Quel est ta première impression par rapport à l'ordinateur portable présenté ?

Je vois qu'il a l'air sympa, je vois que le prix correspond. Euh… voilà.

As-tu déjà-vu cet ordinateur portable dans une autre annonce ?

Non je ne crois pas.

Connais-tu la marque ?

Non.

Cette marque t'inspire-t-elle confiance ?

Bof.

Que penses-tu des caractéristiques techniques de cet ordinateur portable ?

Alors, déjà, moi l'important c'est que la taille de l'écran soit assez grande ce qui est le cas ici avec 15 pouces. J'aimerais bien avoir le poids mais il n'est pas mentionné ici car il doit pouvoir être facilement transportable.

Que penses-tu du prix demandé pour cet ordinateur ?

Ça correspond à mon budget.

Ok, et quel serait le prix minimum que tu serais prête à mettre pour cet ordinateur ?

Vu que je connais pas la marque, je dirais 350€.

Et le prix maximum ?

500€.

Ok parfait. Nous pouvons passer à la suite de cet entretien. Imagines que tu sois responsable du développement d'un indice de réparabilité pour l'ordinateur portable présenté. Pour toi, quelles informations devraient contenir cet indice ?

Euh.. Bah réparabilité, ça veut dire service après-vente. Donc un service après-vente au magasin même. Que la réparation soit faite localement. Et également de connaître la disponibilité des pièces détachées.

Ok, c'est intéressant. Et maintenant comment tu représenterais l'indice en question ?

Quelque chose de visuel, de graphique à la limite avec des couleurs comme du vert pour dire que c'est top ou du rouge pour dire que c'est pas bien.

Parfait, je vais te montrer à présent comment nous avons vu les choses pour représenter cet indice. Voici donc le premier logo que nous avons créé *[montre le Logo 1*]. Quel est ta première impression par rapport à ce logo ?

Bah il est clair.

Ok, que signifie pour toi, un produit qui a une note de réparabilité de 8/10 ?

Bah ça veut dire que dans deux cas sur 10 on peut le jeter à la poubelle.

Associes-tu cet indice avec une garantie du produit ?

Oui quand même.

Quelles sont les questions que tu te poses en voyant cet indice ?

Il me manque l'information de comment la réparation va se faire. Par exemple, ok j'achète cet ordinateur et il est réparable avec une note de 8/10. Mais qu'est ce qui se passe ensuite ? Je dois venir au magasin, on envoie un technicien, ou dois-je aller le déposer chez le réparateur ? L'indice nous donne une première idée par rapport à la réparabilité du produit mais il manque des informations. Il faudrait avoir un détaillé de la note pour savoir qu'est ce qui fait que cet ordinateur est réparable.

Ok donc si je comprends bien, pour toi l'information est claire puisqu'elle donne une bonne idée de la réparabilité du produit mais elle n'est cependant pas complète puisque certaines informations concernant la réparabilité du produit en question manquent ?

Oui, tout à fait.

Parfait, Et pour toi l'information véhiculé par cet indice est-elle fiable ?

Euh.. ça je l'espère.

Ok, au niveau du format de l'indice à présent. Donc là, nous parlons plus du contenu de l'information mais plus au niveau du format utilisé pour l'indice.

Je trouve qu'il est neutre, il y pas beaucoup de couleurs. Cependant il est assez clair avec la note en grand au milieu.

Parfait. Passons au second logo *[montre le Logo 2].* Ta première impression ?

Ah bah celui-ci c'est comme les machines. Bah oui, c'est clair, mais comme le précédent il manque une information quant aux moyens de réparer le produit.

Ok et pour ce qui est du format utilisé, qu'en penses-tu ?

Visuellement c'est plus joli et plus parlant également puisqu'on croise ce logo assez souvent dans la vie de tous les jours.

Nickel, voici le dernier logo créé *[montre le Logo 3]. M*ême chose que pour les précédents, que penses-tu de ce logo en général ?

J'aime bien l'idée du score. C'est plus intuitif qu'un « indice de réparabilité ». Il y a un truc qui m'embête c'est que ça ressemble trop à une fraction. Donc je résume, score j'aime bien, la forme j'aime bien mais on dirait des fractions et ça c'est moins bien car ça peut porter à confusion. On peut dire que dans ce cas-ci on a 7/8ème de chance que l'ordinateur soit réparable.

Donc par rapport à l'information véhiculée par cet indice, trouves-tu qu'elle est claire, compréhensible et fiable ?

Clair et compréhensible pas trop du coup et en ce qui concerne la fiabilité je ne sais pas.

Ok maintenant que je t'ai montré les trois indices, on va essayer de les comparer *[montre les trois logos ensemble]*. Donc de manière générale, quel est l'indice que tu préfères et pourquoi ?

Oh bah j'aime encore bien le premier car c'est moins vu finalement. Par contre je l'appellerais score de réparabilité.

Pour toi, l'information véhiculée par ces indices est-elle identique ?

Non elle ne l'est pas car le logo 1 a une note de réparabilité de 8/10 clairement, le logo 2 entre 7 et oui et le logo 3 une réparabilité de 7/8ème. Donc au niveau de l'information véhiculée, je dirais que le logo 1 est le plus clair.

Et au niveau du format maintenant, quel est le logo que tu préfères ?

J'aime bien le logo 1 et le logo 2.

Parfait et pourquoi ?

Tout simplement parce que le logo 1 véhicule l'information de manière directe et simple, pas besoin de déchiffrer l'information. Et le logo 2, j'aime bien car il est plus intuitif en en sens avec l'utilisation des couleurs mais aussi le fait qu'il soit indiqué fortement réparable, et faiblement réparable. Je le trouve donc plus précis.

Merci. On arrive maintenant à l'avant dernière partie qui concerne l'affichage de l'indice de réparabilité. Comment voudrais-tu que l'indice de réparabilité soit affiché ?

Donc en fait, j'imagine je vais au magasin chez MediaMarkt, je cherche un ordinateur portable et je dois imaginer comment l'information de réparabilité devrait être présentée ?

Oui c'est cela.

Alors dans ce cas, soit je mettrais un carton sur l'ordinateur, ou soit le logo mais il faut que ce soit visible quoi.

Ok, nickel. En ce qui nous concerne, dans le cadre de notre mémoire, on fait une étude quantitative, donc on affiché la réparabilité sur des annonces de type internet. Les voici *[montre les trois annonces, chacune avec un des trois indices].* Du coup je vais te poser quelques questions par rapport à cela. Que penses-tu de la position de l'affichage de l'indice de réparabilité ?

Pour moi, cela me semble bien. Il est assez visible quand on lit l'annonce et c'est important que les gens puissent le voir.

Trouves-tu que l'affichage de cet indice rend l'annonce fiable et pourquoi ?

Oui, car ça fait plus réel, l'annonce semble encore plus réaliste avec plus d'informations. J'aurais plus tendance à m'y fier donc.

D'accord, encore une dernière question avant de clôturer ces entretiens. A partir de quel score considères-tu qu'un ordinateur est fortement réparable ?

8, je dirais.

De manière similaire, à partir de quel score considères-tu qu'un ordinateur est faiblement réparable ?

3.

Voilà nous avons terminé. Je te remercie d'avoir participé à cet entretien.

Appendix 7 : Transcript of the interview with Alexis La Haye (FR)

Alexis La Haye: Man, 27 years old, Belgian living in Uccle, self-employed as an administrator for paramedical centres with a side-job as a clerk

Date and location: 23rd June 2019, Uccle

Language: French

Duration: 17 min 28

Advertisement shown: Laptop priced at 1099€

Alors d'abord je vais te demander de te présenter un petit peu.

Alors je m'appelle Alexis, j'ai 27 ans. Je suis indépendant, je suis administrateur de centres paramédicaux. Donc voilà.

Ok nickel. En fait donc nous dans notre mémoire, on va étudier un cas particulier qui est le cas des PC portables. Donc d'abord je vais te poser quelques questions par rapport à ça. Je vais te mettre dans une situation, celle qui est d'acheter un nouvel ordinateur portable.

Ok.

Donc quel serait le budget que tu mettrais pour cet ordinateur portable ?

Euh, ben pour le moment, comme j'ai une activité de greffier aussi sur le côté, j'ai besoin d'un ordinateur performant. Donc sur base ici de mes souhaits, ça serait un Mac Book Pro qui coûte aux alentours de 2000€.

Donc 2000€ quoi.

Voilà.

Ok. Et quels seraient les aspects de l'ordinateur portable pour lesquels tu serais prêt à payer plus que ton budget initial ?

La puissance, le SAV, et éventuellement des avantages liés à la réparation rapide.

Ok. Et en fait, quelles sont les caractéristiques d'un ordi dont tu ne prêtes pas vraiment attention ?

Répète un peu la question.

Quelles seraient les caractéristiques d'un ordinateur auxquelles tu ne prêtes pas vraiment attention ? Qui ne t'impactent pas vraiment dans ta décision quoi.

Bonne question…

Genre je sais pas moi, la couleur ou…

Oui non, la couleur effectivement. Le design. Moi c'est surtout les performances que je regarde et tout ce qui est côté design, c'est pas important.

Et donc maintenant que t'as une idée précise en fait plus ou moins de ton achat, tu tombes sur cette annonce-là *[montre l'annonce au prix de 1099€].* Je sais pas moi, sur Internet. Et

du coup, je vais te poser quelques questions par rapport à cette annonce. Et surtout par rapport à l'ordinateur en lui-même. Quelle est ta première impression par rapport à cet ordi ?

Même si j'ai dit que le design était pas important, j'aime bien le côté aluminium du PC. Je vois que c'est un Windows 10, un des derniers systèmes d'exploitation. En termes de processeur, je vois que c'est un Core i7, ça à l'air bien. Par contre, la vitesse du processeur est pas la meilleure.

Tu t'y connais, à l'aise.

Et le prix par contre m'a l'air intéressant sur base de ce que je vois.

Ça marche. As-tu déjà vu cet ordinateur portable quelque part ?

Non, j'ai jamais vu cette marque.

Du coup, penses-tu que c'est un ordinateur haut de gamme ou bas de gamme ?

Euh à mon avis c'est moyenne gamme supérieure.

Connais-tu la marque de cette ordinateur, Vizio ?

Non.

Euh, que penses-tu des caractéristiques techniques ? Donc quelles sont tes impressions par rapport à la performance de celui-ci ?

Ben le processeur à l'air bien, la RAM c'est pas fabuleux. Et par contre le disque dur, je suppose que pour 256 Gig c'est un SSD ?

Oui, c'est en SSD, ça on doit modifier.

Du coup, c'est top ! Et par rapport au prix, ça a l'air intéressant.

Ben justement, par rapport aux prix. Du coup, tu trouves ce prix intéressant ?

Par rapport aux caractéristiques, oui.

Ok. Quel serait le prix minimum que tu serais prêt à payer pour cet ordinateur portable ?

900€

Et quel serait le prix maximum que tu serais prêt à payer pour cet ordinateur ?

Et ouais fin, 900€ c'est presque le prix moyen, donc je dirais quand même 1200€ je pense.

Donc en maximum 1200€, et en minimum ?

Donc en maximum 1200 et en minimum, si tu m'avais pas affiché le prix, j'aurais dit 900€.

Ok nickel. Maintenant je vais te mettre dans une autre situation. Comme tu sais, notre mémoire se concentre sur la réparabilité et du coup, j'aimerais avoir un peu ton avis par rapport à ça. Imagines-toi que tu es responsable du développement d'un indice de réparabilité. Pour toi, quelles informations devraient contenir cet indice ?

Et bien en combien de temps les pièces peuvent arriver chez le fournisseur, ou en tout cas chez le réparateur. Le prix de la réparation et le prix des composants. Et savoir si on peut le faire nous-même ou si on doit absolument passer par une société tierce, ou si c'est assez évident. Je dirais, s'il faut changer un disque dur, si c'est pas un disque dur qui est soudé au PC et si on peut le faire nous-même.

Exact, top ! Et donc par rapport à l'indice, comment tu le représenterais de manière claire et compréhensible ?

Ha.

Donc tu te dis, voilà, moi je vais lancer un indice de réparabilité et comment je vais le présenter ?

Ouais, je ferais une petite étiquette je dirais avec des étoiles sur différentes catégories. La première : le prix des réparations. Une petite étoile par rapport au prix des composants, imaginons 3 sur 5, 4 sur 5. Et pareil, rapidité, prix des pièces, fin comme j'ai dit quoi. Je sais plus ce que j'avais dit, je pense que j'ai tout dit. Mais si on a au moins cinq catégories affichées sur l'étiquette, ça me semble bien.

Ça marche. Donc du coup nous, on a développé cet indice de réparabilité sous trois formes que je vais te présenter maintenant. Et je vais te poser quelques questions par rapport à ces trois formes. Donc voilà, quelle est ta première impression par rapport à cet indice-là *[montre le Logo 1] ?*

Il manque des infos.

Que comprends-tu lorsque tu vois cet indice ?

Je comprends que… que si je ne passe pas par le fournisseur, euh par le fabricant pardon, j'arrivais à réparer mon PC par un intermédiaire assez facilement.

Ok d'accord. Et un produit ayant une note de réparabilité de 8 sur 10, donc pour toi c'est la facilité à le réparer soi-même ?

Non pas soi-même, la facilité à la faire réparer n'importe où. A se le faire réparer chez un spécialiste, dans un magasin informatique ou dans un magasin ou je l'ai acheté quoi.

D'accord. Associes-tu cet indice avec une garantie du produit ?

L'associer à une garantie non, je ne l'associe pas à une garantie mais par contre je l'associe à un produit qui éventuellement aura une durée de vie plus longue.

Ok. Quelles seraient les questions que tu te poses face à cet indice ?

Ben, il me manque les informations du prix et de savoir si éventuellement c'est faisable par… Je vais pas dire un novice, mais par quelqu'un qui a quatre tournevis et un peu de jugeote.

Et trouves-tu sinon que l'information est claire ?

L'information est claire mais elle est pas assez complète.

Ok, ça c'était ma question suivante. Donc tu la trouve pas complète. Et trouves-tu que cette information est fiable ?

Euh, comment je sais si elle est fiable ?

Tu sais pas le dire, c'est ça?

Ben ici non. Est-ce que c'est fiable ? Soit il y a un organisme qui certifie que le label est correct mais ici je vois définitivement pas actuellement de société qui l'aurait certifié. Donc non, je ferais confiance je dirais au fabricant.

Ok. Au niveau du format, parce que là on a parlé de l'information en elle-même mais au niveau du format, que penses-tu du format de cet indice ? Donc au niveau du design, des couleurs, de la police, … ? Trouves-tu que c'est attrayant ?

Non, c'est pas attrayant. Mais c'et neutre et l'information est claire quoi.

Ok. Bon maintenant on va passer au deuxième *[montre le Logo 2].* Donc là je vais te poser les mêmes questions. Trouves-tu que l'information est claire sur celui-ci ? Quelle est ta première impression déjà par rapport à cet indice ?

Que ça fait penser aux autres… On est dans un domaine connu je dirais de labels donc déjà ça me parle un peu plus. Mais j'ai toujours pas toutes les catégories d'infos qu'il faudrait.

Et pour toi, est-ce que c'est un problème que ça ressemble à un autre label ?

Non, parce que je trouve que ça se met dans un canevas. Je trouve qu'on s'identifie et on comprend vite du coup.

On comprend mieux ?

Oui.

Donc trouves-tu que l'information est claire, je suppose que c'est oui.

Oui.

Trouves-tu que l'information est complète ?

Non.

Toujours comme le précédent ?

Comme le précédent.

Ok, et que l'information est fiable ?

Bend u coup, la fiabilité augmente pour moi. Parce que du coup on a l'impression que c'est une norme qui a été imposée par l'Europe ou autre.

Ok nickel. Du coup par rapport au format de l'indice, donc là c'est plus au niveau de l'information mais au format donc au niveau du design, des couleurs, etc. Trouves-tu ce logo plus attrayant et pourquoi ?

C'est plus attrayant parce qu'il y a des couleurs mais à part ça, pas beaucoup plus.

Ok. Le suivant maintenant, c'est le dernier, c'est celui-ci *[montre le Logo 3].* Quelle est ta première impression par rapport à celui-ci ?

Je trouve qu'il est plus moderne, je préfère, je le trouve sympa. Mais par contre je l'identifie moins comme quelque chose de certifié que le précédent.

Parfait. Donc l'information est claire pour toi ?

Oui, elle est aussi claire en tout cas que les deux logos précédents.

Ok. L'information est complète, toujours pas ?

Non, pas.

Et l'information est fiable?

Ben un peu moins que l'autre parce qu'on a vraiment l'impression que c'est quelque chose qui a été développé par les fabricants. Mais je préfère le visuel.

Ok d'accord. Et par rapport au format, qu'est-ce que tu penses du format ? Donc au niveau du design, des couleurs, etc. ?

C'est bien, c'est clair.

Parfait. Donc maintenant, je vais te demander de comparer ces trois indices *[montre les trois logos ensemble]* et de me dire lequel tu préfères. De manière générale.

Je pense que si je devrais donner une note, le premier je donnerais 4 sur 10, le deuxième 7, non le deuxième 8 et le troisième 7. Sur 10.

Ok d'accord. Trouves-tu que l'information est identique pour les trois indices ? Donc ont-ils la même signification ? Est-ce qu'il y a vraiment une différence au niveau de l'information fournie ?

Alors je trouve que le premier aurait tendance à faire croire que la réparation est plus facile que les deux autres. Du fait qu'on a un nombre précis et que les autres c'est des tranches.

Parfait. Et sinon, t'as pas d'autres commentaires par rapport à la clarté de l'information et le fait qu'elle soit peut-être pas identique pour toutes ?

Non, même chose.

Ok d'accord. Quelle information te semble la plus compréhensible ?

La plus compréhensible c'est la première.

La plus claire ?

La deuxième ?

Ok. Et la plus complète ?

La première, qui a 8/10.

Ok et au niveau du format, lequel de ces indices attire le plus ton attention ?

Le deuxième, parce qu'il est plus large.

Trouves-tu que ces indices véhiculent l'information de réparabilité de manière identique ? Donc là on parle juste au niveau du format, donc pas de l'information.

J'aurais tendance à dire que non.

Ok, de toute façon c'est subjectif. Donc comme t'as dit non, quel est le format qui véhicule l'information de la manière la plus claire ? Donc la manière la plus claire de présenter l'information ?

Pour moi c'est le premier mais il devrait être plus complet.

Ok, ça c'est par rapport à l'information. Mais moi je te dis par rapport au format. Donc toi tu me dis que le format, donc au niveau du cercle, des couleurs, etc. c'est celui qui véhicule l'information de la manière la plus claire, c'est bien ça ?

Le premier, c'est celui qui véhicule l'information de la manière la plus claire, oui.

Ok. C'est ça la question ?

On parle du format. C'est le format qui véhicule l'information de la manière la plus claire. Donc en gros, pour le Logo 1, c'est le fait que ça soit un cercle et que ce soit bleu quoi.

Ben non mais alors c'est l'autre parce que l'autre est vert. Non, c'est le deuxième.

Ok d'accord. Et quel est le format qui véhicule l'information de la manière la plus compréhensible ?

Le Logo 3 parce que ça va de gauche à droite, donc ça me semble plus clair. Parce que tu vois dans les formulaires dans les sondages, ça va de 1 à 10 quoi.

Ok d'accord. Et quel est le format qui véhicule l'information de la manière la plus fiable ?

La plus fiable ? Le premier.

Ok. Moi j'aurais pensé que t'allais dire le deuxième par rapport à ce que t'avais dit précédemment. Maintenant du coup je vais te poser des questions par rapport à l'affichage de cet indice, donc le positionnement. Tu le mettrais où en fait cet indice ? Donc t'es responsable de cet indice-là, tu as mis la note, etc. et maintenant, où tu vas le placer ?

Sur les écrans des PC.

Ok. Et si tu devais mettre ça sur les écrans des PC, lequel tu mettrais ?

Le deuxième.

Nous en fait, ce qu'on a fait, on le mets pas sur le PC vu qu'on sait pas présenter ça dans notre enquête quanti. Mais on l'a mis sur l'annonce en fait, et donc on l'a placé à cet endroit-là à chaque fois ici *[montre les trois annonces, chacune avec un des trois indices].*

C'est ça oui, sur les étiquettes c'est bien.

Et donc que penses-tu de l'affichage de ces indices sur ces annonces, du positionnement, etc. ?

C'est le troisième que je préfère.

Et juste par rapport à la position de l'indice.

Ah la position. Non c'est très bien, c'est bien mis. C'est typiquement le genre d'étiquettes que tu verrais.

Donc tu vois, par exemple ici, est-ce que pour toi ça te semble justifié le placement en dessous du prix ?

Oui.

Ok, nickel. Trouves-tu que l'affichage de cet indice est clair ? Du coup, oui.

Oui.

Et que l'affichage de cet indice rend l'annonce fiable ? Donc là c'est plus de manière générale, par rapport à l'annonce. Donc le fait d'avoir cet indice-là, est-ce que rend l'annonce plus fiable pour toi ?

Ça dépend lequel a été sélectionné. Celui qui me fait le plus pensé à l'Europ du coup, oui, effectivement.

Et, pour toi, à partir de quel score considères-tu qu'un ordinateur est fortement réparable ?

Neuf.

Et faiblement réparable ?

Cinq.

Ok, nickel. Merci pour ta participation !

Appendix 8 : Transcript of the interview with Simona Salcudeanu (ENG)

Simona Salcudeanu: Woman, 28 years old, is from Romania and has been living in Belgium for around 6 years, Research Consultant

Date and location: 23rd June 2019, Gent

Language: English

Duration: 42 min 06

Advertisement shown: Laptop priced at 1099€

Good morning! As you know, I'm doing some research for my thesis and I want to ask you some questions about an advertisement we created. So, maybe you can start off by introducing yourself?

Sure. My name is Simona, I'm 28 soon 29 years old. I work, I have a full-time job at an agency in Ghent. I like swimming, I just came from the pool earlier today.

Thank you. So now, imagine you have to buy a new portable computer for yourself, for personal use, what price would you be willing to pay for that computer?

Well, I think I would be pretty picky with what I want and what I'm looking for. So then I would probably be willing to pay a good amount, I think in the range of a thousand euros. Because I would really want to have something good. Like I would be looking at something, if it wasn't a Mac, in the range of a Mac. So then I would be willing to put up that much money.

Okay. And what does the computer have to do and what features and characteristics does it have to contain for your personal use?

Euh, I'm thinking now.

Do you have a personal computer right now?

No. Actually, I had to make that choice a couple of years ago because I had my personal laptop since university and it was not working anymore. Then for a couple of years I used my work laptop also as my home device, but I didn't like doing that. So then I had to buy something, and I was debating whether I wanted a tablet or a laptop. And ultimately, I decided to get an IPad because I thought, just for home-use and for entertainment-use, an IPad was the better choice. It was smaller, lighter easier, and I could take it with me on holidays. And I mostly needed it for entertainment-use, so then was kind of okay. But I was really heavily considering getting either a Mac or an IPad at that point for home-use. So yeah, the stuff I would use it for would be heavily entertainment, like watching movies on it or doing my own research or that kind of stuff. If it would be a laptop, then I would definitely want to be able to run a design software on it. It's something that I used to do back in university, to do graphic design and stuff. If I had a device where I could do that, then I would want it to have the power to run like all of the design software. And even if I like ever want to edit a movie or those kind of things, have the possibility to do that kind of stuff. I'm not a heavy gamer, so I don't need it to work for gaming purposes or those kinds of things. So mostly, home-entertainment, movies, browsing, and to be able to run this kind of software whenever I would need it. And for the rest, like in terms of not the inner workings of it but the outer workings, I would want it to be as light and easy as possible so that I could take it when I travel on a holiday or something. That it doesn't take too much space or weight in my luggage. You know, when you only go with hand luggage for a long

weekend or something, you want it to be as light as possible. So I would probably even go for a very small laptop. Like when I was looking at Macs, I was actually looking at small Macs, not the very big ones with a big screen. But yeah, the smaller ones because I wanted something that I could use on plane for personal use.

Agreed. My dad told me to buy mine five years ago. I carried it around yesterday when I was coming home and my arm was killing me and I was like, never again! Okay, so now I'm gonna show you an advertisement, if my laptop is working, hopefully. Technology!

I had a Dell before also. But yours is really big, it's 15 inch, right?

It's 17 I think.

Oh my god.

Yeah, it's too big. I mean, it works really well but for transportation…

Mine was smaller. I think mine must have been 15 and that's a good size. The one thing that I like about the ones that are 15 or higher is that you get this numerical pad next to it. I don't like it when I don't have the numerical pad, when you have to like go to the numbers on the top. And that was the thing with the smaller ones, with the 13 inch or even smaller than that, I think some of the ones I was looking at are even at 11, and those of course don't have a numerical pad anymore.

Okay. So, we created this advertisement *[shows ad with a price of 1099€]* and I just want to gather your first impressions about it. Do you know the brand? What do you think about the price? Do you think it's gonna perform well based on the characteristics for what you want to do for example? Just, spontaneously mention what's going on through your mind, there are no right or wrong answers.

