



The impact of product photography on consumer attention and perception

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<p>Abstract:</p> <p>The purpose of this thesis is to identify the impact that product photography in marketing has on consumer attention and perception. Different elements of a product photograph such as colour, composition, focal element, textual information and props are comprehensively analysed in order to determine the most essential attribute effect consumer attention. The thesis based on previous journal articles, books and online sources about consumer attention and perception, as well as different elements of product photography. A conjoint analysis test was carried out to analyse the relative importance of the attributes mentioned above. Each attribute was divided into two to three sublevels: background colour (white and black), composition (symmetry and the rule of thirds), focal element (shallow depth of field and deep depth of field), textual element (no, script font and modern font) and props (no and yes). The author took consideration of all sublevels and design eight product photographs (visual stimuli) based on the orthogonal array procedure for the conjoint test. After that, an online survey with all designed visual stimuli and related questions was conducted, and respondents gave visual impression for each photograph. SPSS was used to analysed the responses. Based on the result, textual information was the most important attribute, background colour and composition were the second and third most important ones, followed by focal element and lastly props. In product photograph, textual information can be the brand's name, slogan or descriptions. These elements can provide useful information about product usage, the vibe and context of the photograph and eventually have a positive impact on consumer attention and perception.</p>	
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“Many an object is not seen, though it falls within our range of visual ray, because it does not come within the range of our intellectual ray, i.e., we are not looking for it. So, in the largest sense, we find only the world we look for”.

-Henry Thoreau-

1 INTRODUCTION

1.1 Background and motivation

The world is going through the new era in which massive flow of information is consumed and shared by internet users every day. The problem, however, is consumers are busy, and they have limited time for such a significant amount of information and offerings. A recent study from Microsoft shows that from the year 2000 until now, the average attention span of people dropped from 12 seconds to only eight seconds (McSpadden, 2015). As a result, it is imperative for marketers to find a way of creating information that is interesting enough to capture consumer attention. An efficiently processed piece of information can help them to quickly understand the messages and values one firm wants to deliver. Therefore, visual content is the critical solution in modern marketing to adapt to that phenomenon (Gamble, 2016, pp.32–35).

Eye tracking research emphasized that internet users pay more attention to the piece of information carrying images, and if those visual contents are relevant, they even spend more time to look at the picture than they do with the text on the page (Nielsen, 2010). Besides, another study about infographics revealed that people following directions with text and illustrations do 323% better than people following directions without visual figure (Levie & Lentz, 1982). The above statistics all lead to the increasing importance of visual solution and the ultimate way it has to engage with consumers. Almost all customer communication channels such as newspapers, websites, social media are becoming highly visualised. Quality pictures, fascinating videos, and infographics are heavily used in the media consumption world, which leads to severe battles of drawing consumer attention (Gamble, 2016, pp.32–35)

With the help of social media, knowledge and information is learned and spread more than ever. Individuals use social media to share their own stories and to engage with friends and family from all over the world. Not only that, they connect themselves to this digital world to follow the newest trends in every aspect of life. Understanding this situation, brands and retailers have been utilizing and taking advantage of these platforms in order to reach and communicate with their potential target segmentation of consumers. (Russell, 2017, pp.10–12)

According to Bazaarvoice's Shopper Experience Index (2017), social media and visual content are now dominating online marketplaces and becoming the latest trend in the field of e-commerce. Based on their newest research, visual images and product photographs can generate a 111% conversion boost and 180% revenue boost per visitor for top brands and retailers. Visual content improves not only the online shopping experience but also a source of influence for consumers. More than 80% of retailers stated that visual content, especially consumer-generated content could significantly increase their online visibility and brand trust. With the help of SEO and different algorithms, marketers can obtain precious information about buyers' behaviour and thus, provide them with the most suitable visual contents, both in social media channels and web store platforms.

The quote "A picture is worth a thousand words" has never been more accurate in the field of content marketing. Product photographs are a vital part of any social media campaign, and no one can deny it. As mentioned above, consumers have limited amount of time for traditional marketing, which relied heavily on text-only product descriptions. More than that, bombardments of advertisements on those media platforms even cause sensory overload, which leads to the distraction of consumer attention. Accordingly, a powerful, robust product photography strategy is a fundamental approach to win this information competition, gaining more engagement with consumers, increasing brand awareness and ultimately improving the conversion rate. (Schaffer, 2013)

1.2 Research aim and research questions

The purpose of the thesis is to comprehensively analyse the features of product photographs that effectively capture consumer attention and thus, increase their engagement or interest with the product. An attractive photo should draw customer attention to it, consciously or unconsciously, and more than that, make them want to engage with it. There are various ways to make a photograph that can trigger viewers' attention and emotion. However, a compelling photo used for marketing should successfully tell the brand story and deliver the value to consumers. All the efforts ultimately capture consumer attention and positively change their perception. These following questions are generated to deeply understand this aspect problem.

- (1) What are different attributes of product photography in visual marketing?

- (2) What is the most important element of a product photograph that affects consumer perception?
- (3) Are there differences in visual attention between consumers who are familiar and not familiar with the marketing product?

1.3 Demarcation

The thesis concentrates on product photograph only, so other visual content types such as video, infographic, illustration, etc., are not covered. Also, the author does not focus on the technical part intended for photographers or designers, but more on the marketer perspective on how product photography solutions are created to meet marketing goals. Consumer attention, the perceptual process and different elements of product photographs such as colour, composition, focal element, textual information, and props will be widely covered. Due to the lack of some photography equipment and tools, other aspects such as lighting, saturation, colour harmonies cannot be comprehensively analysed in the research.

1.4 Structure of the thesis

The chart below visualises the structure of the thesis chapter by chapter. After the introduction, earlier studies and theories regarding consumer perception, product photograph and the connection between them will be broadly analysed in the literature review chapter. The choice of method for the thesis is conjoint analysis because of its flexibility and convenience for both the author and the respondents. More than that, this method is commonly used in marketing research when examining the connection and the relative importance of problem with various attributes. An online survey will be used to collect data for the study and SPSS will be used to analyse input data. The result of the conjoint analysis test will be presented in the results chapter, followed by the discussion and conclusion part.

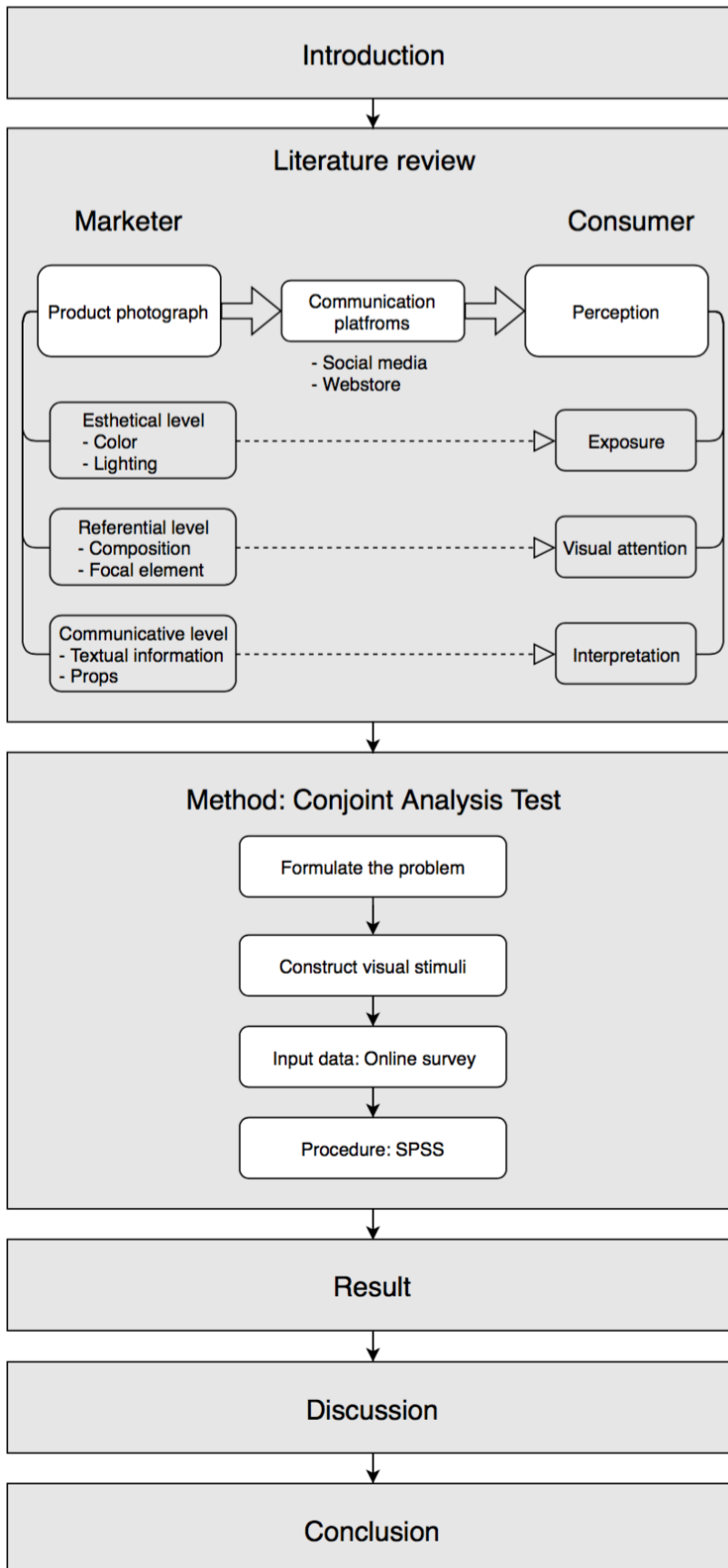


Figure 1 Structure of the thesis

2 LITERATURE REVIEW

2.1 Consumer perception

When a piece of information is exposed to consumers, for example, a photograph, it goes through a process from the sight sensation to the brain and finally is perceived with consumers' specific way of interpretation. Everyone has their unique experiences, knowledge, and interests and that led to the different in favours, in mind-set and how they perceive the same thing with totally different results. In this case, a photograph is a sight stimulus received by consumers' eyes when they are searching for certain information. There are uncountable stimuli within consumers' surrounding environment, including sounds, smells, tastes, and textures. However, they cannot always notice all of this. People can choose what they want to see and how they perceive it. Sometimes, an image is even right in front of their eyes, but they never look at it or even notice its existence, because that image is not what they attended to see. (Solomon, 2010, pp.36–59)

