

Erasmus University Rotterdam

Erasmus School of Economics
Marketing

*‘Willingness-to-pay Within the Dutch Online Architectural Art-print
Market’*

Douwe Kruyt: 498342
Supervised by: Fleur Prins
Second examiner: S. H. Belkman

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Executive Summary

Thanks to the e-commerce craze the online art market is experiencing very rapid growth. Specifically, the art-print is gaining in popularity in the online market. The architectural art-print market, a relatively new sub-market, is gaining in interest. Considering the fast-paced growth this specific market is experiencing, researching this field, is relevant as it can foster more growth and innovation within the industry. In this paper the following research question will be elaborated upon: *'How do different product attributes influence the willingness-to-pay of prints within the Dutch online architectural art-print market?'* To create a reliably substantiated context in which to perform the research, several sub-questions will be answered based on literature review:

Theoretical sub-questions: To what extent is consumer value created by separate product attributes? What are the trends in the worldwide art-print on demand market and what is its future prospective? What is the purchasing process of a consumer with respect to art and on demand prints?

Empiric sub-questions: How does the Dutch architectural print on demand market look like and what are its trends? What are the pros and cons of the print on demand market for consumers and for artists? What are common techniques used in an online environment to influence a consumers' willingness-to-pay and how are these applied in the online art market particularly?

The literature review found that there are mathematical models, such as the Lancaster model to express consumer value through attribute levels. However, an important part of consumer value is created through consumer perception behind the attribute valuation. When zooming in on the consumption process with respect to art, the traditional five step model by Dewey can be adjusted and applied to buying art. This consumption process can be influenced in an online setting. Many Dutch (architectural art-print) websites apply several techniques to influence a consumer's willingness-to-pay in an online environment. These (Dutch architectural) art-print websites are growing and are expected to continue growing due to the increasing demand for art prints. Due to this, the on-demand print market is gaining popularity, and it is likely that the art market and print on demand market will converge more in the future. Lastly, the review found that there are several different pros and cons for artists and consumers to supply and demand art online.

The descriptive research is conducted by means of a focus group. Using this descriptive research, a quantitative research is done by means of a discrete choice analysis. The data for this choice analysis is acquired through a survey. Using discrete choice analysis, it is possible to change the value proposition for the respondent by altering the attribute levels of product profiles. Based on the changing product profiles in turn the method calculates the consumers' willingness-to-pay based on the utility of their highest rated alternative.

Based on the likelihood ratio tests the statistically relevant variables are Price, Size, Framing and Paper quality. Brand and Sustainability label are insignificant and therefore left out of the research. Based on the parameter estimates it is possible to create a formula expressing the utility in all separate attributes with corresponding values. Using the effect marginals shows that the most important attribute is paper quality accounting for 33% of the total utility, whereas the least important significant variable price accounts for only 21%. Using the variable profiles, it is possible to analyze differences between certain control variables and their utility and utility trend. Apart from a couple minor differences, most control variables don't yield different outcomes in attribute utility.

Using the prior information allowed to answer the main research question. Consumers were prepared to pay €63,61 more for a high paper quality than low, €42,56 for a frame to be included, €46 for an A2 format over A4, and €38,82 for A3 over A4. Due to the insignificance of brand and sustainability label it was impossible to conclude anything about the willingness-to-pay with respect to these attributes.

The research posed several limitations. Due to the scarcity of certain resources the research was not as elaborate as it could have been, leading to less representative and valid outcomes. In the future, the research could be conducted in an improved manner by increasing the sample size and by using a mixed logit model.

1. Introduction

Art has always been a way for people to transfer their emotional expressions to one another. Moreover, art has been a way to empower, reunite and entertain people. For the past half millennium, the art industry started to take up a larger portion of the economy (Randa, 2015). After art dealerships started in Northern European trading hubs in the early 1500's, the sector was kickstarted through the emergence of auctions in Amsterdam. The auction model opened the art industry at the time and in the years to come the industry only kept progressing (Randa, 2015). Fast-forward 300 years and the art industry has never been as accessible as it is today, with the internet providing endless opportunities for aspiring to renowned artists to sell their artworks.

The internet has revolutionized the way people shop for products. With rapid technological innovations, e-commerce and web-shops are becoming smarter and more advanced every day. The e-commerce craze has also greatly affected the (online) art market, having more than doubled its revenue within a three-year-time-period from 2013-2016 (Cain, 2016). Due to the rapid increase of online sales of art, art has been taking on many new and untraditional forms. Original paintings, holograms, digital art, signed series and prints are all available for sale online. Of all these new forms of art, according to Bloomberg, the 'art-print' is the fastest growing trend (2018).

Problem definition

Within the Netherlands there are many online art-print websites, selling art-prints of all sorts. A new specific trend has been architectural art-prints. Architectural art-prints are all posters and prints with urban designs and city specific aspects. These prints display maps of cities, artworks of buildings or urban photographs, as can be seen in figure 1 and 2. As the entire Dutch online architectural art-print market is still relatively young, there are many small-scaled start-ups, such as 'Wijck' and 'Louvenir', gaining market shares quickly. Considering the fast-paced growth this specific market is experiencing, researching this field, and analyzing how the willingness-to-pay can be influenced based on specific attributes is relevant as it can foster more growth and innovation within the industry.



Figure 1

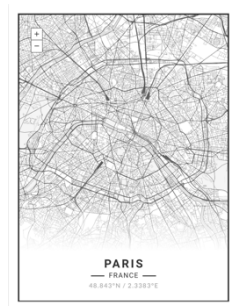


Figure 2

In this paper the following research question will be elaborated upon:

'How do different product attributes influence the willingness-to-pay of prints within the Dutch online architectural art-print market?'

To create a reliably substantiated context in which to perform the research, several sub-questions will be answered based on literature review:

Theoretical sub-questions:

- To what extent is consumer value created by separate product attributes?
- What are the trends in the worldwide art-print on-demand market and what is its future prospective?
- What is the purchasing process of a consumer with respect to art and on-demand prints?

Empiric sub-questions:

- How does the Dutch architectural print on-demand market look like and what are its trends?
- What are the pros and cons of the print on-demand market for consumers and for artists?
- What are common techniques used in an online environment to influence a consumers' willingness-to-pay and how are these applied in the online art market particularly?

Aim and structure

The aim of this thesis is to find an accurate answer to the research question and to possibly find out how the Dutch architectural art-print market could be exploited in a more efficient way. To do this, first the relevant academic literature will be reviewed. Afterwards, the data will be collected by means of a conjoint based choice analysis and analyzed by using the statistical analytic software JMP. Based on these results the research question will be answered, conclusions will finally be made, and the research will be discussed.

2. Literature Review

Question 1: To what extent is consumer value created by separate product attributes?

Understanding consumer value is vital for a company to efficiently target and exploit potential customers. Every product can be taken apart into separate attributes and it is commonly assumed that the consumer value is determined by all separate attribute benefits (Liesionis & Pilelienė, 2007). In practice, when consumers are evaluating a product, they don't pay the same amount of attention to all product attributes. Therefore, it is the marketer's job to determine the important attributes and compose a corresponding optimal attribute profile. Although many research techniques assume this, it is questionable to what extent the consumer value is created solely by product attributes (Liesionis & Pilelienė, 2007).

The Lancaster model

According to the Lancaster product attribute model (Ratchford, 2003), the choice and utility of a consumer is based on the level attributes of a product and brand within a certain budget constraint. The consumer maximizes utility (U) in its consumption choice, which is subject to its budget constraint (k). k must be greater than or equal to the price (p) in combination with the quantity consumed (x). The choice is based on the addition of product attributes (z) that maximize the consumers' utility based on the perceived levels of attributes in the brand. Lastly B shows the matrix of product-to-attributes transformation coefficient obtained from the consumption of one product. The simplest form of the model can be explained as such:

$$\text{Maximize: } U(z) \quad (1)$$

$$\text{Subject to: } px \leq k \quad (2)$$

$$\text{With: } z = Bx \quad (3)$$

$$z, x \leq 0 \quad (4)$$

The model assumes that the consumer value can be explained through three components: the perceived levels of product attributes, the budget constraint, and the indifference curve of the consumer. It takes that consumer choose products for its specific bundle of attributes. Rather than comparing the products themselves the theory assumes individuals to choose among the comparison of more basic product attributes and bundles thereof.

According to Ratchford (2003) a limitation of the model is that it does not address how preferences for the attribute levels are formed. He suggests implementing a full information process model from physical feature, to perception, to preference. However, Ratchford does

agree the model to have a superior way to view the combination of attributes with price and consumer budget constraints to guide management decision making.