Yeah, sure. Well, first off, the brand I don't particularly know. I think because the last time I did proper research into a laptop was long enough time ago that I think this brand was not probably one of the top ones. And it was back in Romania, so maybe it was not a brand that was around there. So, I'm not exactly sure about it. Then, I like the fact that they say that it is Thin and Light. I would want to see the actual full dimensions of it to see how thin is thin. Is it as thin as a MacBook Air or something? And even in terms of lightness, I would want to see exactly how light it is. In terms of the other stuff, I'm a bit off at the moment on what high performance for a processor is and what low performance is. So if I would start looking for a laptop now, then I would really start comparing all the different ones and looking into what's what to compare the things.

Do you usually take any of these specifications into account when choosing a laptop?

I do, to compare them mostly. And then I will look into what's the difference between them. I know that, when I bought the last laptop, those kinds of things really mattered a lot. For example, like I cared about the processor. Back then, it was not the Core i7 but i3 or i5. And those were the top range. So I really wanted a good processor. I remember I was really really looking for that and I know that that's important. Because, even with like any kind of random software, nowadays, they often take up so much of the processing power that, if I can afford it, I'd just rather have the best power one. Even if maybe I don't specifically need it right now but I think when you buy a laptop, you buy it for 5-6 years. You really want it to last, especially if I'm making an investment of over a thousand euros, I want it to last for a long enough time. So I'd rather buy the top of the range. And to me, that's something that extends to any kind of device. The same with the phones. I'm gonna buy a new phone because this one is already 3,5

years old and it will be the latest version of the IPhone. And I'm gonna pay the amount of money that I need to pay because I know that once I bought that one, it's gonna last for the next four years or something like that and then I don't have to worry. It's not that I need to have the latest version. Like when the latest version comes in, I'm gonna switch. I've had the 6S for 3,5 years now but when I bought it, it was the latest model because I wanted it to last as long as it can possibly last. And then my investment is spread across so many years of usage versus buying something that's lower in the market. So I don't know right now exactly what the Core i7 and the 1.9 gigahertz is in terms of what's available out there in the market, but I would definitely look at it and compare because I would want to have one of the best that I can within my range of what I want to be doing. And yeah, then take the best value that I can so it lasts for a long time.

The same goes down with the memory of the 4 GB. I don't know right now, before I start doing research, if that's good enough or not good enough anymore in these times. So that's also something I would be looking into.

And hard drive, 256 seems little. I would probably want to have 500. I want more. For a laptop, I would want to be able to store stuff probably.

And the display, 15.6 it's on the big side for a home-laptop so that would maybe be a bit of a worry for me, that it might make it too big and too heavy for travel and so on. But for me, it's also a balance with what laptop do I have from work, and they would like need to balance each other out. Like if my laptop at work is very big, I would probably want the one for home to be small. And if for work I would have a small one, I would rather have a big one at home. Because I would want to always be able to choose: do I want the smaller one or the bigger one. Knowing that the work one, if I want to take it with me, I can also take it with me on holiday or somewhere else and I can use it for personal use as well. So it would be like a complementary part to my work-laptop. So I would need to balance it out with that. And I think the one I have for work now, I think it's also 15. So I would probably want something smaller for home.

Okay, and do you think the price is acceptable?

For what it offers, I guess so. Probably, again, to be able to tell for sure, I would really want to be able to compare and then I would start looking at what other brands are offering for the same kind of laptop and what is the price. And that's when I think I also start to evaluate what's the value of the brand, the value of the manufacturer. When for the same kind of technical criteria you see a difference in price. Because with laptops, they really have so many configurations that you can pretty much find the exact same laptop from every single brand. And then you see what the added value of the brand is in the price. And then I would decide which one I would end up going for.

And is the brand important for you?

Yeah, because I want to be able to trust it. Like, I think in the past, it used to be that I could also go for lesser known brands. Although in terms of laptops, as a personal laptop I bought a Dell because I wanted something that I could trust well-enough. I remember I had tablets that were like from lesser known brands like Asus. It's not such a less known brand but it was not considered one of the top range ones. So yeah, I had a couple of rounds of those kinds of small tablets when I was still studying and afterwards. And then it was when I got my phone I think, it was also after I started earning money. Because before that I was also a student, I was very careful of how much I was spending so I would have never considered buying an Apple device because it was just way too expensive. And then, after I'd been working for a year, I said "Ok, like now I'm good enough, and I know I'm earning well enough and everything so I can afford

this" and so I bought the first Apple device. And then I think I started making that switch towards Apple which is, in terms of the brand, one of the highest ones up there. But also, they're totally different from everything else and once you enter that universe, you kind of get stuck there because everything is fully connected to each other.

Yeah, it's easier to have the IPhone with the IPad and the Mac.

Yeah, so when I decided that I was gonna buy a new device, at that point for me, it became "Am I buying an IPad or am I buying a Mac?" And I think I would have still looked at the other things but it becomes that thing that you get stuck in the Apple universe. It's just easier to have everything from the same one brand. But to me, they're also the top range that I know. Like, an Apple device will not break down. I had a Samsung tablet and it broke down, just as fast as the Asus tablet broke down for example. I had a Samsung phone that broke down after two years whereas the Apple devices that I've had so far, the ones that the rest of the people in my family have had, you know you buy one and you keep it for 5 years, 6 years. It's insane how much it lasts.

I mean, when people replace them, it's because they're outdated or something.

Yeah, I will not replace this phone because it's bad or it's broken, but because it only has 16 GB of storage and I'm constantly running out of storage. And because it's starting to get a little bit slow. It always keeps updating, it doesn't have enough room, it doesn't have enough power to do things well-enough and it has become a little outdated. I think storage will probably be the biggest one out of all of them. But once you're good with that, the device lasts you for so long and I've never seen any other brand being able to do what they're doing. So for me, it's like a shift to quality and thinking more of "I put down a lot of money now, but it will last longer than any other one".

It's a long-term investment.

Yeah. So I would say the brand matters a lot haha.

Ok. So, the subject of our thesis is studying the repairability of laptops. So if something breaks down, instead of having to throw away the entire laptop and having to buy a new one, making it work by repairing it so it lasts longer and it's also environmentally-friendly and so on.

Of course.

So we're studying different logos that would indicate that laptops are repairable. So I don't know, you said you were into design, so how would you maybe design such a logo to indicate that a laptop is repairable?

Ouf.

For example, you have the sticker for Intel, but how would you maybe visualize it for the repairability case? I know it's a tricky open question.

Yeah!

It's not our main goal, it's just to gather some insights about how people would visualize it before showing them the logos we created.

Yeah well I think the tricky thing with laptops is that there are so many moving parts to it. Like some are easy to repair, some are more difficult to repair. Of course, the easiest for consumers would be to use some kind of, I don't know, like a grading system in some way. You have like

the energy A-B-C style labels, or colour codes or those kinds of things to give it like some kind of certification. But for me, it would be difficult to understand what that actually means. Like what does that grade, what is that level that you're giving it, what is it actually gonna mean in terms of repairability. Is it like a percentage of repairability, what are the odds, is it like a probability, like I don't know. Because it really heavily depends on what breaks down in your laptop. With my previous personal laptop that I had when I was a student, it was a Dell. Of course I used it for 5 or 6 years but it started to have problems already after 3 years while it was still in warranty. So I had to replace the cooling system in it, but that's pretty easy. It's just like a fan that you take out and replace. My battery was going to shit.

Yeah, mine did too.

But that again was easy, I literally bought my own new battery. I even bought like a bigger battery so it was sticking out a bit from the laptop but it was lasting way longer. And then yeah, it was easy, I bought the part myself. And then, the worst thing was, my motherboard like just … died. Like literally the laptop just shut down and nothing would work anymore. So they had to switch out the whole motherboard in the laptop and bring a new one in. It was still under warranty so I didn't have to pay anything. Oh yeah, I switched the hard drive as well at one point.

Seems like you switched everything in your laptop.

Yeah, I had a hard drive meltdown. Because I had to send it to a special service for them to try to recover my data.

I have an external one because I also had some issues, so I have a back-up just in case.

Yeah, I didn't have a backup back then. I had some stuff that was online. Important stuff and like my school, work and so one was backed up. But like my personal files like my pictures and all those things, none of that was backed up anywhere.

So you lost all that.

Yeah, all of my high school pictures and all those things. I was crying over it, and I sent if form them to try to recover some things from it, but yeah. So I know that there are so many elements. And a lot of them can be replaced. I think it's important to really understand, in the end, what that repairability score stands for.

It's actually what we're studying. So it would actually be a score, like 8 out of 10 for example. But we're trying to understand if consumers really understand what it refers to and what it means. Like if you see a computer that has a repairability score of 8 out of 10. What does it mean?

Yeah, what does it mean?

What criteria does it take into account?

Yeah, it's tricky. And what does it mean in reality, and then also having benchmarks somewhere. Like is 8 out of 10 good, or is 8 out of 10 average?

Do you think it's good? If you saw a computer with 8 out of 10, it's highly repairable?

I mean it seems like 8 out of 10 good. But something is only as good as it is relative to what everything else out there is you know. It's the same with all of these numbers that I'm seeing here. Like is 1.9 GHz good? It's as good as the number is high compared to what other options you have out there. So again, I think that with the scoring, the ranking, it helps people to decide

between laptop A and laptop B. If all the criteria are the same or whatever, and you decide how important this is in your decision criteria, but if laptop A has 8 out of 10 and laptop B has 9 out of 10, you know that 9 out of 10 is more repairable than 8 out of 10. For someone who understands enough, like the lower tech-savvy consumers, I think it helps them to just like being able to compare the different options. But for someone who is more knowledgeable and more tech-savvy about all of the things, I think that that person's thinking like "Okay, but what is 9 versus 8?". What does it actually mean, again. Is this a probability of you being able to repair it, is it the probability of finding spare parts. And then also, something that I would also personally consider is, how does this play together with warranty? Because a laptop can have a super high repairability score but if it only has a warranty of 2 years, it means I'm probably only gonna fix it in the 2 years that it's under warranty. And after that, only if it's something super simple to replace or to fix. Because once you're out of warranty, it can get so expensive that you are probably better off with buying a new one. Like if you have to buy a new hard drive, off course that's going to be fine or like some small parts it's probably cheaper, but I don't know, if you have a problem like the one I had where the motherboard had to be switched out, I think that would be so expensive outside of warranty that you'd probably start considering buying a new laptop at 3 or 4 years, when the laptop is already old, technologically-speaking compared to the ones out there on the market.

So for you, warranty and repairability are 2 separate things?

I assume so. I would assume that the repairability is how it can be repaired. Because a laptop can be repaired outside of warranty or inside of warranty. But if you have a high repairability but a very low warranty, that's not helping me go for that one. Because again, if it's a big problem, I'm happy it can be repaired but if it's gonna cost me half the price of the laptop, I'm not gonna pay it. So I would want to see the two next to each other to be able to make that decision.

So what do you think it means, 8 out of 10 for repairability? What do you want it to mean or what do you think would be logical for it to mean?

It's very, very tricky.

It's complicated.

Yeah, I don't know. My mind tells me that it's an 80% chance that if something breaks, it can be repaired. That's what my brain would naturally go to, but I'm pretty sure it's not what it means. That's what my brain would go to and that's what make it easy-ish for me personally to understand, but I'm pretty sure that's not what it is and I'm pretty sure it's just like a benchmarking and a rating system that like someone defined. So I would not expect it to mean that.

Okay, cool. So we created 3 logos, and I'm first gonna show you each one, one by one, and then the three together so you can compare. So that's the first one *[shows Logo 1]*, what do you think about it? Information-wise and design-wise?

Well, it looks like one of those badges, like warranty or guarantee or something like that. So I think that makes people think of that kind of thing, like the approval stamps, or the warranty or that kind of stamps. So that would make people think like "Ah, this is good" or something. A stamp of approval the way that it's made. But it makes it maybe difficult to know if 8 is good or not. I'm thinking towards other rating or grading systems, often they come with colours or something like that.

Actually, that's the second logo. So I'm gonna show it now *[shows Logo 2].* Do you like this one better than the first one?

It's more recognizable because it's like those energy efficiency grades. That's what it remind me of, that's what it looks like with the A, A+ and so on. So it kind of helps you better see it and better understand it and you're like "Oh okay, 7 or 8 out of 10 is good. It's not like the highest possible level, but it's good". It's in green, even if it's not the highest one, people will say "Ah, but it's still green" you know. If you're in the yellow, it's like ouf.

Yeah, we're going towards the red.

It's like the associations that people make with the colour. And I think that this is something that people are pretty used to. Like I'm personally very used to seeing it on the energy labels. You even have it now with food labelling, like the A-B-C-D food quality or nutritional value.

That's actually our 3rd logo. It looks like you worked on our thesis.

Hahaha. I just know too much about product labelling.

Yeah but it's really interesting. It's good, I love it! I'm like, shoot, she already knows what I'm going to show next!

Haha, oupsi.

No it's good, I like it.

Yeah so like this one, it's something that I'm familiar to seeing on electronic products. So it's something that I would in some ways expect to see. The tricky element with it is, I think that you have to make the repairable part to stand out well enough. Because now, we had this whole discussion, I know we're talking about repairability. But if I'm seeing this on a box together with I don't know how many other labels, if repairable is not obvious enough, my mind is going to go to energy labels. Because this to me is energy labels. So unless it's like in bold, in big capital letters and everything… This is not energy labelling, it's repairability. It's a repairability score, not an energy efficiency score. I would think it's like "Oh okay, so for laptops, they decided not to go for A, A+ and B and so on but they're using grading. Okay, but it's like energy efficient." So I think, because it's so similar in design to the energy labelling, you need to highlight it very well that it's not that.

To avoid creating confusion.

Yeah, again, now we've been talking about it so much. But when you're looking at a box and there are millions of logos and information and everything. Or even online, where you're gonna have like this Intel thing online as well, and the other thing, and the other score, and another guarantee, and this is just one small part of many other things, you want it to be clear what it stands for. So I would make it very very clear, yeah.

Ok yeah. And then the last one, as you predicted *[shows Logo 3].*

Oh yeah okay, it's like the food one.

So yeah, what do you think about it?

Well, all the elements of how does it indicate repairability are exactly the same as the energy one. It's just designed differently but it uses the same colours, the same groupings, the same everything.

If you saw it, would you associate with food labelling?

Maybe yeah. But why I may be a little more positive towards this one is because there is such a big gap between the Nutri-score and consumer electronics. Like they have nothing to do with each other. This one I would not confuse with anything else. Whereas with the other one, because it's so similar to the energy labelling, if I'm not really paying attention to it, I would confuse it with an energy label. This one, even if it reminds me of the Nutri-score, I know it's not that because we're talking about a laptop and a laptop has no nutritional value haha. So I would immediately be like "Oh ok, it's a rating, what is it? Because it's not an energy rating because the energy rating is a standard European label that like every single household electronic product that I've bought was like that.

So when you see the 3 together *[shows the three logos all at once]*, which one do you like most, spontaneously?

I'm between the last two, the second and the third one. I think rationally speaking, like having discussed it already now with you, the third one is the one that I would choose thinking about the fact that it is not confusing. The first one is definitely not showing you enough of the benchmark, like what is 8 out of 10? Like give me some kind of visual guidance.

Not enough information?

Yeah. I want to see some kind of a benchmark there. Otherwise, it could literally just be any number that you don't see as a label, like as a sticker on the product. But it becomes the 1.9 GHz, the like it's just a number. It's something that I really need to compare with the other ones. Because the colour coding automatically gives you the benchmarking-field to it, that you assume that yellow is the average. Even if in reality it's not. Because in reality, everyone is trying to be at the top, so the real average is probably around 7 or 8. So this is probably and average repairability product. But yeah, it still gives that first instinctual thing of like "Oh yeah, 8 out of 10 is good because it's in green". Whereas I would assume that yellow is the average point because it is written out like that. But between those two, the first one is kind of like the one that you're more familiar with, but I would be afraid that that familiarity just leads to too much confusion with the energy. Because I would expect to see an energy efficiency label on a laptop as well, I don't know if they put those on the boxes. I've never seen it online with the laptops. But now I'm wondering, shouldn't there be also energy efficiency on laptops? Because if it is, obviously they're gonna look completely different. But now that I think about it, I've never seen it on a laptop box or in an ad. I would assume that for laptops, people don't care about it so much. I don't know, maybe there is no such thing because they all have the same parts inside of them. In the end, they have the same Intel processors and the same batteries and the same everything, like they're all similarly energy efficient. Like really really rationalizing it, I would say 3. 2 is just more familiar to people. It's a bit of a battle between those but to avoid the similarity and the confusion with an energy label, I would go for 3.

And is there anyone of those you would trust more?

Oooh.

Or is it the same?

Yeah that's tricky. The second one, instinctually, it's something that you are more familiar with. People know what an energy label is, it's something that you see across all the different products. I don't know how many people know that it is a European standard. It's kind of seen like a standard certification, you can't just put any number you want there. It has to be approved by like an official committee. Like I don't know to what extent a regular consumer knows, but it is what it is. Whereas the other one maybe looks a little bit less official. But again, that might be a familiarity thing.

And then you said, for the first one, you would like to know what the benchmark is.

Yeah.

And here with the colours, it's like you can see the different levels. So which score would you consider to be good with the last two? Like if you would see 5 or 6, would you buy it?

No.

Or 7 or 8?

I would start investigating what it means. If it was something that was truly important to me, I would personally start reading like googling it and trying to figure out what it means. Like at 5-6, like yellow or red, I would not. I would not consider buying. Probably form the green ones upwards, I would probably try to figure out what is the difference there, is it worth my money? If there is a price difference. If there isn't any price difference, maybe I would go for the higher one. But it comes to the point that this becomes the decision maker between two products, like everything else is similar enough and I don't care about the two brands or whatever, I would want to understand what it actually means before making my decision. But I'm very specific. Like I don't know, detailed. For those kinds of purchases, I compare a lot of stuff.

Cool. And then last thing, we made the advertisement I've shown you before with each one of these logos *[shows the three advertisements with logo, each having one of the logos].* Do you think it's well-placed? So it's not about the design or the information, but like where it's situated on the ad. And would you like to see it somewhere else? Would you like it to be a sticker on the laptop?

I don't know if it needs to be a sticker on the laptop itself. Because with the processor, you want to have it because often, before installing software or something, it tells you the requirement of your processor. So then it helps to have it like there and to visually see it. And it's seen as a quality emblem as well on the laptop. What kind of processor you have, it's kind of one of the most important criteria for a laptop, what kind of processing power it has. So I don't see the need for it to be on the laptop. I think it's something that would go on the box of the laptop, but not anywhere else. And in terms of the advertisement, I see this as the thing you see online basically, it's probably a bit weird to have it right there next to the price? I would either have it at the bottom, next to all of the other criteria, add the repairability score. Or in this particular setting, maybe like have it here [*points to bottom right corner of the ad]* on the side because you have like the right amount of space there for it. It feels a bit weird and out-of-place to have it over there next to the price. It's trying to highlight it and to make it stand out whereas it should be next to and in line with every other thing.

Yeah, okay.

Haha, well, it's just my view.

I think that's it! You gave us a lot of interesting and relevant information.

My pleasure!

So, thank you so much for your time!

Hope it helps.

It will!

Appendix 9 : Transcript of the interview with Odile La Haye (FR)

Odile La Haye: Woman, 24 years old, Belgian who lives in Uccle, Master Student in Management

Date and location: 23rd June 2019, Uccle

Language: French

Duration: 31 min 17

Advertisement shown: Laptop priced at 699€

Alors pour commencer je vais te demander de te présenter.

Alors je m'appelle Odile, j'ai 24 ans, j'étudie à la LSM les sciences de gestion et je suis à présent en master 2 euh … Voilà.

Merci pour cela. Je vais te mettre dans une situation et tu vas répondre à quelques questions. Alors tu envisages d'acheter un nouvel ordinateur portable. Quel serait le budget que tu donnerais pour cet achat ?

Alors mon budget en tant qu'étudiante mhhh … Pour un nouveau portable de qualité quand même serait … Max 500 euros.

Ok quels sont les aspects de l'ordinateur portable pour lesquels tu serais prête à payer plus que ton budget initial?

La batterie, moi mon truc c'est la batterie… Je veux que mon ordinateur tienne et qu'il ne s'arrête pas quand je vais en cours à l'université.

Quels sont les aspects pour lesquels tu serais pas prêt à payer plus que ton budget initial ? Donc en fait quels sont les aspects qui t'importent peu ?

Euh…La couleur peut-être … Après je regarde l'ordinateur de manière globale. Pour moi ce qui est intéressant c'est ce qu'il y'a dedans pas ce qu'il n'y pas dedans haha.

Maintenant on va passer à la suite… Imaginons que tu as en tête un ordinateur portable et que lors de tes recherches tu tombes sur cette affiche-là *[montre l'annonce au prix de 699€].* Alors quelle est ta première impression face à cet ordinateur-là sans faire attention aux caractéristiques du produit.

Ok alors si je ne regarde pas les caractéristiques du produit euh …Moi je trouve que c'est un bel ordinateur d'un point de vue taille ça me convient personnellement, il n'a pas l'air trop grand du coup je peux le mettre dans mon sac à main. Le design me plaît mais c'est pas toujours ma priorité mais c'est sure que c'est un ordinateur où mes yeux se poseraient. Donc oui c'est un ordinateur qui pourrait me plaire.

As-tu l'impression que c'est un ordinateur de haut ou de bas-de-gamme ?

Difficile à dire mais plus de haut-de-gamme.

Connais-tu la marque de cet ordinateur ?

Non

Cette marque t'inspire-elle confiance ?

Je ne connais pas.

Non mais t'inspire ?

Ok oui mais peut-être aussi parce que je suis influencée par la beauté de la chose.

Euh que penses-tu des caractéristiques techniques de cet ordinateur portable ?

Genre la batterie et tout cela ?

Oui par rapport aux caractéristiques qui sont mentionnées là.

Hein ok alors … euh… Je dois les lire hein … ok ben je vais être franche je ne sais pas j'y connais rien du tout et là je suis un peu perdue… Donc euh c'est compliqué mais ce que je vois c'est qu'il coûte 700 euros que c'est un peu trop pour moi. Donc je veux être sûre de savoir ce qu'il a de plus comparé à un autre ordinateur.

D'accord, donc du coup tes impressions par rapport à la performance de l'ordinateur tu ne sais pas trop ?

Non

Ok haha que penses-tu du prix demandé pour cet ordinateur portable ?

700 euro trop pour moi. En tant qu'étudiante je mets max 500 euros et minimum 400 euros.

Le contexte de cette étude-là, c'est d'étudier l'impact d'un indice de réparabilité sur l'intention d'achat des consommateurs. En fait pour faire ça on a créé des stimuli qui sont des labels et nous on aimerait savoir comment tu verrais les choses si tu étais responsable du développement d'un indice de réparabilité pour cet ordinateur ? Voilà donc …Euh … Pour toi quelles informations devraient contenir cet indice ?

Je ne sais pas.

Ok et comment représenterais-tu l'information de manière claire et compréhensible ? Comment tu représenterais cet indice ?

Alors quelque chose de simple… Straight to the point. L'info directe et bien écrite et très visible.

Ok parfait donc maintenant je vais te montrer comment nous on a fait … Voilà le premier indice *[montre le Logo 1].* Quelle est ta première impression par rapport à cet indice ?

Il correspond à mes attentes que je viens de dire donc simple, claire, on comprend tout de suite et… On a l'information tout de suite… C'est ça que les consommateurs veulent de nos jours. Directement, ici, je me dis c'est 8/10, c'est correct.

Ok et donc justement par rapport à la note de 8/10 qu'est-ce que ça veut dire pour toi ?

Ben qu'il est plutôt réparable sans souci.

Ok et as-tu une idée des critères qui sont pris en compte pour obtenir cette côte dans le cas de cet ordinateur?

Les pièces par lesquels l'ordinateur est composé peut-être ?

Oui mais quoi par rapport à ces pièces ?

Ben par exemple, si dans le passé ces pièces ont démontré être vite cassées ou pas. Tenir longtemps ou non …

Associez-vous ce score avec une garantie du produit ?

Oui, clairement.

Quelles sont les questions que tu te poses par rapport à cet indice ?

Ben alors du coup, sur base de quoi précisément, les gens se basent pour faire ce score ?

Ok. Trouves-tu que l'information est claire ?

Oui comme j'ai dit c'est très visible et on voit directement le 8/10.

Trouves-tu que l'information est complète ?

Euh c'est compliqué. Claire oui mais est-ce qu'on n'a pas besoin de plus d'informations ?

Ok et comment tu le rendrais plus complet ?

Euh, en rajoutant une extension quelque part … mais peut-être ça va être trop et que se sera contradictoire avec cette idée de clarté que j'ai dit au début. Faut voir.

Ouais mais tout dépend de où…

Oui tout dépend d'où tu mets l'extension.

Et trouves-tu que l'information est fiable ?

Dans le cas où ce sont des experts qui le mettent un jour sur un produit oui.

Ok. Donc là c'était par rapport à l'information de l'indice et maintenant on va plutôt parler du format ? Que penses-tu du format de cet indice ?