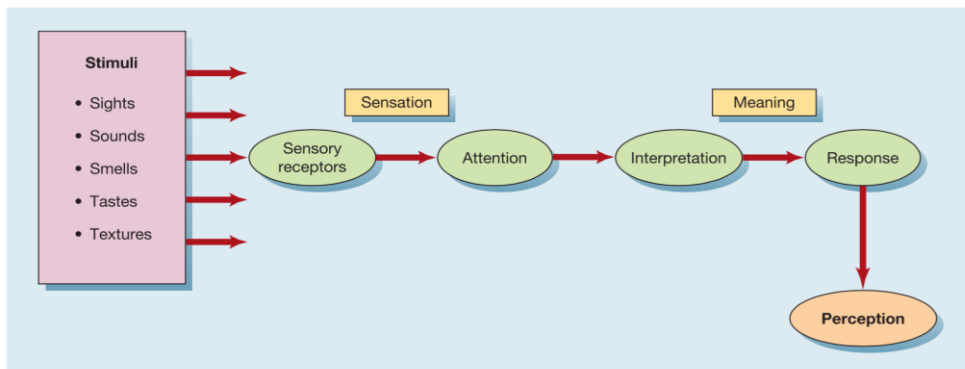


Figure 2 Perceptual process (Solomon, 2010, p.37)

Consumers are bombarded every day in the information era. Countless values and messages are delivered to them, which try to capture their attention, try to convince, influence or even change them. So many pictures or visual content can immediately gain the attention of consumers when it comes from their trustworthy favourite sources. But the same piece of data comes from other unfamiliar sources can be doubtful or sometimes rejected by viewers. That illustrates for the perceptual selection of consumers as everyone has limited time and capacity to process that massive amount of stimuli. Strictly speaking, all

stimuli can be exposed to consumers, but only a small portion of them can attract attention, and thus be perceived. (Foxall, 2016, pp.15–43)

2.1.1 Exposure

Exposure can be interpreted as the level at which consumer notice a given stimulus. Needs and experiences are factors that have an impact on the selective nature of consumer perception (Solomon, 2010, pp.36–59). For example, a consumer can be attracted to a picture of lipsticks if she currently needs some makeup products and can completely ignore an advertisement for sports equipment, even though both images have the same tonal range, same composition and so on. Past experiences can also influence the perceptual filter. For example, when a photo captures a moment of a family on the beach, is exposed to a customer that has the same kind of summer vacation, can easily penetrate his or her mind. In many cases, the way consumer perceive value from a picture can be different from the one that marketer intended to deliver. As a result, it is essential for businesses to control and monitor the perceived messages by comprehensively understanding target consumers and possible factors affecting their perception. (cp. Foxall, 2016, pp.15–43)

One more element that has an impact on exposure is adaption - the level of notice that a stimulus continually received by consumers over time. It indicates that the amount of time one spends on looking at a visual stimulus will be shorter if he or she get so familiar with it. Thus, the amount of time spent on analysing a visual content does not necessarily correlate with the level of one's attention. But, in order to keep the same duration spent on the same kind of stimulus, there are several factors to take into consideration:

- Intensity: colour (saturation, value) and tone of visual stimuli. A desaturated colour can lead to adaption.
- Duration: exposure time required for a stimulus to be processed.
- Discrimination: too simple visual stimuli are not highlighting enough for the sensory system to notice.
- Exposure: frequency of seeing the stimuli.
- Relevance: unrelated stimuli cannot capture visual attention. (Solomon, 2010, pp.36–59)

2.1.2 Visual attention

Attention can be interpreted as the level of notice that a stimulus received by consumers within the exposure scope. It is the critical element that all marketers want to capture and monitor. Nowadays, more and more innovative attempts in designing marketing materials are seriously focused, from studying consumer psychology to manipulating attention triggers. (Solomon et al., 2010)

Nevertheless, capturing consumer attention is not an easy going task because of its fundamental characteristic: situation-specific. It means that consumers pay attention to different stimuli, in different situations. Teixeira (2014) in one of his research in Harvard Business School, stated that the value of attention to businesses is becoming more crucial than ever and the cost of “buying” it in marketing is rising significantly. Media publishers, broadcasters sell attention of viewers to businesses in the form of, for example, a 30-second advertisement and just only 13 seconds of it can, in fact, capture consumer notice. Understanding the higher expenses spent on advertising, marketers come to a solution of content advertising, which is much cheaper and much more appealing to lack-of-attention consumers. In order to impressively approach consumers in this way, it is crucial to know that all attention is generated differently in term of intensity and duration.

To better comprehend the sophistication, Parr (2015, pp.11–20) mentioned three stages of attention and factors generating these attentions:

- Immediate attention: this kind of attention automatically happens regardless of people’s consciousness. In other words, paying attention to some types of stimuli, for example, a saturated bright red colour is the nature of the human’s brain. Usually, people cannot resist this reaction but unconsciously do it. In other cases, stimuli defined as threats or fears also immediately catch people attention. However, after this notice, if people find no relation to the inducements, they will lose focus on it.
- Short attention: this is a higher level of awareness when people have motivation and interest to focus on a particular stimulus, for a fixed amount of time. They are more likely to pay attention to new things because it triggers their curiosity and their nature of exploration. One common picture which is too

familiar to customers can never win their attention again because there is nothing new to learn more. Conversely, a photo with a unique perspective will have a better chance to stand out because it is not something people can see daily. However, this attention will stop when customers adapt to the stimuli, and further unique incentives are needed.

- Long attention: people pay lengthier attention to particular stimuli if they can connect it to their previous knowledge and experience. Contrary to short attention, which requires unique and novel aspects, long attention needs familiarity. It is another instinct of human's complicated brain structure. The more connected people can feel, the more they attend to it. The main ingredient of viral marketing relied on the way marketer transform short attention to prolonged attention. The balance of uniqueness and familiarity is the key to attract customer attention for the highest duration.

2.1.3 Interpretation

The human brain can identify one part of a stimulus as the predominant object, and the surrounding component is the background. The more experiences that one has about the figure, the easier it is to be perceived. This process is called Figure-ground principle, and it is the key factors that enable consumers to identify the primary or familiar stimulus. However, in some cases, people struggle to distinguish these two elements because it is vague to perceive which part of the object is the dominant one. In other words, the stimulus can be observed in two different ways, and that called figure-ground reversal. This finding eventually led to a significant conclusion that people have limited capacity when discerning information and only one stimulus can be concentrated on at a time. When conducting a product photography strategy, it is necessary to minimise the unwanted elements that cannot draw consumer attention, and primarily focus on the central figures. Figure 3 shows that the picture can be perceived as a vase or two profiles when switching between figure and background. (Jansson-Boyd, 2010, pp.38–42)

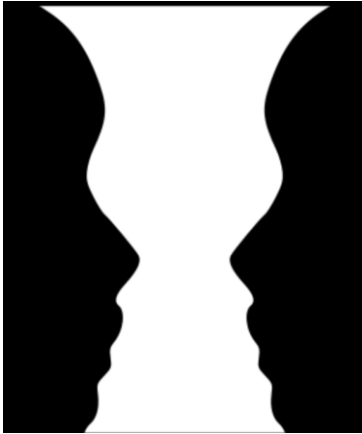


Figure 3 Example of figure-ground reversal profile/vase (Wikipedia, 2016)

According to Zakia's research (2017) about perception and imaging, technically, product photographers and marketers adopt different methods of figure-ground enhancement to manipulate the way consumer pay attention. Ideally, the positive features of a subject should be enhanced while the negative aspects should be mitigated to control the figure-ground relationship. These techniques can include:

- Choice of colour, for example, monochromatic, faded, high contrast, saturated, to provide the desired effect for the subject.
- Different light sources, to enhances figure's texture, detail, dimensions and isolate it from the background.
- Viewpoint, to purposefully choose an angle can reveal the desired information about the subject.
- Focal point, to bring a sharp focus on the area of interest while leaving others unfocused.
- Editing controls, such as altering existing images, tonal manipulating, to accelerate the figure.

Perception is the process to convey a visual stimulus into meaning. One of the outstanding research about consumer perception is conducted in the early 1900s is known as Gestalt school of psychology, and it had a tremendous impact on the modern studies of consumer perceptual process. According to this research, people are biased when they can perceive an object entirely even though the stimuli are irregular. It leads to three laws of Prägnanz

that describe the ways stimuli are connected into patterns or structures so that consumers can perceive those stimuli as a complete entity.

- Law of proximity: consumers tend to observe objects next to each other as a group. For instance, in a fashion photoshoot, products such as top, jeans, hat and even bag, shoes are intended to be put together, so that consumers will perceive those separate items as a complete fashion set and more likely to purchase them together.
- Law of closure: people tend to recognize an incomplete picture as a whole or misspelling word as a right one. It is because people already have knowledge and experiences about certain things and their brain use those factors to auto-fill in the missing piece of the picture or to auto correct the wrong words. Considering this insight is one of the compelling areas for marketers to focus on to better challenge consumer perception and capture their attention for a longer time.
- Law of similarity: people tend to perceive physically similar items as a group. In other words, consumers categorise items with the same colour or shape as one kind. Understanding this, when taking photos to post on social media or web store, tone and colour of all pictures are kept the same for consumers to relate to the previous photo of the same accounts. (cp. Jansson-Boyd, 2010, pp.38–42)




a – Law of proximity	b – Law of closure	c – Law of similarity
		

Figure 4 Laws of Prägnanz (Jansson-Boyd, 2010, p.40)

2.2 Product photograph as visual stimuli

In order to comprehensively analyse the effectiveness of product photography in consumer perception, a photo is categorized into three level: Esthetical level (the form of a photo), referential level (content of a photo) and communicative level (meaning of a photo). In the first level, colour and lighting of the photo are the primary factors to expose consumers. After that, at the referential level, their attention can be visually attracted by elements such as composition, focal element. Lastly, at the communicative level, one powerful photo should successfully deliver its story, message, and value to the consumers through communicative triggers such as textual information and props. (cp. Sharma, 2012)

2.2.1 Colour

In the esthetical level, it is imperative that the photo's rough material need to be stand out from other surrounding stimuli. With the appropriate tonal range (colour and lighting), consumers can be exposed to the photograph within the shortest amount of time. A lengthy exposure can be ignored due to longer attention span. (Solomon, 2010, pp.47–48).