Underlying motives

A study conducted by Almquist et al. (2016), is in line with Ratchford's critique on the Lancaster model, he suggests that product attributes account for only a small portion of the consumer value creation. They take a more psychological approach to consumer value creation and stress the heterogeneity of consumers. According to the researchers the traditional conjoint analysis model, which is based on the Lancaster model, is designed to measure preconceived concepts of value, whereas consumers very often take much more into consideration. The research links certain product attributes to their corresponding underlying emotions, that matter more to the consumer than the attributes themselves. The owner of a \$10,000 Kodak camera, for example, likes the camera for its high-quality pictures (attribute). But what he actually values the camera for is its pride fulfilling element of 'self-actualization', because the same camera is being used by professional photographers. The theory therefore states that the attributes only have meaning due to the underlying psyche that the consumer experiences, which in turn creates product value. The research designed 'The Elements of Value Pyramid', containing 30 elements of fundamental values that contribute to consumer value. All values in the pyramid are based on four needs: functional, emotional, life changing and social impact. The researchers stimulate companies to not only look at the attributes, but look at the underlying motives behind the attributes, because that is how additional consumer value can be created, not at the attribute level.

According to the Lancaster model, consumer value can be explained through product attribute levels, the consumer budget constraint, and the indifference curve. Mathematical models have been created to explain this. However, more recent studies suggest that consumer value is not created through attributes alone. As Ratchford describes, an attribute creates a perception which in turn creates a preference. The model designed by Almquist et al. elaborates on this by diving deeper into the fundamental psychological elements creating consumer value. All in all, attributes indeed create consumer value, however an important part of consumer value is created through consumer perception behind the attribute valuation.

Question 2: What are the trends in the worldwide art-print on-demand market and what is its future prospective?

Over the course of the last decade, art, which was initially seen as an ‘untouchable’ industry, has been split into two tiers. On the one hand there is the local avant-gardes which lay at the fringe of many art sectors, being the artists and artworks sold at auctions for high prices and generally an impenetrable market. On the other hand, there is art as a global commodity which has disseminated across national borders (Sidorova, 2019). The latter is very much stimulated through the emergence of new initiatives thanks to a convergence of art, technology and commerce. This online art trade has developed itself over time from a mere art-marketing instrument to an apart-standing art market phenomenon with its own subsequent and true development patterns. This new development of the online art market is reshaping the entire traditional art market.

The effects of internet

There are two ways that the art market is being reshaped through the internet. First of all, the market is growing with higher volumes than ever before due to the capacity that the internet has to reach new artists and buyers. On the other hand, thanks to the internet, artists from all over the world can offer their artworks on a single unified website, offering it to many customers all at once. Customers who would have otherwise never gotten into contact with so much art-supply. Within this online space there are two different types of online platforms offering their art. There are the ‘hybrid-platforms’ selling art online as well as offline. These are usually galleries and auction houses looking to increase their sales through the internet. Moreover, there are the ‘online-only’ art platforms, selling their art solely through their internet website. The online-only art platforms act as an entry point for new art collectors and ensure direct communication between artists and prospective buyers. Moreover, another trend is the emergence of social media and its power within the online art environment. With a study conducted by Hiscox stating that 80% of all online art-buyers use social media to discover new artists (12). The marketing power of social media on art is only expected to increase in the future as it helps build brand awareness, facilitates sales and helps convert passive art enthusiasts into buyers.

Although the online environment poses the art world with many positive new opportunities there are also some doubts and complaints when consumers buy art online. As Hiscox

outlines (2019), building consumer trust is the biggest challenge for online art platforms as the authenticity check and physical inspection of artworks remain difficult. 62% of all online art consumers report to be afraid of buying the art online as they were not sure of the authenticity of the artwork. Despite these doubts, the online art sale channels are continuing a positive growth, with bright future prospective (12).

The print on-demand sector

When observing the on-demand print sector there has been a rapid growth in the demand for the service. This increase has not only found place in the art on-demand prints, but also the on-demand printing of books and journals has increased in popularity. Decades ago, all artists only used traditional printing techniques such as litho's, woodcuts and screen-prints to make their artworks stand out, whereas nowadays the digital printing techniques are starting to replace these techniques. As printers have become much more advanced, the print on-demand market has started to outgrow traditional printing techniques in terms of quality and efficiency. First of all, digital printing techniques don't have the hazard of wearing and tearing of the printing equipment such as the printing blocks. Moreover, there are unlimited possibilities when it comes to printing colors and subject format. At first these digital printing techniques were seen as 'cliché' by the art scene, making it unacceptable for artists to use this technique. Nowadays, the digital printing technique has gained popularity and is being used by many artists, also in the form of on-demand printing (Skiba, 2016).

Two converging sectors

As the Art world is becoming more accessible and the print on-demand market is gaining size it is highly likely that these two will start to converge. Over the past 4 years, the print on-demand market has grown 12% and according to customer research this is only expected to grow in the coming years. As this market and customer base is gaining size the possibilities for artists to sell their artworks through print on-demand web-shops increases. Established artists will be able to sell (some of) their artworks through print on-demand webshops and realize extra revenue which they would have otherwise missed out on. Due to the increasing size and customer base of the print on-demand market, it is likely that the art market and the print on-demand market will start to converge (Pudule, 2020).

Thanks to the reach of the internet, the online art market is expanding in rapid tempo, connecting art consumers with new artists. Although, the internet is helping the industry

grow, it does create a general lower trust in art consumption online due to the absence of a validity check. Despite this, the online on-demand art-printing service is gaining popularity partially due to the general acceptance of digital printing in the art industry. Due to this gaining popularity of on-demand printing, it is likely that the art market and the print on-demand market will converge more in the future.

Question 3: What is the purchasing process of a consumer with respect to art and on-demand prints?

John Dewey's decision-making model

To understand the purchasing process of a consumer within the art and on-demand print sector it is first important to understand the basic consumer consumption process. John Dewey (1933) introduced a model explaining this process in 5 stages (boundless, n.d.) (Johnston, 2016) :

- Problem or need recognition: The consumer recognizes what problem he or she needs to solve and consequently what type of product would be able to fit this need. This need can be triggered through internal stimuli, such as hunger or through external stimuli, such as an advertisement;
- Information search: The consumer starts an internal and external search for information about the corresponding product. The customer can rely on print, visual, online media or word of mouth for obtaining their information;
- Evaluating alternatives: The consumer starts to evaluate all the products and brand options on a scale of their internal attributes. The level of involvement and the customer's attitude highly influence the size of the customer's consideration set. A high involvement and positive attitude for example will make for a relatively large consideration set;
- Purchase: The consumer will evaluate all alternatives and purchase the product best fitting its preferences. This stage can be influenced by negative feedback on the specific product and the level of acceptance of this feedback. A consumer will regard a friends' feedback on the product more acceptable than a strangers';
- Post-purchase behavior stage: The consumer evaluates its purchase, and this will determine if he repurchases the product. The consumer evaluates the product by comparing its pre-purchase expectations with the actual product experience and can decide to share his positive or negative feedback (boundless, n.d.) (Johnston, 2016).

When translating this model into the online shopping environment some of the steps are different than the traditional in-store purchase decision. Due to the advanced shopping tools in the online environment, the process of ‘evaluating alternatives’ is more efficient in an online environment than the model by Dewey explains. Moreover, the quality of the subsequent purchase decision generally speaking increases due to these tools. The ‘recommendation agent’ for example, automatically generates recommendations for products and websites based on your own perceived utility. Thanks to this, the search effort decreases as well as the size of the consideration set, whilst improving the quality of the final decision. The purchase decision in an online environment has a shorter and more efficient ‘evaluating alternatives’, whilst producing a higher quality ‘purchase’ (Häubl & Trifts, 2000). Applying this theory to the online art-print market, however, the increase in effectiveness will most likely be less strong due to the holistic and subjective aspect of art.

The traditional model as explained by Dewey assumes a ‘rational consumer’, making purchase decisions based on utility. However, cultural, and abstract products such as art, have less direct utility and are experienced in a more subjective manner.

Therefore, what motivates consumers when purchasing art cannot be assumed as ‘rational’ and must therefore be approached in a different way (Renault, 2000).

The experiential model

A model that is more representative for the purchasing decision of art consumption is the experiential model. The model analyzes cultural products that are experienced and cannot be explained through verbal description. The model is based on subconscious processes such as imagination, dreams and fantasy, variables which are all ignored in traditional theories.

Whereas the model by Dewey assumes decisions to be made largely based on socio-demographic attributes, the experiential model uses intrapersonal characteristics such as:

- Optimum stimulation level
- Sensation-seeking tendency
- Arousal-seeking tendency
- Emotions
- Intrinsic or extrinsic motivation of the individual regarding the artwork
- Classical or romantic tendency of the individual (Renault, 2000)

Applying the experiential model to Dewey's purchasing decision model, the following model can be made:

- Problem recognition: the objectives of the consumer are based on real life experiences, intrinsic objectives and aesthetic criteria as opposed to extrinsic and utilitarian objectives.
- Information search: the hedonistic involvement with the different products becomes much more important.
- Evaluation of alternatives: syntactic communication and symbolic stimuli are used when evaluating the alternatives as opposed to functional attributes and tangible stimuli.
- Purchase: The decision is made using exploratory behavior and holistic perception instead of a rational evaluation of all relevant attributes.
- Post-purchase evaluation: The evaluation is based on pleasure and has a weak influence on subsequent future decisions, where otherwise cognitive learning with respect to future purchases is much more important as well as the customers satisfaction based on their utility.