Top… design, couleur, police … c'est visuellement attrayant

Trouves-tu que le format véhicule l'information de manière claire ?

Oui comme j'ai dit, hyper.

Super donc maintenant on va passer au deuxième indice développé… Celui-ci *[montre le Logo 2].* Je vais te poser les mêmes questions pour celui-ci. Alors quelle est ta première impression par rapport à cet indice-là ?

Alors ça c'est un indice qui ressemble déjà à ce qu'on a pu voir sur des machines à laver et tout ça donc on connait plus ou moins c'est du coup plus facile à comprendre. Mais euh…J'aime bien mais juste que je pencherais sur quelque chose de neuf. J'aime la nouveauté. Le 7-8 à côté du 7 et 8 rend les choses faciles mais je préfère l'autre.

Ok nickel, trouves-tu que l'information est complète ?

Oui

Fiable ?

Oui oui pareil.

Et au niveau du format ? Qu'en penses-tu ?

Les couleurs ici rajoutent une touche plus joyeuse que le précédent euh … Mais je sais pas dire si je trouve cela plus joli nécessairement que le précédent.

Ok et euh… Ok non c'est bon. Passons maintenant au dernier *[montre le Logo 3].* Alors par rapport à cet indice-là quelle est ta première impression ?

Ah celui-là je l'aime bien aussi ! C'est un bon mix entre les deux premiers en fait ! Dans le sens où je le trouve clair comme le premier avec la note qui ressort alors que dans le deuxième il ressort en avant mais pas autant qu'ici. Aussi il y'a des couleurs dans ce cas-ci c'est joyeux. Un petit moins simple que le premier mais ça reste sympa.

Ok… Ben on va passer du coup à la suite *[montre les trois logos ensemble].* De manière générale quel indice préfères-tu ?

Le premier pour sa simplicité, le fait que ce soit direct et le troisième pour les couleurs et qui est un peu moins complexe que le deuxième … Donc c'est entre ces deux-là que mon choix va se porter euh … Le premier… Quand je pense à toutes les autres personnes sur cette planète, je pense que le premier et vraiment claire.

Ok et trouves que l'information est identique pour les trois indices ? Ont-ils la même signification ?

Oui ... Le premier est juste mis 8/10 alors que les autres c'est plus un intervalle mais dans tous les cas on comprend que ce soit 7 ou 8, que c'est plutôt réparable.

Oui ok mais si tu regardes de manière plus profonde les trois. Par exemple le deuxième on est d'accord il y'a plus d'informations ?

Alors en toute sincérité étant quelqu'un qui cherche vite l'information j'ai à peine vue sur le deuxième le « fortement réparable » et « faiblement réparable »… Maintenant que tu le dis c'est intéressant parce que je me rends compte que suite au premier j'avais tendance à vouloir directement chercher le score et j'en ai un peu oublié les informations autour.

Ok je vois. Et quelle information te semble la plus complète entre les trois ?

Euh alors le deuxième …Vue que j'ai mieux poser l'œil maintenant sur le deuxième… En effet il est plus précis mais moins facile à traiter rapidement car plus de choses sur cet indice après surement plus compréhensible c'est claire !

Au niveau du format quel est l'indice qui attrait le plus ton attention ?

Euh le format … De nouveau entre le 1 et 3 euh … Mais je dirai le premier car vraiment simple après j'aime bien le trois pour les couleurs.

Du coup quel indice véhicule l'information de manière directe ?

Le premier c'est certain !

Quel format maintenant véhicule l'information de la manière la plus claire ?

Le 1… Oui oui.

Et alors de manière la plus compréhensible ?

Le deux.

Et de manière la plus fiable ?

Ben pourquoi pas le troisième, avec les intervalles, les couleurs tout en restant simple … Comme c'est un bon mix je dirai le troisième.

Est- ce que c'est parce que le format de l'indice te semble familier ?

Le deuxième est familier …

Oui mais je veux dire ici c'est sur base de celui que tu choisis ?

Hein ben je choisis le 1 et celui-là n'est pas familier …

Génial du coup je reviendrai sur une question, quel est le format que tu choisis ?

Le premier.

Du coup maintenant on va passer à la suite, des idées au niveau de l'affichage de l'indice. Suite à tout ce que je viens de te présenter, il faut que tu réfléchisses à l'affichage de cet indice donc comment voudrais-tu que l'indice de réparabilité soit affiché ?

Avec une étiquette sur l'écran de l'ordinateur. En fait, je m'imagine rentrer chez MediaMarkt, aller dans le rayon ordinateur et j'aimerais alors que l'indice soit collé sur l'écran de l'ordinateur, dans le coin par exemple. C'est comme ça que je verrai la chose en tout cas.

D'accord, et lequel de ces trois formats trouves-tu le plus adapté pour mettre sous la forme d'un autocollant ?

Clairement le premier, c'est sûre.

D'accord. Maintenant je vais te montrer comment nous on souhaite montrer l'affichage donc ce qu'on a comme idée à mettre sur une annonce. On l'a fait comme ceci *[montre les trois annonces, chacune avec un des trois indices].*

Dans le cas où c'est sur la fiche de description, c'est pas mal oui parce qu'il est juste en dessous du prix. Je pense qu'une fois que l'ordinateur nous paraît visuellement attrayant, on regarde le prix et surement aussi l'indice en même temps donc là il est super bien situé sur l'annonce.

Donc pour toi l'affichage de l'indice est clair ?

Oui sauf que le deuxième indice copié de ce qu'on peut voir sur les machines à laver … Euh… J'aime un peu moins. Ça me tape moins dans l'œil que les deux autres.

Ok d'accord et trouves-tu que l'affichage de cette indice rend l'annonce fiable ?

Oui oui clairement.

Et à partir de quel score considères-tu un ordinateur comme fortement réparable ?

7/10.

Et faiblement ?

Quand même 5 hein.

Ok génial, un tout grand merci.

Appendix 10 : Transcript of the interview with Francis De Cuyper (FR)

Francis De Cuyper: Man, 75 years old, Belgian living in Limelette, retired

Date and location: 24th June 2019, Limelette

Language: French

Duration: 25 min 55

Advertisement shown: Laptop priced at 1099€

Alors, avant de commencer, je vais te demander de te présenter en quelques mots.

Eh ben, je suis né en 43 donc j'ai 75 ans, bientôt 76. J'habite Limelette et je suis pensionné.

Ok, merci. Alors maintenant, nous allons commencer. Tu envisages d'acheter un ordinateur portable. Quel serait le budget que tu consacrerais à cet achat.

Environ 400 – 500 euros.

Maintenant imaginons que tu fasses des recherches sur internet et que tu tombes sur l'annonce suivante *[montre l'annonce au prix de 1099€].* Alors, premièrement quelle est ta première impression par rapport à cet ordinateur ?

La vision, l'aspect ?

Oui, en ne faisant pas attention aux caractéristiques du produit, donc juste l'ordinateur en lui-même.

Ok, bah c'est pas mal, disons… c'est bien présenté. Il est agréable à regarder.

Parfait, as-tu déjà vu cet ordinateur portable quelque part ?

Non

Penses-tu que cet ordinateur est un ordinateur de haut ou de bas de gamme, juste en regardant cet ordinateur ?

Euh, ça c'est comme tout, il y a des choses qui paraissent très bien, qui inspire confiance mais qui sont très mauvais au point de vue technique, donc à la limite voilà, sans plus.

D'accord, connais-tu la marque présentée ?

Pas du tout.

Cette marque t'inspire-t-elle confiance ?

Oui en quelque sorte.

Ok, maintenant on va passer aux caractéristiques techniques. Quels sont tes impressions par rapport à la performance de cet ordinateur ?

Alors, j'en sais rien du tout, car je ne suis pas du tout expert en informatique.

Ok alors, nous allons pas aller plus loin là-dessus. Que penses-tu du prix demandé pour cet ordinateur portable ?

Ah ben voilà, il nettement supérieur au montant que j'avais prévu de dépenser. Donc je vais d'office je pense le rejeter.

Quel serait le prix minimum que tu serais prêt à mettre pour cet ordinateur ?

500 euros.

Et le maximum ?

Euh il y en a pas, c'est le prix maximum qui est affiché.

Ok, alors passons à la suite de cet entretien. Je vais te mettre dans une autre situation. Tu dois t'imaginer être responsable d'un indice de réparabilité pour l'ordinateur présenté dans l'annonce. Pour toi quelles informations devraient contenir cet indice ?

Ce que je mettrais en avant, c'est une garantie qu'il soit réparable, et une extension de garantie si éventuellement il y en a. Il y a la garantie légale qui dure deux ans je crois et avec un petit supplément on peut étendre cette garantie à 5 ans ou plus.

Ok, cet indice va informer le consommateur de la réparabilité du produit. Pour toi quels sont les éléments à prendre en compte pour créer cet indice mis à part la garantie ?

Disons ce qui serait intéressant d'avoir c'est des informations sur la fiabilité via test-achats ou d'autres organisations.

Ok, et sinon par rapport à la représentation de cet indice. Comment toi tu la représenterais de manière claire et compréhensible ? Donc la manière de présenter cette information.

Il serait intéressant d'avoir un papier ou une preuve de l'engagement des revendeurs qui garantit une fiabilité accrue du produit comparé à d'autres s'engageant à prendre en charge les réparations pendant 5 ans par exemple.

Ok mais donc ça ce serait plus une fiche technique. Et de manière claire et compréhensible. Si le consommateur arrive dans le rayon et qu'il a plusieurs produits devant lui ?

Alors dans ce cas, à l'instar de ce que Fiat a fait maintenant, faire une annonce avec des petits textes en gris et en italique en bas de la page disant : On vous propose une garantie de dix ans sur cette voiture une voiture ou pour autant de kilomètres, donc des choses ainsi. Mais d'une manière plus visible encore de façon à se démarquer par rapport aux concurrents.

Ok, d'accord, maintenant je vais te montrer un peu comment nous avons vu les choses. Donc on a développé plusieurs logos pour représenter l'information de réparabilité. Le premier c'est celui-ci *[montre le Logo 1].* Quelle est ta première impression par rapport à cet indice ?

Il est pas spécialement beau et pas très parlant. Disons quand on achète quelque chose, on pense déjà pas à la réparation. On pense à la fiabilité.

C'est très intéressant ce que tu dis. Et donc pour toi, l'indice de réparabilité, c'est quelque chose qui te rendrais sceptique ?

Oui, car on considère déjà que le produit va tomber en panne.

Ok. Alors poursuivons. Que comprends-tu quand tu vois cet indice ?

Alors, disons je suis pas spécialement attiré par cet indice car j'aurais préféré car j'aurais préféré un indice de fiabilité.

Et que signifie pour toi, un indice avec une note de 8/10 en réparabilité ?

Qu'il est réparable et qu'on peut le faire d'une manière relativement facile, sans trop de frais je suppose.

Et pour toi, quels sont les critères pris en compte pour arriver à cette note de 8/10.

Ah ça je n'en sais rien.

Ok, alors associes-tu cet indice avec une garantie du produit ?

Non. Disons que si on dit qu'il est réparable, on sous-entend déjà qu'il peut tomber en panne.

Dans ce sens-là, d'accord. Maintenant quels sont les questions que tu te poses par rapport à cet indice ?

Bah oui, c'est pas très fiable.

Et toi qu'attends-tu comme informations sur la réparabilité alors ?

Il faudrait donc préciser la réparabilité en tant que telle. Ça veut dire qu'il y ait une possibilité de rendre opérationnel, l'appareil qu'on a acheté de façon rapide et sans frais. Une note de 8/10 garanti cela avec des délais raisonnables.

Oui donc, pour toi cet indice, est tout de même associé à une garantie ?

Oui, disons que dans la fiche du produit ce serait bien qu'il y ait l'indice de réparabilité et à coté un indice de fiabilité.

Ok, toujours par rapport à cet indice, trouves-tu que l'information est claire ?

Oui.

Que l'information est complète ?

Non, je ne trouve pas.

Ben du coup, comment tu rendrais l'information plus complète ?

Avec un indice de fiabilité car la première c'est d'avoir un ordinateur fiable et si il y a un souci, qu'il ait une réparabilité importante.

Ok d'accord, et trouves-tu que l'information de cet indice fiable ?

Pour qu'elle soit fiable, elle doit être couplée à un indice de fiabilité.

Maintenant on va plus parler de l'information. Mais plus du format de l'indice en question. Tes premières impressions ?

Visuellement c'est pas super attrayant, ça manque un peu de couleur.

Est-ce que tu trouves que ce format véhicule l'information de réparabilité de manière claire ?

Oui tout à fait mais ce n'est pas super attrayant au visuel. Maintenant ce qu'on pourrait faire, c'est rajouter des couleurs par exemple mettre la note de 8/10 dans un cercle de couleur verte ou encore une note de 2 dans un cercle de couleur rouge par exemple.

Ok, passons au second logo crée *[montre le Logo 2].* Quels sont tes impressions par rapport à cet indice ?

Très bien, c'est le même style qu'on emploie pour les consommations d'électroménagers et autres. C'est plus parlant et plus lisible aussi. J'aime bien le regarder.

Ok, maintenant au niveau de l'information de réparabilité. Trouves-tu que cet information est claire ?

Oui.

Complète ?

Oui, car on donne le positionnement de l'article sur cette échelle.

D'accord, et trouves-tu que l'information est fiable ?

Ah ça oui.

Maintenant au niveau du format. Tu as dit que tu le trouvais visuellement attrayant précédemment. Trouves-tu qu'il véhicule l'information de manière claire ?

Tout à fait.

Parfait, maintenant regardons le dernier logo *[montre le Logo 3]. Tes premières impressions ?*

Même style que le précédent. Sauf que maintenant, il a été fait sur base du Nutri-score pour les aliments.

Même question que précédemment. Trouves-tu que l'information est claire ?

Oui.

Qu'elle est complète ?

Suffisamment complète mais moins bien que le précédent.

Et trouves-tu que l'information est fiable ?

Oui.

Par rapport au format à présent. Trouves-tu qu'il est visuellement attractif ?

Oui, mais moins bien que le précédent.

Trouves-tu que ce format véhicule l'information de manière claire et compréhensible ?

Oui.

Et de manière fiable ?

Egalement.

Ok passons à la suite. Maintenant, tu vas comparer les 3 indices présentés précédemment *[montre les trois logos ensemble].* De manière générale, quel indice préfères-tu ?

Le logo 2.

Ok, trouves-tu que l'information est identique pour les trois indices ? Pour toi, ont-ils la même signification au niveau de l'information de réparabilité ?

Oui maintenant, le logo 2 et le logo 3 semble moins précis au niveau de l'information car il s'agit d'un intervalle. On aurait pu mettre un 8 au lieu d'un intervalle 7-8. Le premier est pas mal, mais il faudrait un look différent.

Maintenant par rapport à l'information de réparabilité véhiculée par l'indice, y en a-t-il un qui est plus clair à tes yeux ?

Bah oui, je dirais que le logo 1 est simple et efficace même si il manque un peu de couleurs et le logo 2, il y a une précision avec le fortement réparable et faiblement réparable, on sait plus clairement de quoi l'indice parle. C'est plus parlant. Le troisième est pas mal non plus, mais comparé au deuxième qui est plus ou moins similaire, on a moins d'informations.

Ok parfait. Et donc selon toi, quel indice est le plus compréhensible ?

Le logo 2. Il est plus complet et avec l'échelle on comprend mieux ce que véhicule l'indice. En plus, la plupart des gens sont déjà habitué à ce format d'indice

Et maintenant au niveau du format quel indice préfères-tu ?

Le deuxième pour la lisibilité. Dans le logo 1 on a juste l'indice mais ici on explicite fortement réparable et faiblement réparable. Donc c'est plus facile et compréhensible.

Trouves-tu que ces 3 formats véhiculent l'information de réparabilité de manière identique ?

Non. Parce que un donne une note et les autres un intervalle.

Et alors justement, quel est le format qui selon toi, véhicule l'information de la manière la plus claire ?

Toujours le deuxième logo.

De la manière la plus compréhensible ?

Aussi. Car si on regarde le premier logo, on peut se poser la question si 8/10 c'est bien car on a pas de références de couleurs.

De la manière la plus fiable ?

Toujours le logo 2.

Est-ce parce que le format de l'indice t'est familier ?

Oui voilà, tout à fait. Je pense aussi que la plupart des gens doivent être plus habitués à ce logo plutôt qu'à celui du Nutri-score qui est plus récent et encore moins connu.

Merci. On va passer maintenant à l'avant dernière partie de cet entretien. Donc tu as vu l'ordinateur présenté précédemment et les différents indices de réparabilité créés et maintenant je vais te demander de réfléchir à l'affichage de cet indice. Comment voudrais-tu que l'indice de réparabilité soit affiché ?

Je le placerai à côté de l'objet, à côté de l'ordinateur dans ce cas-ci. Ou un petit logo sur l'ordinateur en tant que tel, ce serait encore plus facile.

Parfait et quel logo placerait-tu sur l'ordinateur ?

Le deuxième logo.

Alors, j'ai compris que tu placerais le logo sur l'ordinateur. Nous, étant donné que nous devons réaliser une étude quantitative sur le sujet, nous l'avons placé des annonces de type internet. Voici donc ces annonces ***[montre les trois annonces, chacune avec un des trois indices]. Que penses- tu de l'affichage des indices sur ces annonces ?***

C'est assez clair, juste en dessous du prix.

Trouves-tu que l'affichage de ces indices rend l'annonce fiable ?

Oui, on a l'impression d'être en face de véritables annonces avec des informations utiles en plus.

Parfait. Dernière petite question. A partir de quel score considères-tu qu'un ordinateur est fortement réparable ?

A partir de 7 ou 8.

Et de manière similaire, à partir de quel score considères-tu qu'un ordinateur est faiblement réparable ?

A partir de 6.

Voilà c'est terminé pour cet entretien. Merci de m'avoir consacré ton temps.

Appendix 11 : Transcript of the interview with Patricia Merckx (FR)

Patricia Merckx: Woman, 51 years old, Belgian living in Limelette, employed in a social insurance fund

Date and location: 24th June 2019, Limelette

Language: French

Duration: 24 min 09

Advertisement shown: Laptop priced at 1099€

Alors tout d'abord avant de commencer, je vais te demander de te présenter en quelques mots.

Alors je m'appelle Patricia j'ai 51 ans et je travaille dans une caisse d'assurance sociale depuis plus de 30 ans. Je fais le lien entre les informaticiens et le business dans la position que j'occupe.

Parfait, nous pouvons commencer l'entretien. Imagines que tu envisages d'acheter un nouvel ordinateur portable. Quel serait le budget que tu y consacrerais.

Je dirais que ça dépendrait de toute façon des capacités de l'ordinateur mais je suis prêt à mettre un prix considérable, certainement au-delà de 600 euros.

Quels seraient les aspects/caractéristiques pour lesquels tu serais prête à payer plus que ton budget initial ?

Je dirais la mémoire mais également l'écran, que celui-ci soit assez grand mais aussi le poids car on attend toujours d'un ordinateur portable qu'il soit facilement transportable.

Ok et à l'inverse quelles sont les caractéristiques auxquelles tu ne tiens pas vraiment compte lors de ton achat ?

Je n'en ai pas vraiment, je regarde plutôt dans le PC dans son ensemble.

Maintenant que tu aies une petite idée de ce que tu recherches comme ordinateur portable. On imagine que tu fasses des recherches sur internet et que tu tombes sur l'annonce suivante *[montre l'annonce au prix de 1099€].* Quel est ton impression par rapport à celle-ci ?

Ben je dirais que c'est une annonce assez conventionnelle, avec la présentation du produit et ses caractéristiques. Elle me semble réaliste car j'ai déjà rencontré des annonces similaires sur internet.

Ok, as-tu déjà vu l'ordinateur portable présenté dans cette annonce ?

Non je ne pense pas, non.

Que penses-tu de son design ?

Je trouve que c'est un bel ordinateur portable. J'aime beaucoup le fait qu'il soit épuré. Il a l'air léger aussi et ça c'est un bon point.

Penses-tu que cet ordinateur est un produit bas de gamme ou haute gamme ?

Suivant les caractéristiques que je peux voir ici, il y a quand même pas mal de mémoire bien qu'aujourd'hui certains pc ont une mémoire beaucoup plus importante. Donc au vu de cela, je dirais plutôt milieu de gamme.

Reconnais-tu la marque de cet ordinateur ?

Non, elle ne me dit rien.

Cette marque t'inspire-telle-confiance ?

C'est à dire que je ne la connais pas donc difficile à dire. Si je pouvais éventuellement le voir en vrai, je saurais t'en dire plus. Mais vu le prix proposé, je me tournerais plus vers quelque chose que je connais actuellement.

Ok et maintenant en faisant abstraction de tout ça, que penses-tu des caractéristiques techniques de l'ordinateur ?

Euh… Je dirais que pour un ordinateur milieu de gamme c'est raisonnable, on peut trouver mieux mais tout dépend de l'utilisation qu'on en fait. On a pas spécialement besoin d'avoir une énorme mémoire ainsi qu'une grande capacité de stockage si on n'utilise son pc que pour consulter ses mails par exemple. Par contre, avec le prix proposé, on s'attend à avoir de meilleures performances que celles qui sont affichées.

Intéressant. En parlant de prix, quel est ton avis par rapport à celui-ci ?

Je trouve qu'il est excessif.

D'accord et quel serait le prix minimum que tu serais prête à mettre sur la table pour cet ordinateur ?

Je pense qu'on peu plus ou moins diviser par deux ce montant donc je dirais 500.

Et le prix maximum ?

600 euros.

Ok, parfait, c'est fini pour cette partie. Maintenant on imagine que tu sois responsable du développement d'un indice de réparabilité. Quelles informations devraient contenir l'indice que tu souhaites développer ?

Il devrait contenir une information quant à la possibilité de réparer le pc et donc prendre en compte certains critères qui définissent la réparabilité d'un produit. Je pense par exemple au fait de pouvoir démonter l'ordinateur, de pouvoir trouver aisément les pièces afin de réparer celui-ci et bien d'autres.

Bien, et comment verrais-tu la représentation de cet indice ? Sous quelles formes ?

Je penserai plutôt à quelque chose qui soit visible, avec des couleurs donc je le représenterais sous forme de logo par exemple un peu comme ce que l'on fait pour les machines à laver et d'autres produits électroménagers.

Effectivement c'est une manière de le faire. C'est d'ailleurs comme cela que nous l'avons représenté dans notre étude. Voici un des premiers logo que l'on a créé *[montre le Logo 1]*. Sur base de celui-ci je vais te poser une série de questions. Tout d'abord, ta première impression par rapport à ce logo ?

Disons qu'en voyant la note de 8/10, on a tendance à dire que notre pc est réparable dans 80 pourcent des cas.

Ok, pour toi, cet indice est-il associé à une garantie du produit ?

Euh oui, certainement. Je pense que tout appareil ne peut pas être réparé à 100 pourcent mais ici l'indice est quand même élevé. Si l'indice était de 4, j'aurais dit non mais ici ce n'est pas le cas.

Quels sont les questions que tu te poses en voyant cet indice ?

Bah qu'est-ce qu'on peut espérer de la réparation ? Quels sont les situations qui sont réparables ? Qu'est ce qui est réparable et qu'est ce qui n'est pas réparable ?

Par rapport à l'information véhiculé par rapport cet indice ? Trouves-tu que l'information est claire ?

Oui effectivement, il est clair, il n'y a pas beaucoup d'écriture et il est simple.

Trouves-tu que l'information est complète ?

Disons que ma question auparavant, c'est que je ne sais pas très bien ce que représente le 8/10 dans ce cas-ci, donc une explication supplémentaire à l'indice serait intéressante.

Ok et cette information est-elle fiable selon toi ?

Oui je pense effectivement qu'elle est fiable. Mais il faudrait quand même un peu plus d'explications sur le pourquoi du 8 et pas du 10.

Ok, à présent parlons du format de l'indice ? Qu'en penses-tu ?

Disons que le bleu est quelque chose de positif. Donc je trouve que la couleur est pas mal. Visuellement, il est agréable.

Ok, trouves-tu que ce format véhicule l'information de manière clair ?

Oui, car c'est un format assez neutre, et donc on a tendance à se concentrer que sur l'information dans ces cas.

Passons maintenant au deuxième logo *[montre le Logo 2].* Que penses-tu de celui-ci ?

Bah c'est un logo qui est relativement familier et qui est basé sur le label énergétique il me semble.

Ok, même chose que pour le logo précédent, l'information véhiculée par l'indice est-elle claire à tes yeux ?

Oui. J'ai pris l'habitude de voir ce genre de logo du coup je sais directement comment considérer cette information.

Trouves-tu que l'information est complète ?

Partiellement. Il manque toujours des infos supplémentaires qui expliqueraient la note de 8/10.

Trouves-tu que l'information est fiable ?

Oui.

Au niveau du format, quelles sont tes impressions ?

Comme je l'ai dit précédemment, pour moi ce format est plus familier. Le fait d'utiliser les couleurs attire le regard et indique clairement si la réparabilité est considéré comme bonne ou mauvaise.