When discussing visualisation, the very first fundamental element, and also notably crucial one is colour. In photography or semantics studies, each colour has its meaning and value. Choosing the right colour that goes well together is a challenging task for both marketers and photographers. Colour is the useful tool to influence the success of a project because it can not only attract people attention but also manipulate and change their mood. If used correctly, it can guide the eyes of the audience to where marketers want them to look. Otherwise, viewers can even be disturbed or bored. (Best, 2017, p.243)

Throughout the day, human eyes are exposed to million kinds of colours and combinations and what make something to stand out? The answer lies in the characteristics of each colour and their attached meaning. Colour can evoke memory and emotion, both positively and negatively because of the unique visual perception of each person. However, some common colours are connected with a specific concept in general, and are listed below:

- Red is the colour of blood and fire, which is attached to passion, excitement and also danger.
- Yellow is the colour of the sun, which is associated with optimism, happiness, and amusement.
- Blue is the colour of the ocean and sky, which means stability and depth. In other words, it is attached to loyalty, freedom, intelligence, and trustworthiness.
- Orange is the combination of red and yellow, which means playfulness, friendliness, and tropics.
- Green is the colour of forest, nature. It is associated with life, naturalness, freshness, and growth.
- Purple is the combination of red and blue, which means ambition, luxury, and wisdom.
- Pink is the combination of red and purple, which is attached to romantic and feminine.
- Black is connected to power, formality, and mystery.
- White is attached to purity, cleanliness, and youth. (Avangate, 2008)



Figure 5 Colour wheel with meaning colour sense (Attercopia, 2012)

When analysing colour, one should focus on three dimensions: hue and value, saturation. Some colour combinations are naturally better than others and visually pleasant to the human eyes. Those combinations are called colour harmonies – a stage of photo colours

that all artists try to achieve. There are popular colour harmonies that can be applied in the work of product photography:

- Monochromatic: it involves only one colour with different saturation and value in the entire image. It is most suitable for a photo of one the single subject because it forces viewers to concentrate on the details of the figure. Also, the monochromatic photo can give the striking atmospheric effect for consumers by using only hot or cold colour.
- Complementary: it contains colours that oppose each other on the colour wheel. The use of it is prevalent throughout the history of art. It is just naturally pleasant to the eyes when putting together. In the world of pigments, there are three famous complementary colour pairs: blue – orange, red – green, yellow – purple. Specifically, a red subject will look so attractive if it is placed on the green colour background, and that is why inside the supermarket, red apple is always put next to green apple to create that complement effect.
- Analogous: refers to colours that are next to each other on the colour wheel. This combination is comfortable to human's eye because it is related to each other and can be easily seen in nature. For example: blue, green and yellow can be seen in a lot of landscape pictures because it involves the natural colour of the blue sky, green forest, and yellow sunlight.
- Triadic: it requires colours that are equally distant to each other on the colour wheel. It gives viewers the feeling of funny and cheerful thus it used a lot in cartoons or surreal scenes. (cp. Gurney, 2010, pp.74–118)

In social media marketing, there is a lot of room for marketers to create their desired picture by using filters freely. Black and white is also a typical colour pair which always has a significant impact on the viewer because it brings the aesthetic, emotional effect and leaves some places for the imagination. Applying filters in the right situation can bring out the best feeling for consumers because an unedited picture is regarded as a low-quality one. However, heavily edited ones always look fake to consumers' eyes, so how to balance the use of these elements is a critical issue. (Miles, 2013, p.35)

2.2.2 Lighting

Without light, there is no colour. People need light to see, and photographers need light to create photographs. Different ways of using light sources lead to the various outcome and mastering this can have a massive impact on customer visual attention. Better selection of natural sunlight or artificial one or both can enhance the unique characteristics of a photo. A lot of intense light sources come from every direction will reduce the details and colours of the leading figures.

- Sunlight: ambient light from the sun, from the street light or available light indoor. Photographing with sunlight can introduce a fresh touch to the picture, makes it more natural and atmospheric.
- Artificial light: various sources of light inside using in a studio, such as flash-light and tungsten light. A majority of product photographs are taken using artificial light, which gives photographers more room to be creative with different techniques. (Ingledew, 2013, p.214)

2.2.3 Composition

Aforementioned, composition is one of the referential elements of a photo. These elements are the form of things and the association of signs and meanings. The image contains many symbols, each made of two components – the signifier and the signified. The signifier is the sign as observed, whereas the signified is the reference to it, and they must hold familiar among the potential customers. Reference can provoke trust, emotion, desire or a regret, or even imagination, a fantasy of possessing what they are longing. Thus, the subject and content of a photograph clearly matter - a good idea before photographing is a prerequisite to creating emotional attachment. However, choosing attractive and unique subject matter remains a challenging task. (cp. Sharma, 2012)

Photo composition is about the arrangement of all elements in a pleasant and comfortable looking manner. It is one of the most significant things because when done correctly, it can guide the view of viewers to one focal element and results as an attractive aesthetic looking picture. In fact, product photography is the work of art so it should not be limited by any rules. However, several composition guidelines can be applied in photography for

striking, eye-catching effects because the human brain likes harmony, symmetry, and order. One of the most commonly used rules is the rule of thirds, in which a photo is equally divided into nine parts by two horizontal and two vertical lines. According to this rules, focal elements should be placed along with these four lines or at the intersections. This method will reveal both the main character and the surrounding scene in order give more balance and meaning for the photo. (Venngage, 2016) Another rule is the rule of symmetry, which refers to a line that divides a picture into two mirrored parts. This a powerful tool in photography and usually associated with beauty by our brain. However, sometimes, the disorder in photography can have a strong influence on the viewer because of its uniqueness and difference. (cp. Ingledew, 2013, p.201)

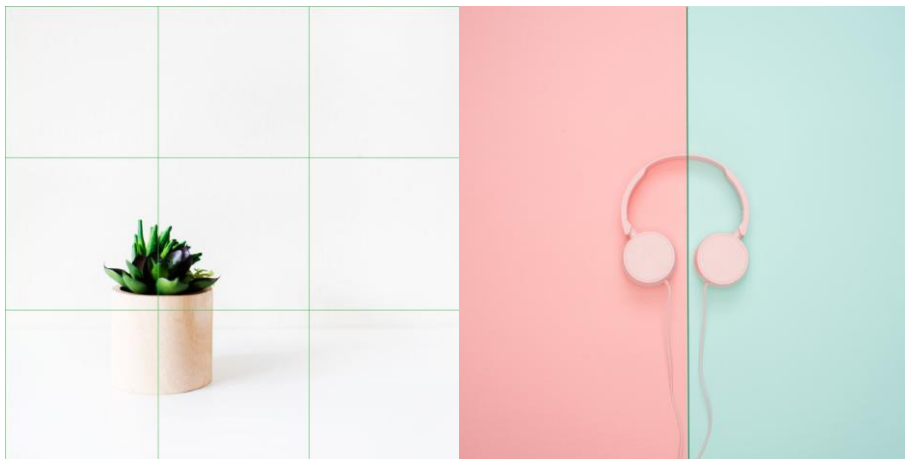


Figure 6 Examples of rules of thirds (Pinkpot studio, 2016) (left) and symmetry (Unsplash, n.d.) (right)

2.2.4 Focal element

The focal element is the object that draws customer attention immediately into it. The use of high contrast, saturation or motion can exaggerate the visibility the focal point. In other cases, guiding lines and framing can also lead the viewer to the desired part. One picture is lousily composition when it lacks a focal part or has a lot of focus points. Without a focal point, the picture is likely to be rejected by the brain because it is meaningless to pay attention. However, too many focal objects can distract customers perceptual process because they do not know where to direct their eyes. In modern photography or design, simplicity is the key when it comes to the focal element and photographer pay attention more to what should be excluded in an image. The most commonly used method in product photography is the shallow depth of field, in which a particular part of the photo is in

focus or closer to the camera, and the background is purposely out of focus. (cp. Ingledeu, 2013, p.198)

2.2.5 Textual Information

The most important aspect of a photo is the messages, the stories that marketers want to deliver. One perfect compositional picture with eye-catching elements can attract the short attention of customers. However, a meaningful one makes the difference. One brand offering baby clothing have different stories to tell than other selling cookies. But regardless of what product they try to sell, customers want to know more about the added value they have, besides just one pair of shoes or few cookies. (cp. Miles, 2013, pp.155–160)

A photo is worth a thousand words. True, but it depends. If advertisers want to be economical, to make an impression, to send a strong message, an appealing picture is a great place for advertisers to rely on. However, a picture alone is not always a great way to communicate factual information because people see a picture in different ways, whereas in case of verbal content, reactions would be quite the same since consumers care more about the utility of the product. Because of this, a combination of both elements, verbal and picture, would be ideal for marketing product photograph. A photo is worth thousand words, and a message with a relevant photo is worth a thousand of photos. It is, therefore, necessary to theoretically classify advertisements into three types: (1) photo which appealed to aesthetic value, (2) photo which appealed to a rational calculation of utility; and (3) photo that blend between aesthetic and utility. The art of photography is therefore to find a sweet spot, a perfect blending of function and appearance that attract the most customers for their need. Another reason why advertisers want to put photo and words together is that of chunking - a psychological auto-strategy to form new memory. In order to be remembered, information needs to be reappeared, but in the case of chunking, it reduces long and complicated information into easy-to-remember chunks. Texts are helpful to convey information but fade away fast as memory. Advertisers, therefore, can save a lot of money by making the right picture with the right message, rather than repeating the message alone many times. (Solomon, 2010, p.77)