Concluding, the purchase decision of a consumer in the online art-print market follows the five steps as explained by Dewey. However, as outlined by Dominique Bourgeon-Renault the model takes on a more holistic and less rational approach when applied to art. Applying this theory to the online art market diminishes the intensity of the experiential approach as the consumer is not as immersed and engaged with the art as they are in real life. Moreover, due to the e-commerce shopping environment the searching and purchasing process becomes more efficient and qualitatively better.

Question 4: How does the Dutch architectural print on-demand market look like and what are its trends?

When looking at the Dutch architectural print market there is a clear distinction between websites selling 'urban maps' and websites selling 'urban prints' featuring for example urban photography. Most of the companies selling 'urban prints' are companies selling many different types of prints of art, photography and design. Coming up, the largest Dutch e-commerce companies selling architectural prints will be analyzed with respect to brand, website features, product portfolio and design.

WIJCK. Prints

Brand: 'WIJCK.com' positions its brand as a 'city-lovers' brand. WIJCK is an Amsterdam based company but does not focus on The Netherlands specifically in terms of marketing. WIJCK tries to position itself as a worldly urban print company, with prints ranging from buenos-Aires to Tokyo. On their Instagram they show unique images of travel destinations and cities worldwide. Furthermore, their entire image is neat and all black-and-white. The brand has an overall neat and urban international image.

Website features: A unique feature that the website has is their 'about us' feature, displaying their story about how the two founders started the company, giving the brand a personal feel.

Product portfolio: WIJCK offers a very broad product portfolio, offering more than 3000 different prints of cities and city maps. The prints they offer range from urban maps, famous buildings, stadiums, Grand Prix racetracks, specialized maps, star maps and customizable maps. Besides their prints they also offer notebooks, scented candles, postcards, pencils, soaps and room sprays. All of these products are associated with a separate city.

Louvenir.nl

Brand: Louvenir positions itself as a company capturing memories. All the prints the company offers have the option to customize the print with a personal message or date. Furthermore, their product portfolio is focused on capturing memories for specific events. They offer products such as baby drawings and the option to personalize the print with the name of the baby and birth date.

Unique website features: The website has a 'gift-guide' showing recommended products for certain events, such as a marriage or graduation, which is in line with their image of capturing memories.

Product portfolio: The website offers a broad product portfolio with prints of marriages, babies, urban maps, pets, star skies and houses.

Desenio

Brand: The website positions itself as a brand that wants to help you furnish your house. All tools on the website are made as such to help you decorate your walls and interior. Furthermore, they use primarily black-and-white, giving the brand a neat look. Moreover, on the homepage they directly have a part explaining their commitment towards nature preservation and specific prints that contribute to this.

Unique website features: The website contains a ‘photo-wall’ feature that lets you pick and make a photo-collage with the prints they offer. Thanks to this tool it is able to see how certain prints look like when standing close together and it helps the consumer create a collage.

Product portfolio: The product portfolio is very broad of Desenio. They focus only on prints and frames, however they offer a very large scale of prints ranging from artworks to photography, nature, vintage, urban maps, urban art and fashion.

Smaller companies in the market

When looking at the smaller companies within the urban architectural print environment, the most remarkable difference is the size of their product portfolio and their general look. First, they offer less products when compared to the bigger companies. The bigger companies offer a very wide variety of artworks, maps and photos to fit the consumer’s need. The smaller companies all solely offer either maps or drawings. Striking however, is that the larger companies tend to stick to little options with respect to framing and printing material and colors, whereas the smaller companies offer much more customizable options. This is in accordance with the Jenga Technique, outlining that simplifying online experiences leads to better results (Swarup, 2019). Secondly, the general look of the websites is often less organized, and the general website quality is sub-optimal. These smaller competitors are made up of websites such as: <https://www.kunstinkaart.nl/>, [punstposters.nl](https://www.punstposters.nl/), [studio216](https://www.studio216.nl/) and [vintagestadsposter.nl](https://www.vintagestadsposter.nl/).

Global trend

Looking at the larger picture, there is a forecasted yearly growth of 3.8% within the global wall décor market. The key responsible factor for this growth is the adoption of wall decors in commercial settings. This has led to a growing consumer preference towards the aesthetic interior look of households. Moreover, the emergence of customizable décor products has increased the growth in the wall décor market. North America has the largest market share within the industry capturing 40% of the markets’ revenue. The wall décor market however also accounts for wall-mirrors and picture frames, however as they are so similar in terms of products it can be said that the worldwide on-demand print market is increasing (Wood, 2019).

Observing the largest companies within the Dutch on-demand art-print market shows a couple of trends, such as personalization, framing options and their neat design. When looking at the smaller competitors in the Dutch market, remarkable is that they have a smaller product portfolio, but offer more options in terms of framing and printing materials. Globally, there is a growing trend in the wall décor market, pointing out that the global on-demand market is growing as well.

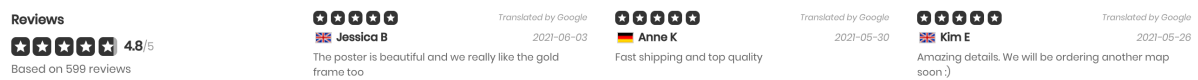
Question 5: What are common techniques used in an online environment to influence a consumers' willingness-to-pay and how are these applied in the online art market particularly?

Our brains think in 2 systems. System 1 is our unconscious mind, that thinks fast, automatic, and intuitive. System 2 is our conscious mind, that thinks slow, consideringly and takes effort. In an online environment, system 1 determines whether you interact with the matter, to pass on the information to the conscious system 2 (Swarup, 2019). Nowadays, almost every website is integrated with tools and design features to influence system 1 into interacting and system 2 into buying. Large e-commerce websites use cookies to tailor make the experience based on the user's past internet behavior. Not all e-commerce websites and platforms have the resources to employ such tailor-made sophisticated websites, however there are many common techniques used in the online environment to influence the online user into consumption or interaction. In the following part these techniques will be elaborated upon and by means of screenshots of Dutch architectural art-print websites shown how these are used in the online Dutch architectural art-print market.

Recommendation systems

Many web-shops have an integrated recommendation system to present the user with past reviews and experiences with their product or service. According to a research conducted by Felfernig (2015), positive recommendations have a significant positive effect on the willingness-to-pay of the consumer. This theory is elaborated upon by Wu et al. (2013) who makes a distinction between two types of risk attitudes of the consumer: as exhibited when presented by online reviews made by people with unknown different risk attitudes (amazon.com) or as exhibited by the tastes of their social network, knowing they have similar risk attitudes (facebook.com). The latter review being much more effective with respect to increasing WTP than the former. So being able to approach the consumer with a positive review will most likely increase their WTP, however it is found to be more effective if the

review is within the consumers' social network. When looking at Louvenir's website at the top of the page the site displays positive reviews from past customers with their corresponding date (<https://www.louvenir.nl/>).



Rich media

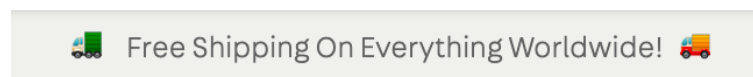
Another new trend within the online commerce environment is the use of rich media. Rich media are the use of product videos and virtual product experiences as opposed to static pictures and text displays. According to a research conducted by Li & Meshkova (2013), using rich media



creates a higher level of informedness and leaves a higher level of excitement with the consumer, consequently leading to a higher purchase intention and higher WTP. Therefore, displaying the product in a more interactive manner to the online consumer leads to a higher WTP. The Desenio website applies this by showing a video of the print the consumer wants to buy and additionally providing the consumer with extra information about the product and company.

Free shipping

Another commonly used attribute in online shopping is a 'free shipping' option, either from a minimum order quantity or for none at all. Intuitively, offering free shipping without a threshold order quantity leads to a higher incentive to purchase. Huang et al. (2019) builds upon this by researching the consumers' satisfaction when using certain shipping fee thresholds. The paper concludes that retailers should more carefully determine the minimum order threshold for free shipping and the delivery surcharge for product transportation when the quantity is less than specified. This is as the researchers found that consumers often believe that the retailer is generating extra profits off the additional shipping fees. Moreover, the consumers often use the competitors' price as a reference point. Therefore, retailers should not only consider their own costs and profit margins, but



also the consumers' reference point with respect to shipping fees. The researchers find evidence that suggests when the cost (shipping fee) gets justified by the retailer, by for example explaining that they use express delivery and make no profits, the outcome will be evaluated more favorably than if there would have been no justification. The free shipping option is used by many e-commerce print shops such as iamfy.co.

Sustainability labels

Another increasingly important factor influencing willingness-to-pay is sustainability and its labels. A research conducted by Eva Tebbe (2017) found that willingness-to-pay increases when products contain a sustainability label. Having several



labels as opposed to a single label shows not to have any effect on the willingness-to-pay. Furthermore, intuitively the cause of sustainability should be in line with the consumers' opinion. Not many online print shops market sustainability in their website, however Desenio.nl does stress the fact that they use FSC-certified paper and try their best to contribute to environmental preservation.