Ok passons maintenant au dernier logo *[montre le Logo 3].* Quel est ton opinion par rapport à celui-ci ?

Je dois avouer, je ne l'aime pas trop, il, est moins attrayant que les deux autres selon moi.

Trouves-tu que l'information est claire ?

Claire, oui car le 7-8 est toujours mis en avant donc on constate que la réparabilité est bonne. Mais comme pour les précédents il manque une information détaillée de la réparabilité qui serait je pense nécessaire.

Trouves-tu que l'information est fiable ?

Il pourrait l'être mais ça m'inspire moins confiance la manière dont ce logo est présenté.

Et au niveau du format, que penses-tu ?

Euh, pour moi on devrait mettre en avant tout ce qui est en vert et réduire ce qui est en rouge. Ici on a l'impression que tout est pareil, on dit simplement que l'indice est près de 7-8 mais on le remarque moins facilement, c'est moins intuitif.

A ce stade tu as vu tous les indices que nous avons développés, je vais te demander maintenant de les comparer *[montre les trois logos ensemble].* De façon générale quel indice préfères-tu ?

Je donnerais ma préférence au logo 2 car il est familier et qu'il est plus intuitif car on comprend aisément qu'en montant l'échelle, la réparabilité augmente et que cela est positif.

Pour toi, les indices présentés ont-ils la même signification au niveau de l'information fournie.

Par rapport à l'information en elle-même qui est celle de la réparabilité, je dirais oui. Mais d'un autre côté je dirais non car il y a quand même des différences dans l'interprétation. Pour le logo 1, on a une note de 8 alors que pour les deux autres logos on nous donne un intervalle.

Du coup par rapport à l'information fournie, quel logo te semble le plus clair ?

Le logo 1 assurément puisque il est le plus précis au niveau de la note et qu'il est plus direct car quand on tombe dessus on voit directement la note au centre du cercle.

Et le logo le plus compréhensible ?

Je dirais le logo 2 grâce aux couleurs et aux indices « fortement réparable » et « faiblement réparable ». Il est de ce fait plus facile à interpréter.

Ok, et au niveau du format, lequel de ces indices préfères-tu ?

Avec ce que j'ai dit précédemment, le deuxième car il est familier et coloré.

Selon toi, les formats utilisés pour chacun de ces indices transmettent-t-il l'information de la même manière ?

Non car le logo 1 n'utilise pas les couleurs alors que logo 2 et 3 oui. Aussi, il y une idée d'échelle sur les logos 2 et 3. L'information qui est véhiculée n'est donc pour moi pas totalement la même.

D'accord, et selon toi quel est le format qui véhicule l'information de la manière la plus claire ?

Je dirais le 1 par rapport à ce que j'ai dit tout à l'heure. Le format est neutre et l'information clairement présenté au centre du logo.

Et le format le plus compréhensible.

Le logo 2 car on se repère sur l'échelle et on sait définir où on se situe sur celle-ci en ce qui concerne la réparabilité.

Parfait, maintenant que tu as vu les trois indices en question, je vais te demander de réfléchir à l'endroit où tu afficherais le logo réparabilité. En d'autres termes, comment voudrais-tu que l'indice de réparabilité soit affiché ?

Personnellement, je trouve qu'il doit être visible aux yeux du consommateur, du coup je pense que je l'afficherais sur le produit lui-même, donc sur l'ordinateur. Généralement, on fait d'abord attention au design du produit avant de regarder ses caractéristiques, du coup cela me semble plus logique de le placer à cet endroit.

Parfait, et quel logo parmi ceux présentés précédemment choisirais-tu pour mettre sur l'ordinateur ?

Je prendrais le premier pour ne pas porter à confusion avec le logo 2 qui est semblable au label énergétique.

Parfait, toujours par rapport à l'affichage de l'indice de réparabilité, nous avons également réfléchi à l'endroit sur lequel le placer. Etant donné que notre étude se fera sur internet, nous l'avons positionné sur les annonces de cette manière *[montre les trois annonces, chacune avec un des trois indices].* Que penses-tu du positionnement de l'indice de réparabilité sur ces annonces ?

Ben moi je trouve que c'est bien de le placer en dessous du prix parce que effectivement une des premières choses que l'on va regarder c'est le prix et en fonction du prix on va voir directement en dessous qu'il y a moyen de faire une réparation et à quel pourcentage.

Encore une dernière question pour clôturer cet entretien. A partir de quel score considères-tu qu'un appareil est fortement réparable ?

Je dirais à partir de 70-80 % donc 7-8 sur dix.

Et faiblement réparable ?

A partir du moment où on se trouve en dessous de 7.

Voilà c'est tout pour cette enquête. Merci d'avoir pris le temps de répondre à cet entretien.

Appendix 12 : Transcript of the interview with Jean-Paul Bovy (FR)

Jean-Paul Bovy: Man, 54 years old, Belgian living in Jodoigne, skilled worker in the printing industry

Date and location: 25th June 2019, Jodoigne

Language: French

Duration: 24 min 09

Advertisement shown: Laptop priced at 699€

Pour commencer, je vais demander de vous présenter en quelques mots ?

Alors je m'appelle Jean-Paul, j'ai 54 ans et je suis ouvrier qualifié dans le domaine de l'imprimerie.

Parfait, nous pouvoir à présent passer aux choses sérieuses. Imaginez-vous dans la situation suivante : vous envisagez d'acheter un ordinateur portable. Quel serait le budget que vous seriez prêt à mettre sur la table ?

D'accord.. Ben disons que je pourrais mettre 1000€.

Quels seraient les aspects/caractéristiques pour lesquels vous seriez prêt à payer plus que votre budget initial ?

Euh.. déjà la marque de l'ordinateur en question, et puis la facilité d'utilisation.

Ok, parfait, et à l'inverse quels sont les aspects qui entrent moins en compte lorsque vous envisagez d'acheter un nouvel ordinateur portable ?

Le prix, je dirais. Si je veux quelque chose, je suis prêt à mettre le prix.

Ok, maintenant on imagine que vous faites des recherches sur internet et que lors de vos recherches, vous tombez sur l'annonce suivante *[montre l'annonce au prix de 699€].* Que pensez-vous de cette annonce de façon générale ?

Elle me semble correcte, il y a toutes les informations qu'on retrouve généralement dans une annonce conventionnelle. C'est une vraie annonce ?

Non, du tout mais tant mieux si elle vous semble réaliste. Continuons, que pensez-vous du design de cet ordinateur ?

Oh, il est assez joli, il ressemble un peu au MAC d'Apple.

Ah oui, mais non ce n'est pas un MAC. Mais malgré tout, pensez-vous que cet ordinateur est un ordinateur bas de gamme ou plutôt haut de gamme ?

De ce que je vois là, je dirais que c'est un ordinateur aux capacités moyennes et donc plutôt milieu de gamme.

Connaissez-vous la marque de l'ordinateur présenté ?

Non, absolument pas.

Cette marque vous inspire-t-elle confiance ?

Ben je ne la connais pas, mais bon à l'heure actuelle je pense qu'il n'y a pas de bons ou de mauvais matériel, tout dépend de ce qu'on attend du produit.

Par rapport aux caractéristiques techniques, quels sont vos impressions ?

Ben en fonction des caractéristiques présentées, je dirais qu'il est plus ou moins performant. A l'heure actuelle, on fait des choses beaucoup mieux au niveau des performances d'un ordinateur, mais alors là on est plus dans du haut de gamme que dans du moyen de gamme.

Que pensez-vous du prix proposé pour cet ordinateur.

Il me semble juste, avec un bon rapport qualité/prix.

Parfait, à présent nous allons rentrer dans le vif du sujet. Imaginons que vous êtes responsable de l'élaboration d'un indice de réparabilité pour l'ordinateur que je vous ai présenté dans le cadre de cet entretien. Selon vous, sur base de quels éléments allez-vous construire cet indice ?

Euh, pas évident cette question. Bah si je considère que je dois réparer un bien, tout d'abord il me faudrait avoir les pièces pour pouvoir le réparer, donc une information sur les pièces disponibles. D'un autre côté, pour effectuer une réparation, que ce soit un vendeur, ou moi-même, il est important de pouvoir avoir accès à toute la documentation de l'ordinateur pour savoir comment le démonter etc. Je suppose qu'il y a d'autres choses mais c'est tout ce que je vois pour l'instant.

C'est déjà un bon début. Et selon-vous comment représenteriez-vous cet indice de manière claire et compréhensible ?

Je le représenterais par un pourcentage de réparabilité.

Parfait. Maintenant je vais vous montrer ce que nous avons développé pour représenter la réparabilité *[montre le Logo 1].* Comme vous pouvez-le voir, nous avons représentez sous forme de note sur 10. Par rapport à cet indice, quelles sont vos impressions ?

C'est clair, et puis je pense que c'est un bon indice une note de 8 sur 10.

OK, que signifie pour vous, un produit ayant une note de réparabilité de 8/10 ?

Qu'il est fiable.

Donc en un sens, l'indice constitue une forme de garantie selon vous ?

Oui en un sens, car si il tombe en panne, il y a toujours un moyen de le réparer.

Quelles sont les questions que vous vous posez en voyant cet indice ?

La question que je me pose c'est de savoir qu'est ce qui n'est pas réparable.

Oui, je comprends. Malgré cela, au niveau de l'information fournie par cet indice, trouvez que celle-ci est claire ?

Oui car on va droit au but.

Compréhensible ?

Également.

Et fiable ?

Oui, elle est fiable. Enfin en tout cas, je lui ferais confiance.

Et maintenant on va s'attarder plutôt sur le format du logo (couleurs, design, etc..). Qu'en penses-tu ?

Disons qu'il passe inaperçu.

Et selon-vous c'est positif ou négatif ?

Plutôt négatif dans ce cas-ci car c'est peut-être moins visible et donc on n'y prêtera peut être pas attention. Un peu de couleurs, ça n'aurait pas fait de mal.

Parfait, nous pouvons continuer avec le second logo *[montre le Logo 2].* Quel est votre opinion par rapport à celui-ci ?

A vrai dire, il me semble que ce logo est basé sur le label énergétique des produits, je me trompe ?

Non, c'est exact. Et qu'en pensez-vous ?

Cela pourrait porter à confusion mais en même temps du fait qu'on y a déjà été confronté, c'est aussi plus facile de pouvoir comprendre l'information qui nous est présentée.

Même question que pour le précédent logo, trouves-tu l'information clair, compréhensible, et fiable ?

Clair, effectivement. Compréhensible aussi, et pour ce qui est de la fiabilité, j'aurais tendance à y croire car il est basé sur le label écologique et que ce label inspire confiance.

Et au niveau du format maintenant ? Quel est votre impression ?

L'aspect très positif ici, c'est les couleurs. Je trouve que c'est tellement plus parlant d'avoir un chiffre et une couleur associée, on assimile plus facilement l'information.

Ok, nickel…Maintenant, regardons ensemble le 3ème logo *[montre le Logo 3]*. Donc pareil quelles sont vos premières impressions ?

Euh…Mouais…Ben c'est moins clair. Déjà on a un intervalle qui est de 7-8 et de plus que le score de réparabilité n'est pas vraiment mis en avant. Fin ça pourrait être plus clair.

Donc pour ce qui est de la clarté, vous trouvez que ce n'est pas super clair ?

Oui voilà …

Et est-ce que pour vous l'information est complète et fiable ?

Pas complète… C'est mis score de réparabilité mais bon … Il manque le haut et là-bas … En gros la précision des niveaux. Et concernant la fiabilité, il ne m'inspire pas vraiment confiance du fait qu'il est un peu farfelu.

Ça marche… Euh…Et au niveau du format, qu'est-ce que vous aimez et n'aimez pas ?

Ce que j'aime bien c'est les couleurs, et ce que je trouve moins que le score de réparabilité n'est pas mis en avant avec ce format.

D'accord, maintenant je vais vous demander de les comparer et de me dire premièrement quel logo préférez-vous de manière générale *[montre les trois logos ensemble]* ?

Je préfère le premier.

D'accord et pourquoi ?

De quoi ?

Pourquoi préférez-vous le premier ?

Ben c'est un logo qui selon moi est plus précis quant à la réparabilité et puis il est plus clair., on n'y va pas par quatre chemin, cela demande peu de réflexion pour comprendre l'information.

Ok et pour vous est-ce que l'information est la même pour les trois indices ?

Non

Pourquoi elle ne serait pas la même ?

Ben le premier dit 8/10 et les autres donnent un intervalle entre 7 et 8 sur 10 donc je comprends mieux le premier.

Ok parfait et…Euh…Du coup l'indice qui vous semble le plus claire est le premier mais quelle information était la plus compréhensible ?

Pareil le premier.

Toujours le premier ok… Et quelle information vous semblait la plus fiable ?

Plus fiable ? Mmh… Ben on va peut-être on va dire le deuxième car j'y suis déjà habitué avec le label énergétique donc j'y donnerai plus ma confiance.

Ok et au niveau du format quel est l'indice qui attire le plus votre attention ?

Euh .. au niveau du format, bah le deuxième clairement car j'aime bien les choses colorées.

Et est-ce que ces trois formats véhiculent l'information de la même manière ? Donc imaginez les labels sans l'information dessus. Pour vous le format véhicule l'information de réparabilité de la même manière ?

Euh … non pas tout à fait je dirais, si on prend le premier format, on a pas d'idée si la réparabilité est bonne ou mauvaise, il n'y a pas d'indications supplémentaires. Les deux autres pour ça sont mieux car avec les couleurs on comprend rapidement si le produit a une forte réparabilité en fonction des couleurs utilisées. Après je dirais que j'ai quand même une préférence pour le logo 2 car il est mieux agencer et plus familier ce qui m'inspire confiance.

Ok. Et maintenant que vous avez vu ça, comment vous afficheriez cet indice de réparabilité sur un produit ?

Ah ben sur le pc même clairement.

Sur le PC même ok … Et lequel des trois indices choisiriez-vous pour mettre sur le pc en question ?

J'afficherais le premier logo du fait qu'il est clair et précis et qui ne ressemble pas à un autre label car après tout, il faudrait pas confondre deux labels et se perdre entre les deux.

Par rapport maintenant au placement de ce logo, nous avons choisi… Euh de le mettre sur l'annonce et j'aimerais avoir votre avis sur la position de l'indice de réparabilité sur cette annonce en question ?

Ok

Alors le voici *[montre les trois annonces, chacune avec un des trois indices]*. Qu'en pensez-vous ?

Ah ben c'est plutôt bien car quand on a fini de lire toutes les informations relatives au PC on voit son prix et juste en-dessous l'indice donc ça tape à l'œil c'est top !

Génial et dernière question. A partir de quel score pensez-vous qu'un ordinateur est fortement réparable ?

7/10.

Super et alors faiblement réparable ?

Je dirai 5.

OK super c'est terminé, merci beaucoup !

Appendix 13 : Analysis table of the interviews

Interviews where the ad with price P1 (699€) was shown

	Antoine Faubert	Odile La Haye	Alice Holvoet	Jean Paul Bovy	Mia Schotte
Profile	Man, 22 years old Belgian, catering management student	Woman, 24 years old Belgian, Management student	Woman, 28 years old Belgian, psychologist	Man, 54 years old Belgian, skilled worker in the field of printing.	Woman, 57 years old Belgian, translator
Stimuli shown	Laptop priced at 699€	Laptop priced at 699€	Laptop priced at 699€	Laptop priced at 699€	Laptop priced at 699€
Budget	Between 400 and 500€ Willing to pay more for bigger storage capacity, the size and the processing power	Around 500€ Willing to pay more for a longer battery life	700€ Willing to pay more for the physical aspects of the computer (light weight, ease of transport, elegant design)	1000€ Willing to pay more for the brand and the ease of use	Around 1000€ Willing to pay more for extra's (e.g. Office Suite, antivirus, etc.)
Overall evaluation of the ad	Good description, important specs are mentioned Would like to see more photos (from all angles)	Ad looks appealing, might stop and look at it more closely	Looks like an online ad that you can find on the internet	Ad provides information about key features (necessary to make the purchase decision)	Information is clear and to-the-point
Evaluation of the laptop	Nice design, looks like a high-end laptop Limited knowledge but specs look OK	Nice design, does not seem too big (good for transportation), looks like a high-end laptop Difficult to evaluate the specs (limited knowledge) → no idea about the laptop's performance	Good overall impression Positive features: the size of the screen (want to have a large display) Missing information: weight of the PC (wants something easily transportable)	Visually appealing laptop, looks a bit like a Mac (Apple), performance abilities seem average	Up-to-date and quality laptop (specs look good) but performance ultimately depends on what you want to use it for Looks like a high-end laptop Note: Mentioned her IT knowledge is limited/basic

Evaluation of the price	Hard to say based on only 5 specs + don't know really know if the specs are low-end, average or high-end But seems pricy Min price: 350€ Max price: 500€ (if more info is given)	Too pricy, would look into it to determine what it offers compared to other laptops Min price: 400€ Max price: 500€	Price corresponds to the budget envisaged Min price: 350€ (not knowing the brand) Max price: 500€	Good price/quality ratio	Vision: price reflects the performance/quality of the laptop Here: laptop and specs appear good, but price implies the laptop is of low quality → price should be > 699€ Min price: 899€ Max price: 1000€ (+ extras)
Evaluation of the brand	Heard of it (perceived as reliable), but never had a laptop of that brand	Does not know it, but seems reliable (mostly because the laptop looks nice)	Does not know it	Does not know it	Does not know it
Creating a repairability logo from scratch	Difficult to imagine Would look visually best in the form of a drawing	Information that is simple to understand, straight to the point and visible.	Important that the repairability information is represented with something visual, graphic + use colors to distinguish good products from bad in terms of repairability Criteria mentioned for the creation of the index: quality of after-sales service, repair possible locally, availability of spare parts	Criteria that are taken into account for the repairability index: availability of the spare parts, access to the documentation of the laptop Index should appear in the form of a repairability percentage	Easy to understand, not too much info, has to catch your eye Simple design: round format, no colours, with numbers (info has to pop out) Placement logo: Right-hand corner of the ad + sticker on laptop

Meaning score	8/10 means it's highly repairable High repairability: 7/10 or more Low repairability: 4/10 or less Meaning: The device has a high probability of being repairable (for common issues) but there is 20% chance that the laptop is not repairable for certain things (i.e. for rare issues) → would like to know for which aspects the laptop is repairable or not Association with warranty	8/10 means the laptop is more or less repairable High repairability: 7/10 or more Low repairability: 5/10 or less Score based on the lifespan of the different parts of the laptop, on their respective probability of breaking down → would like to know on what exactly this score is based Association with warranty	8/10 means that in two out of 10 cases, the purchased product cannot be repaired It gives a first idea of the reparability of the product but lacks information. It would be nice to have a detailed note to know what makes this computer repairable. Association with warranty	8/10 means that the product is repairable if/when it breaks down Low repairability: below 5/10 High repairability: from 7/10	8/10 is a good score High repairability: 7/10 or more Meaning: If there is a defect, high chance it can be repaired
Evaluation Logo 1	Like the scoring (rating out of 10) Logo is clear but missing info on what exactly can be repaired or not Not really reliable: where does this index come from, who (which firm?) developed it, how was the score established, etc.? Design: Like the round format and the colours → visually appealing	Simple, clear, easy to understand (in line with how she would do it) Logo is clear (score) but requires more info (not on the logo itself but somewhere else to keep the logo clear) and reliable if developed by experts Design: visually appealing (nice colour, design and font)	Clarity of information; reliability difficult to judge Design: logo neutral in terms of color but clear with the repairability note in the center	Information is straightforward, comprehensible and seems reliable Design: Not visible enough, does not grab your attention enough so might go unnoticed	Simple, clear, complete, reliable Design: Like the round format, neutral colours, info is the first thing that is seen

Evaluation Logo 2	Wondered what the black arrow represented Info is clear, complete (like that we see the full range of repairability levels → reinforces the idea that 8/10 is good) and reliable (score is contextualized + design looks familiar) Design: Like the colours, makes the info appear more clearly	Familiar: looks like a logo that can be found om washing machines → easier to understand But since it already exists, would create a new logo to convey a repairability score Info is complete and reliable, but score does not appear clearly with the black arrow Design: Colours add a joyful touch	Design is familiar/recognizable: based on energy efficiency labels → more official and therefore trustworthy Easier information processing with colors and additional information provided by the legend	Familiarity with the energy efficiency label can be confusing Easily understandable because the design is familiar, which makes the information seem more reliable → Energy label design makes the repairability information trustworthy	Reminds her of the energy score for domestic appliances: familiar but confusing Actual score on black arrow is not clearly visible, logo is complete and reliable Design: Colours are clear because of their association with good/bad but distract from info, score should be displayed in the appropriate colour
Evaluation Logo 3	Least liked because info is visually not clear (better to have the levels top-down vertically like in Logo 2 than left-right horizontally) Info is complete and reliable	Good mix of the positive aspects of the first 2 logos: clear like Logo 1 (score pops out), with colours like Logo 2 But don't know the actual score (7-8 interval)	Score idea more intuitive than "reparability index" Confusion in information: scores could be interpreted as fractions Design: attractive	Information is less precise (7-8 scale instead of a specific score) and less clear (there is no legend like in the second logo) Design does not highlight the actual score enough	No confusion with existing label Score appears clearly, logo is complete and reliable
Comparison logos	Preferred logo: Logo 2 (visually the most clear, info the most complete and precise) Info Logo 1 is different from info Logos 2 & 3 Ranking logos: In terms of information: Logo 2 > Logo 3 > Logo 1	Preferred logo: Logo 1 (simple design and score is straightforward and clear) → only saw the score and not the "Repairability index" indication the first time Logo 2: Nice colours, noticed the "Highly repairable" and 'Poorly repairable" indications the second time → most complete and understandable (more info) but	Preferred logo: Logo 1 (Clear, precise and does not seem to resemble any other existing logo) No, the same info for all logos: logo 1 indicates a reparability of 8/10, logo 2 a score between 7 and 8 and logo 3 a reparability of 7/8 Design: logo 1 conveys information in a direct and simple way, easy to decipher	Preferred logo: Logo 1 (information is precise and clear, does not require much effort to understand it) Logo 1 is the most appropriate to convey the repairability information but lacks colour Logo 2 is the best design-wise and seems the most reliable because it is based on the energy label format but at the	Preferred logo: Logo 1 (simple and clear) All 3 logos are complete and reliable, but Logo 1 is the most clear and precise Reliability independent of format → the score, if displayed, is by definition reliable because it is based on several criteria

	In terms of format: Logo 2 > Logo 1 > Logo 3	requires more time and attention to process Logo 3: Simple and nice colours but less clear than Logo 1, most reliable (with intervals and colours)	information; logo 2 intuitive with the use of colors and the caption provided	same time could be more confusing because of it	
Evaluation of the ad with a logo	Placement only on the ad On the ad: under the price is Ok, logo could be bigger Note: Would not put a logo but would just mention "Repairability index : 8/10" with the other specs If had to be placed on the laptop: chooses Logo 2 Logo increases reliability of the ad and the purchase intent	Placement: With a sticker on the screen (in the corner) of the laptop displayed in the store (e.g. MediaMarkt) Logo 1: Most appropriate to use for a sticker On the ad: Well-placed because once we like the laptop, we look at the price and then we directly see the logo (but Logo 2 does not stand out as much on the ad as the other logos) Logo increases reliability of the ad	Placement: On the laptop On the ad: well positioned because it is well visible below the price More reliable ad when additional information is available	Placement: on the laptop Logo 1 is the most appropriate to be placed on the laptop On the ad: below the price seems OK	Placement: On the ad + sticker on the laptop On the ad: Logo could be bigger (difficulty to read) Logo brings extra info, but does not impact reliability of the ad

Interviews where the ad with price P2 (1099€) was shown

	Alexis La Haye	**Simona Salcudeanu**	**Michael Cauwenberghe**	**Patricia Merckx**	**Francis De Cuyper**
Profile	Man, 27 years old Belgian, self-employed as an administrator for paramedical centres	Woman, 28 years old Romanian, research consultant	Man, 43 years old Belgian, currently not active on the labour market	Woman, 51 years old Belgian, catering management student	Man, 75 years old Belgian, pensioned
Stimuli shown	Laptop priced at 1099€	Laptop priced at 1099€	Laptop priced at 1099€	Laptop priced at 1099€	Laptop priced at 1099€
Budget	About 2000€ (Need a high-performance laptop to manage your business) Ready to pay more for the power, quality of after-sales service and benefits of quick repair	Around 1000€ (in the price range of an Apple Mac) Willing to pay more mostly for processing power	Max 800€ Considers 500€ to be a low price (low-end laptop) →Price depends on a lot of parameters Willing to pay more for a high-quality processor, a high memory capacity, a SSD hard drive, a trustworthy brand	Over 600€ but budget may vary, depending on computer capacity Ready to pay more for more memory, a large screen and a light computer	Between 400 and 500€
Overall evaluation of the ad	Attractive price based on what we see.	Looks like an online ad, would want to see 360° pictures of the laptop	Too pricy, even for a Core i7	Conventional ad with product features, looks like what we can find on internet	Ad well-presented and pleasant to look at
Evaluation of the laptop	Attractive design with the aluminum side of the computer Windows 10 is one of the latest operating systems, not bad on that side. Core i7 processor offers great performance but speed could be better	Thin and Light (good for transportation) Have to compare the specs to the ones of other laptops Hard drive: seems a bit too low (500 GB min) Most important criteria in decision: size & weight, storage, processor & brand	Standard design, cannot say if it looks high-end or low-end based on the picture Core i7 is a powerful processor built for scientific or gaming purposes but hard to say without graphics card Memory is too small, 256 GB hard drive must be SSD (more recent, higher speed	Beautiful laptop with a sleek design Seems to be a mid-range computer given the exposed characteristics	Nice computer, can't say if it's high-end or low-end (some products can inspire confidence but be very bad from a technical point of view) In terms of computer performance, difficult to evaluate because has a little knowledge in this field