When it comes to the psychology behind typography in marketing, it is vital to choose the right font for a visual content campaign because it relates directly to the brand visual

identity and consumer visual impression. Fonts can evoke various emotions and can be manipulated by marketers in order to give consumers the right feeling for the brand. All types of fonts are divided into five categories, and each them is associated with different concepts:

- Serif: gives a traditional, formal and respectful feel of the text. Generally used in research or academic fields.
- Slab serif: associates with strong, solid and funky. Commonly used in billboards, printings to attract attention.
- Sans serif: brings a modern, clean and universal touch for the text. Normally used in tech-related companies, modern fashion brands
- Script: referred to elegant and creative. Normally used in the modern entertainment or consumer goods industries.
- Modern: brings a fashionable, intelligent and uniqueness for a brand. It is suitable for brands that want to attract the attention of millennials consumer segment. (Contentgroup, 2014)



Figure 7 The psychology behind type choices (Hunt, 2013)

2.2.6 Props

Props are the extra equipment to give more context for the photo. In product photography, using props helps consumers better understand the product without text description. For each type of product photo, props are used or not. Props styling can be a creative field in

photography, and it can make or break the picture. Props are used more when the photos are uploaded to social media channels. However, when it comes to web store platform, products are usually taken without props. (Savage, n.d.)

It is essential that props have to be used in the right manner, which remains the natural beauty of the product but still outstandingly impresses consumers. Props need to go well with the colour palette of the photo and the placement of the product. It should be placed in the background as a guideline for consumers, draws their attention to the focal element logically and uniquely. Prop is further additions of the photo, which can better convey the meaning and message for consumers. However, it is not the central element. As a result, props can have some prominence in a photo, but it should not confuse consumers, as they will misunderstand props as the main product. (Schenker, 2016)

3 METHOD

3.1 Conjoint analysis

Conjoint analysis is a standard method used in marketing research, in which marketers can determine the relative importance of each attribute and the utilities that consumers attach to each level of attributes. In other words, the conjoint analysis technique can help in predicting how the products should be created or how the stimuli should be redesigned when taken to the real market. In order to perform this method, the evaluation of customers about each attribute of the product or services such as brands, characteristics, prices and so on, need to be collected. Usually, each attribute of the product or stimuli are divided into different levels, and the combinations of different levels of each attribute are presented to consumers in order to be rated or ranked based on their preference or desirability. As a result, marketers and analysts will know what attribute influences consumers' choice the most and how important are they compared to each other. (Malhotra, 2015, p.669)

In order to conduct a conjoint study, researchers must first formulate the problem by determining all the attributes and their levels. Usually, each attribute should be noticeable enough for respondents to rate or rank, or else the result will be vague or not as close as

possible to the expectation of the research. For each attribute, several levels are constructed based on the characteristic or parameter that marketers want to test, and usually, the levels of attributes should be limited in order to reduce the assessment task for consumers. The process of choosing levels for each attribute will affect the evaluation of respondents, so researchers must know what the critical aspect of the test is. Determining the wrong levels reflected in the target segment will lead the test to the wrong way and affect the accuracy of the whole process. (Malhotra, 2015, p.670)

In conjoint analysis, there are two conventional approaches, which are the pairwise approach and the full-profile approach. For the convenient evaluation for respondents, the latter will be used as the main approach for this thesis. In the full-profile approach, all attributes are constructed into complete profiles, in the other word, each profile is a combination of different levels of attributes. However, it is not practical to construct all of the possible profiles because it will be too difficult for consumers to rate or rank. As a result, a process called orthogonal arrays will be conducted to reduce the number of tested profiles but at the same time remain the efficiency and accuracy of the test. (Malhotra, 2015, p.670)

3.1.1 Product

Fujifilm Instax Mini 8 instant camera was chosen as a tested product for the thesis because it had only recently become worldwide accepted by young female consumers since 2016. Although Fujifilm released this new model of the instant camera on November 2012, it is still fairly new for a lot of consumers. As a result, it is quite easy to find different kinds of respondents, from people who have used this product to people have never heard about it. (cp. Fujifilm, n.d.)

Unlike other types of cameras which can produce high-resolution digital photographs, instant cameras provide consumers with instant film photographs with the size of a credit card. Users can quickly point and shoot, then wait for a couple of minutes for a photo to develop. A pack of film is fitted inside the camera, so it is impossible to take hundreds of pictures or delete the unwanted ones. For Millennials and Generation Z, film photography is a part of the old beautiful cultural that they never experienced before. As a result, instant

cameras help young people to recreate that retro vintage photography style with immediate satisfaction. It is not about the quality of the photo, nor the convenience of the camera; it is a new lifestyle, nostalgia, and entertainment. In 2017, instant film photography became the latest trend among the young generation, and it is hard to ignore its addiction. (Fujifilm, n.d.)

Instant-camera can be listed as consumer products, which are products bought to satisfy personal and family needs. To be more specific, it is in the category of shopping product, which are products that consumers infrequently shop around. Other similar products in this category are televisions, laptops, cars or furniture. Because of the long lifetime, the price for shopping product is rather high, and consumers have to really consider different options in the market and do some researches before the purchase decision. Typically, such products require showrooms, retail outlet and strong personal selling. (Blythe, 2006, p.127)

According to the FCB Involvement Grid about the way consumers approach the purchase process for different types of product, instant camera falls into the segment of highly involved thinking. For this type, information is the most crucial factor affects consumers purchase decision because of the high awareness and consideration. As a result, marketers should come up with the right strategy, which are detailed information and product demonstrations. Also for this product, the price is the vital attribute which strongly affects consumer choice, so that it will not be included in the thesis to objectively analyse the relative importance of other factors in product photograph marketing. (Bains, 2015)

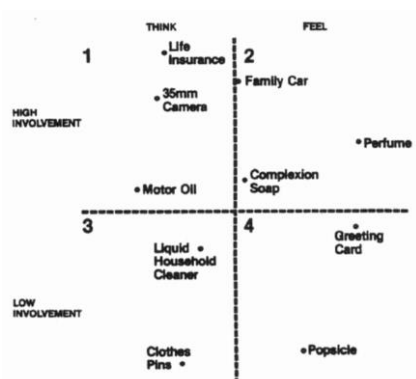


Figure 8 FCB U.S. Grid Study (Bains, 2015)

3.1.2 Participants

About 80 randomly chosen respondents participated in the online survey. The survey starts with various questions about their gender, age, the photography habit, the consumer type and the familiarity with the test product. After that, they were asked to rate eight different photographs of the instant camera based on their impression or preference. The ratings were obtained with a 10-point Likert scale, with 1 is dislike extremely and 10 is like extremely. For the particular characteristics of this thesis, it is more practical to ask for ratings rather than rankings because respondents can judge each profile independently and more accurate. The last section of the survey contains questions about consumer decision, whether they want to buy the product or not.

3.2 Research design

3.2.1 Construct visual stimuli

Five attributes were determined to construct the stimuli for this research. Within each attribute, two or three levels are defined as can be seen on the table below. The attributes used were colour, composition, focal element, texture information, and props. The most salient levels of each attribute were assumed to have a different impact on consumers' perception. There were two levels for the background colour attribute: white and black. Composition attribute also came with two levels: Symmetry and rule of thirds. Shallow depth of field and deep depth of field were two levels in focal element. Three levels were established for textual information attribute: no information, information in script font and information in the modern font. Last but not least, two levels are created for props, which are no and yes.

Table 1 Product attributes and levels

Attribute	Level number	Description
Background colour	1	White
	2	Black
Composition	1	Symmetry
	2	Rule of thirds

Focal element	1	Shallow depth of field
	2	Deep depth of field
Texture information	1	No
	2	Yes: Script
	3	Yes: Modern
Props	1	No
	2	Yes

Given these seven attributes with their number of levels, a total of $2 \times 2 \times 2 \times 3 \times 2 = 96$ profiles can be established. However, as indicated previously, it is not practical to construct all profiles because the number is too large and is not possible for respondents to rate all of them. As a result, a fractional factorial design was conducted using SPSS to reduce the number of tested profiles while keeping the accuracy and efficiency of the experiment. These profiles are saved as a plan file in SPSS for the conjoint analysis.

Table 2 Orthogonal arrays of eight profiles in SPSS

	Color	Composition	Focal	Text	Props	STATUS_	CARD_
1	Black	Rule of thirds	Deep depth of field	No	Yes	Design	1
2	White	Symmetry	Shallow depth of field	No	No	Design	2
3	White	Symmetry	Deep depth of field	Script	Yes	Design	3
4	Black	Symmetry	Deep depth of field	No	No	Design	4
5	White	Rule of thirds	Shallow depth of field	No	Yes	Design	5
6	Black	Rule of thirds	Shallow depth of field	Script	No	Design	6
7	White	Rule of thirds	Deep depth of field	Modern	No	Design	7
8	Black	Symmetry	Shallow depth of field	Modern	Yes	Design	8

All eight profiles (visual stimuli) are designed and taken by the author using the proper camera and other editing tools such as Adobe Photoshop and Adobe Lightroom. Firstly, the author took consideration of background colour, composition, focal element and props to take all eight photos. After that, textual information was added later using Adobe Photoshop and finally edited with Adobe Lightroom to gain the expected effects. Below are examples of the first three profiles, other profiles can be found in Appendix B of the thesis.



Figure 9 Profile 1



Figure 10 Profile 2



Figure 11 Profile 3

3.2.2 Input data

Data from the online survey were transferred to excel and then coded into different labels. After that, the coded data were imported to SPSS as a data file for the conjoint analysis. There are in total 82 responses; however, three of them were invalid because respondents gave the same scores to all profiles. Therefore, only 79 responses are analysed.

