



# The influence of colour congruency in banner ads on brand evaluation, attention and purchase intention

An eye-tracking study

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*Abstract*

In this study colour-product congruency is tested with an eye-tracker and with a questionnaire. We used a 2x3 mixed design (functional vs sensory-social products) x (congruent, incongruent and neutral colours) with “colours” as within conditions variable and “product category” as between conditions variable. We had 101 participants in total, the participants were recruited via Sona. Test results showed that colour-product congruency did not significantly influence ad evaluation and attention to the banner ad. The results did however show a significant correlation between brand evaluation and purchase intention. After investigating, the data showed that colour-product congruency did positively influence purchase intention. With this study, the known literature about colour-product congruency is expanded. We tested with an eye-tracker and can give some advice to marketers. Theoretical and practical implications, limitations and suggestions for further research are discussed.

## *Introduction*

The first banner ad was used in 1994 on the internet, since then banner ads have grown to a large business with a total revenue of \$107.5 billion in the United States in 2018 (IAB, 2019; Morrissey, 2013). Banner ads are displayed on a web page and cover a portion of the screen. Mostly banners want to stand out, therefore the advertisement is often an image using all kinds of colours. Banner ads are important for communicating to a target audience, because they can contribute to brand awareness, they help build brands and it may influence purchase intent (Lohtia, Donthu, & Hershberger, 2003). However, making an efficient ad is difficult. Ad and brand must be congruent in order to develop a brand meaning. According to research from Bottomley and Doyle (2006) different colours (red, purple, blue or black) can influence either functional or sensory-social products in a way that is not the same for each individual colour. A product can be functional, like a drill or sensory-social, like a nightclub. The colours have to be congruent with the product category in order to develop a brand, for example, when promoting a drill, a black coloured logo will work better for the product than using a red coloured logo, because when promoting a nightclub, red will be a better choice than black (Bottomley & Doyle, 2006). Colour may add value to a brand, for example black is associated with expensive and trustworthy (Jacobs et al., 1991). With the current study, our aim is to contribute to already existing knowledge regarding banner ads and colour-product congruency and to be able to make recommendations for possible new opportunities for marketers. We specifically investigate, whether congruency of type of product and banner ad colour influences brand evaluation, attention and purchase intent.

## Theory

### *Colour-product congruency*

A well-known phenomenon regarding internet use is “banner blindness”. “Banner blindness” means that page elements that look like banners tend to be ignored by internet users. (Porta, Ravarelli & Spaghi, 2012; Drèze & Hussherr, 2003). Because banners are often ignored, banner ads try to stand out by using all kinds of shapes, sizes and most importantly for this study: colours. According to the Gestalt theory, people automatically group fragmented elements into meaningful segments when they see correlations between visual cues, like colours (Wagemans et al., 2012). Following from the Gestalt theory, a study of Chiu, Lo & Hsieh (2017) comes with a possible solution for “banner blindness”. In this study, the researchers grouped elements of a web page together by using similar colours. The results of this study suggest that similar colours of banner ads and web page content increase fixation duration, time to fixate and fixation count. According to a study of Pieters and Wedel (2004), eye-tracking measures such as fixation duration, time to fixate and fixation count can be used to measure attention to a stimulus. Another study suggests that attention to a certain stimulus can increase preference for that stimulus over other stimuli that do not get as much attention (Floracka, Eggera & Hübnerb, 2020). Because the preference for a certain stimulus can be influenced by attention, it is assumed that the attitude towards the brand in the ad is also influenced by the amount of attention it gets (Baker, 1999). The study of Chiu, Lo & Hsieh (2017) therefore suggests that only using the same colour for the banner ad and the web page content is enough to improve attitude towards the brand of the banner ad.

Bottomley and Doyle (2006) go a bit further. They suggest that different kinds of colours work better in combination with different kinds of products. In their research Bottomley and Doyle (2006) explain the term ‘visual equity’, visual equity is the value of a brand that is derived from ‘visual form’. Colour is part of this visual form and can thus add different values to a brand. Different colours are associated with different meanings. If the colour matches with what a certain product or brand, colour may add value to its visual equity. For example, soaps benefit most from the colour combination green yellow, since that combination is known to be associated with well prized and cleanliness. In Table 1, colours are matched with either functional products or sensory-social products. Examples of functional products are: Anti-freeze, power tools and car tires. Examples of sensory-social products are: Night clubs, restaurants and amusement parks. According to Ruth (2001) brand evaluation enhances with emotion-category congruity. Similar to Bottomley and Doyle (2006) brands benefit from emotions that match the product usage. Different colours have different emotional loadings. For example, blue is often associated with dependable and trustworthy, while red is often associated with exciting and powerful (Jacobs et al., 1991). An example of a good match between colour and product would be red (exciting) in combination with an amusement park, that may be exciting because of certain rides (rollercoasters). Using this research, we suggest that using functional colours that are congruent with functional products, will develop a more positive evaluation of the ad regarding this product. Also, we expect that sensory-social colours that are congruent with sensory-social products will develop a more positive evaluation of the ad regarding this product.