Evaluation of the price	Attractive price based on the exposed characteristics. Min price: 900€ Max price: 1200€	Vision: Willing to invest a considerable amount of money to have a high-quality and up-to-date computer that will last 5-6 years (LT orientation) Here: price is OK for what the laptop offers but would want to compare different laptops of different brands (to determine the actual price and the value of the brand)	Overall: too pricy for its performing capabilities Need other specs (weight, connectivity, type of hard drive, graphics card, etc.) to determine the appropriate price Min price: 700€ Max price: 1099€	Excessive price for computer performance Expects to have better at this price Min price: 500€ Max price: 600€	Price higher than the budget planned (will not take this computer into account in its choices) Min price: 500€ Max price: 1099€
Evaluation of the brand	Has never seen this brand	Does not know it	Does not know it	Does not know it	Does not know it
Creating a repairability logo from scratch	Label with different criteria related to repairability and evaluating each criterion with stars (e. g. 3 out of 5 stars for the price of spare parts) Score based on the price of the components, the price of the repair, the speed to obtain spare parts, the modularity of the laptop (if we can repair it ourselves)	Grading system and colours = easiest to understand (e.g. like energy labels) But tricky because laptops have a lot of different parts → repairability depends on what breaks down. Important to know what the score actually means	Score from 1 to 10 (10 being the most repairable) Score based on the quality of the after-sales service (linked to the brand), if the owner of the laptop can repair it himself/herself (documentation on how to disassemble and reassemble it) Note: If index put on second-hand laptops, the age of the laptop can be another criterion Note: Was very confused as to what to do	Take into account the criteria that define the repairability of a computer: possibility of dismantling the computer, obtaining spare parts, ... Representation of the index: Visual: logo with colors (like the energy label of the products)	The index should contain information on the guarantee that the product is repairable + a possible possibility of extending this guarantee The repairability index should be accompanied by a product reliability index (reliability studies via test-purchase or other organizations) → Repairability information creates skepticism because it is already considered that the product will fail

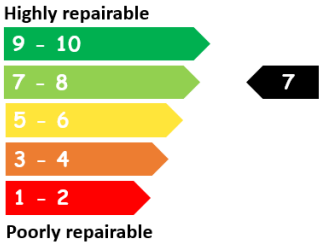
Meaning score	8/10 means that the PC is easily repairable at an intermediary without going through the manufacturer + not associated with a warranty as such but a warranty of a product whose life can be extended. High repairability: 9/10 Low repairability: 5/10	8/10 seems good but true value of 8/10 depends on the score of other laptops (benchmark on the market?) Wouldn't buy a laptop at 6/10 or below, would start looking into what it means from 7/10 Meaning: difficult because lots of parts in a laptop (complex device) → intuition: if something breaks down there is a 80% probability that it can be repaired Link with warranty: would want a high warranty, otherwise high reparability is useless	8/10 means the laptop is reliable + guarantee that the laptop can be repaired (it would influence his purchase decision) High repairability: 7/10 or more Low repairability: 5/10 or less But what does 8/10 mean. What's behind this score? Score is a guarantee	8/10 means that our laptop is reparable in 80% of cases → would like to know for which aspects the laptop is repairable or not High repairability: from 7/10 Low repairability: below 7/10 Association with warranty	8/10 means that the product is easily and inexpensively repairable Does not associate the index with a product warranty (mentioning repairability already implies that the product is likely to fail) Low repairability: below 6/10 High repairability: from 7/10 or 8/10
Evaluation Logo 1	Lack of information but otherwise quite clear. No way to determine if reliable (depends on the source) Would like more information on the price of the repair and its feasibility (score by reparability criteria) Design: Neutral, therefore not really attractive but clear information.	Does not know if 8/10 is good (no scale and no colours, just the score in itself) Design: Looks like an approval stamp, warranty logo	Info is clear and straightforward Note: Completeness depends on everyone's expectations and standards regarding repairability Design: Grabs your attention but colour is too neutral (blue/grey is not appealing, too sad)	Logo is clear (not much writing and simple) but missing info on what exactly can be repaired or not Design: Neutral format allowing to focus only on information	Not especially handsome and unspoken The information is clear but incomplete, the reparability itself should be specified and an indication of the reliability of the product should be provided for this information to be reliable Design: Visually unattractive, lacks a bit of color (wonder if 8/10 is good without colours)

Evaluation Logo 2	Familiar because based on an existing label but the information is still not complete as for logo 1 Comprehensible information because of prior knowledge of the label + reliable information because of the impression that this label comes from a European standard Design: attractive in terms of colour but no more attractive generally	Grading + colours makes it easier to understand and evaluate if a score is good or not (even though benchmark is unknown and true meaning is complex) Design is familiar/recognizable: based on energy efficiency labels → more official and therefore trustworthy but confusing (need to highlight that it's about repairability) Note: Does energy efficiency for computers exist? Is it relevant?	Familiar: looks like PEB certificates Info is less straightforward than Logo 1 (info has to be processed) but is complete Design: Black arrow with 7-8 : redundant info + black looks aggressive but colours are appealing	Design is familiar: based on energy efficiency labels Information easier to understand because it is often confronted with this logo in everyday life Missing information on the criteria for achieving this 8/10 score Design: Color helps to get an idea of where the product is in terms of repairability	Same style used for the energy consumption of household appliances, more meaningful and readable Clear information, and more complete than logo 1 because we have an indication of where the product is on the scale
Evaluation Logo 3	Modern but does not identify it as something certified and therefore less reliable Clear but incomplete information as for previous logos Design: Modern, friendly	No confusion because different sectors (food >< electronics) but looks less official Design: Same strategy as for Logo 2 (colours, grading and grouping scores by pairs)	Least appealing and not straightforward but info is complete Design: Actual score is not that clear, would make the 7-8 bigger, put spaces in between the colours	Less attractive Design: The repairability score is not well emphasized, the note area and color could be enlarged to make it clearer	Based on the nutriscore Clear and reliable information
Comparison logos	Preferred logo: Logo 2 (familiar design and ease of understanding) Info is not the same: 8 for logo 1 and 7-8 for logo 2 & 3 (tendency to believe that	Preferred logo: Logo 3 (easiest to understand/evaluate + not confusing) Use colours : visual + provide a kind of benchmark for the laptop itself	Preferred logo: Logo 1 (info is the most clear) Confusing that Logo 1 has the word "index", Logo 2 has no indication and Logo 3 has the word "score"	Preferred logo: Logo 2 (familiarity and more intuitive with the scale, it is easy to understand that when climbing the scale, reparability increases and that it is positive)	Preferred logo: Logo 2 (easy to understand) Logo 1 is simple and effective but lacks color; logo 2 is more accurate and more meaningful with the legend (weakly

	repair is easier than for the other two logos) Logo 1: Is the most precise, clearest but too neutral in design. Logo 3: Preferred in design but less reliable than Logo 2. Note: finds that more precise information is missing for each logo based on reparability criteria		Info is not the same : 8 for Logo 1 and 7-8 for Logos 2 & 3 Logo 2: Attracts the attention the most (because familiar + colours) For all logos, don't know what the score actually means and on what it is based → need more info	Info Logo 1 is different from info Logos 2 & 3: logo 1 is more precise on the note (8/10 instead of 7-8 for logo 2&3 Design logo 1 is different from design logos 2&3: No colors for logo 1 or score scales	repairable and strongly repairable); logo 3 not bad but less information compared to logo 2
Evaluation of the ad with a logo	Placement: On the product itself, on the computer screen Logo 2: more appropriate for placing on the computer screen On the ad: Very well placed, typically the kind of ad you would see in store	Placement: On the ad + on the box (sticker on laptop not needed) On the ad: weird to have it next to the price → looks like we want to highlight it Should be next to Intel logo or on the right-hand corner at the bottom (space left)	Placement: Only on the ad, redundant info if logo on the laptop too (otherwise, the repairability score would empower the rest, which does not make sense) Logo 1: most appropriate to be placed on the ad On the ad: Increase size of Logo 1 + put it at the bottom in the right-hand corner	Placement: on the laptop (because generally we look first at the product before we look at the characteristics) Logo 1 is the most appropriate to be placed on the laptop (does not create confusion with other labels) On the ad: under the price is good	Placement: On the ad + sticker on the laptop On the ad: below the price seems the most appropriate Logo brings extra info that make the ad more real and impact the reliability of the ad

Appendix 14 : Stimuli included in the questionnaires (ENG)

Logos



Logo 1 **Logo 2**

Advertisements

Price P1 of 599€, without logo

VIZIO

599 €

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Graphics card : Intel® HD Graphics 4000
Hard drive: 256 GB SSD Storage
Display: 15.6 inches / 39.6 cm

Price P1 of 599€, with Logo 1

VIZIO

599 €

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Graphics card : Intel® HD Graphics 4000
Hard drive: 256 GB SSD Storage
Display: 15.6 inches / 39.6 cm

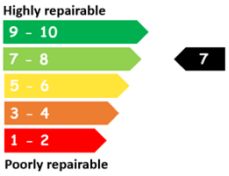
Price P1 of 599€, with Logo 2

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Graphics card : Intel® HD Graphics 4000
Hard drive: 256 GB SSD Storage
Display: 15.6 inches / 39.6 cm

599 €



Price P2 of 999€, without logo

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Graphics card : Intel® HD Graphics 4000
Hard drive: 256 GB SSD Storage
Display: 15.6 inches / 39.6 cm

999 €

Price P2 of 999€, with Logo 1

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit
Processor : Intel® Core™ i7-3517U (1.9GHz)
Memory : 4 GB
Graphics card : Intel® HD Graphics 4000
Hard drive: 256 GB SSD Storage
Display: 15.6 inches / 39.6 cm

999 €

Price P2 of 999€, with Logo 2

VIZIO

VIZIO Laptop Thin and Light
CT15-A2 15.6-Inch

Operating system: Windows 10 Pro, 64bit

Processor : Intel® Core™ i7-3517U (1.9GHz)

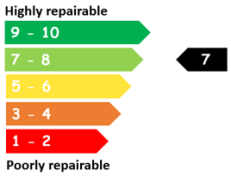
Memory : 4 GB

Graphics card : Intel® HD Graphics 4000

Hard drive: 256 GB SSD Storage

Display: 15.6 inches / 39.6 cm

999 €



Appendix 15 : Questionnaires (+ example Version A)

Because we tested three distinct display conditions (No display of logo, display Logo 1 or display Logo 2) on an advertisement showing either the Vizio laptop at a price P1 of 599€ or at a price P2 of 999€, we created six versions of our questionnaire (see Table 13), each based on one of these six stimuli (see Appendix 14 to see the entirety of the adjusted stimuli based on the outcomes of our face-to-face interviews). Because the survey was launched in both French and English, we therefore had twelve versions of the questionnaire in total.

Table 13. Questionnaire versions, in a given language, according to display condition and the price

	Price (€)	**Display of logo**
Version A	P1 : 599€	No logo displayed
Version B	P1 : 599€	Logo 1
Version C	P1 : 599€	Logo 2
Version D	P2 : 999€	No logo displayed
Version E	P2 : 999€	Logo 1
Version F	P2 : 999€	Logo 2

You can find hereafter version A of the questionnaire, which presents the ad with no display of logo at the price P1 of 599€. We decided not to include the other five versions (B to F) in the appendices, as they are identical to this one except for the ad stimuli shown at the very beginning of the survey. An overview of the six versions of the questionnaire can be found in Table 13. To be make a clear distinction between the answers for each version, a letter of the version of the questionnaire was added at the beginning of every question's code within that questionnaire.

Meaning of the different colours in the questionnaire:

- Information in grey refers to the structure of the questionnaire
- Information in green refers to the coding of the questions
- Information in purple refers to the technical features of each question

The coloured information will not be seen by participants when taking the survey, as its aim is to facilitate our implementation of the questionnaire and the handling of the data afterwards.

Meaning of the 'X' in the questions' coding in Part II of the questionnaire:

In Part II of the questionnaire, most question codes include the 'X' sign at the end, which refers to the number of the logo that participants have indicated seeing in question A_INDVU. For instance, if a participant indicated seeing Logo 1, whether that was the logo that was actually displayed on the ad at the beginning of the survey or not, then all of the questions regarding the understanding of the logo, the trust towards the logo and the score check will take number '1' instead of the 'X' in all question codes (e.g. A_COMPRLOG1). The same reasoning applies

for participants who indicated seeing Logo 2, in which case the question codes of the sections mentioned earlier will take the number ‘2’ instead of the ‘X’.

If participants indicated not seeing any logo on the ad shown, we proceeded as mentioned in Table 14.

Table 14. Assignment criteria for the logo presented in A_PASVULOGX

	No logo displayed	**Logo 1 displayed**	**Logo 2 displayed**
Price P1 of 599€	Presented Logo 1 in A_PASVULOGX*	Presented Logo 1 in A_PASVULOGX	Presented Logo 2 in A_PASVULOGX
Price P2 of 999€	Presented Logo 2 in A_PASVULOGX*		

The coding of the question A_PASVULOGX either became A_PASVULOG1 if Logo 1 was presented in that question or became A_PASVULOG2 if Logo 2 was presented in that question. Then, similarly to when participants indicated seeing one of the logos, all of the relevant questions’ codes of Part II of the survey either took ‘1’ instead of ‘X’ if Logo 1 was presented in A_PASVULOG1 or ‘2’ instead of ‘X’ if Logo 2 was presented in A_PASVULOG2.

*The reason for making this decision was to enable us gather participants’ opinion regarding one of the logos and their understanding of it, even though participants indicated not seeing any logo on the ad shown at the beginning, in order to maximize the input on the perception of the logo and the score it conveyed. Otherwise, we would have missed a considerable amount of information about the perception of the logo and its score from these participants.

INTRODUCTION

Hi,

We are Emilie and Julien, two students in Business Engineering at the Louvain School of Management (UCL). As part of our Master's thesis, we want to better understand the purchasing process of a new laptop. That's why we need your help!

The information that is provided in this survey will be treated in a completely anonymous and confidential manner, and will not be passed on to any third party.

Completing this survey will take **between 7 and 10 minutes.**

IMPORTANT: Please fill in the survey until the very end without stopping along the way. Moreover, do not click on the "go back" button of your browser, as this would lead to a loss of your answers.

If you have any questions, comments or if you would like to receive more information regarding this study, do not hesitate to contact us via:

emilie.vaeyens@student.uclouvain.be
julien.scouvart@student.uclouvain.be

Thank you in advance for your time!

Emilie & Julien

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INSTRUCTIONS

Please answer the following questions in the most sincere and spontaneous ways possible by referring to the laptop displayed in the advertisement you will see hereafter. There are no right or wrong answers.

Note: You can choose the language of the survey (FR or ENG) in the dropdown menu on the right-hand corner of this page.

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PRESENTATION OF THE STIMULUS

Situation: You are considering buying a new laptop. You decide to do some research and come across the advertisement below. Observe this ad closely before moving on to the questions.

---------- Page break ----------

PART I: IMPRESSION ABOUT THE LAPTOP, PRICE AND AD

Purchase intent

A_INT. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_INT_1 It is likely that I will buy this laptop	O	O	O	O	O	O	O
A_INT_2 It is probable that I will buy this laptop	O	O	O	O	O	O	O
A_INT_3 I would like to buy this laptop	O	O	O	O	O	O	O
A_INT_4 I would consider buying this laptop at that price	O	O	O	O	O	O	O
A_INT_5 If I had planned to buy a laptop, I would consider buying that one at that price	O	O	O	O	O	O	O

Price check and attitude towards laptop

A_ORDI. Please tick the box which best reflects your opinion (the closer the box is to one of the extremities, the more you agree with the statement on that extremity).

Question type: Bipolar matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7	
A_PRIX_1 The price is not visible at all	O	O	O	O	O	O	O	The price is clearly visible
A_PRIX_2 The price is not acceptable at all	O	O	O	O	O	O	O	The price is totally acceptable
A_ATTORDI_1 I don't like this laptop at all	O	O	O	O	O	O	O	I like this laptop very much
A_ATTORDI_2 I have a negative opinion of this laptop	O	O	O	O	O	O	O	I have a positive opinion of this laptop
A_ATTORDI_3 My first impression of this laptop is very negative	O	O	O	O	O	O	O	My first impression of this laptop is very positive

Ad check

A_AD. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No

Routing information: None

	1	2	3	4	5	6	7
A_AD_1 This advertisement looks like other ads that I come across in brochures from stores selling laptops	O	O	O	O	O	O	O
A_AD_2 I could come across this ad on the website of a store selling laptops	O	O	O	O	O	O	O
A_AD_3 This ad for a laptop seems very realistic to me	O	O	O	O	O	O	O

---------- Page break ----------

Financial risk

A_RFIN. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_RFIN_1 The purchase of this laptop seems risky to me because of the financial investment it requires	O	O	O	O	O	O	O
A_RFIN _2 The purchase of this laptop seems risky to me because of the repair costs that will most likely come along with it	O	O	O	O	O	O	O
A_RFIN _3 The purchase of this laptop does not seem that risky to me because the future expenses that will be associated with it will be low	O	O	O	O	O	O	O

A_RFIN_4 The purchase of this laptop does not seem that risky to me because the costs linked to a potential repair of that laptop will be lower than the costs incurred when being a new laptop	O	O	O	O	O	O	O

Functional risk

A_RPERF. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_RPERF_1 I am confident that this laptop will function the way it is supposed to	O	O	O	O	O	O	O
A_RPERF_2 I am certain that this laptop will function well enough	O	O	O	O	O	O	O
A_RPERF_3 I think this laptop will prematurely break down	O	O	O	O	O	O	O

A_RPERF_4 It is likely that this laptop will have to be repaired in the 2 years following the date of purchase	O	O	O	O	O	O	O

Social risk

A_RSOC. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_RSOC_1 The purchase of this laptop is going to have a negative impact on what others think of me	O	O	O	O	O	O	O
A_RSOC_2 The purchase of this laptop is going to reduce other people's esteem of me	O	O	O	O	O	O	O
A_RSOC_3 The purchase of this laptop is going to convey a positive image of myself to others	O	O	O	O	O	O	O

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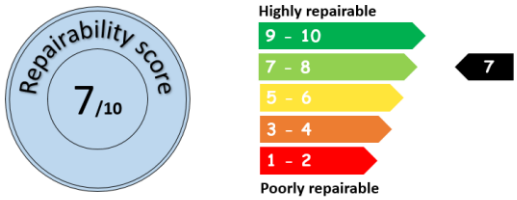
PART II: PERCEPTION OF THE LOGO

Logo check

A_INDVU. Which one of these logos have you seen on the advertisement presented at the very beginning of this survey?
Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None



LOGO 1 LOGO 2

1 O Logo 1

2 O Logo 2

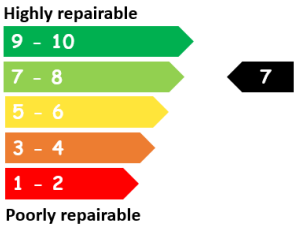
3 O I have not seen a logo on the ad

---------- Page break ----------

Understanding of the logo

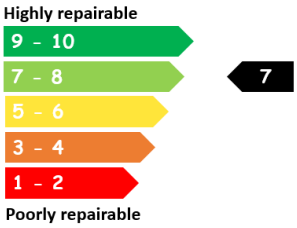
A_VULOGX. You mentioned having seen the following logo:

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: If ticked « Logo 1 » or « Logo 2 » in A_INDVU

 LOGO 1	 LOGO 2
Shown if ticked « Logo 1 » in A_INDVU	Shown if ticked « Logo 2 » in A_INDVU

A_PASVULOGX. Imagine you come across a product displaying the following logo:

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: If ticked « I have not seen a logo on the ad » in A_INDVU

 **LOGO 1**	 **LOGO 2**
Shown if Logo 1 was actually displayed on the ad (for prices P1 and P2) OR Shown if no logo was displayed on the ad at the price P1 of 599€	Shown if Logo 2 was actually displayed on the ad (for prices P1 and P2) OR Shown if no logo was displayed on the ad at the price P2 of 999€

A_COMPRLOGX. Does this logo inform you about the repairability of the product?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O Yes

2 O No

3 O I don’t know

---------- Page break ----------

A_COMPRLOGX_1 You mentioned this logo informs you about the repairability of the product. Could you briefly explain why in the comment section below?

Question type: Open comment - Text
Allow skipping: Yes
Routing information: If ticked “Yes” in A_COMPRLOGX

A_COMPRLOGX_2 You mentioned this logo informs you about the repairability of the product. Could you briefly explain why in the comment section below?

Question type: Open comment - Text
Allow skipping: Yes
Routing information: If ticked “No” in A_COMPRLOGX

A_FLULOGX. Please tick the box which best reflects your opinion (the closer the box is to one of the extremities, the more you agree with the statement on that extremity). According to you, the information provided by this logo:

Question type: Bipolar matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7	
A_FLULOGX_1 Is difficult to process	O	O	O	O	O	O	O	Is easy to process
A_FLULOGX_2 Is difficult to understand	O	O	O	O	O	O	O	Is easy to understand
A_FLULOGX_3 Is incomprehensible	O	O	O	O	O	O	O	Is comprehensible
A_FLULOGX_4 Is ambiguous	O	O	O	O	O	O	O	Is clear
A_FLULOGX_5 Requires some effort to understand	O	O	O	O	O	O	O	Does not require any effort to understand

Trust towards the logo

A_CONFLOGX. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

The information provided by this logo is:

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_CONFLOGX_1 Credible	O	O	O	O	O	O	O
A_CONFLOGX_2 Reliable	O	O	O	O	O	O	O
A_CONFLOGX_3 Trustworthy	O	O	O	O	O	O	O
A_CONFLOGX_4 Secure	O	O	O	O	O	O	O
A_CONFLOGX_5 An indication of the product's actual repairability	O	O	O	O	O	O	O

Score check

A_NOTELOGX. Please tick the box which best reflects your opinion (the closer the box is to one of the extremities, the more you agree with the statement on that extremity).

Question type: Bipolar matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7	
A_NOTELOGX_1 The repairability score is not visible at all	O	O	O	O	O	O	O	The repairability score is clearly visible
A_NOTELOGX_2 The repairability score is not acceptable at all	O	O	O	O	O	O	O	The repairability score is totally acceptable

---------- Page break ----------

A_SIGN1. According to you, what does a repairability score of 7/10 mean for a laptop?

Question type: Open comment - Text
Allow skipping: No
Routing information: None

---------- Page break ----------

A_SIGN2. According to you, which of the following statements convey(s) the meaning of a repairability score of 7/10 for a laptop?

Note: *You can select multiple statements.*

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O It means that the laptop is **under warranty** for a more or less long period of time from the date of purchase.

2 O It means that the laptop is **replaceable** for a more or less long period of time from the date of purchase.

3 O It means that the laptop is **repairable at your own expense** for a more or less long period of time from the date of purchase.

4 O It means that the laptop is **repairable at the expense of the company** for a more or less long period of time from the date of purchase.

5 O It means that the laptop is **repairable at costs that amount to less than 1/3 of the initial price of purchase** for a more or less long period of time from the date of purchase.

6 O It means there is a **70% chance** that the laptop is **repairable** for a more or less long period of time from the date of purchase.

7 O It means that the **spare parts** remain available for a more or less long period of time from the date of purchase.

8 O It refers to a **global score** including several key repairability characteristics, such as the access to information, the modularity of the product, the availability of spare parts and the possibility of reinstalling software.

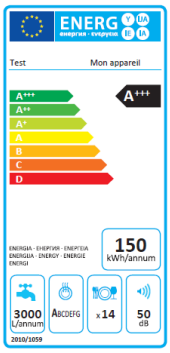
9 O Other, specify: …

---------- Page break ----------

PART III : PSYCHOGRAPHIC VARIABLES

Implication towards informative labels

Below are a few examples of informative labels you can find on some products in your daily life.