Table 3 Coded survey data in SPSS

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	ID	Numeric	11	0	ID	None	None	11	Right	Scale	Input
2	Gender	Numeric	11	0	Gender	{0, Male}...	None	11	Right	Nominal	Input
3	Age	Numeric	11	0	Age	{0, Under 2...	None	11	Right	Nominal	Input
4	Howoften	Numeric	11	0	How often	{0, Never}...	None	11	Right	Nominal	Input
5	Consumer	Numeric	11	0	Consumer type	None	None	11	Right	Nominal	Input
6	Familiar	Numeric	11	0	Familiar	{0, Yes}...	None	11	Right	Nominal	Input
7	Score1	Numeric	11	0	Score of profile 1	None	None	11	Right	Ordinal	Input
8	Score2	Numeric	11	0	Score of profile 2	None	None	11	Right	Ordinal	Input
9	Score3	Numeric	11	0	Score of profile 3	None	None	11	Right	Ordinal	Input
10	Score4	Numeric	11	0	Score of profile 4	None	None	11	Right	Ordinal	Input
11	Score5	Numeric	11	0	Score of profile 5	None	None	11	Right	Ordinal	Input
12	Score6	Numeric	11	0	Score of profile 6	None	None	11	Right	Ordinal	Input
13	Score7	Numeric	11	0	Score of profile 7	None	None	11	Right	Ordinal	Input
14	Score8	Numeric	11	0	Score of profile 8	None	None	11	Right	Ordinal	Input
15	Perception	Numeric	11	0	Perception	{0, Yes}...	None	11	Right	Nominal	Input

3.2.3 Measure

The conjoint analysis is performed using SPSS 23.0 software with the syntax below.

```
CONJOINT PLAN='/Users/macbook/Desktop/photo_profiles.sav'
```

```
/DATA=*
```

```
/SCORE= Score1 to Score8
```

```
/SUBJECT= ID
```

```
/PLOT= SUMMARY
```

```
/PRINT= SUMMARYONLY
```

4 RESULTS

4.1 Summary utilities

The part-worth function values (or the utilities) for each attribute levels are demonstrated in the below graphs and tables. The higher the value, the more preferred the attribute level for respondents.

Table 4 Result of conjoint analysis

		Utility Estimate	Std. Error
Color	White	.423	.039
	Black	-.423	.039
Composition	Symmetry	-.151	.039
	Rule of thirds	.151	.039
Focal	Shallow depth of field	.196	.039
	Deep depth of field	-.196	.039
Text	No	-.175	.051
	Script	.225	.060
	Modern	-.050	.060
Props	No	-.301	.039
	Yes	.301	.039
(Constant)		6.935	.041

As expected, for the background colour, white colour had the higher utility than the black one, with the scores of 0.423 and -0.423, respectively. In other words, respondents preferred a white background colour when it comes to product photographs.

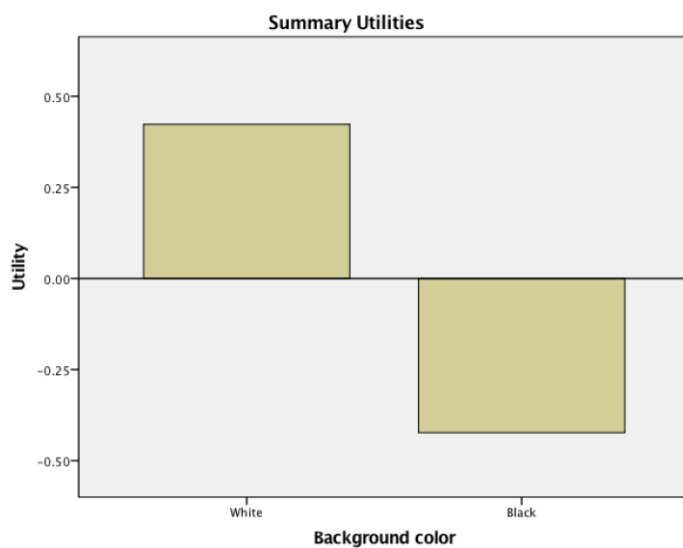


Figure 12 Summary utility of background colour

In term of composition, the rule of thirds is more preferred with the utility score of 0.151 and followed by symmetry with -0.151. Although the human brain is more pleased with order and symmetry, it turns out that, in this case, respondents preferred another perspective, the more unique and more creative one.

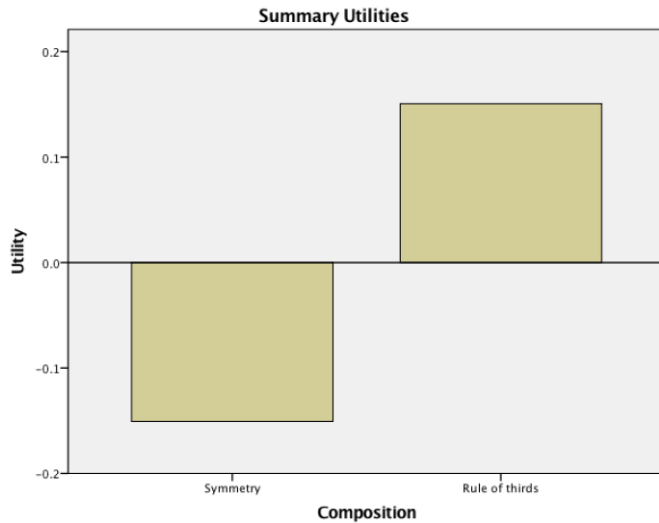


Figure 13 Summary utility of composition

For focal element, shallow depth of field had the higher score than deep depth of field (0.196 and -0.196). This result is also predictable because consumers want to have the most focus and clear image of the product, and shallow depth of field can adequately capture the essential details of the product while leaving other things unfocused.

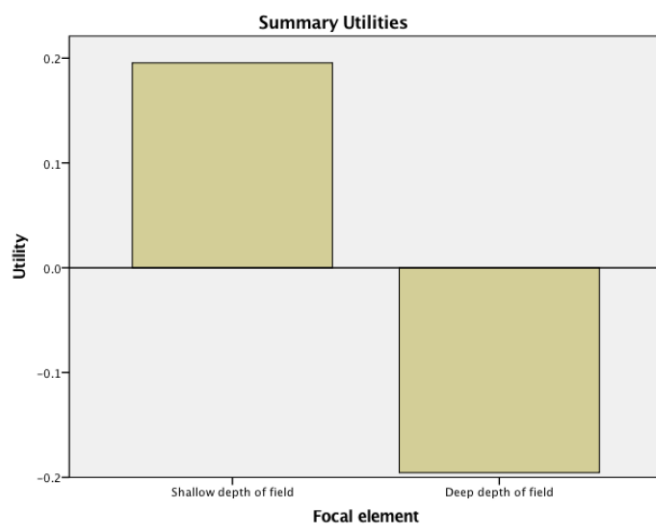


Figure 14 Summary utility of focal element

With regard to textual information, script font was the most preferred with the part-worth of 0.225, followed by modern font (-0.050) and the least preferred is no textual information at all (-0.175). It is quite interesting that even though consumers nowadays want less text and more illustration, they still, in fact, want to have some text, slogan or information in the picture to understand more about the product.

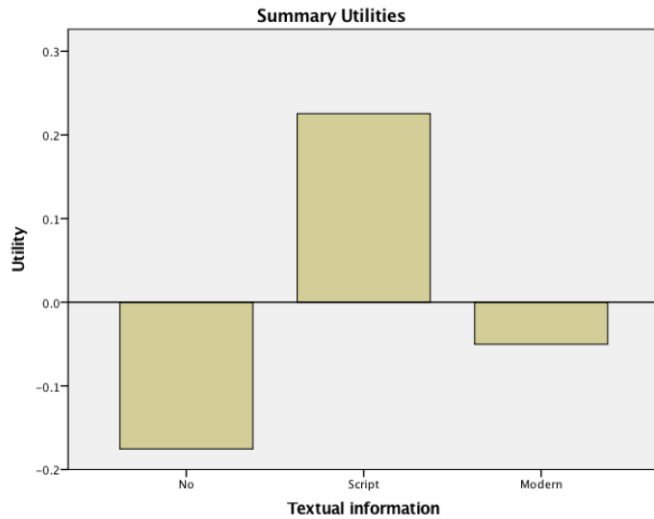


Figure 15 Summary utility of textual information

Regarding the last attribute, consumers preferred props in the photo with the utility of 0.301 rather than no props (-0.301). This result is also reasonable because, with props, consumers can understand not only the product but also its context and usage.

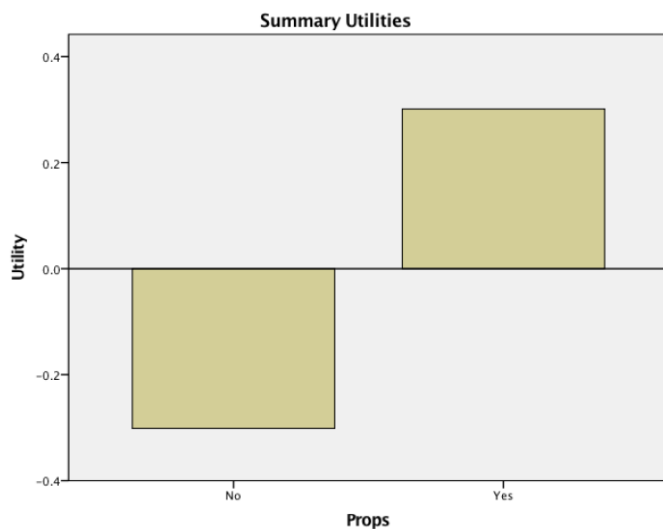


Figure 16 Summary utility of props

The averaged importance values of the conjoint analysis will be the answer to the second research question: “What is the most important element of product photograph for consumer attention?”. These values were calculated by computing all the importance values of each respondent and then average them. Each importance value based on the utilities of each attribute level. Surprisingly, textual information was the most important factor for respondents when they were giving the scores (28.33). Background colour and composition were the second and third important attribute, with the importance values were just slightly different from each other, 19.04 and 18.87, respectively. The fourth important attribute was focal element with the value of 17.25 and followed by props – the least important factor for respondents (16.49).