Hypothesis 1: Using functional colours that are congruent with functional products, will lead to a more positive evaluation of the ad.

Hypothesis 2: Using sensory-social colours that are congruent with sensory-social products will lead to a more positive evaluation of the ad.

Table 1.

**Functional products vs. sensory-social products: a color-by-color analysis**

Colour	Functional product	Sen.-soc. product	Mean diff.	Std. error mean	Paired t-test	p value (1-tailed)
<b>Functional</b>						
Black	6.24	3.95	2.29	0.33	6.97	.000
Gray	5.54	2.74	2.80	0.28	10.19	.000
Green	5.00	4.52	0.49	0.16	2.96	.003
Blue	6.21	5.67	0.54	0.23	2.38	.012
<b>Sensory-social</b>						
Red	5.16	6.14	-0.98	0.23	-4.29	.000
Yellow	3.06	3.99	-0.93	0.26	-3.57	.001
Bright Pink	4.34	6.56	-2.23	0.28	-7.76	.000
Purple	4.54	6.30	-1.76	0.23	-7.55	.000

*Attention*

For this study we will be using an eye-tracker, that measures time to first fixation, fixation duration and fixation counts. From a study of Zhang, Bao and Xiao (2018) we know that with those eye-tracker measurements, we can measure visual attention. According to Kahneman (1973), attention is the amount of cognitive capacity allocated to a stimulus. In the study of Zhang, Bao and Xiao (2018), the researchers made logos with text and colour that were congruent with each other. For example, using the colour red for a text that warns people works better than using the colour green for the same warning. In a study of Novak, Hoffman and Yung (2000) it was shown that websites are viewed more holistically if all the information on the website is similar to each other. For

example, websites are seen more holistically if colours are matched with such information. Following this research, Zhang, Bao and Xiao (2018) found that people paid more attention to colour congruent banner ads than incongruent banner ads. Their results correspond with the results of Novak, Hoffman and Yung (2000), since colour may add to see the webpage as a holistic whole. Following the results of Zhang, Bao and Xiao (2018), we expect that participants pay more attention to congruent banner ads than incongruent banner ads. If participants indeed show that they pay more attention to the congruent banner than the incongruent banner, we also expect that when participant pay more attention to a banner, their evaluation of the brand will be more positive. A reason for this has to do with “visual fluency”. “Visual fluency” is defined as the subjective experience of ease an individual undergoes when visual processing occurs (Winkielman et al., 2007). “Visual fluency” can lead to more positive evaluations in two ways: (a) fluency itself can be experienced as pleasing or; (b) fluency may suggest that the stimulus is familiar. If a stimulus is familiar, people automatically evaluate that stimulus more positively. Repeated exposure to a stimulus will lead to an increase in liking of the stimulus, this effect is called the “mere-exposure effect” (Zajonc, 1980).

Hypothesis 3a: Participants pay more attention to congruent banner ads than incongruent banner ads.

Hypothesis 3b: If participants pay more attention to a banner, their evaluation of the brand will be more positive.

#### *Brand evaluation and purchase intention*

In this study we also want to test purchase intentions. Purchase intention is defined as an individual’s (conscious) plan to make an effort to purchase an object/

service (Spears & Singh, 2004). Research of Pradhan, Duraipandian and Sethi (2016) suggests that purchase intention depends on the attitude people have about a brand (brand evaluation). Other research makes a clear distinction between brand evaluation and purchase intention. However, they show that there is a strong relationship between brand evaluation and purchase intention. (Pourazad, Stocchi & Pare, 2019). The article of Pourazad, Stocchi and Pare (2019) shows that brand attribute associations (brand image, hedonic attributes, brand prestige and uniqueness) and consumer-brand relationship (brand love, brand attachment, brand passion and self-brand identification) are drivers for purchase intention in brand extensions for luxury products. According to the results of Pourazad, Stocchi and Pare (2019) brand evaluation can predict purchase intention. Even though the research of Pourazad, Stocchi and Pare (2019) is limited (they only used luxury products and they researched brand extensions), their conclusion is clear: brand evaluation is a driver for purchase intention. However, brand evaluation is not the only driver for purchase intention. You could expect someone to buy something if they really need it, regardless of whether they evaluate the brand as positive or negative. To test whether our participants have a purchase intention because they rate the brand positively, we test purchase intention with brand evaluation. Therefore, we expect that participants are more likely to purchase a product when the brand evaluation is positive than if the brand evaluation is negative.

Hypothesis 4: Participants are more likely to purchase a product when the brand evaluation is positive than if the brand evaluation is negative.



## Method

### *Participant and design*

In this study there were 6 conditions, we used a 2x3 mixed design (functional vs sensory-social products) x (congruent, incongruent and neutral colours) with “colours” as within conditions variable and “product category” as between conditions variable. We had 101 participants in total, divided over 2 conditions. Of the participants 28 were male and 73 were female. Their age ranged from 18 to 30 ( $M = 21.91$  ,  $SD = 2.75$ ) The participants were recruited via Sona and/or recruited by actively asking students in the facility .