A_IMPLAB. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes
Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_IMPLAB_1 When I buy low investment products (e.g.	O	O	O	O	O	O	O

food), labels are important for me to make a decision							
A_IMPLAB_2 When I buy low investment products (e.g. food), I compare these products by evaluating their labels	O	O	O	O	O	O	O
A_IMPLAB_3 When I buy high investment products (e.g. household appliances), labels are important for me to make a decision	O	O	O	O	O	O	O
A_IMPLAB_4 When I buy high investment products (e.g. household appliances), I compare these products by evaluating their labels	O	O	O	O	O	O	O

---------- Page break ----------

Environmental consciousness

A_RESPENV. To which extent do you agree or disagree with the following statements? (From 1 = Entirely disagree to 7 = Entirely agree)

Question type: Likert matrix – Single response for each item
Randomization of the items: Yes

Allow skipping: No
Routing information: None

	1	2	3	4	5	6	7
A_RESPENV_1 I do not buy certain products when I know they will potentially have a negative impact on the environment	O	O	O	O	O	O	O
A_RESPENV_2 I have already convinced some of my family members or friends to not buy certain products that are harmful to the environment	O	O	O	O	O	O	O
A_RESPENV_3 When I have the choice between two products, I always buy the one that is the least harmful to the environment	O	O	O	O	O	O	O
A_RESPENV_4 I usually buy the least expensive product, no matter what its impact on the environment	O	O	O	O	O	O	O

---------- Page break ----------

PART IV: PROFILING QUESTIONS

A_AGE. How old are you?

Question type: Open comment - Text
Allow skipping: No
Routing information: None

A_SEXE. Are you?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O A man

2 O A woman

3 O Other

A_EDU. What is the highest degree or certificate you have earned up until now?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O Certificate of primary education

2 O Certificate of lower secondary education

3 O Certificate of higher secondary education/Technical education/Professional education

4 O University degree (Bachelor/Master's degree) or equivalent

5 O Postgraduate degree

6 O Other, specify: …

A_STAPRO. What is your current professional situation?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O Student

2 O Blue-collar worker

3 O White-collar worker/Full-time or part-time employee

4 O Seasonal worker

5 O Self-employed/Practicing a liberal profession

6 O Inactive on the labour market (retired, stay-at-home mom or dad, on parental, leave, job seeker, with a short or long term work disability, on parental leave,…)

7 O Other, specify: …

A_BELG. In which region of Belgium do you currently live in?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O In the Flemish region

2 O In the Brussels-Capital region

3 O In the Walloon region

4 O I do not live in Belgium

A_ZONE. Which one of these situations describes your primary living environment best?

Question type: MCQ – Single response
Randomization: No
Allow skipping: No
Routing information: None

1 O Big urban city

2 O City outskirts/Suburban area

3 O Average or small city

4 O Rural town/village

5 O Other, specify: …

---------- Page break ----------

END OF THE SURVEY

Thank you for your participation!

Do not hesitate to share this survey with your own social network (family, friends, colleagues, etc.), without telling them the subject of this survey to avoid biasing their responses.

SHARING
is
CARING

Appendix 16 : Correspondance matrix questions-hypotheses

		Hypotheses								
Questions		**H1**	**H2**	**H3**	**H4**	**H5**	**H6**	**H7**	**H8**	**H9**
	INT	X	X	X	X	X	X	X	X	X
	PRIX	Manipulation check								
	ATTORDI		X							
	AD	Manipulation check								
	RFIN			X						
	RPERF				X					
	RSOC					X				
	INDVU	Screening question								
	COMPRLOGX (+ associated open comment question)	Used to interpret the results of testing H6 + complements the interviews (quali information)								
	FLULOGX						X			
	CONFLOGX							X		
	NOTELOGX	Manipulation check								
	SIGNX_1 and SIGNX_2	Complements the interviews (quali information)								
	IMPLAB								X	
	RESPENV									X
	AGE, SEXE, EDU, STAPRO, BELG, ZONE	Socio-demographic information about the participants								

Appendix 17 : Open comments from the 47 discarded participants

During the data cleaning process, 47 participants had been discarded from the database because they had not answered the INDVU question correctly (about which logo had been displayed on the advertisement). However, as explained in Appendix 15 we still decided to ask these participants about their understanding of the logo and the repairability score, as these elements have the same qualitative value as the answers provided by the participants in our final cleaned database and can be used to better understand consumers' attitudes towards the logos.

COMPRLOGX_1 and COMPRLOGX_2 questions (Optional answer)

These answers are related to the format of the logo and are therefore categorized according to which logo was shown to the participant.

From the 47 discarded participants:

- 23 were shown Logo 1
  → 14 mentioned Logo 1 informed them about the repairability of the product
  → 3 mentioned Logo 1 did not inform them about the repairability of the product
  → 6 answered they did not know[28]

- 24 were shown Logo 2
  → 21 mentioned Logo 2 informed them about the repairability of the product
  → 1 mentioned Logo 2 did not inform them about the repairability of the product
  → 2 answered they did not know[29]

Answers from the participants who were shown Logo 1

COMPRLOG1_1: People who answered Logo 1 informed them about the repairability of the product

- Because 7/10 suggests to me that at least most basic problems can be solved and that they have enough spare parts to do repairs
- Because it entails a procentual score on the repairability of the according product.
- C'est indiqué
- il est explicite sans pour autant savoir sur quoi il se base
- il semble donner un score de rentabilité satisfaisante en cas de panne.

[28] People who ticked the « I don't know » option in the COMPRLOGX question were not asked to explain why

[29] People who ticked the « I don't know » option in the COMPRLOGX question were not asked to explain why

- It does not inform you, but it just makes you think that this is the result of some deep analysis of the specs of the item. So, I feel that by reading something like that, I know that there are considerable changes to have the laptop repaired (Ceci c'est pas une pipe).
- It seems formal and i don't know why they would put a 7 there if it would be just a salesstunt. If they would try to make me by the laptop with that logo, they would put at least a 9/10. It being a sevens seems more reliable en honest.
- It's easy to scan and gives basic information regarding repairs
- Le pourcentage de réparabilité 7 sur 10 me dit que c'est possible
- NA
- Parce que c'est le titre indiqué sur le logo, avec un score en dessous
- Titre du logo

COMPRLOG1_2: People who answered Logo 1 did not inform them about the repairability of the product (Optional answer)

- It says 7/10, but there's no indication as to what that actually means. Is there a 70% chance of it breaking? A 30% chance of a high involvement purchase not being able to be repaired is quite high
- Pas fait assez attention
- Je pense que ce logo indique la somme des pièces réparables

Answers from the participants who were shown Logo 2

COMPRLOG2_1: People who answered Logo 2 informed them about the repairability of the product (Optional answer)

- Si une échelle de réparabilité est précisée, je suppose qu'elle se base sur des faits concrets. Un score de 7-8 me paraît très raisonnable.
- D'après la note, si il tombe en panne le constructeur ou le SAV est susceptible de pouvoir réparer au mieux l'ordinateur (remplacement des pièces)
- Je ne suis pas sûr
- Je peux situer sur une échelle la possibilité de réparer cet ordinateur.
- J'ai lu ce qui était écrit
- It's more clear and saves time
- Cause of its colorful design
- Je ne vois pas quel autre sens peut être associé à ce logo

- Il a un bon score
- Avec 7/10 il semble être relativement simple de réparer le produit cependant pas dans l'entièreté
- colorful and clear
- It tells you the different levels of repairability. It clearly states so at the top. Using a black arrow pointer you see the level of repairability of the laptop itself.
- score satisfaisant
- Because it points in range of repairability of product so I think the product can be repaired.
- il est indiqué 7 sur un score de 1 à 10
- Il est marqué avec chaque couleur le niveau de réparabilité. Cet ordinateur est à 7.
- Cela laisse supposer que si nécessaire les pièces seront encore toutes disponibles
- It's easier to repair.

COMPRLOG2_2: Person who answered Logo 2 did not inform them about the repairability of the product (Optional answer)

- On y indique ce que l'on veut

SIGN1 question (Mandatory answer)

These answers are related to the repairability score and not to a specific logo and are therefore not categorized by logo.

- que l'ordinateur est simple à la réparation
- Dans 7 sur 10 cas l’ordi portable est facilement réparable
- That means that most basic problems can be solved and that most parts of the computer are relatively common so that there are enough parts that can replace parts of the computer that are broken
- 30% of products from the same category had to be repaired in a certain time period (maybe two years).
- Plus qu'acceptable
- que 7 pannes sur 10 ont être réparées sans avoir à changer de pc.les différents composants sont facilement remplaçable
- pourcentage de réparabilité plus qu'acceptable

- That you might repair it provided that you don’t run into big issues with it? Not sure, it just seems a positive score, high chances, but totally ambiguous.
- That it is repairable, in 7/10 of the shops, so not in every shop. That the hard-/software is medium unique en difficult for the repairman to get his/her hands on.
- It should be relatively easy to get fixed in most stores
- Qu' il y a pas mal de choses repérables tout en ne sachant pas quoi
- Pas trop mal ?
- C'est assez bon, mais pas exceptionnel
- Facilement réparable
- That there's a 30% chance it won't be able to be repaired. OR... that there's a 70% chance of the laptop needing to be repaired
- C'est pas garanti
- Il indique les éventuelles pannes
- Réparation réussie à 70%...
- Qu’en cas de panne le portable est réparable la majeure partie du temps
- Satisfaction des clients?
- 7fois sur 10 ???!!!
- Je ne sais pas
- Que 3 fois sur 10 l’ordinateur ne sera pas réparable
- Au moins 70 % de chance de pouvoir réparer l'ordinateur en cas de panne.
- Tout dépend de la pièce qui tombe en panne ! Tout n'est pas réparable et tout dépend aussi du pourquoi il est tombé en panne.
- Bonne qualité
- Que cet ordinateur se situe légèrement au-dessus de la moyenne de réparabilité.
- Bien
- Not clear
- 8
- it is good enough
- Que cette machine est en principe réparable. Il est possible de remplacer 70 % des pièces composant la machine
- Je ne sais pas trop
- Certaine pièce ne peuvent être réparer mais lesquelles ??? Si cela est fiable j'estime que c'est une bonne note

- price/time/ecological part for repair
- Assez bon
- It will last at least a few years. It won't be one without problems for a very long period of time though.
- Ça veut que c'est réparable
- il est moyennement réparable
- It can be repaired for some part/ some cases
- qu'il ne tombe pas en panne facilement
- Il est relativement facile à réparer
- Au-delà des 2 ans de garantie, 70% des pièces seront disponibles pour les réparations
- Parts are available
- Pas confiance
- Un tel score pourrait signifier qu'il est facilement réparable mais c'est très subjectif. Réparable par qui? Le propriétaire sans connaissance informatique ou par un professionnel qui va vous taxer violemment?
- 4/10

SIGN2 question (Mutliple choice, multiple response question)

From the 9 answer options[30] of question SIGN2 about the meaning of the repairability score

- (1) was ticked 11 times
- (2) was ticked 4 times
- (3) was ticked 15 times
- (4) was ticked 9 times
- (5) was ticked 4 times
- (6) was ticked 27 times
- (7) was ticked 11 times
- (8) was ticked 19 times
- (9) was ticked 3 times
  → One of the 3 people specified : “Cela signifie que en cas de panne celle ci peut être résolue dans 70% des cas ou que la société intervienne à hauteur de 70% du prix d'achat en cas de reparation”

[30] For the exact answer options associated with the answer codes, please refer to Appendix 15.

Appendix 18 : Chi-Square tests of homogeneity between stimulus conditions

SEXE

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3,927[a]	5	,560
Likelihood Ratio	4,002	5	,549
Linear-by-Linear Association	,206	1	,650
N of Valid Cases	279		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 14,62.

EDU

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12,307[a]	20	,905
Likelihood Ratio	12,962	20	,879
Linear-by-Linear Association	,117	1	,732
N of Valid Cases	279		

a. 16 cells (53,0%) have expected count less than 5. The minimum expected count is ,29.

The Chi-Square test indicates that there is no significant association between the EDU variable and the stimulus condition. However, because 53% of the expected frequencies are below 5, 25% of which are equal to 0, the reliability of this Chi-Square test cannot be substantiated.

EDU * Version Crosstabulation

			Version						Total
			Version A	Version B	Version C	Version D	Version E	Version F	
EDU	Certificate of primary education	Count	**0**	**1**	**0**	**1**	**0**	**0**	**2**
		% within EDU	0,0%	50,0%	0,0%	50,0%	0,0%	0,0%	100,0%
		% within Version	0,0%	2,2%	0,0%	2,2%	0,0%	0,0%	0,7%
		% of Total	0,0%	0,4%	0,0%	0,4%	0,0%	0,0%	0,7%
	Certificate of lower secondary education	Count	**2**	**2**	**1**	**3**	**4**	**2**	**14**
		% within EDU	14,3%	14,3%	7,1%	21,4%	28,6%	14,3%	100,0%

		% within Version	5,0%	4,3%	2,2%	6,7%	7,3%	4,3%	5,0%
		% of Total	0,7%	0,7%	0,4%	1,1%	1,4%	0,7%	5,0%
	Certificate of higher secondary education/Technical Education/Professional Education	Count	**8**	**12**	**14**	**8**	**10**	**10**	**62**
		% within EDU	12,9%	19,4%	22,6%	12,9%	16,1%	16,1%	100,0%
		% within Version	20,0%	26,1%	30,4%	17,8%	18,2%	21,3%	22,2%
		% of Total	2,9%	4,3%	5,0%	2,9%	3,6%	3,6%	22,2%
	University degree (Bachelor or Master's degree)	Count	**26**	**27**	**28**	**28**	**39**	**29**	**177**
		% within EDU	14,7%	15,3%	15,8%	15,8%	22,0%	16,4%	100,0%
		% within Version	65,0%	58,7%	60,9%	62,2%	70,9%	61,7%	63,4%
		% of Total	9,3%	9,7%	10,0%	10,0%	14,0%	10,4%	63,4%
	Postgraduate degree	Count	**4**	**4**	**3**	**5**	**2**	**6**	**24**
		% within EDU	16,7%	16,7%	12,5%	20,8%	8,3%	25,0%	100,0%
		% within Version	10,0%	8,7%	6,5%	11,1%	3,6%	12,8%	8,6%
		% of Total	1,4%	1,4%	1,1%	1,8%	0,7%	2,2%	8,6%
Total		Count	**40**	**46**	**46**	**45**	**55**	**47**	**279**
		% within EDU	14,3%	16,5%	16,5%	16,1%	19,7%	16,8%	100,0%
		% within Version	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	14,3%	16,5%	16,5%	16,1%	19,7%	16,8%	100,0%

STAPRO

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20,933[a]	25	,696
Likelihood Ratio	23,751	25	,534
Linear-by-Linear Association	,955	1	,328
N of Valid Cases	279		

a. 21 cells (58%) have expected count less than 5. The minimum expected count is ,86.

The Chi-Square test indicates that there is no significant association between the STAPRO variable and the stimulus condition. However, because 58% of the expected frequencies are below 5, 23% of which are equal to 0, the reliability of this Chi-Square test cannot be substantiated. This is mostly because some people ticked the option "Other" without specifying their current professional situation, which prevented us from recoding these answers.

STAPRO * Version Crosstabulation

			Version						
			Version A	Version B	Version C	Version D	Version E	Version F	Total
STAPRO	Student	Count	**12**	**14**	**15**	**15**	**14**	**14**	**84**
		% within STAPRO	14,3%	16,7%	17,9%	17,9%	16,7%	16,7%	100,0%
		% within Version	30,0%	30,4%	32,6%	33,3%	25,5%	29,8%	30,1%
		% of Total	4,3%	5,0%	5,4%	5,4%	5,0%	5,0%	30,1%
	Blue-collar worker	Count	**0**	**1**	**2**	**0**	**1**	**2**	**6**
		% within STAPRO	0,0%	16,7%	33,3%	0,0%	16,7%	33,3%	100,0%
		% within Version	0,0%	2,2%	4,3%	0,0%	1,8%	4,3%	2,2%
		% of Total	0,0%	0,4%	0,7%	0,0%	0,4%	0,7%	2,2%
	White-collar worker/Full-time or part-time employee	Count	**18**	**20**	**22**	**26**	**27**	**25**	**138**
		% within STAPRO	13,0%	14,5%	15,9%	18,8%	19,6%	18,1%	100,0%
		% within Version	45,0%	43,5%	47,8%	57,8%	49,1%	53,2%	49,5%
		% of Total	6,5%	7,2%	7,9%	9,3%	9,7%	9,0%	49,5%
	Self-employed/Practicing a liberal profession	Count	**3**	**3**	**1**	**1**	**4**	**2**	**14**
		% within STAPRO	21,4%	21,4%	7,1%	7,1%	28,6%	14,3%	100,0%
		% within Version	7,5%	6,5%	2,2%	2,2%	7,3%	4,3%	5,0%
		% of Total	1,1%	1,1%	0,4%	0,4%	1,4%	0,7%	5,0%
	Inactive on the labour market (retired, stay-at-home mom/dad, job seeker, with a short/long-term work disability,...)	Count	**4**	**5**	**6**	**3**	**8**	**4**	**30**
		% within STAPRO	13,3%	16,7%	20,0%	10,0%	26,7%	13,3%	100,0%
		% within Version	10,0%	10,9%	13,0%	6,7%	14,5%	8,5%	10,8%
		% of Total	1,4%	1,8%	2,2%	1,1%	2,9%	1,4%	10,8%
	Other	Count	**3**	**3**	**0**	**0**	**1**	**0**	**7**
		% within STAPRO	42,9%	42,9%	0,0%	0,0%	14,3%	0,0%	100,0%
		% within Version	7,5%	6,5%	0,0%	0,0%	1,8%	0,0%	2,5%
		% of Total	1,1%	1,1%	0,0%	0,0%	0,4%	0,0%	2,5%

Total	Count	**40**	**46**	**46**	**45**	**55**	**47**	**279**
	% within STAPRO	14,3%	16,5%	16,5%	16,1%	19,7%	16,8%	100,0 %
	% within Version	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0 %
	% of Total	14,3%	16,5%	16,5%	16,1%	19,7%	16,8%	100,0 %

ZONE

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9,109[a]	15	,872
Likelihood Ratio	9,402	15	,856
Linear-by-Linear Association	2,348	1	,125
N of Valid Cases	279		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 6,31.

Appendix 19 : Factor analyses

PCA on the ATTORDI construct

Even though the Cronbach's alpha could have been improved by 1.4% by discarding the ATTORDI_3 item, we decided to keep as it presented a moderate to strong degree of correlation to the other two items, showcased satisfactory measures its communality and presented a high loading on the first factor. Moreover, 1.4% is considered to be a negligible improvement as the level of homogeneity between the three items is already considered to be great with a Cronbach's alpha of 0.911.

PCA on the three items of the ATTORDI construct

Correlation Matrix[a]

		ATTORDI_1	ATTORDI_2	ATTORDI_3
Correlation	ATTORDI_1	1,000	,746	,725
	ATTORDI_2	,746	1,000	,861
	ATTORDI_3	,725	,861	1,000
Sig. (1-tailed)	ATTORDI_1		,000	,000
	ATTORDI_2	,000		,000
	ATTORDI_3	,000	,000	

a. Determinant = ,108

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,732
Bartlett's Test of Sphericity	Approx. Chi-Square	614,419
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
ATTORDI_1	1,000	,789
ATTORDI_2	1,000	,891
ATTORDI_3	1,000	,876

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,556	85,191	85,191	2,556	85,191	85,191
2	,306	10,204	95,395			
3	,138	4,605	100,000			

Component Matrix[a]

	Component 1
ATTORDI_1	,888
ATTORDI_2	,944
ATTORDI_3	,936

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,911	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ATTORDI_1	7,85	7,229	,762	,925
ATTORDI_2	7,72	7,125	,863	,839
ATTORDI_3	7,64	7,268	,846	,853

PCA on the RFIN, RPERF and RSOC constructs

We first performed a factor analysis on the eleven items measuring the perceived risks that consumers could associate with the purchase of the laptop presented in the advertisement. The PCA extracted four distinct factors. When observing the loadings of each item in the rotated component matrix, we clearly see that RSOC_1, RSOC_2 and RSOC_3 are grouped together in the 2nd factor and are therefore not linked with the financial and functional risks. Moreover, the 4th factor is based only on the RFIN_1 item, meaning that this item has a low degree of association with both the other RFIN items and the items of the functional and social risks. Then, the 1st factor would be based on the RFIN_3, RFIN_4, RPERF_1 and RPERF_2 items and the 3rd factor would be based on the RFIN_2, RPERF_3 and RPERF_4 items. However, even if the internal consistency of the 1st and 3rd factors is satisfactory as proven by the value of the Cronbach's alpha being equal to 0.764 and 0.733 respectively, we could not find a common name for these new factors as they were either mixing financial and functional for the same malfunction or dealing with the risks of different types of malfunctions. As a consequence, we performed three separate PCAs (i.e. one for each type of risk construct) and created our new factors based on these results.

PCA on the eleven risk items

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,693
Bartlett's Test of Sphericity	Approx. Chi-Square	1164,414
	df	55
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_1	1,000	,767
RFIN_2	1,000	,616
RFIN_3	1,000	,705
RFIN_4	1,000	,635
RPERF_1	1,000	,752
RPERF_2	1,000	,736
RPERF_3	1,000	,768
RPERF_4	1,000	,628
RSOC_1	1,000	,853
RSOC_2	1,000	,865
RSOC_3	1,000	,636

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,146	28,596	28,596	3,146	28,596	28,596	2,340	21,272	21,272
2	2,322	21,112	49,709	2,322	21,112	49,709	2,249	20,446	41,718
3	1,352	12,294	62,003	1,352	12,294	62,003	2,209	20,086	61,804
4	1,140	10,367	72,370	1,140	10,367	72,370	1,162	10,566	72,370
5	,741	6,734	79,104						
6	,637	5,794	84,897						
7	,486	4,421	89,318						
8	,440	4,002	93,320						
9	,326	2,968	96,288						
10	,264	2,400	98,689						
11	,144	1,311	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
RFIN_1	,111	-,018	,119	,860
RFIN_2	,044	-,144	,659	,398
RFIN_3	,797	,044	-,066	,253
RFIN_4	,768	-,033	-,081	,193
RPERF_1	,703	-,017	,466	-,204
RPERF_2	,707	,061	,339	-,343
RPERF_3	,080	-,150	,859	,026
RPERF_4	,035	-,103	,785	-,027
RSOC_1	-,130	,897	-,179	-,005
RSOC_2	-,088	,909	-,178	-,017
RSOC_3	,274	,747	-,015	-,043

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

PCA on the RFIN_3, RFIN_4, RPERF_1 and RPERF_2 items (1st factor extracted the PCA on the eleven risk items)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,663
Bartlett's Test of Sphericity	Approx. Chi-Square	345,821
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_3	1,000	,557
RFIN_4	1,000	,505
RPERF_1	1,000	,665
RPERF_2	1,000	,624

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,351	58,767	58,767	2,351	58,767	58,767
2	,903	22,567	81,334			
3	,443	11,074	92,408			
4	,304	7,592	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
RFIN_3	,746
RFIN_4	,711
RPERF_1	,816
RPERF_2	,790

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,764	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RFIN_3	12,32	11,576	,556	,711
RFIN_4	12,27	11,667	,511	,737
RPERF_1	11,47	11,394	,612	,681
RPERF_2	11,58	11,877	,576	,701

PCA on the RFIN_2, RPERF_3 and RPERF_4 items (3rd factor extracted by the PCA on the eleven risk items)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,635
Bartlett's Test of Sphericity	Approx. Chi-Square	201,086
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_2	1,000	,544
RPERF_3	1,000	,765
RPERF_4	1,000	,660

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,970	65,661	65,661	1,970	65,661	65,661
2	,657	21,908	87,569			
3	,373	12,431	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
RFIN_2	,738
RPERF_3	,875
RPERF_4	,813

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,733	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RFIN_2	9,08	7,171	,469	,750
RPERF_3	8,99	6,485	,661	,524
RPERF_4	9,33	6,647	,550	,655

PCA on the RFIN construct

The factor 'Financial risk" is based on only two items (RFIN_3 and RFIN_4). Indeed, the Cronbach's alpha for the four items of the RFIN construct is equal to 0.508 and therefore not acceptable. Based on the PCA, two factors could be created, the first one being based on RFIN_1 and RFIN_2 and the second one being based on RFIN_3 and RFIN_4. However, the degree of homogeneity between the RFIN_1 and RFIN_2 being too low as indicated by a Cronbach's alpha of 0.388, we cannot create a separate factor for these to items. This lack of homogeneity between these two items is confirmed when looking at the correlation matrix between the various items and the rotated component matrix of the PCA based on the eleven risk items, as RFIN_1 constitutes the 4th factor, RFIN_2 is included in the 3rd factor and RFIN_3 and RFIN_4 are both in the 1st factor. We therefore decided to create the "Financial risk" factor based on RFIN_3 and RFIN_4 only, as the Cronbach's alpha for these two items is equal to 0.713 (and the Pearson correlation of 0.555 is significant at the 0.01 level) and the loadings are the highest for these items.