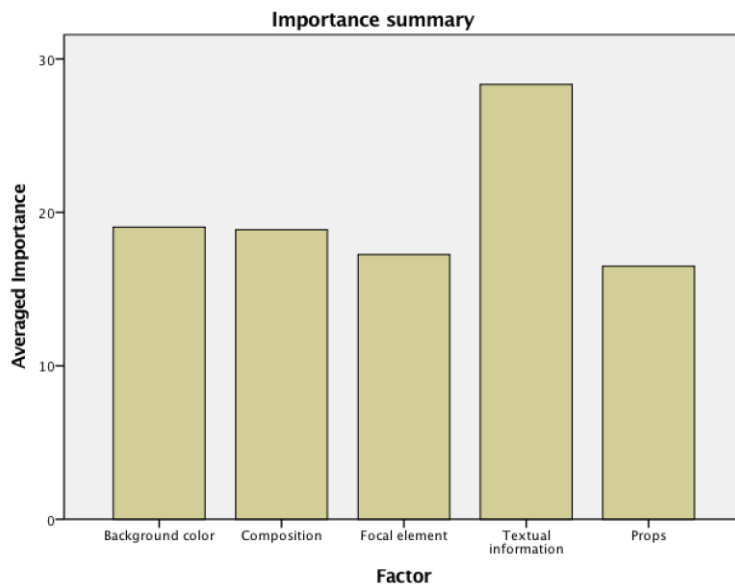


Figure 17 Averaged importance of all attributes

Table 5 Averaged importance score

Importance Values	
Color	19.044
Composition	18.873
Focal	17.252
Text	28.337
Props	16.493

Averaged Importance Score

4.2 Product familiarity

To answer the last research question, which was: “Are there differences in visual attention between consumers who are familiar and not familiar with the marketing product?”, respondents are divided into two groups, one group contain people who were familiar with the product, and the other one with people who never heard of the product. The test was run separately for each group with the “Split file by familiar” command in SPSS. The result of each group is presented in tables and figures below. The majority of respondents (67.1%) was not familiar with the product, and only 32.9% have used or heard of it. As mentioned above, the tested product was just recently become accepted by young female consumers in 2016, so that is why there are a lot of respondents, primarily male, are not familiar or have no perception about it.

Are you familiar with Fujifilm Instax Mini 8 instant camera?

82 responses

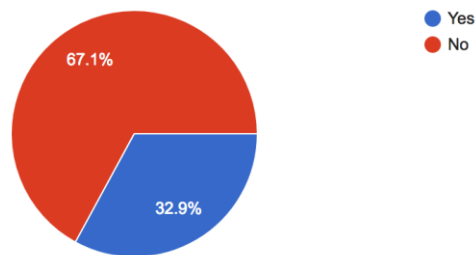


Figure 18 Response of question 3

In general, both groups' preferences about background colour, composition, focal element, and props are quite similar. They both preferred white over the black background colour, the rule of thirds over symmetry composition, shallow depth of field over deep depth of field and with props over without props. As a result, it showed that the perception and preference about each level of these attributes above do not depend on the familiarity of the product, but instead on an aesthetical judgment of each respondent. However, the preferences regarding the textual information attribute of the two groups were different. This result is quite reasonable because respondents who are familiar with the product will prefer a different kind and amount of information compared to those who are not familiar with it. The detailed result will be comprehensively analysed in the section below.

Table 6 Result of conjoint analysis by familiarity

Utilities			Utility Estimate	Std. Error
Familiar				
Yes	Color	White	.457	.143
		Black	-.457	.143
	Composition	Symmetry	-.130	.143
		Rule of thirds	.130	.143
	Focal	Shallow depth of field	.322	.143
		Deep depth of field	-.322	.143
	Text	No	-.135	.190
		Script	.394	.223
		Modern	-.260	.223
	Props	No	-.303	.143
		Yes	.303	.143
	(Constant)		6.990	.151
No				
	Color	White	.406	.014
		Black	-.406	.014
	Composition	Symmetry	-.161	.014
		Rule of thirds	.161	.014
	Focal	Shallow depth of field	.132	.014
		Deep depth of field	-.132	.014
	Text	No	-.196	.018
		Script	.141	.021
		Modern	.054	.021
	Props	No	-.300	.014
		Yes	.300	.014
	(Constant)		6.907	.014

For the background colour attribute, both groups preferred white colour over the black one with the utilities for the familiar group and unfamiliar groups are 0.457 and 0.406 respectively. On the contrary, the part-worth value for black colour were -0.457 and -0.406.

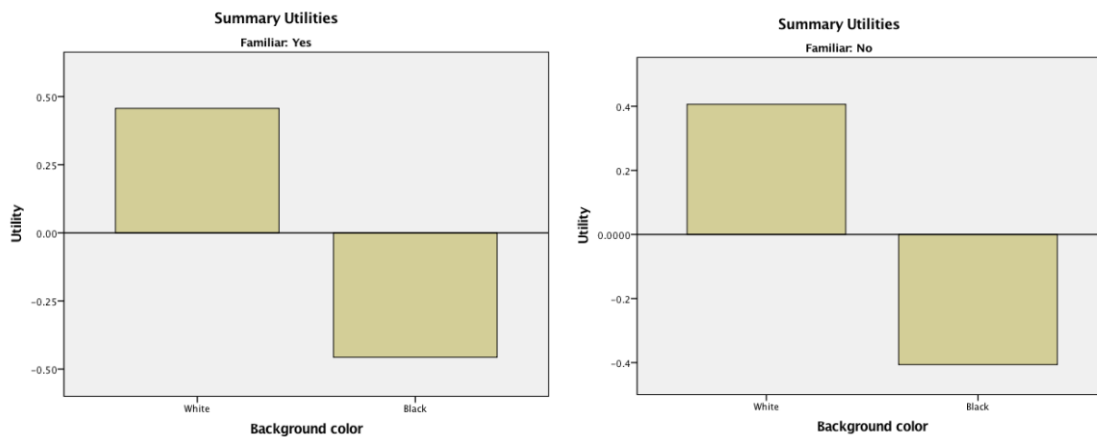


Figure 19 Summary utilities of background colour by familiarity

In composition attribute, both groups gave almost equal utilities for two levels, and they both preferred rule of thirds composition (0.13 and 0.16) rather than the symmetry ones (-0.13 and -0.16)

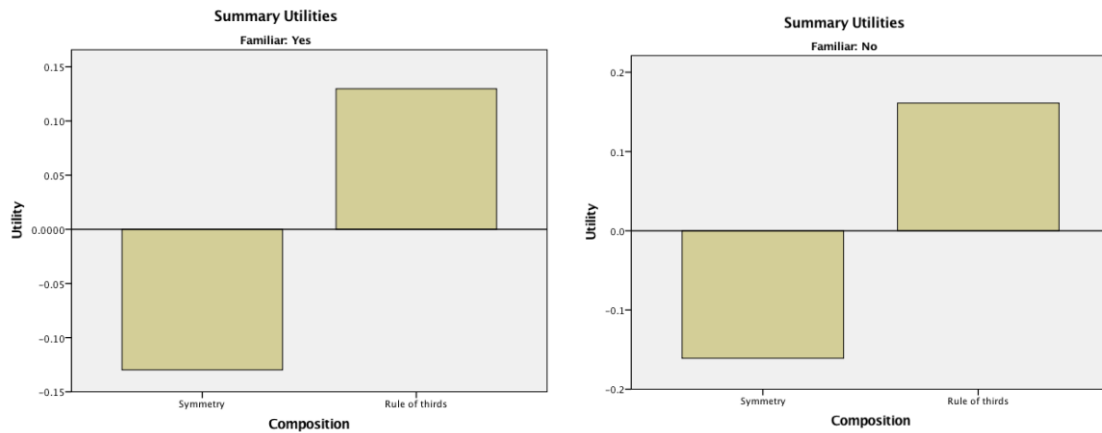


Figure 20 Summary utilities of composition by familiarity

For focal element, both groups also preferred shallow depth of field (0.322 and 0.132) over deep depth of field (-0.322 and -0.132).

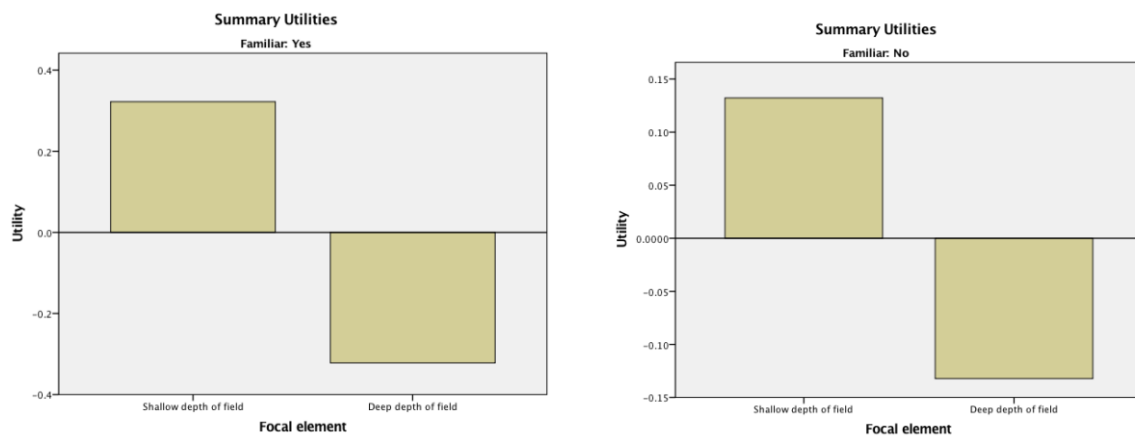


Figure 21 Summary utilities of focal element by familiarity

In term of textual information, there were significant differences between the two groups. Firstly, both groups most preference is the script font, with the utility value of 0.391 and 0.141. However, for the familiar group, they prefer no information at all (-0.135), rather than information in the different font, like in this case, modern font (-0.260). In other words, for people who have used or known the product, textual information is acceptable when it is presented in the right and suitable way. However, if the font didn't match the vibe and the brand identity of the product, textual information shouldn't be used. For the

unfamiliar group, information is, of course, one of the most important factors regarding the product. As a result, respondents still prefer textual information with the modern font (0.054) rather than no information at all (-0.196).