Signaling scarcity

One of the last mainstream techniques that are used in e-commerce sites to influence the consumer's WTP is signaling scarcity through titles such as 'only 3 left in stock'. According to Tang et al. (2020) scarcity messages work best for time-sensitive and perishable products such as hotel rooms and plane tickets, as well as unique and collectable items such as limited editions. Furthermore, products that get bought in bulk such as batteries and light bulbs, signaling scarcity can actually hurt sales. The study finds that signaling scarcity in combination with positive reviews positively reinforce each other's effect. When looking at non time-sensitive nor perishable products the researchers find that signaling time urgency as opposed to scarcity, through for example flash sales increase sales. Iamfy.co stresses scarcity with respect to time on their website by

showing that their current discount will end soon.



All in all, there are many different techniques that are used to influence the WTP of consumers in an online environment. There is no saying which ones are best or most effective, however almost all techniques will (potentially) boost sales, not harm them.

Consequently, most art-print web-shops use a combination of all the techniques to try to nudge the consumer into spending (more) money.

Question 6: What are the pros and cons of the print on-demand market for consumers and for artists?

Artists

When looking at the pros for artists one of the biggest advantages is that an artist can sell a single artwork in limitless quantities. Moreover, there is a very low entrance barrier for aspiring artists to sell their artworks. Any artist with a computer and a digital image can sell their work without any further entrance barriers. Besides, by selling through a renowned art-print website, the artist can take advantage of the traffic that the print website has. The artist doesn't need to promote its work to receive the traffic. Lastly, the artist does not need to worry about any logistical or administrative issues in selling, printing, and delivering the prints.

When looking at the cons for artists, the low entrance barrier for the artist also poses a problem. Because of this low entrance barrier, there is a lot of supply of online art, photography and graphic design, making it very hard for artists to stand out in the crowd. Another disadvantage due to the large amount of competition is that the artists generally set a relatively low price to compete. This means that the artist is not able to demand higher prices at other venues either. Moreover, when artists sell their artworks through a third-party print website, they only receive around 30-40% of sales, as the platform takes a large share for themselves (Unknown, 2019). Another disadvantage for the consumer is that as the artworks are compared with so many other artworks in the digital marketplace the artworks are very easy to compare to one another based on price and genre. Therefore, the consumer often doesn't purchase the print based on the artistic or emotional connection with the print, but on more generic values such as price. Another disadvantage is that the artist never receives the details and information of the consumers buying their artworks. This makes it impossible for the artist to use remarketing tactics to turn one-time customers into repeat buyers. Also, it is very difficult to market an artist's artworks when they are not selling, as they can't market their separate artwork on the platform (Unknown, 2019). Lastly, the artist has no quality check if the print of his artwork is sufficient for the artists' standards.

Consumers

When looking at the pros for consumers one of the largest advantages is that prints are much cheaper relative to regular art. Also, compared to regular art the shipping costs are relatively low, often even free, whereas paintings and sculptures often need to get shipped in large wooden crates. Another advantage is the large number of prints that consumers can choose from. Lastly, when buying prints online, often the consumer has the option to customize the print with a personal message. The consumer can make the prints unique for themselves.

A con of buying art-prints online is that the consumer only knows the quality of the print once having received the print. Moreover, art-prints, if not from a numbered series, are diminishing in value over time. Therefore, non-numbered art-prints are a bad investment. The consumer can also experience less satisfaction during consumption due to the number of alternatives, a phenomenon called 'overchoice'. Lastly, there are a lot of different websites and platforms offering art-prints. All websites differ in terms of price, quality and products which makes it difficult for the consumer to distinguish which website will best fit their needs.

3. Research Methodology

The main research question will be analyzed through a descriptive research, trying to gain valuable insights on what possible attributes may influence willingness-to-pay and what common conceptions are about the market. This descriptive research will be done by means of a focus group. A focus group will be chosen as the goal of the focus group is to have an exploratory discussion about the topic of the online print market. Assuming the average Dutch consumer has no in-depth knowledge about the Dutch online architectural art-print market, it is best to encourage conversation and the discussion of ideas in a moderated group setting. Using this descriptive research, a quantitative research will be done by means of a discrete choice analysis. The data for this choice analysis will be acquired through a survey. This survey will need to point out what attributes influence the consumers' willingness-to-pay and in what way. To make the data as valid as possible the data will be accounted for by missing data, outliers and transforming variables. To analyze the data, the statistical software JMP will be used. This data will be obtained by sharing the survey with friends, family and consumers interested in architectural art-prints. These consumers are targeted through the Instagram account @Douwe.Draws, where a giveaway is done over all survey respondents. As the prize for the survey is winning a print based on the optimal attribute levels generated

from the research and survey, the respondents have a higher incentive to truthfully fill out the survey, enhancing the research's internal and external validity.

3.1 Discrete Choice Analysis

A common technique used to analyze utility between two or more products, and the technique used in this research, is Discrete Choice Analysis. Respondents choose between different product profiles with different attribute levels, revealing respondents' preferences. The utility structure relies on a choice set which is usually different between all respondents. The evoked set refers to the set of possible product attributes or brands the respondent is currently considering in the decision process. Based on the random utility theory, the utility that an individual assigns to the specific product with corresponding attributes is:

$$U = U_i + E_i$$

U_i is the utility of individual i . The systematic component V_i is made up of all the different attributes and their values and the corresponding utility levels. These model parameters are obtained through maximum likelihood estimation. E_i is the random component which is present due to fluctuations in perceptions, attitudes and other unmeasured factors in the responses. The distribution of this random error determines if the model is a probit- or logit-model.

In the different product profiles price is always taken as an attribute, meaning that a change in price can be expressed in utility. Using this, an exchange rate between price and utility can be calculated, meaning that a consumer's WTP for any product profile relative to the individuals' utility of its most preferred choice set can be calculated (Breidert).

Another possible method is Conjoint Analysis (CA), where a respondent explains his or her evaluation on a specific scale for a certain product with corresponding attributes. These grades can then be used to infer the utilities of separate attributes, including price. Although CA gives more information per individual, the process is less realistic and is more difficult for respondents when compared to discrete choice analysis.

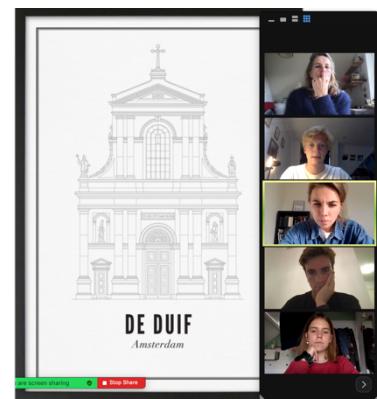
Using discrete choice analysis, it is possible to change the value proposition for the respondent by altering the attribute levels of product profiles. Based on the changing product

profiles in turn the method calculates the consumers' WTP based on the utility of their highest rated alternative.

3.2 Focus Group

To determine the attributes that a consumer takes into consideration when buying architectural art, a focus group is held (appendix B). The focus group consists of a group of 6 people in the age group of [21-56]. In the focus group questions were asked concerning the participants' experience, knowledge, and attitudes towards buying and valuing (architectural art) prints.

At first the participants were asked about if they were familiar with 'Architectural art' and what came to mind. The discussion continued about WIJCK prints and 3 of the participants had said either to have received the print as a gift, or to have given the print as a gift. Afterwards the discussion continued about prints in general.



The participants were then presented with 4 examples of architectural art. Now the participants were asked what they would take into consideration when buying such a print and what they would find important. The participants valued: price, if the print is art or a photograph, quality of the print, quality of the paper, a (seemingly) professional brand, sustainability cause and the possibility of framing. When asked about what they would be skeptical of the participants mentioned to be skeptical of not just buying a 'framed poster' instead of an art-print, the quality of the image or artwork, the size, and the price-quality ratio.

Lastly, the participants were shown 3 different types of architectural art, with different style elements, designs and fonts. The participants were asked to state their preference and elaborate upon this. The opinion differed between all participants and many of the opinions were based on personal preferred style and taste.

3.3 Choice design

To set up an efficient choice based conjoint analysis an efficient Bayesian design must be chosen. To satisfy this the choice design must confer with the following four conditions: level balance, orthogonality, minimal level overlap and utility balance. Moreover, to ensure utility

balance the parameters must be specified as a multivariate normal distribution adapting uncertainty around prior assumptions on the parameter to ensure utility balance. This efficient choice design was generated by JMP and was presented in random order to the respondents.

To enhance the external validity of the research all questions were presented in a similar way as one could experience in an online shopping environment. Two identical prints were displayed with their size and framing option, with the corresponding attribute levels displayed below. All choice options were presented as seen in figure 3 (Appendix C) and the choice sets were as seen in figure 4. Moreover, all participants were introduced to the concepts by means of two introductory pages, explaining all concepts, to make sure that the participants were well informed about the choice options. The survey lay-out can be seen in figure 5. Researcher bias has been prevented in several ways. First of all, the survey was presented in random order to all survey respondents, preventing question order bias. Moreover, all attributes their corresponding levels were substantiated either from the focus group or literature review.