PCA on the four items of the RFIN construct

Correlation Matrix[a]

		RFIN_1	RFIN_2	RFIN_3	RFIN_4
Correlation	RFIN_1	1,000	,241	,186	,096
	RFIN_2	,241	1,000	,075	,105
	RFIN_3	,186	,075	1,000	,555
	RFIN_4	,096	,105	,555	1,000
Sig. (1-tailed)	RFIN_1		,000	,001	,055
	RFIN_2	,000		,107	,039
	RFIN_3	,001	,107		,000
	RFIN_4	,055	,039	,000	

a. Determinant = ,624

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,523
Bartlett's Test of Sphericity	Approx. Chi-Square	129,879
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_1	1,000	,604
RFIN_2	1,000	,644
RFIN_3	1,000	,779
RFIN_4	1,000	,773

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,680	41,994	41,994	1,680	41,994	41,994	1,557	38,915	38,915
2	1,121	28,025	70,019	1,121	28,025	70,019	1,244	31,103	70,019
3	,767	19,168	89,187						
4	,433	10,813	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component	
	1	2
RFIN_1	,128	,767
RFIN_2	,005	,803
RFIN_3	,877	,102
RFIN_4	,878	,045

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Reliability Statistics

Cronbach's Alpha	N of Items
,508	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RFIN_1	11,80	9,981	,249	,487
RFIN_2	11,17	10,874	,202	,522
RFIN_3	12,23	9,571	,406	,344
RFIN_4	12,18	9,682	,362	,381

PCA on the RFIN_1, RFIN_3 and RFIN_4 items

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,518
Bartlett's Test of Sphericity	Approx. Chi-Square	111,380
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_1	1,000	,154
RFIN_3	1,000	,759
RFIN_4	1,000	,707

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,619	53,982	53,982	1,619	53,982	53,982
2	,943	31,436	85,419			
3	,437	14,581	100,000			

Extraction Method: Principal Component Analysis.

PCA on the RFIN_1 and RFIN_2 items

Correlation Matrix[a]

		RFIN_1	RFIN_2
Correlation	RFIN_1	1,000	,241
	RFIN_2	,241	1,000
Sig. (1-tailed)	RFIN_1		,000
	RFIN_2	,000	

a. Determinant = ,942

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,500
Bartlett's Test of Sphericity	Approx. Chi-Square	16,567
	df	1
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_1	1,000	,621
RFIN_2	1,000	,621

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,241	62,058	62,058	1,241	62,058	62,058
2	,759	37,942	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
RFIN_1	,788
RFIN_2	,788

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,388	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RFIN_1	4,62	2,387	,241	.
RFIN_2	3,99	2,734	,241	.

PCA on the RFIN_3 and RFIN_4 items

Correlation Matrix[a]

		RFIN_3	RFIN_4
Correlation	RFIN_3	1,000	,555
	RFIN_4	,555	1,000
Sig. (1-tailed)	RFIN_3		,000
	RFIN_4	,000	

a. Determinant = ,692

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,500
Bartlett's Test of Sphericity	Approx. Chi-Square	101,731
	df	1
	Sig.	,000

Communalities

	Initial	Extraction
RFIN_3	1,000	,777
RFIN_4	1,000	,777

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,555	77,741	77,741	1,555	77,741	77,741
2	,445	22,259	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
RFIN_3	,882
RFIN_4	,882

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,713	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RFIN_3	3,61	2,253	,555	.
RFIN_4	3,57	2,103	,555	.

Correlations

		RFIN_3	RFIN_4
RFIN_3	Pearson Correlation	1	,555**
	Sig. (2-tailed)		,000
	N	279	279
RFIN_4	Pearson Correlation	,555**	1
	Sig. (2-tailed)	,000	
	N	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

PCA on the four items of the RPERF construct

The factor "Functional risk" is based on only two items (RPERF_3 and RPER_4), even though the results of the PCA suggest that two factors could be extracted. The 1st factor would include the items RPERF_1 and RPERF_2 whereas the 2nd factor would include the items RPERF_3 and RPERF_4. The internal inconsistency of each of these factors is satisfactory, as the Cronbach's alpha is equal to 0.820 (Pearson correlation of 0.695 is significant at the 0.01 level) and 0.750 (Pearson correlation of 0.601 is significant at the 0.01 level) for factor 1 and factor 2 respectively. However, we decided to only keep the second one for two reasons. Firstly, we decided to keep only one factor instead of two to be consistent with the unidimensionality of our other measurement scales. Secondly, even though the degree of homogeneity is higher for the RPERF_1 and RPER_2 items, we decided to create a new factor based on the RPERF_3 and RPERF_4 items as they are not correlated to the RFIN_3 and RFIN_4 items included in the "Financial risk" factor. Indeed, according to the PCA performed on the eleven perceived risk items, RFIN_3, RFIN_4, RPERF_1 and RPERF_2 could have been included in the same factor, meaning they are measuring the same concept. It would have therefore been redundant to choose RPERF_1 and RPERF_2, which would have led to two distinct factors titled "Financial risk" and "Functional risk" measuring the same characteristic. It thus made more sense to choose RPERF_3 and RPERF_4 to evaluate the functional risk associated with the purchase of a new laptop in order to maximise the distinction between the financial and the functional aspects and enhance the interpretability of our hypotheses testing results later on.

PCA on the four items of the RPERF construct

Correlation Matrix[a]

		RPERF_1	RPERF_2	RPERF_3	RPERF_4
Correlation	RPERF_1	1,000	,695	,378	,290
	RPERF_2	,695	1,000	,305	,193
	RPERF_3	,378	,305	1,000	,601
	RPERF_4	,290	,193	,601	1,000
Sig. (1-tailed)	RPERF_1		,000	,000	,000
	RPERF_2	,000		,000	,001
	RPERF_3	,000	,000		,000
	RPERF_4	,000	,001	,000	

a. Determinant = ,279

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,605
Bartlett's Test of Sphericity	Approx. Chi-Square	352,080
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
RPERF_1	1,000	,839
RPERF_2	1,000	,861
RPERF_3	1,000	,788
RPERF_4	1,000	,825

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,238	55,946	55,946	2,238	55,946	55,946	1,703	42,584	42,584
2	1,075	26,868	82,814	1,075	26,868	82,814	1,609	40,229	82,814
3	,390	9,746	92,559						
4	,298	7,441	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component 1	2
RPERF_1	,887	,231
RPERF_2	,922	,100
RPERF_3	,244	,853
RPERF_4	,083	,905

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Reliability Statistics

Cronbach's Alpha	N of Items
,733	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RPERF_1	13,37	11,055	,585	,639
RPERF_2	13,48	11,934	,496	,689
RPERF_3	13,07	10,973	,567	,648
RPERF_4	13,42	11,316	,458	,716

PCA on the RPERF_1 and RPERF_2 items

Correlation Matrix[a]

		RPERF_1	RPERF_2
Correlation	RPERF_1	1,000	,695
	RPERF_2	,695	1,000
Sig. (1-tailed)	RPERF_1		,000
	RPERF_2	,000	

a. Determinant = ,517

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,500
Bartlett's Test of Sphericity	Approx. Chi-Square	182,262
	df	1
	Sig.	,000

Communalities

	Initial	Extraction
RPERF_1	1,000	,847
RPERF_2	1,000	,847

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,695	84,739	84,739	1,695	84,739	84,739
2	,305	15,261	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
RPERF_1	,921
RPERF_2	,921

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,820	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RPERF_1	4,30	1,864	,695	.
RPERF_2	4,41	1,969	,695	.

Correlations

		RPERF_1	RPERF_2
RPERF_1	Pearson Correlation	1	,695**
	Sig. (2-tailed)		,000
	N	279	279
RPERF_2	Pearson Correlation	,695**	1
	Sig. (2-tailed)	,000	
	N	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

PCA on the RPERF_3 and RPERF_4 items

Correlation Matrix[a]

		RPERF_3	RPERF_4
Correlation	RPERF_3	1,000	,601
	RPERF_4	,601	1,000
Sig. (1-tailed)	RPERF_3		,000
	RPERF_4	,000	

a. Determinant = ,639

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,500
Bartlett's Test of Sphericity	Approx. Chi-Square	123,960
	df	1
	Sig.	,000

Communalities

	Initial	Extraction
RPERF_3	1,000	,801
RPERF_4	1,000	,801

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,601	80,054	80,054	1,601	80,054	80,054
2	,399	19,946	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
RPERF_3	,895
RPERF_4	,895

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,750	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RPERF_3	4,37	2,398	,601	.
RPERF_4	4,71	2,084	,601	.

Correlations

		RPERF_3	RPERF_4
RPERF_3	Pearson Correlation	1	,601**
	Sig. (2-tailed)		,000
	N	279	279
RPERF_4	Pearson Correlation	,601**	1
	Sig. (2-tailed)	,000	
	N	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

PCA on the three items of the RSOC construct

The factor "Social risk" is based on two items (RSOC_1 and RSOC_2), even though the factor analysis and reliability measures were satisfactory for the factor included all three items. Nevertheless, we decided to discard RSOC_3 as it had a low degree of correlation to the other two items and had a communality of 0.540 which is just above the satisfactory level. In addition to that, discarding RSOC_3 improved the Cronbach's alpha by nearly 10% (along with a Pearson correlation of 0.850 that is significant at the 0.01 level).

PCA on the three items of the RSOC construct

Correlation Matrix[a]

		RSOC_1	RSOC_2	RSOC_3
Correlation	RSOC_1	1,000	,850	,478
	RSOC_2	,850	1,000	,512
	RSOC_3	,478	,512	1,000
Sig. (1-tailed)	RSOC_1		,000	,000
	RSOC_2	,000		,000
	RSOC_3	,000	,000	

a. Determinant = ,203

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,633
Bartlett's Test of Sphericity	Approx. Chi-Square	440,492
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
RSOC_1	1,000	,841
RSOC_2	1,000	,863
RSOC_3	1,000	,540

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,244	74,804	74,804	2,244	74,804	74,804
2	,607	20,231	95,034			
3	,149	4,966	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
RSOC_1	,917
RSOC_2	,929
RSOC_3	,735

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,826	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RSOC_1	5,03	6,672	,761	,677
RSOC_2	5,05	6,943	,796	,646
RSOC_3	4,67	8,496	,514	,918

PCA on the RSOC_1 and RSOC_2 items

Correlation Matrix[a]

		RSOC_1	RSOC_2
Correlation	RSOC_1	1,000	,850
	RSOC_2	,850	1,000
Sig. (1-tailed)	RSOC_1		,000
	RSOC_2	,000	

a. Determinant = ,278

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,500
Bartlett's Test of Sphericity	Approx. Chi-Square	354,388
	df	1
	Sig.	,000

Communalities

	Initial	Extraction
RSOC_1	1,000	,925
RSOC_2	1,000	,925

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1,850	92,498	92,498	1,850	92,498	92,498
2	,150	7,502	100,000			

Component Matrix[a]

	Component 1
RSOC_1	,962
RSOC_2	,962

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,918	2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RSOC_1	2,32	2,155	,850	.
RSOC_2	2,34	2,442	,850	.

Correlations

		RSOC_1	RSOC_2
RSOC_1	Pearson Correlation	1	,850**
	Sig. (2-tailed)		,000
	N	279	279
RSOC_2	Pearson Correlation	,850**	1
	Sig. (2-tailed)	,000	
	N	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

PCA on the FLULOG construct

Even though the Cronbach's alpha could have been improved by 0.4% by discarding the FLULOG_5 item from the "Understanding" factor, we decided to keep as it presented a moderate degree of correlation to the other four items, showcased satisfactory measures for its communality and presented a high loading for the first factor. Moreover, 0.4% is considered to be a negligible improvement as the level of homogeneity between the five items is already considered to be great with a Cronbach's alpha of 0.925.

PCA on the five items of the FLULOG construct

Correlation Matrix[a]

		FLULOG_1	FLULOG_2	FLULOG_3	FLULOG_4	FLULOG_5
Correlation	FLULOG_1	1,000	,784	,727	,765	,612
	FLULOG_2	,784	1,000	,778	,792	,663
	FLULOG_3	,727	,778	1,000	,755	,622
	FLULOG_4	,765	,792	,755	1,000	,599
	FLULOG_5	,612	,663	,622	,599	1,000
Sig. (1-tailed)	FLULOG_1		,000	,000	,000	,000
	FLULOG_2	,000		,000	,000	,000
	FLULOG_3	,000	,000		,000	,000
	FLULOG_4	,000	,000	,000		,000
	FLULOG_5	,000	,000	,000	,000	

a. Determinant = ,021

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,900
Bartlett's Test of Sphericity	Approx. Chi-Square	1062,214
	df	10
	Sig.	,000

Communalities

	Initial	Extraction
FLULOG_1	1,000	,791
FLULOG_2	1,000	,846
FLULOG_3	1,000	,788
FLULOG_4	1,000	,802
FLULOG_5	1,000	,620

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,848	76,961	76,961	3,848	76,961	76,961
2	,458	9,166	86,127			
3	,273	5,462	91,589			
4	,227	4,537	96,127			
5	,194	3,873	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
FLULOG_1	,890
FLULOG_2	,920
FLULOG_3	,888
FLULOG_4	,896
FLULOG_5	,788

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,925	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FLULOG_1	18,42	50,539	,821	,904
FLULOG_2	18,30	49,109	,866	,895
FLULOG_3	18,18	50,905	,818	,905
FLULOG_4	18,59	48,660	,828	,903
FLULOG_5	18,35	54,187	,687	,929

PCA on the CONFLOG construct

We decided to discard the CONFLOG_5 item from the "Trust" factor as it presented a moderate to low degree of correlation to the other four items and had a communality of 0.438 which is below the satisfactory level of 0.5.

PCA on the five items of the CONFLOG construct

Correlation Matrix[a]

		CONFLOG_1	CONFLOG_2	CONFLOG_3	CONFLOG_4	CONFLOG_5
Correlation	CONFLOG_1	1,000	,824	,829	,807	,535
	CONFLOG_2	,824	1,000	,817	,774	,517
	CONFLOG_3	,829	,817	1,000	,815	,503
	CONFLOG_4	,807	,774	,815	1,000	,464
	CONFLOG_5	,535	,517	,503	,464	1,000
Sig. (1-tailed)	CONFLOG_1		,000	,000	,000	,000
	CONFLOG_2	,000		,000	,000	,000
	CONFLOG_3	,000	,000		,000	,000
	CONFLOG_4	,000	,000	,000		,000
	CONFLOG_5	,000	,000	,000	,000	

a. Determinant = ,016

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,892
Bartlett's Test of Sphericity	Approx. Chi-Square	1147,043
	df	10
	Sig.	,000

Communalities

	Initial	Extraction
CONFLOG_1	1,000	,863
CONFLOG_2	1,000	,837
CONFLOG_3	1,000	,852
CONFLOG_4	1,000	,809
CONFLOG_5	1,000	,438

Extraction Method: Principal Component Analysis.

PCA on the CONFLOG_1, CONFLOG_2, CONFLOG_3 and CONFLOG_4 items

Correlation Matrix[a]

		CONFLOG_1	CONFLOG_2	CONFLOG_3	CONFLOG_4
Correlation	CONFLOG_1	1,000	,824	,829	,807
	CONFLOG_2	,824	1,000	,817	,774
	CONFLOG_3	,829	,817	1,000	,815
	CONFLOG_4	,807	,774	,815	1,000
Sig. (1-tailed)	CONFLOG_1		,000	,000	,000
	CONFLOG_2	,000		,000	,000
	CONFLOG_3	,000	,000		,000
	CONFLOG_4	,000	,000	,000	

a. Determinant = ,022

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,869
Bartlett's Test of Sphericity	Approx. Chi-Square	1047,058
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
CONFLOG_1	1,000	,872
CONFLOG_2	1,000	,850
CONFLOG_3	1,000	,873
CONFLOG_4	1,000	,839

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,433	85,834	85,834	3,433	85,834	85,834
2	,227	5,684	91,519			
3	,171	4,267	95,785			
4	,169	4,215	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
CONFLOG_1	,934
CONFLOG_2	,922
CONFLOG_3	,934
CONFLOG_4	,916

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,945	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CONFLOG_1	11,05	21,166	,880	,924
CONFLOG_2	11,17	21,615	,860	,930
CONFLOG_3	11,11	21,811	,880	,924
CONFLOG_4	11,13	21,746	,850	,933

PCA on the IMPLAB construct

Even though the four items had a low to moderate degree of correlation to one another and had communalities just above the satisfactory level of 0.5, we did not discard any of them as neither of them could improve the Cronbach's alpha value of 0.776. Indeed, there was not one item in particular that was the correlated to the others.

Correlation Matrix[a]

		IMPLAB_1	IMPLAB_2	IMPLAB_3	IMPLAB_4
Correlation	IMPLAB_1	1,000	,611	,466	,370
	IMPLAB_2	,611	1,000	,527	,376
	IMPLAB_3	,466	,527	1,000	,636
	IMPLAB_4	,370	,376	,636	1,000
Sig. (1-tailed)	IMPLAB_1		,000	,000	,000
	IMPLAB_2	,000		,000	,000
	IMPLAB_3	,000	,000		,000
	IMPLAB_4	,000	,000	,000	

a. Determinant = ,254

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,711
Bartlett's Test of Sphericity	Approx. Chi-Square	378,168
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
IMPLAB_1	1,000	,596
IMPLAB_2	1,000	,638
IMPLAB_3	1,000	,704
IMPLAB_4	1,000	,559

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,497	62,435	62,435	2,497	62,435	62,435
2	,773	19,337	81,772			
3	,403	10,078	91,850			
4	,326	8,150	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
IMPLAB_1	,772
IMPLAB_2	,799
IMPLAB_3	,839
IMPLAB_4	,748

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

Cronbach's Alpha	N of Items
,797	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IMPLAB_1	14,36	21,907	,590	,756
IMPLAB_2	14,26	21,050	,622	,740
IMPLAB_3	13,39	21,641	,681	,713
IMPLAB_4	13,56	22,650	,548	,776

PCA on the RESPENV construct

We decided to discard the RESPENV_4 item from the "Consciousness" factor as it presented a very low degree of correlation to the other three items (we could even talk about an absence of correlation) and had a communality of 0.018 which is way below the satisfactory level of 0.5.

PCA on the four items of the RESPENV construct

Correlation Matrix[a]

		RESPENV_1	RESPENV_2	RESPENV_3	RESPENV_4
Correlation	RESPENV_1	1,000	,445	,583	,055
	RESPENV_2	,445	1,000	,508	,085
	RESPENV_3	,583	,508	1,000	,033
	RESPENV_4	,055	,085	,033	1,000
Sig. (1-tailed)	RESPENV_1		,000	,000	,182
	RESPENV_2	,000		,000	,079
	RESPENV_3	,000	,000		,290
	RESPENV_4	,182	,079	,290	

a. Determinant = ,464

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,679
Bartlett's Test of Sphericity	Approx. Chi-Square	211,759
	df	6
	Sig.	,000

Communalities

	Initial	Extraction
RESPENV_1	1,000	,678
RESPENV_2	1,000	,613
RESPENV_3	1,000	,726
RESPENV_4	1,000	,018

PCA on the RESPENV_1, RESPENV_2 and RESPENV_3 items

Correlation Matrix[a]

		RESPENV_1	RESPENV_2	RESPENV_3
Correlation	RESPENV_1	1,000	,445	,583
	RESPENV_2	,445	1,000	,508
	RESPENV_3	,583	,508	1,000
Sig. (1-tailed)	RESPENV_1		,000	,000
	RESPENV_2	,000		,000
	RESPENV_3	,000	,000	

a. Determinant = ,468

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,679
Bartlett's Test of Sphericity	Approx. Chi-Square	209,777
	df	3
	Sig.	,000

Communalities

	Initial	Extraction
RESPENV_1	1,000	,681
RESPENV_2	1,000	,612
RESPENV_3	1,000	,733

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,026	67,530	67,530	2,026	67,530	67,530
2	,566	18,876	86,406			
3	,408	13,594	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component 1
RESPENV_1	,825
RESPENV_2	,782
RESPENV_3	,856

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Reliability Statistics

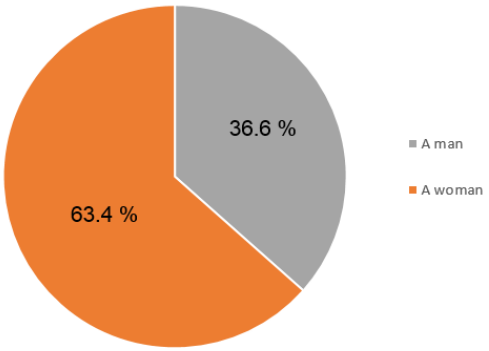
Cronbach's Alpha	N of Items
,755	3

Item-Total Statistics

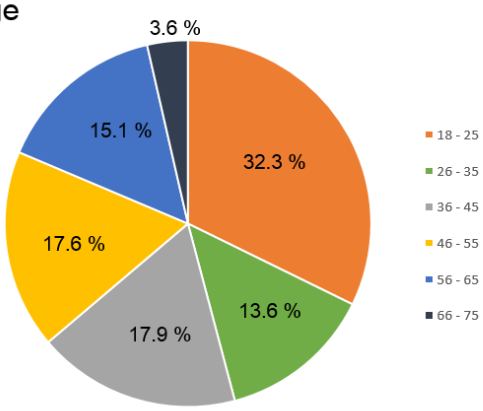
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RESPENV_1	8,78	10,155	,586	,670
RESPENV_2	9,44	9,635	,535	,736
RESPENV_3	8,67	10,098	,639	,614

Appendix 20 : Sample description

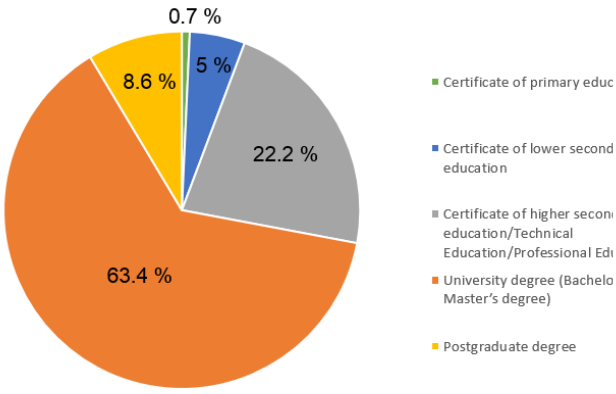
Gender



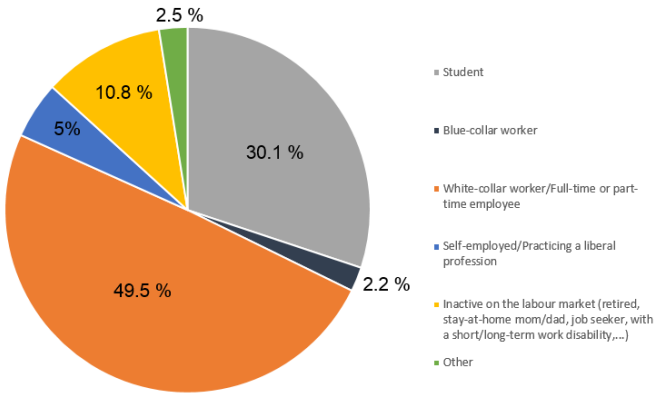
Age



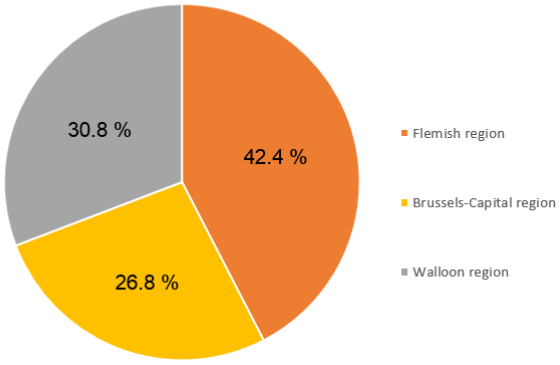
Education



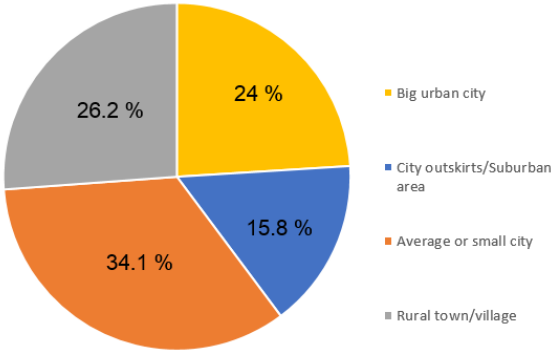
Professional situation



Residential area (1)



Residential area (2)

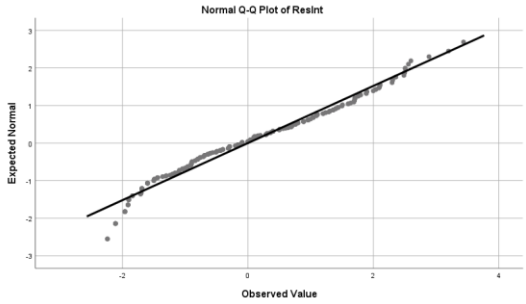


Appendix 21 : ANOVA tests – SPSS outputs (H1)

Verification of the conditions needed to perform ANOVA tests

Assumption 1: The residuals of Purchase intent are normally distributed.