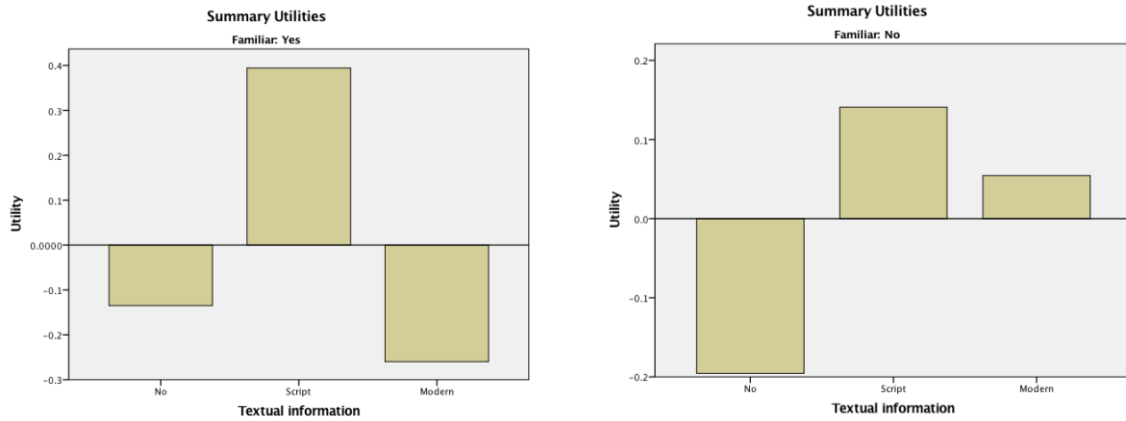


Figure 22 Summary utilities of textual information by familiarity

As mentioned above, for props attribute, both groups preferred with props (0.303 and 0.300) rather than without props (-0.303 and -0.300). For marketing channels such as social media platforms, props play a vital role in product photography because it provides more information, context and value of the product to consumers.

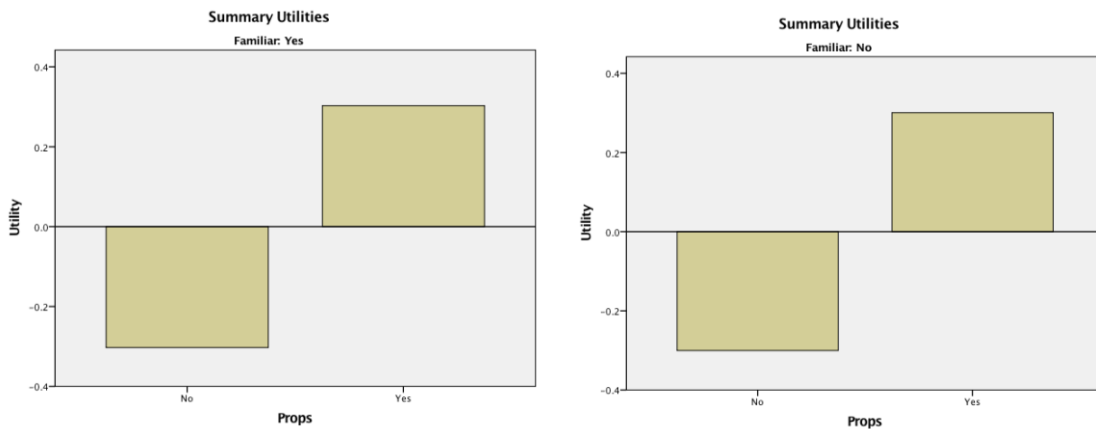


Figure 23 Summary utilities of props by familiarity

The averaged important of five attributes for the two groups are considerably different. Both groups considered textual information is the most critical factor affecting their preferences (31.95% and 26.53% for familiar and unfamiliar group, respectively). However, the second most important attribute for familiar groups was actually the focal element

(19.82%), not composition like the other group (20.61%). It seems like for people who knew the product, the image and details of it were important to them because they have the familiarity in their perception. After that, other attributes such as background colour (17.8%), composition (15.39%) and props (15.03%) are followed. For people who have never seen or heard of the product, they will pay attention to the whole photograph, such as composition, background colour, props and lastly, focal element. This group of respondents had more objective opinions than the other one. As a result, for unfamiliar group, after composition attribute, background colour is the third important one with the averaged importance value of 19.66%, followed by props (17.22%) and lastly, focal element (15.97%).

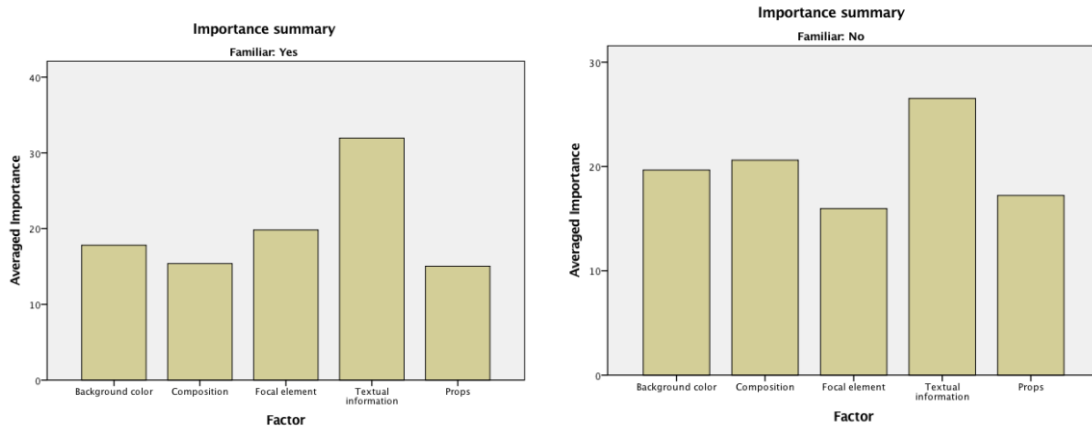


Figure 24 Averaged importance of all attributes by familiarity

Table 7 Averaged importance score by familiarity

Importance Values		
Yes	Color	17.805
	Composition	15.391
	Focal	19.820
	Text	31.949
	Props	15.035
No	Color	19.664
	Composition	20.614
	Focal	15.968
	Text	26.531
	Props	17.223

Averaged Importance Score

4.3 Buying likelihood

After giving scores for eight photographs, respondents were asked about their likelihood of buying the test product. Surprisingly, 34.1% answered “Yes”, 50% answer “Maybe” and only 15.9% answer “No”. Aforementioned, the majority of respondents (67.1%) was not familiar with the product, but after seeing the marketing photographs, more than 80% of respondents had the likelihood of purchasing it. When discussing consumer buying behaviour, there are countless factors will affect this process and it is impossible to make sure that when consumer answer yes, they will actually buy it. However, the result clearly showed the positive impact of product photography in consumer behaviour.

Do you want to buy the test product? (For yourself or others)

82 responses

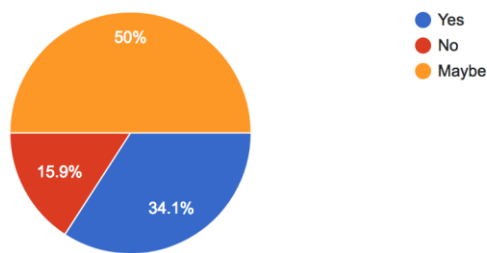


Figure 25 Response of question 1 section 3

In order to deeply understand the difference in perception and buying decision between two groups, the responses are split by familiar, and the frequencies command is used in SPSS. For people who were familiar with the product, almost half of them answered “Yes” for the question, 37% answered “Maybe” and only 14.8% answered “No”. However, for the unfamiliar group, more than half of them answered “Maybe”, only 27.8% answered “Yes” and 16.7% answered “No”. As a result, people who already had knowledge about the product, have a higher tendency to buy the product than people who have no knowledge, no previous experience with the product. These findings once again prove that past experiences and knowledge are vital in consumer perception and consumer decision, and marketing efforts have to be done in the way that can positively evoke these perceptions.

Table 8 Response of question 1 section 3 by familiar

Buying decision

Familiar			Frequency	Percent	Valid Percent	Cumulative Percent
Yes	Valid	Yes	13	48.1	48.1	48.1
		No	4	14.8	14.8	63.0
		Maybe	10	37.0	37.0	100.0
		Total	27	100.0	100.0	
No	Valid	Yes	15	27.8	27.8	27.8
		No	9	16.7	16.7	44.4
		Maybe	30	55.6	55.6	100.0
		Total	54	100.0	100.0	

5 DISCUSSION

The primary objective of the thesis was to comprehensively analyse the importance of product photograph in visual marketing and its impact on consumer perception. In the literature review, the author evaluated the most fundamental attributes of product photography to answer the research question (1). After that, to answer the research question (2), these attributes are categorized and designed into different profiles in order to expansively tested the effect each of them had on the consumer visual impression and what is the most important one. After that, respondents are divided into two groups to test the differences in perception of people who are familiar and not familiar with the case product to answer the research question (3). In this chapter, the result of the conjoint analysis test will be analysed and compared to previous research in the literature review.