When choosing the amount of product profiles and attributes there is no right or wrong amount. Most important is that the respondent fully understands the profiles they are choosing between. Considering that according to the focus group, little people had bought architectural art-prints in the past, it was best to keep the choice sets comprehensible, to ensure validity (Kløgjaard et al, 2012). Therefore, six attributes were chosen and two different product profiles per choice set. To minimize fatigue effects ten different choice sets were chosen for each respondent.

Not all attributes mentioned in the focus group were taken into the discrete choice analysis, as according to (Kløgjaard et al, 2012) all attributes chosen must be relevant and for the respondent easy to comprehend. The attributes included in the survey and the rest of the quantitative research, with their corresponding values, are:

Price [60, 50, 40, 30, 20]. These values were chosen as these are the most common prices for architectural art-prints with and without framing in the online Dutch architectural art-print market.

Paper quality [High, Low]. High quality paper outlining a thick, heavy, textured art-print, and low quality being a poster-like art-print. These values were chosen as this is the largest difference between posters and (architectural) art-prints.

Framing [Yes, No]

Size [A2, A3, A4]. These values were chosen as they are the most common sizes supplied on the Dutch online architectural art-print market.

Brand [Known, Unknown]

Sustainability cause [Yes, No]

To analyze the data obtained from the survey, and to outline the effect of the independent variables on the dependent variable (the consumers' choice), the data is analyzed through JMP. Before starting the analysis, the data, consistent of 118 respondents, must first be corrected for outliers. First of all, respondents with an incomplete survey must be deleted from the data set. Moreover, respondents completing the survey in under 100 seconds, will also be deleted, as they will most likely have not been able to process the information properly. The leftover number of valid respondents is 107 respondents. This is the final data set used to analyze through JMP.

At first, there were two main characteristics used to describe the respondents, gender and age. However, as the gender of the respondents had a better-balanced ratio than the age, made gender a better descriptive characteristic to include in the analysis. Moreover, nearly all attributes were insignificant when taking age as a control variable. The distribution can be found in figure 6 and 7 in appendix C.

4. Research Outcome

The following results have been obtained by analyzing the data through JMP, using a multinomial logit model.

4.1 Likelihood Ratio

To analyze the significance of the attributes within the data set we will be using the Likelihood Ratio test as seen in figure 8 in Appendix C. To find out if the independent variable influences the dependent variable, we will be using these hypotheses:

$$H_0: B_1 = B_2 = \dots = B_j = 0$$

H_a : At least one of the parameters are other than 0

If H_0 holds, then the attribute has no significant impact on the utility. We will be using a 95% significance rate. This means that when the test generates a p-value smaller than 0.05, H_0 gets

rejected and the attribute should be included in the model. If the p-value is larger than 0.05 the attribute should not be included in the model.

At first glance, paper quality, framing and size show a high degree of significance, meaning they should get included in the model. Moreover, price is shown to have a $p < 0.05$, so price should also be included in the model. Brand and sustainability label have a p such to accept H_0 , meaning that they should not be included in the model. So according to the likelihood ratio test it can be concluded that the attributes paper quality, framing, size and price, show significantly relevant results and should be included in the model. The remaining attributes are rejected and are left out of the model as due to their insignificance they cannot validly or truthfully predict utility. Therefore, in the following results only the statistically significant variables will be elaborated upon (Scekic, 2019). Lastly, based on the likelihood ratios it can be concluded that using gender as an interaction variable generates no significant difference in consumers' choices through gender.

4.2 Parameter Estimates

The parameter estimates summarize the effects of all separate attributes and corresponding values. It indicates the utility estimate and standard error for every coefficient. JMP uses effect coding, meaning that the first attribute level is represented by B1, the second by B2. The third attribute level (considering three levels), will automatically be used as reference group, meaning B3 can be seen as $-B1 - B2$. By using this process, the effect of all independent variables can be calculated with respect to utility.

The attribute with the largest range, thus the greatest importance, is paper, with a low paper quality having a negative parameter of -1.264. With respect to size the utility increases by 0,778 when switching from a A4 to A3 format and by 0,154 when switching from A3 to A2. Framing influences utility by 0,86, as compared to no frame. Using effect coding the following formula can be derived:

$$U_{nj} = 1,26X_{j1} + 0,86X_{j2} + 0,932X_{j3} + 0,778X_{j4} + 0,112X_{j5} - 0,020X_{j6} - 0,113X_{j7} - 0,367X_{j8}$$

With:

$$\begin{aligned}
X_1 &= \text{Paper quality [high]}, X_2 = \text{Framed [Yes]}, X_3 = \text{Size [A2]}, \\
X_4 &= \text{Size [A3]}, X_5 = \text{Price [30]}, X_6 = \text{Price [40]}, X_7 = \text{Price [50]}, X_8 \\
&= \text{Price [60]}
\end{aligned}$$

4.3 Effect marginals

Using the Effect Marginals generated by JMP it is possible to calculate the relative importance of all attributes. Figure 10 in Appendix C shows the marginal probabilities and marginal utilities for each effect. The marginal probability is the probability that an individual chooses a certain attribute over another, with all other attributes at their default level (Swarup, 2019).

The attribute with the largest importance, is the attribute with the largest range between the highest and lowest value of the attribute. The attribute with the largest importance is thus paper quality, with a range of 1.29. The attribute with the lowest importance is Price. The relative importance can be calculated by dividing the range of the attribute by the total of all ranges. Doing this for all significant attributes generates the following the distribution as seen in figure 11.

4.4 Control variable profiles

Based on utility profilers it is possible to compare the difference between utility of men and women between the attributes and their separate levels which can be seen in figure 9 and 10 in Appendix B. Although most profiles seem to have a similar relationship between men and women, there are some differences in degree of importance. Paper quality, framing and size all seem to have the same effect on utility between men and women. However, women do seem to care about the brand, whereas men are indifferent if the brand is known or not. Moreover, women seem to be more sensitive to the prices than men. Remarkable is that the utility for men seems to be decreasing when moving from €40 to €30, which is not in line with the general trend that the utility profiler for men shows. Once again, both men and women receive the highest amount of utility from a high paper quality.

The Utility profilers allow us to generate maximum desirable product profile for both men and women. In accordance to our prior expectations, for both men and women, this turned out to be paper quality: low, framing: yes, size: A2, sustainability label: yes, brand: known and price: 20.

The same can be done for the other descriptive variables, such as age. First of all, observing age, the only significant variable is Size as can be seen in figure 13. Therefore, the only utility profiler that can be used is age. Looking at figure 12, it is remarkable that utility decreases when moving from an A3 to A2 for the age group 0-20 whereas for all other age groups the utility increases. The youngest age group thus prefers an A3 print over A4 and A2. All other age groups have increasing utility with increasing size.

4.5 Willingness-to-pay of attributes

Using the information obtained from the models above allows us to translate attribute importance to willingness-to-pay. Figure 8 shows the range of price to be 0,813 utility points. Assuming that the price range is (€60-€20) €40, means that every utility point is worth €49.20. Using this allows us to calculate the willingness-to-pay for each attribute and their corresponding level, as seen in table 1. All values are willingness-to-pay when compared to the least preferred value.

Table 1. Willingness-to-pay of attribute values when compared to least favored option.

Attribute / Willingness-to-pay	Paper Quality	Framing	Size
	High: €63,61	Yes: €42,56	A2: €46,00
			A3: €38,82

4.6 Main findings

Based on the likelihood ratio tests the statistically relevant variables were Price, Size, Framing and Paper quality. Brand and Sustainability label are insignificant and therefore left out of the research. Based on the parameter estimates it is possible to create a formula expressing the utility in all separate attributes with corresponding values. Using the effect marginals shows that the most important attribute is paper quality accounting for 33% of the total utility, whereas the least important significant variable Price accounts for only 21%. Using the variable profiles, it is possible to analyze differences between certain control variables and their utility and utility trend. Apart from a couple of minor differences, most control variables don't yield different outcomes in attribute utility.

Using the prior information allowed to answer the main research question. Consumers were prepared to pay €63,61 more for a high paper quality than low, €42,56 for a frame to be included, €46 for an A2 format over A4, and €38,82 for A3 over A4.

5. Conclusions and recommendations

This paper is looking to find an answer to the following research question: *‘How do different product attributes influence the willingness-to-pay of prints within the Dutch online architectural art-print market?’* The objective was to research the different attributes that influence the consumer’s willingness-to-pay and to in what way. First a qualitative research was conducted by means of a literature review.