To verify this assumption, we created a new variable titled "ResInt" and followed a similar procedure to the one described in the data preparation section. The Skewness and Kurtosis measures of the residuals of Purchase intent are equal to 0.271 and -0.860 respectively and its Q-Q plot shows that the quantiles are close to the diagonal. We can therefore assume that the residuals of the Purchase intent variable are normally distributed.



Assumption 2: The residuals are independent from each other.

This condition is verified as the sample of participants for each questionnaire version were drawn randomly for different populations. Indeed, each participant had been randomly assigned to a single questionnaire version and stimuli condition. Because the Version variable encompasses the Display, Price and Logo variables, the independency of the samples for each one of these three variables is verified as well.

Assumption 3: The variances of the Purchase intent variable are equal across the different samples (i.e. homoscedasticity)

This is the case for each of the three categorical independent variables, as indicated by the p-values of Levene's test. The p-value is equal to 0.920, 0.540 and 0.852 for the Display, Price and Logo variables respectively, which implies that the null hypothesis cannot be rejected at the 0.05 significance level. The homoscedasticity of Purchase intent is therefore verified for the Display, Price and Logo variables.

$H_0: \sigma_1^2 = \cdots = \sigma_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different variance than the others*

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
INT	Based on Mean	,010	1	277	,920
	Based on Median	,008	1	277	,929
	Based on Median and with adjusted df	,008	1	276,899	,929
	Based on trimmed mean	,012	1	277	,913

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable : INT

b. Design : Intercept + Display

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
INT	Based on Mean	,377	1	277	,540
	Based on Median	,354	1	277	,552
	Based on Median and with adjusted df	,354	1	276,242	,552
	Based on trimmed mean	,411	1	277	,522

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable : INT

b. Design : Intercept + Price

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
INT	Based on Mean	,161	2	276	,852
	Based on Median	,160	2	276	,853
	Based on Median and with adjusted df	,160	2	275,822	,853
	Based on trimmed mean	,159	2	276	,853

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable : INT

b. Design : Intercept + Logo

Independent one-way ANOVA tests

$H_0: \mu_1 = \cdots = \mu_k$ *where* k *is the number of categories*

H_1: *There is at least one category that has a different mean than the others*

ANOVA based on Display

ANOVA

INT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8,957	1	8,957	5,111	,025
Within Groups	485,433	277	1,752		
Total	494,390	278			

Descriptives

INT

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
No logo displayed	85	3,17	1,327	,144	2,89	3,46	1	6
Display of Logo 1 or Logo 2	194	2,78	1,322	,095	2,60	2,97	1	6
Total	279	2,90	1,334	,080	2,74	3,06	1	6

p-value = 0.025 < 0.05, we can reject H_0. The mean of purchase intent is significantly higher when no logo is displayed that when a logo is displayed.

ANOVA based on Price

ANOVA

INT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,801	1	3,801	2,146	,144
Within Groups	490,589	277	1,771		
Total	494,390	278			

Descriptives

INT

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Price P2	147	2,79	1,355	,112	2,57	3,01	1	6
Price P1	132	3,02	1,304	,113	2,80	3,25	1	6
Total	279	2,90	1,334	,080	2,74	3,06	1	6

p-value = 0.144 > 0.05, we cannot reject H_0. The mean of purchase intent is not significantly higher when the advertisement displays a price P1 of 599€ than when a price P2 of 999€ is displayed.

ANOVA based on Logo

ANOVA

INT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9,165	2	4,582	2,606	,076
Within Groups	485,225	276	1,758		
Total	494,390	278			

Descriptives

INT

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
No logo	85	3,17	1,327	,144	2,89	3,46	1	6
Logo 1	101	2,81	1,352	,134	2,55	3,08	1	6
Logo 2	93	2,75	1,296	,134	2,48	3,02	1	6
Total	279	2,90	1,334	,080	2,74	3,06	1	6

Multiple Comparisons

Dependent Variable: INT

	(I) Logo	(J) Logo	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Bonferroni	No logo	Logo 1	,358	,195	,203	-,11	,83
		Logo 2	,423	,199	,103	-,06	,90
	Logo 1	No logo	-,358	,195	,203	-,83	,11
		Logo 2	,065	,191	1,000	-,39	,52
	Logo 2	No logo	-,423	,199	,103	-,90	,06
		Logo 1	-,065	,191	1,000	-,52	,39

p-value = 0.076 > 0.05, we cannot reject H_0. The mean of purchase intent is not significantly different when no logo is displayed, Logo 1 displayed or Logo 2 is displayed.

The mean difference is the highest between no logo and Logo 2 and is the lowest between Logo 1 and Logo 2.

Two-way ANOVA tests

ANOVA based on Price and Display

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
INT	Based on Mean	,107	3	275	,956

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: INT

b. Design: Intercept + Price + Display + Price * Display

$H_0: \sigma_1^2 = \cdots = \sigma_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different variance than the others*

p-value = 0.956 > 0.05, we cannot reject H_0 : The equality of variances between the four samples can be assumed.

Tests of Between-Subjects Effects

Dependent Variable: INT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13,140[a]	3	4,380	2,503	,060
Intercept	2096,427	1	2096,427	1197,958	,000
Price	2,480	1	2,480	1,417	,235
Display	8,770	1	8,770	5,012	,026
Price * Display	,343	1	,343	,196	,658
Error	481,250	275	1,750		
Total	2842,520	279			
Corrected Total	494,390	278			

a. R Squared = ,027 (Adjusted R Squared = ,016)

Overall effect (for the corrected model)

$H_0: \mu_1^2 = \cdots = \mu_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different mean than the others*

Interaction effect:

$H_0: \gamma_{Price/Display} = 0$

$H_1: \gamma_{Price/Display} \neq 0$

Main effect (for the independent variables separately)

$H_0: \mu_1^2 = \cdots = \mu_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different mean than the others*

p-value Corrected model = 0.06 ≈ 0.05, we can reject H_0. The means between the four groups are significantly different.
p-value Interaction Price*Display = 0.658 > 0.05, we cannot reject H_0. There is no significant interaction effect between the Price and the Display on the Purchase intent
p-value Main effect Price = 0.235 > 0.05, we cannot reject H_0. The means for the two price categories are not significantly different.
p-value Main effect Display = 0.026 > 0.05, we can reject H_0. The mean for the No display condition is significantly higher than for the Display condition.

Descriptive Statistics

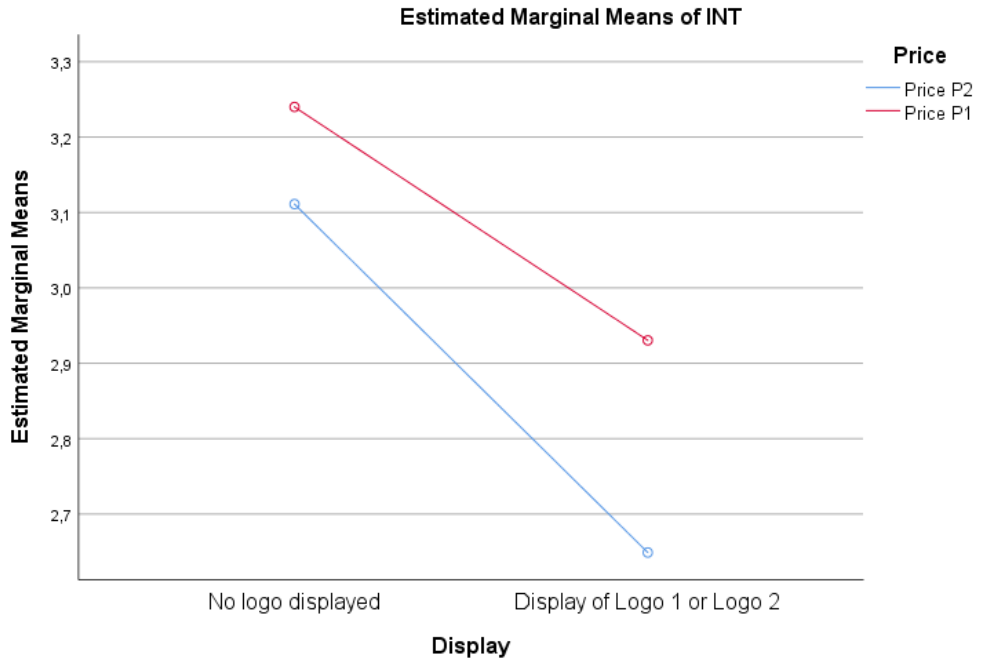
Dependent Variable: INT

Price	Display	Mean	Std. Deviation	N
Price P2	No logo displayed	3,11	1,394	45
	Display of Logo 1 or Logo 2	2,65	1,319	102
	Total	2,79	1,355	147
Price P1	No logo displayed	3,24	1,262	40
	Display of Logo 1 or Logo 2	2,93	1,317	92
	Total	3,02	1,304	132
Total	No logo displayed	3,17	1,327	85
	Display of Logo 1 or Logo 2	2,78	1,322	194
	Total	2,90	1,334	279

Ranking of the means for the 4 groups:

1) No display/P1
2) No display/P2
3) Display/P1
4) Display/P2

This implies that the Purchase intent is influenced by the Display condition first (No display dominates Display), then by the price level within a specific display condition (P1 dominates P2)



There seems to be an insignificant ordinal interaction between the Price and the Display variables as the decrease in the Purchase intent when displaying a logo is more important when Price P2 is indicated on the advertisement.

ANOVA based on Logo and Price

$H_0: \sigma_1^2 = \cdots = \sigma_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different variance than the others*

p-value = 0.703 > 0.05, we cannot reject H_0 : The equality of variances between the six samples can be assumed.

Levene's Test of Equality of Error Variances[a,b]

		Levene Statistic	df1	df2	Sig.
INT	Based on Mean	,597	5	273	,703
	Based on Median	,462	5	273	,805
	Based on Median and with adjusted df	,462	5	268,815	,805
	Based on trimmed mean	,560	5	273	,731

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: INT

b. Design: Intercept + Logo + Price + Logo * Price

Tests of Between-Subjects Effects

Dependent Variable: INT

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13,434[a]	5	2,687	1,525	,182
Intercept	2353,670	1	2353,670	1335,991	,000
Logo	9,060	2	4,530	2,571	,078
Price	3,752	1	3,752	2,130	,146
Logo * Price	,367	2	,183	,104	,901
Error	480,955	273	1,762		
Total	2842,520	279			
Corrected Total	494,390	278			

a. R Squared = ,027 (Adjusted R Squared = ,009)

<u>Overall effect (for the corrected model)</u>

$H_0: \mu_1^2 = \cdots = \mu_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different mean than the others*

Interaction effect:

$H_0: \gamma_{Price/Display} = 0$

$H_1: \gamma_{Price/Display} \neq 0$

Main effect (for the independent variables separately)

$H_0: \mu_1^2 = \cdots = \mu_k^2$ *where k is the number of categories*

H_1: *There is at least one category that has a different mean than the others*

p-value Corrected model = 0.182 > 0.05, we cannot reject H_0. There are no significant differences between the means of the six groups.
p-value Interaction Logo*Price = 0.901 > 0.05, we cannot reject H_0. There is no significant interaction effect between the Logo and the Price on the Purchase intent.
p-value Main effect Logo = 0.078 > 0.05, we cannot reject H_0. The means for the three logo conditions are not significantly different.
p-value Main effect Price = 0.146 > 0.05, we cannot reject H_0. The means for the two price categories are not significantly different.

Descriptive Statistics

Dependent Variable: INT

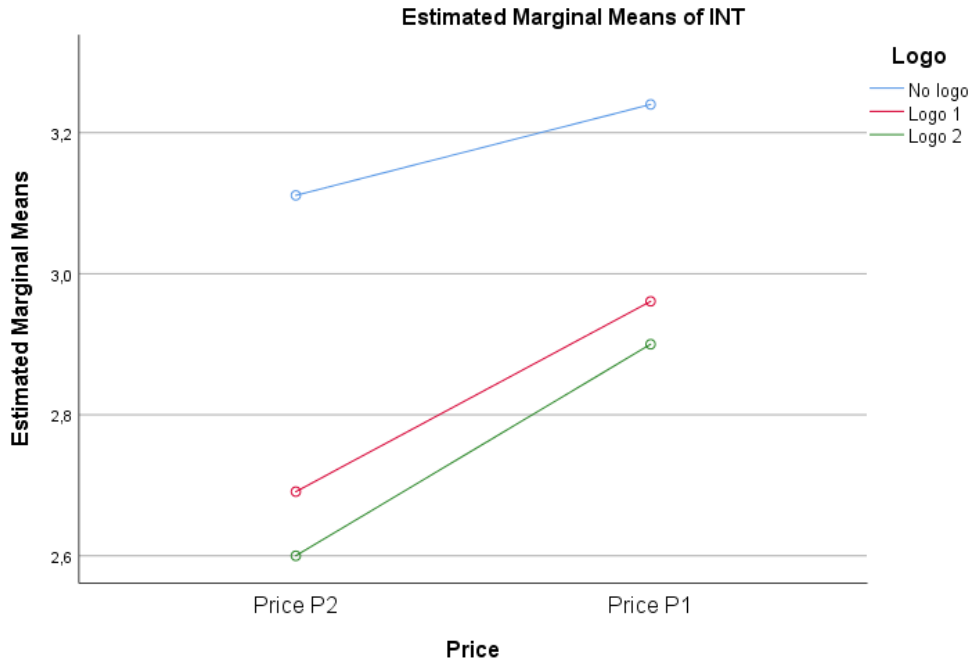
Logo	Price	Mean	Std. Deviation	N
No logo	Price P2	3,11	1,394	45
	Price P1	3,24	1,262	40
	Total	3,17	1,327	85
Logo 1	Price P2	2,69	1,408	55
	Price P1	2,96	1,281	46
	Total	2,81	1,352	101
Logo 2	Price P2	2,60	1,220	47
	Price P1	2,90	1,367	46
	Total	2,75	1,296	93
Total	Price P2	2,79	1,355	147
	Price P1	3,02	1,304	132
	Total	2,90	1,334	279

Ranking of the means for the 6 groups:

1) No logo/P1
2) No logo/P2
3) Logo 1/P1
4) Logo 2/P1
5) Logo 1/P2
6) Logo 2/P2

This implies that the Purchase intent is implicitly influenced by the Display condition first (No display dominates Display), then by the price level within the Display category (P1 dominates P2) and finally by the Logo type in each Display/price level category (Logo 1 dominates Logo

2). However, these observations are not significant based on the ANOVA results for the multiple linear regression model.



There seems to be an insignificant slight ordinal interaction between the Logo and the Display variables as the increase in the Purchase intent when indicating a price P1 instead of P2 on the advertisement is more important when a logo is displayed (Logo 1 or Logo 2) than when no logo is displayed.

Appendix 22 : Mediation test - SPSS outputs (H2)

```
Model  : 4
    Y  : INT
    X  : Display
    M  : ATTORDI

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 ATTORDI

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1408      ,0198     2,6567     5,6042     1,0000   277,0000      ,0186

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,0431      ,1768    22,8696      ,0000     3,6951     4,3912
Display      -,5019      ,2120    -2,3673      ,0186     -,9193     -,0845

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2353      ,0554     1,6921     8,0881     2,0000   276,0000      ,0004

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,5322      ,2398    10,5605      ,0000     2,0602     3,0042
Display      -,3099      ,1709    -1,8133      ,0328     -,6463     -,0265
ATTORDI       ,1582      ,0480     3,2989      ,0011      ,0638      ,2526

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,3893      ,1722    -2,2608      ,0245     -,7283     -,0503

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,3099      ,1709    -1,8133      ,0328     -,6463     -,0265

Indirect effect(s) of X on Y:
            Effect     BootSE   BootLLCI   BootULCI
ATTORDI     -,0794      ,0442     -,1787     -,0093

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Appendix 23 : Mediation test - SPSS outputs (H3)

```
Model  : 4
    Y  : INT
    X  : Display
    M  : RFIN

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 RFIN

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1538      ,0237     2,5047     6,7112     1,0000   277,0000      ,0101

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,8941      ,1717    22,6853      ,0000     3,5562     4,2320
Display       ,5333      ,2059     2,5906      ,0101      ,1280      ,9385

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2815      ,0792     1,6494    11,8733     2,0000   276,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,3592      ,2355    10,0183      ,0000     1,8956     2,8228
Display      -,2780      ,1691    -1,6444      ,0405     -,6108     -,0948
RFIN         -,2087      ,0488    -4,2797      ,0000     -,3047     -,1127

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,3893      ,1722    -2,2608      ,0245     -,7283     -,0503

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,2780      ,1691    -1,6444      ,0405     -,6108     -,0948

Indirect effect(s) of X on Y:
         Effect     BootSE   BootLLCI   BootULCI
RFIN     -,1113      ,0520     -,2218     -,0217

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Appendix 24 : Mediation test - SPSS outputs (H4)

```
Model  : 4
    Y  : INT
    X  : Display
    M  : RPERF

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 RPERF

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,6375      ,4064     2,4991   189,6658     1,0000   277,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     5,6412      ,1715    32,8994      ,0000     5,3036     5,9787
Display       ,8319      ,2056     2,7719      ,0000      ,6367     1,4271

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2433      ,0592     1,6852     8,6853     2,0000   276,0000      ,0002

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,2054      ,3119     7,0702      ,0000     1,5913     2,8194
Display      -,0958      ,2192     -,4373      ,0451     -,5273     -,0356
RPERF        -,1713      ,0493    -3,4721      ,0006     -,2684     -,0742

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,3893      ,1722    -2,2608      ,0245     -,7283     -,0503

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0958      ,2192     -,4373      ,0451     -,5273     -,0356

Indirect effect(s) of X on Y:
         Effect     BootSE   BootLLCI   BootULCI
RPERF    -,4851      ,1535     -,7846     -,1837

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Appendix 25 : Mediation test - SPSS outputs (H5)

```
Model  : 4
    Y  : INT
    X  : Display
    M  : RSOC

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 RSOC

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,0240      ,0006     1,7004      ,1595     1,0000   277,0000      ,6899

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,5059      ,1414    17,7173      ,0000     2,2275     2,7843
Display       ,0677      ,1696      ,3994      ,6899     -,4016      ,2662

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1636      ,0268     1,7433     3,7931     2,0000   276,0000      ,0237

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,9332      ,2092    14,0231      ,0000     2,5214     3,3450
Display      -,3828      ,1718    -2,2285      ,0267     -,7210     -,0446
RSOC         -,0952      ,0608    -1,5647      ,1188     -,2150      ,0246

****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,3828      ,1718    -2,2285      ,0267     -,7210     -,0446

Indirect effect(s) of X on Y:
         Effect     BootSE   BootLLCI   BootULCI
RSOC     -,0064      ,0194     -,0502      ,0313

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

Appendix 26 : Moderation test – SPSS outputs (H6)

```
Model  : 1
    Y  : INT
    X  : Display
    W  : IMPLAB

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2685      ,0721     1,6681     7,1240     3,0000   275,0000      ,0001

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,8240      ,5333     7,1710      ,0000     2,7742     4,8738
Display     -2,0585      ,6040    -3,4081      ,0008    -3,2475     -,8694
IMPLAB       -,1352      ,1067    -1,2676      ,2060     -,3452      ,0748
Int_1         ,3589      ,1219     2,9448      ,0035      ,1190      ,5988

Product terms key:
 Int_1    :        Display  x        IMPLAB

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0293     8,6716     1,0000   275,0000      ,0035
----------
    Focal predict: Display  (X)
          Mod var: IMPLAB   (W)

Conditional effects of the focal predictor at values of the moderator(s):

     IMPLAB     Effect         se          t          p       LLCI       ULCI
     3,0000     -,9818      ,2727    -3,6000      ,0004    -1,5186     -,4449
     4,7500     -,3537      ,1686    -2,0977      ,0368     -,6856     -,0218
     6,2500      ,1847      ,2479      ,7448      ,4570     -,3034      ,6727

Moderator value(s) defining Johnson-Neyman significance region(s):
      Value    % below    % above
     4,8100    51,2545    48,7455

Conditional effect of focal predictor at values of the moderator:
     IMPLAB     Effect         se          t          p       LLCI       ULCI
     1,0000    -1,6996      ,4881    -3,4817      ,0006    -2,6605     -,7386
     1,3000    -1,5919      ,4540    -3,5063      ,0005    -2,4857     -,6981
     1,6000    -1,4842      ,4203    -3,5315      ,0005    -2,3116     -,6569
     1,9000    -1,3766      ,3871    -3,5564      ,0004    -2,1385     -,6146
     2,2000    -1,2689      ,3545    -3,5793      ,0004    -1,9668     -,5710
     2,5000    -1,1612      ,3228    -3,5972      ,0004    -1,7967     -,5257
     2,8000    -1,0535      ,2923    -3,6048      ,0004    -1,6289     -,4782
     3,1000     -,9459      ,2632    -3,5932      ,0004    -1,4641     -,4277
     3,4000     -,8382      ,2363    -3,5468      ,0005    -1,3034     -,3730
     3,7000     -,7305      ,2123    -3,4408      ,0007    -1,1485     -,3126
     4,0000     -,6229      ,1923    -3,2391      ,0013    -1,0014     -,2443
     4,3000     -,5152      ,1776    -2,9003      ,0040     -,8649     -,1655
     4,6000     -,4075      ,1697    -2,4013      ,0170     -,7416     -,0734
     4,8100     -,3322      ,1687    -1,9686      ,0500     -,6643      ,0000
     4,9000     -,2999      ,1695    -1,7692      ,0780     -,6335      ,0338
     5,2000     -,1922      ,1770    -1,0859      ,2785     -,5406      ,1562
```

```
     5,5000     -,0845      ,1913     -,4418      ,6590     -,4611      ,2921
     5,8000      ,0232      ,2110      ,1097      ,9127     -,3923      ,4386
     6,1000      ,1308      ,2348      ,5571      ,5779     -,3315      ,5932
     6,4000      ,2385      ,2616      ,9116      ,3628     -,2765      ,7535
     6,7000      ,3462      ,2905     1,1915      ,2345     -,2258      ,9181
     7,0000      ,4538      ,3210     1,4138      ,1586     -,1781     1,0858

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

W values in conditional tables are the 16th, 50th, and 84th percentiles.
```

Appendix 27 : Moderation test – SPSS outputs (H7)

```
Model  : 1
    Y  : INT
    X  : Display
    W  : RESPENV

Sample
Size:  279

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1467      ,0215     1,7591     2,0163     3,0000   275,0000      ,1119

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,4848      ,4530     7,6932      ,0000     2,5931     4,3765
Display      -,8905      ,5453    -1,6329      ,1036    -1,9640      ,1831
RESPENV      -,0697      ,0956     -,7288      ,4667     -,2578      ,1185
Int_1         ,1117      ,1152      ,9690      ,3334     -,1152      ,3385

Product terms key:
 Int_1    :        Display  x        RESPENV

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0033      ,9390     1,0000   275,0000      ,3334

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000
```

Appendix 28 : Moderation test – SPSS outputs (H8)

```
Model  : 1
    Y  : INT
    X  : Logo
    W  : FLULOG

Sample
Size:  279

Coding of categorical X variable for analysis:
   Logo     X1     X2
   ,000   ,000   ,000
  1,000  1,000   ,000
  2,000   ,000  1,000

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,1653      ,0273     1,7615     1,5343     5,0000   273,0000      ,1793

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,5153      ,3762     9,3435      ,0000     2,7746     4,2560
X1           -,5614      ,5294    -1,0604      ,2899    -1,6036      ,4809
X2          -1,2327      ,5688    -2,1670      ,0311    -2,3526     -,1128
FLULOG       -,0837      ,0847     -,9883      ,3239     -,2505      ,0830
Int_1         ,0533      ,1136      ,4688      ,6396     -,1704      ,2769
Int_2         ,1763      ,1167     1,5107      ,1320     -,0535      ,4061

Product terms key:
 Int_1    :        X1       x        FLULOG
 Int_2    :        X2       x        FLULOG

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0087     1,2271     2,0000   273,0000      ,2948

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000
```

Appendix 29 : Moderation test – SPSS outputs (H9)

```
Model  : 1
    Y  : INT
    X  : Logo
    W  : CONFLOG

Sample
Size:  279

Coding of categorical X variable for analysis:
   Logo     X1     X2
   ,000   ,000   ,000
  1,000  1,000   ,000
  2,000   ,000  1,000

**************************************************************************
OUTCOME VARIABLE:
 INT

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2716      ,0738     1,6773     4,3497     5,0000   273,0000      ,0008

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,5485      ,3586     7,1073      ,0000     1,8426     3,2545
X1           -,4206      ,4907     -,8571      ,3921    -1,3867      ,5455
X2           -,7658      ,5160    -1,4841      ,1389    -1,7815      ,2500
CONFLOG       ,1666      ,0882     1,8890      ,0600     -,0070      ,3402
Int_1         ,0318      ,1256      ,2531      ,8004     -,2155      ,2790
Int_2         ,0784      ,1244      ,6305      ,5289     -,1665      ,3234

Product terms key:
 Int_1    :        X1       x        CONFLOG
 Int_2    :        X2       x        CONFLOG

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
X*W      ,0014      ,2012     2,0000   273,0000      ,8179

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000
```

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