5.1 Consumer perception

5.1.1 Exposure

Previously mentioned, Solomon (2010, pp.36–59) in one of his book, defined exposure as the level at which consumer notice a given stimulus. It is the very first stage and also a vital one in the consumer perception process because once a visual stimulus exposes to consumers, they now can decide whether they want to pay attention to it or not. The exposure duration of a visual stimulus is relatively short to consumers, but still long enough

for their brains to identify the importance of the visual stimulus to them. Solomon also mentioned five factors that can affect the exposure of the stimuli such as intensity (saturated vs desaturated), duration (long vs short), discrimination (simple vs complicated), relevance (relate or unrelated) and frequency (many vs few). In the conjoint analysis test, the author took consideration of those factors to design eight visual stimuli. All attributes such as background colour, composition, focal element, textual information and props were divided into different levels in order to control four out of five factors. However, due to the online survey characteristic, the author could not control the duration each photo exposes to respondents. Respondents could themselves decide whether they want to look more at the picture or continue to the next one. If the length of exposure were controlled, the result would be more precise.

5.1.2 Visual attention

The visual attention is always a challenge for businesses and brands because it based on consumer perception and is filtered by the perceptual selection. Perceptions are formed by countless different psychological factors such as beliefs, knowledge, cultural norm and social class. In order to control consumer perception, it is vital for marketers to deeply understand their market segments and creating appropriate marketing materials for each of them. The result of the experiment showed that different groups of consumers have a different kind of perception and expectation of the product. As a result, they would pay attention to various aspects of the visual stimuli, in other words, the product photographs. For people who were familiar with the product, they already had the perception about it based on their experience and memory, and that is why they had the tendency to pay attention to the thing that they can relate, in this case, the focal element. However, for people who were not familiar with Fujifilm instant camera, they would pay attention to other attributes as well, such as background colour, composition, props, and lastly focal element. More than that, despite the success of visual marketing campaigns, people who had knowledge about the product still have a higher tendency to buy the product than people who not familiar with it. Aforementioned, the buying decision is the result of uncountable complicated factors and marketers should not rely on only one of them.

5.1.3 Interpretation

The author created different visual stimuli as marketing material for the Fujifilm instant camera to test consumer perception about the product before and after seeing those stimuli. The result showed that, before seeing all visual stimuli, 67.1% of respondents never heard of the products, in other words, their perceptions about Fujifilm instant camera were indeed vague. Surprisingly, after the test, more than 80% of respondents said that they would or maybe buy the product for themselves and others. It obviously revealed that visual marketing can positively interfere and change consumer perception, and more than that, consumer buying decision. Still, people who are familiar with the product had more confidence in their answers while the other group was unsure about their choices with more than half of them “maybe” buy the product.

5.2 Product photograph

5.2.1 The most important attribute

Despite the differences in perception of two groups, the conjoint analysis revealed that the most important attribute in product photograph that affects respondents' choices was the textual information. It is a fascinating finding because previous researches showed that people like more images and as less text as possible. These different results lead to a conclusion that consumers pay more attention to visual stimuli if they contain suitable and appropriate textual information. The conjoint test also revealed that people only appreciate textual information if it was presented in the right form; otherwise, it can negatively affect viewers' opinions.

In visual marketing, textual information can be the brand name, slogan, or description of the products. It helps consumers to answer more questions about the product, such as what is it, why to buy it, how and when to use it. It is a challenging task for both marketers and designers to present textual information in the marketing materials effectively. It should be precise, powerful and match the brand identity in term of font, colour and size. In the case of the test product, respondents preferred script font rather than modern font because the former was more suitable to the product's vibe and its target customers. As

mentioned above, script font is known by its elegant, ethereal handwriting style, which is entirely appropriate for its young female customers. More than that, people who use Instax camera usually value nostalgia and vintage lifestyle, so modern font would not be their most preferred choice. For people who were familiar with Instax, they even preferred no information at all rather than that in the modern font.

5.2.2 The importance of other attributes

The test indicated that background colour was the second most crucial attribute affecting people's choices. Aforementioned, each colour is attached to a different meaning and referred to a different symbol. That is why it can have a substantial impact on consumers' emotions and feelings. It is also one of the most important factors in the creation of the brand's identity. A white background is more preferred than a black one because it is suitable for the product feature. White colour means purity and youth, while black colour implies luxury and mystery. Instax camera is mainly for entertainment purpose of young people, unlike other product such as cars or luxury watches. If choosing the wrong colour, the marketing effort will be negatively affected or misunderstood.

The third most important attribute is the composition of the photograph. Marketers usually underestimated this attribute because it is hard to define the right or wrong way to compose different elements of visual marketing material. The composition can capture consumer attention and can also affect their feelings toward the products. This benefit of composition is hard to notice because the human brain unconsciously decides what composition is more pleasing than others. However, there are still some rules that most people follow but they do not notice, which are the rule of thirds and the rule of symmetry. These rules are proven to be most accepted by our brain and have a positive impact on people emotions. If a photograph is inappropriately composed, it can cause uncomfortable feeling for viewers. For the test product, respondents preferred the rule of thirds composition rather than symmetry one. It can possibly due to the horizontal perspective of all photographs. Generally, with the rule of thirds, photographers can better capture the surrounding environment of the product, provide consumers with more information and context of the photoshoot. The symmetry one, however, can also effectively capture consumer attention, but in this case, it is still the second choice of respondents.

Focal element was the fourth important factor in product photograph. According to previous research, focal element is the primary object of the photograph and is one of the most crucial factors that can attract consumer attention. If there are too many focal elements or the focal element is not clear enough, it can negatively affect viewers' interests. In the conjoint test, there were two levels of focal element, which were shallow depth of field and deep depth of field. These terms are more familiar with photographers because this attribute is actually a technique used in photography. Shallow depth of field is preferred because it can clearly define the focal point, the detail of the product while leaving surrounding area unfocused. It is the great way to guide consumer attention to the essential part of the visual material. However, deep depth of field is also a great technique to produce flat-lay photos, which is widely used in photo marketing. In general, this attribute is not important compared to the first three ones.

The least important attribute is props. Using props is a good way to provide more context for the photo, such as how to use the product or different variety of the product. A photo without props is usually a close-up photo of the product, with all features such as colour, shape, size and texture. Respondents preferred using props over without props because photos with props are more interesting, attractive and unique. It communicates the brand more clearly and shows more brand's identity for consumers.

5.3 Limitation and future research

The reliability of the thesis might be affected due to the respondents, a number of visual stimuli and online survey environment. The author's expected number of respondents was 100. However, there were only 82 responses due to limited time of collecting data. More than that, three out of 82 responses were invalid for the conjoint analysis because these respondents gave equal scores to all eight photographs. In quantitative research, especially conjoint analysis, it is advisable to have a 100 – 300 sample size, so that the result can be generalised. Smaller sample size can affect the credibility of the test.

Also due to limited time, only eight visual profiles were created for the test, which was the minimum number of profiles required. The author expected to produce 12 to 16 visual

stimuli and holdout cases so that there would be more possibilities for respondents to rate, and the result would be more precise. Moreover, all the stimuli are produced by the author with limited facilities and tools so other attribute such as lighting or contrast cannot be included in the research.

The result of the thesis can be used by small to medium retailers who want to conduct a photo marketing strategy for their social media channels or web stores. Marketers can use the same method to conduct more market research for packaging and visual merchandising. The study can also be expanded with a bigger sample size regards nationality, gender, age and geography and be a part of more in-depth researches about visual marketing and consumer psychology.

6 CONCLUSION

Consumer perception and behaviour have always been a challenging area for all kind of businesses and industries. Over the last few decades, many pieces of research were carried out in order to gain more insights into this sophisticated subject. Brands and retailers have been using every available tools to capture consumer attention and more than that, impact their perception. Correspondingly, consumers are bombarded by advertisement more than ever with all kind of information, through all different communication channels. That is why people nowadays are less interested in advertising, and they become more aware of the quality of information sources and marketing materials.

According to previous researches, people pay more attention to information in the form of images, videos and illustrations. It is proven that highly visual data are easier to understand and remember. Knowing the vital importance of visual attention, modern marketers develop a whole new marketing strategy, which is visual marketing. At the same time, with the rapid development of online shopping and social media, visual content marketing is dominating the internet and finding its way to win consumer visual attention. One of the most important parts of online visual marketing strategy is product photograph. In the online shopping environment, product photos are the only way for consumers to visualise the product they are looking for, in term of colour, shape, size and texture. The photos act like the bridge between consumers and the companies, and they are the proof of credibility and authenticity of the product.

There are many factors of product photograph that can have an impact on consumer perception and visual attention, such as background colour, composition, focal element, textual information and props. A conjoint analysis test was carried out to define what is the most important attribute that affects consumers' preferences, and it was textual information, followed by background colour, composition, focal element and props. The result can be beneficial for small and medium online retailers who want to have a successful product photography strategy. However, marketers cannot rely on only one attribute to gain consumer visual attention. All attributes must be appropriately planned so that they go well together as one strong piece of information and benefit consumers in all ways.

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APPENDIX A. ONLINE SURVEY

This test is a part of the author's research about consumer perception and how to affect it by using product photograph in marketing campaigns. The test consists of 3 parts: respondent information, experiment test and respondent perception.

Section 1. Respondent information

1. What is your gender?

- Female
- Male
- Other

2. What is your age?

- Under 20
- 20 – 30
- 31 – 40
- 41 – 50
- Above 50

3. Are you familiar with Fujifilm Instax Mini 8 instant camera?

- Yes
- No

Section 2. Experiment test

All photos below are created as marketing visual materials for Fujifilm instant camera* Instax Mini 8. Please give each photo points for visual impression from 1 (dislike extremely) to 10 (like extremely). These photos below are combinations of different elements. Try not to give same point for different photos.

*Instant camera: a camera of a type with internal processing which produces a finished film photo rapidly after each exposure.

1. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

2. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

3. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

4. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

5. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

6. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

7. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

8. How do you like this photo?

Dislike Extremely 1 2 3 4 5 6 7 8 9 10 Like Extremely

Section 3. Respondent perception

Do you want to buy the test product? (For yourself or for others)

- Yes
- No
- Maybe

APPENDIX B. DESIGNED PROFILES



Profile 1



Profile 2



Profile 3



Profile 4



Profile 5



Profile 6



Profile 7



Profile 8