The literature review found that there are mathematical models, such as the Lancaster model to express consumer value through attribute levels. However, an important part of consumer value is created through consumer perception behind the attribute valuation. When zooming in on the consumption process with respect to art, the traditional five step model by Dewey can be adjusted and applied to buying art. This consumption process can be influenced in an online setting. Many Dutch (architectural art-print) websites apply several techniques to influence a consumer’s willingness-to-pay in an online environment. These (Dutch architectural) art-print websites are growing and are expected to continue growing due to the increasing demand for art prints. Due to this, the on-demand print market is gaining popularity, and it is likely that the art market and print on demand market will converge more in the future. Lastly, there are several different pros and cons for artists and consumers to supply and demand art online.

Using the insights gained from the literature review a focus group was held with 6 Dutch participants ages 21-56 years old. and based on this the following attributes were chosen. The participants were asked several questions about prints, architectural art-prints and what their experience and expectations were when buying this. Based on this discussion the following 6 attributes were chosen to include in the discrete choice analysis:

- Price [60, 50, 40, 30, 20]
- Quality of paper [Low, High]
- Framing [No, Yes]
- Size [A4, A3, A2]
- Brand [Unknown, Known]
- Sustainability cause [No, Yes]

A survey made with Qualtrics was distributed over 120 respondents and was filtered for outliers. Afterwards, the data was transformed for JMP and analyzed through discrete choice analysis. The control variable used in JMP was gender. The outcomes as produced by JMP were the estimated parameters, significance test through likelihood ratio test, examining effect marginals and JMP calculated utility profilers. Using this information allowed to calculate each attributes effect on the consumer's willingness-to-pay.

When looking at the likelihood ratio test at a 95% significance rate all attributes appear to be significant but two. Paper quality, framing and size, all have a $p < 0,0001$, giving them a high statistical relevance. Moreover, price has a p of 0,005 making it statistically relevant as well. All other factors are insignificant and are therefore left out of the research.

Observing parameter estimates shows that paper quality is the most influential attribute to utility at a parameter estimate of 1,264. Size has the second largest parameter estimate. The smallest significant parameter estimate was Price at -0,36 for a price of €60.

The effect marginals made it possible to compute the relative importance of all attributes and ultimately calculate the willingness-to-pay for each attribute and corresponding value. The attribute with the largest importance is paper quality, with a range of 1.29. The attribute with the lowest importance is brand. However, considering Brand and Sustainability level are insignificant, the least important attribute is Price. This is in line with its parameter estimate.

Lastly, utility profilers were computed. These profilers allowed to compare utility for each separate attribute level for the control variable, namely gender. There were no large differences in utility between men and women between the separate attributes. Computing the maximum desirable product profile generated once again, that both men and women receive the highest amount of utility from a high paper quality.

Using the prior information allowed to calculate the willingness-to-pay with respect to each separate attribute and corresponding value. Consumers were prepared to pay €63,61 more for a high paper quality than low, €42,56 for a frame to be included, €46 for an A2 format over A4, and €38,82 for A3 over A4. Due to the insignificance of brand and sustainability label it was impossible to conclude anything about the willingness-to-pay with respect to these attributes.

This brings us to the overall conclusion. Consumers are willing to pay a high amount of money to have a high paper quality, assuring, as mentioned in the focus group, that they receive an actual art-print instead of a poster. Moreover, consumers are willing to pay a

relatively high amount for framing. Lastly, consumers are willing to pay more for larger sizes of prints, however, this weighs less strong than paper quality and framing.

5.1 Limitations and suggestions for future research

The research posed several limitations. Due to the scarcity of certain resources the research was not as elaborate as it could have been, having less representative and valid outcomes as consequence. The scarce amount of time and money for example made it impossible to accurately mimic an online shopping experience for the survey participants. Moreover, due to several other scarce resources it was not possible to make the research as extensive, representative, and valid as desired. In the following part the limitations will be discussed of the paper.

First of all, there were confounding variables, due to the non-randomly assigned participants of the survey and the focus group. The focus group were all friends and relatives, so they were all similar in terms of background and common perceptions. The survey participants were mostly Instagram followers of my instagram account Douwe.Draws, meaning they all have some sort of an interest for art. Even though this is a relatively good representation of the target group, it is still limited to people close to my own network. In the future, it would have been better to randomly assign the people for the focus group, carefully checking their background and environment, to make sure that the focus group is a proper representation of the target group. Moreover, the survey should have been distributed to more people outside of my own network, and more people who may have less knowledge about art, or art-prints. This would increase the external validity of the research.

The measurement of the dependent variables could also have been approved upon. Even though they were presented in a visual way to the participant it still did not properly mimic the experience of buying art-prints online. This could have been done by creating a website where the participants would have been able to choose between separate options. This would have increased the external validity of our research.

Price was assumed to take on the values of €20 to €60. This was based on the assumption of the current architectural art-print websites and their prices. According to the data outcomes, price did not seem to weigh heavily compared to the other attributes, which could be because the consumers didn't see €60 as a high price for the product. For future research, it would on the one hand be better to research this prior to the survey with a more extensive research for the price range. On the other hand, it would also be better to implement

a system that the participant ‘feels’ the money they spend in the experiment, by giving them a specific spending budget.

Lastly, the heterogeneity of the consumers could have been represented in a better way by using a mixed logit model. Doing this and increasing the size of the sample group would lead to a better accuracy and an improved rigorousness of the research.

Having written this thesis has taught me a lot about the Dutch architectural art print market and the art market in general. I have learnt many new things about the future of art and the art print market. Moreover, in writing this thesis I have learned many new skills concerning structuring and writing an academic research paper. Having to deal with self-collected data and translating this into findings and conclusions has taught me the implications of research and the amount of work and dedication that it takes. All in all, I believe it has been a very educating experience about how to individually conduct a research and write an elaborate academic paper.

Appendices

Appendix A: Bibliography

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Appendix B: Focus group transcription (in Dutch)

Hallo iedereen. Welkom bij de focus groep. Ik doe het voor mijn scriptie, en die maak ik over architectural art. Je zou dit misschien ook wel kunnen omschrijven als urban art. Ik ben in de focus groep vooral op zoek naar meningen en ervaringen dus praat vooral lekker veel en zeg wat je denkt. Ik ga even mijn scherm delen. Zoals jullie waarschijnlijk al een beetje weten gaat het over urban art. Zoja heb je het wel eens gekocht, zo nee zou je weten van een bedrijf die het verkoopt.

Ik heb er nog nooit van gehoord.

Ik heb er ook nog nooit van gehoord maar ik denk aan wel aan die schetsen van Kralingen enzo, van WIJCK geloof ik.

Wat houdt het precies in urban art?

Nou dat is vooral prenten en kunst van steden. Je zou het kunnen zien als architectonische kunst, dus vooral tekeningen en prenten van steden. Dus zoals Sophie al zei is WIJCK daar wel een voorbeeld van. Oke, dat is dus nog een relatief onbekende topic blijkbaar.

Hebben jullie wel eens een poster of muurprent, of photo gekocht online? Wat was jullie ervaring? Waar had je dit gekocht? Waarom had je dit gekocht?

Nou ik heb destijds ook een WIJCK prent gekocht. Dit was destijds voor een rally die ik organiseerde, maar had ik dus voor iemand anders gekocht.

Iemand anders? Voor aan de muur?

Nou ik heb alleen eentje gekregen een keer, dus ook van WIJCK. Verder heb ik wel eens posters besteld.

Ik heb wel eens een foto laten afdrukken in groot posterformaat online. Maar ik weet niet of dat hier ook onder valt.

Iemand anders nog wat?

Ook posters om in te lijsten voor in mn kamer of in de woonkamer.

Ja ik ook wel eens, uiteindelijk gekregen, niet zelf gekocht, maar dat wilde ik in eerste instantie wel doen. Ik keek heel erg naar het plaatje en erg naar de recensies.

En de rest, waar keken jullie naar? Of waren het meer impulsieve aankopen?

Voor mij was het meer een ervaring, van een museum waar ik geweest was.

Voor ons ook, wij hadden een kunstwerk van een museum gezien. En waar let je dan op? Ik zelf let op inderdaad of het wat met me doet. En of ik dat online kan beoordelen weet ik niet zo goed, want wij hadden het ook in het museum gezien. Maar je let dus wel goed op wat het met je doet.

Jaa ik had ook een poster van een stad waar ik was geweest gekocht. Dus ik daar ook een connectie mee. Maar die had ik niet online gekocht bedenk ik me nu.

Ik zoek er ook nog eentje voor in de woonkamer, en dan zoek ik voor een beetje naar doet het iets met me en vind ik het leuk.

Oke, leuk leuk. Dan ga ik jullie nu een voorbeeld laten zien van de prints. Dit is een voorbeeld van Amsterdam. Dit is WIJCK een groot bedrijf in de architecturale art scene. Verder hier nog 2 voorbeelden. Een foto en een digitale lijntekening van een bekend gebouw. De volgende vragen zullen allemaal gaan over dit soort prenten, dus probeer je voor te stellen dat je op een website zit en dit soort prenten voorbij ziet komen. Stel je voor, wat lijkt mij belangrijk? Waar zou je op letten als je zo'n prent zou kopen, waar zou je opletten? En wat zou doorslaggevend zijn in het wel of niet kopen van de prent.

Als je iets met de stad hebt. Als je er vandaan komt, of een mooie ervaring ermee hebt gehad. Zoiets.

Ja, oke.

Of je het wel eens hebt gezien in het echt.

Ja bepaalde ervaringen inderdaad.

Of een herinnering die je hebt gehad aan het gebouw. Maar wat mij betreft vind ik het verschil met een foto en een tekening, kan het ene overkomen als kunst en het andere niet. Versus een foto. Zit dus wel verschil in tusseneen foto en tekening.

Ja oke

En de prijs zou ik ook nog erg op letten.

Online kan je het niet heel goed beoordelen. Ik zou willen weten wat voor een materiaal papier het is, en het materiaal inkt wat het is.

Wat ik ook wel belangrijk vind, nou is dat misschien niet helemaal betrokken bij dit maar vaak zie je ook van die donaties aan goede doelen ofzo. Weet niet hoe snel ik daar op let bij een print, maar het zou eventueel wel mee kunnen spelen.

Of het samenkomt met een lijst of niet. Met lijst heeft het wel wat meer waarde dan een enkele prent.

Oke alright. Dus kunst of geen kunst, emotionele betrokkenheid, kwaliteit van de druk en wel of geen lijst.

Oja en ook weer de recenies.

Okee heel goed, dan een andere vraag: Waarvoor zou je skeptisch zijn als je dit zou kopen?

Euhm, ik zou zeker bij zon prent, graag willen weten dat het niet gewoon een lullig ingelijst papiertje is. Dat het echt een mooie prent is. Wat je lastig online kan beoordelen. Dus dat je wel echt een kwaliteit kunst stuk kan kopen en ophangen.

Oke. Is dat het, of hebben andere mensen nog wat anders?

Nou is eigenlijk een beetje hetzelfde, maar de kwaliteit van het papier en de kwaliteit van de foto. De pixels ofzo.

En ook dat op zo'n plaatje dat het een bepaalde grote heeft. Maar je moet ook goed een beetje nadenken over de maten.

Dat vind ik ook een hele goeie. Sceptisch ben ik wel over kopen online, want je wordt heel veel afgezet. Ik zou sceptisch zijn voor dat de prijs-kwaliteit verhouding heel lastig te vergelijken is online.

Wat voor een site, lijkt me ook nog belangrijk. Of je weet dat het een legit website is die misschien ook nog andere dingen verkoopt.

Oke ik ga jullie nu nog wat fotos laten zien van urban art. Eentje van WIJCK en twee andere soorten. Ik zou jullie graag willen kijken naar wat vind je mooi en waarom? Je mening geven op de tekeningen en je mening uitleggen. Dus we gaan ze even allemaal langs. Hier hebben we van WIJCK, kijk er even goed naar. Dan de tweede. Hij is een beetje onscherp, maar je begrijpt wel het idee. Dan de derde. Dan is de vraag: Welke vind je het mooist en waarom?

De derde vind ik het mooist. Door het contrast, zie je verschillende dieptes en springt hij er meer uit. Daar houd ik heel erg van.

Drie vind ik ook het mooist omdat hij misschien wat ruimtelijker is opgezet dan 2. 2 is heel vol en 3 is wat ruimtelijker.

Oke oke,

Ik vind zelf 3 denk ik ook wel het mooist. Het is wat dynamischer. Het is gewoon een gebouw van de voorkant. Rotterdam heb ik tuurlijk ook meer mee dan Amsterdam, dus is misschien ook wel wat persoonlijk van mij en mijn connectie met Rotterdam.

En hebben jullie nog andere meningen?

Ik denk dat nummer 2 minder diepte heeft. Nummer 2 is een zwevend gebouw die in het wit ligt. Dat heb je bij 1 en bij 3 ook maar doordat de belijning wat anders is is het wat minder opvallend. Voor de rest vind ik het een beetje appels met peren vergelijken. Het blijft heel erg afhangen van de smaak en wat je persoonlijk hebt met het gebouw. Dus appels met peren vergelijken maar ik vind het wel mooi als je iets meer horizon ziet, waarbij het ook andere kunst is ook eigenlijk.

Ben het er ook mee eens dat het 2 verschillende soorten prenten zijn. Want een skyline is heel wat anders dan een los gebouw.

Ik denk dat het heel erg afhangt van je doel. Of je het cadeau wil geven of bijvoorbeeld zelf leuk vindt om te hebben. Dat 1 iets toegankelijker is voor niet per se hele erge kunst liefhebbers maar een leuk plaatje voor in je slaapkamer.

Maar 2 dan opzich ook wel. En 3 ook opzich. (haha)

Maar ik vind dat je 1 wel makkelijker cadeau kan geven.

Ik vind het lettertype van 1 wel weer mooi omdat het zo uitgerekt is.

Ik vind het lettertype van nummer 2 wel juist weer heel mooi. Maar dit is inderdaad ook wel weer heel verschillend met betrekking tot smaak en stijl van de prent.

Dat was eigenlijk de laatste vraag. Ik weet niet of mensen nog wat kwijt willen over de tekeningen of over het gesprek?

Welke heb je allemaal gemaakt?

2 en 3 heb ik gemaakt. En ik vind 2 wat mooier dan 3 aangezien ik die wat mooier getekend vind. Maar daar let ik misschien dan weer wat meer op dan jullie...

Afrondend gesprek

End focus group

Appendix C: Figures

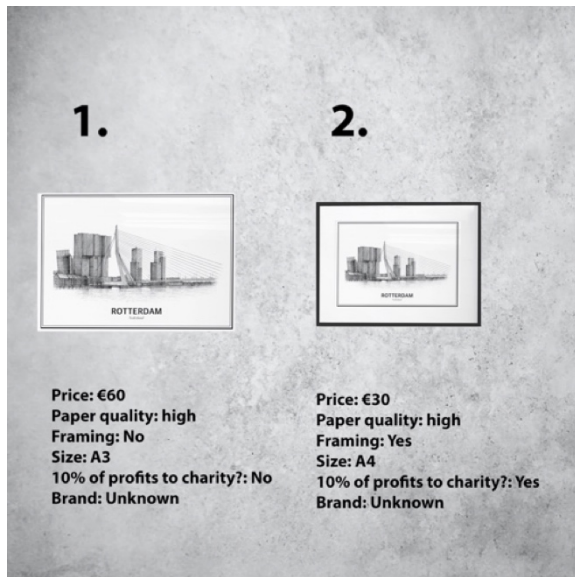


Figure 3. Presentation of choice options survey

Price	Paper quality	Framed	Size	Sustainability label	Brand	Question
40	low	No	A4	Yes	Known	1.1
50	high	Yes	A3	Yes	Unkn...	1.2
50	high	No	A4	No	Unkn...	2.1
40	low	Yes	A3	Yes	Known	2.2
50	high	No	A4	Yes	Known	3.1
30	low	No	A3	No	Unkn...	3.2
60	high	No	A3	No	Unkn...	4.1
30	high	Yes	A4	Yes	Unkn...	4.2
60	low	Yes	A4	Yes	Known	5.1
40	high	No	A2	Yes	Unkn...	5.2
20	low	No	A2	Yes	Known	6.1
40	high	Yes	A4	No	Unkn...	6.2
20	high	No	A4	No	Known	7.1
60	high	Yes	A2	Yes	Unkn...	7.2
20	low	Yes	A4	No	Unkn...	8.1
30	high	No	A3	Yes	Known	8.2
60	high	No	A2	No	Unkn...	9.1
50	low	Yes	A3	Yes	Unkn...	9.2
20	high	Yes	A3	Yes	Unkn...	10.1
50	low	Yes	A2	No	Known	10.2

Figure 4. Choice set structure as generated by JMP

Welcome!

I am Douwe Kruyt, a third year student of International Business and Business Economics at the Erasmus University of Rotterdam. For my thesis I am conducting a research regarding the Dutch online art print market, for which I will be collecting data by means of this survey.

In this survey you will be presented 10 different choice options, all with a choice set between two different product profiles with different attributes. By means of your stated preferences I will be able to gather new information about the online art print market. Try to imagine yourself visiting a website and seeing these two different prints, and try to think of what print you would then most likely buy.

The following slides will illustrate some concepts needed to understand the choice sets properly.

The survey only has 10 questions so you'll be done in a couple of minutes. Thanks a lot!

First of all the type of print that will be discussed in the survey is an architectural art print. All pictures will contain an example of such a print for visualisation. Furthermore, all product attributes are visually explained beneath.

Figure 5. Introduction survey

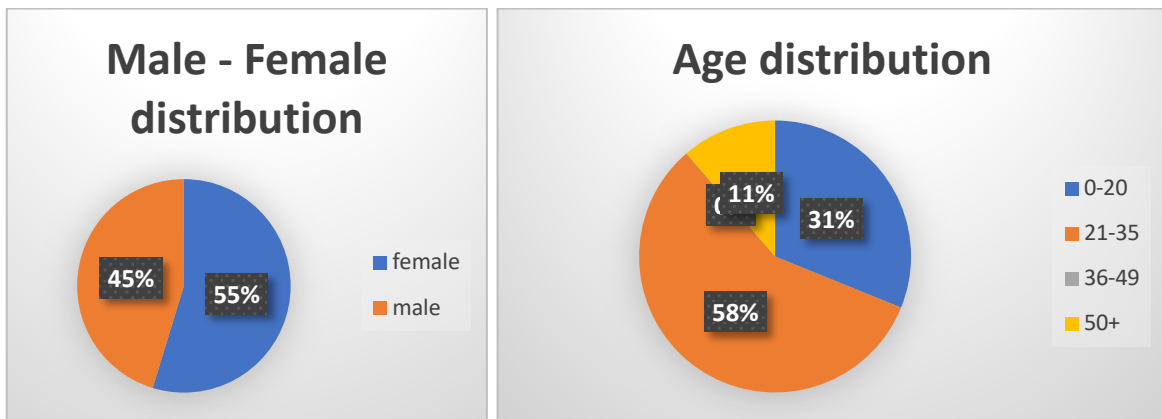


Figure 6 & 7. Distribution of descriptive variables

Likelihood Ratio Tests			
Source	ChiSquare	DF	Prob>ChiSq
Paper quality	99,254	1	<,0001*
Framed	32,455	1	<,0001*
Size	50,481	2	<,0001*
Sustainability label	5,659	1	0,0174*
Brand	2,385	1	0,1225
Price	14,868	4	0,0050*
Gender*Paper quality	1,256	1	0,2625
Gender*Framed	0,000	1	1,0000
Gender*Size	0,224	2	0,8940
Gender*Sustainability label	0,353	1	0,5522
Gender*Brand	2,223	1	0,1359
Gender*Price	3,723	4	0,4447

Figure 8 Likelihood Ratio Tests

Parameter Estimates		
Term	Estimate	Std Error
Paper quality[high-low]	1,26435773	0,1456925859
Framed[Yes-No]	0,86077606	0,1722583817
Size[A3-A4]	0,77833277	0,1376619477
Size[A2-A3]	0,15445567	0,1354013881
Sustainability label[No-Yes]	-0,34873289	0,1367743344
Brand[Known-Unknown]	0,21051432	0,1393886338
Price[60]	-0,36655718	0,1138043144
Price[50]	-0,11277898	0,0950507825
Price[40]	-0,01975139	0,1165188399
Price[30]	0,11173337	0,1139888548
Gender[0]*Paper quality[high-low]	0,17046539	0,1456925859
Gender[0]*Framed[Yes-No]	0,02226613	0,1722583817
Gender[0]*Size[A3-A4]	0,06225559	0,1376619477
Gender[0]*Size[A2-A3]	-0,05007171	0,1354013881
Gender[0]*Sustainability label[No-Yes]	0,08422183	0,1367743344
Gender[0]*Brand[Known-Unknown]	0,20541815	0,1393886338
Gender[0]*Price[60]	-0,16684410	0,1138043144
Gender[0]*Price[50]	-0,02896846	0,0950507825
Gender[0]*Price[40]	-0,10639361	0,1165188399
Gender[0]*Price[30]	0,12325589	0,1139888548

Figure 9 Parameter estimates (control variable: gender)

Effect Marginals			
Marginal Probability	Marginal Utility		Paper quality
0,2153	0,00000		low
0,7847	1,29330		high
Marginal Probability	Marginal Utility		Framed
0,2964	0,000000		No
0,7036	0,864557		Yes
Marginal Probability	Marginal Utility		Size
0,1740	0,000000		A4
0,3829	0,788904		A3
0,4431	0,934857		A2
Marginal Probability	Marginal Utility		Sustainability label
0,5828	0,00000		Yes
0,4172	-0,33443		No
Marginal Probability	Marginal Utility		Brand
0,4390	0,000000		Unknown
0,5610	0,245397		Known
Marginal Probability	Marginal Utility		Price
0,1299	-0,39489		60
0,1714	-0,11770		50
0,1857	-0,03782		40
0,2202	0,13266		30
0,2928	0,41774		20

Figure 10 Effect marginals

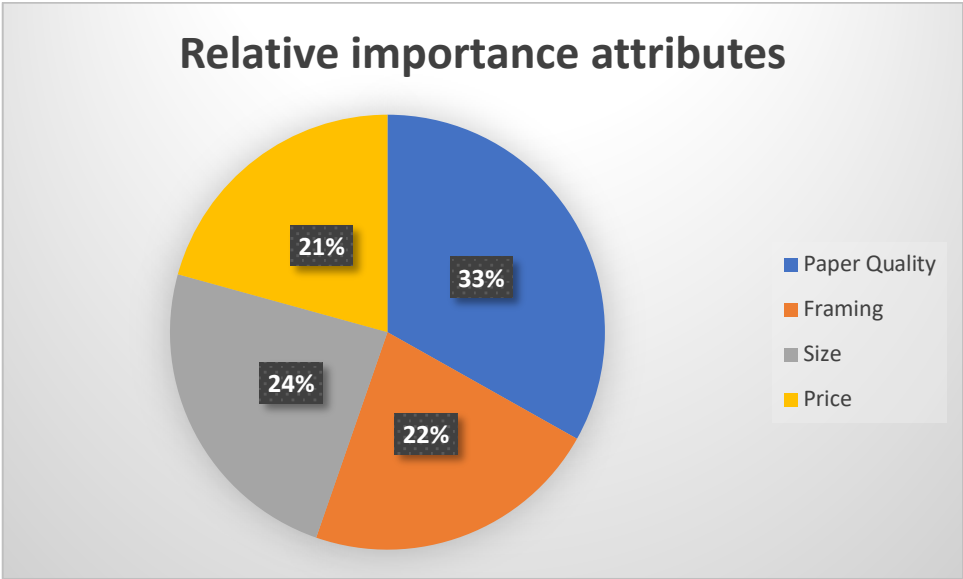


Figure 11 Relative importance attributes

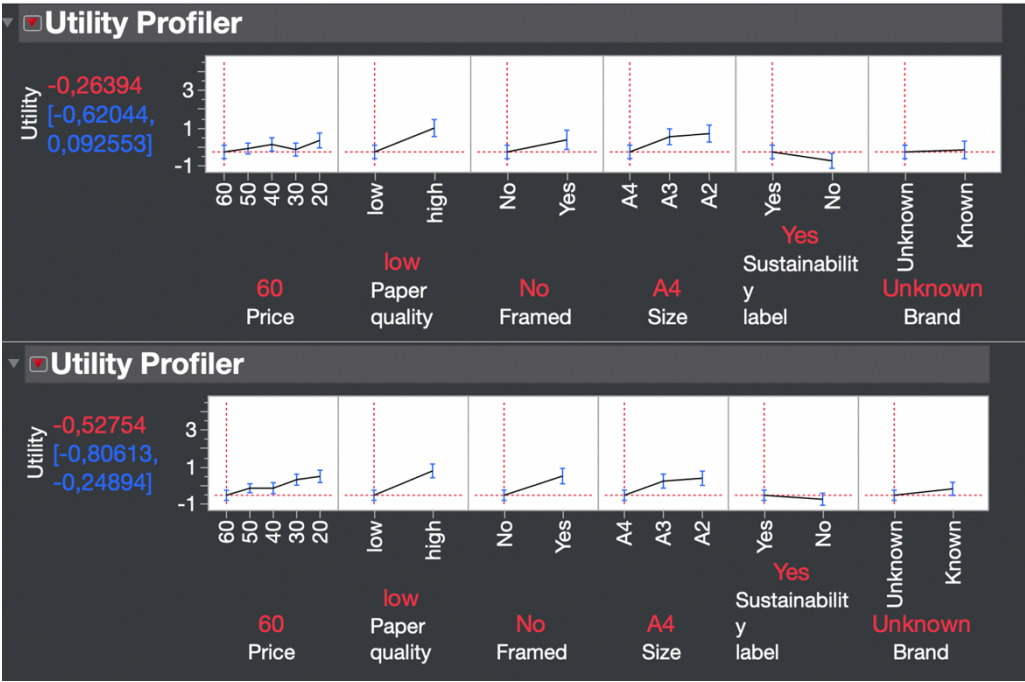


Figure 12 Utility profiler women and men respectively

Likelihood Ratio Tests			
Source	ChiSquare	DF	Prob>ChiSq
Price	0,000	4	1,0000
Paper quality	0,000	1	1,0000
Framed	0,000	1	1,0000
Size	20,525	2	<,0001*
Sustainability label	0,000	1	1,0000
Brand	0,000	1	1,0000
age*Price	6,872	12	0,8659
age*Paper quality	0,123	3	0,9889
age*Framed	0,000	3	1,0000
age*Size	1,291	6	0,9721
age*Sustainability label	0,000	3	1,0000
age*Brand	0,000	3	1,0000

Figure 13 likelihood ratio test descriptive variable age