### *Materials*

The materials and equipment used for the experiment included an eye-tracker, a laptop, a computer mouse, papers for the informed consent, informational texts about different products, 18 images displayed in Tobii Studio v3.0.2. and a Qualtrics questionnaire. The 18 images were banner ads of either power tools or nightclubs/restaurants depending on the condition, the colour of the ads differed for each condition. After performing a calibration procedure for each individual participant with Tobii Studio v3.0.2. and a 60 Hz eye-tracker system, we were able to measure total fixation duration, fixation count and time to first fixation. With these measures we were able to measure visual attention. Participants did not have to wear any devices for using the eye-tracker, this allowed spontaneous behaviour. We did however ask them to avoid making too many movements. Due to the fact that we only had one eye-tracker at our disposal, we measured one participant at a time.

### *Procedure*

Before we started the study, all participants received an informed consent form. After the participant had read the informed consent and signed it, the research started. All participants received the same general information. In this general information participants received information that they had joined a study about certain products. As compensation for joining our study, all participants received € 3,- or 1 course credit.

Participants were randomly assigned to the experimental conditions. After this, participants received specific information depending on their experimental condition. In the information that the participants received, it was said that they had to read some informational texts and that they later had to answer some question about these texts. The informational texts the participants received differed per condition. Participants who were assigned to the functional product condition, had to read information on a website about power tools. Later they had to answer questions about these power tools. Participants assigned to the sensory-social product condition, received information that they had to read about some nightclubs and restaurants on a website and that they later had to answer some questions about these nightclubs and restaurants. In both sensory-social product condition and in the functional product condition, there were 3 congruent banner ads, 3 incongruent banner ads and 3 neutral banner ads (see appendix for examples).

Each participant saw an instruction, an informational text and 9 images (ads) depending on their condition. When participants were done with the Tobii part of the experiment, we asked them to fill in a questionnaire on Qualtrics. When the participants were done with the experiment, we thanked them and gave them their earned money (€3,-) or 1 course credit. The experiment took approximately 20 minutes. The answers were

handed in digitally with Qualtrics. After the questionnaire there was a debriefing regarding the experiment. The total experiment took approximately 30 minutes.

### *Measures*

We used the eye-tracker to measure attention with fixation duration, fixation count and time to first fixation (Zhang, Bao & Xiao, 2018). Fixation duration measured the total time of fixation, fixation count measured how often a participant looked at a certain portion of the screen and time to first fixation measured the time it took for the participant to look at a certain portion of the screen. Attention was measured as an effect of congruence between colour and product. To measure brand evaluation and purchase intention we used a questionnaire. In a study of Pradhan, Duraipandian & Sethi (2016) attitude towards the brand was measured with a 7-point Likert scale (1 = totally agree, 7 = totally disagree). We used the same measures as them in order to measure brand evaluation. Example items were: “I think the brand is good” or “I think that the brand shows low quality”. To measure purchase intention, we used a 7-point Likert scale (1 = Definitely will not buy, 7 = Definitely will buy) based on the study of Pradhan, Duraipandian & Sethi (2016). An example item was: “What is the likelihood that you would purchase product X?”.

## Results

The first hypotheses we tested were hypothesis 1: Using functional colours that are congruent with functional products, will lead to a more positive evaluation of the ad, and hypothesis 2: Using sensory-social colours that are congruent with sensory-social products will lead to a more positive evaluation of the ad. To test these hypotheses we performed an mixed 2 x 3 ANOVA. The data showed no support for the hypotheses. The results showed that there was no significant effect of the colour used on the ad evaluation,  $F(2, 99) = 1.93$  with  $p = 0.15$ . The results did however show a significant interaction effect between the colour used and product category on evaluation,  $F(2, 99) = 4.52$ ,  $p = 0.01$ . This means that colour in combination with condition had an influence on the ad evaluation. In Table 2 the means are shown for the interaction effect of colour used and product category. Noticeable for functional products is that the congruent colour is rated more positively than the incongruent colour. However, for the sensory-social products, incongruent colours were rated more positively than the congruent colour. The data showed that there is no significant difference between the conditions for sensory-social products and functional products,  $M_{\text{incongruent}} = 4.01$ ,  $M_{\text{congruent}} = 4.12$  &  $M_{\text{neutral}} = 4.09$ ,  $F(1, 99) = 0.23$  with  $p = 0.63$ .

**Table 2. Means of the interaction effect of colour x product category**

Product category	Incongruent colour		Congruent colour		Neutral colour	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Functional products	3.94	0.10	4.20	0.11	4.17	0.11
Sensory-social products	4.08	0.10	4.04	0.11	4.00	0.10

Next, we tested hypothesis 3a: Participants pay more attention to congruent banner ads than incongruent banner ads. To test attention we looked at time to first fixation, fixation duration and fixation count. Time to first fixation measures the time it takes for a participant to look at a certain portion of the screen. Fixation duration measures how long a participant looks at this portion of the screen. And lastly fixation count measures how often a participant looks at a certain portion of the screen. To test this hypothesis we performed 3 mixed 2 x 3 ANOVA's. The results showed that conditions had no significant effect on time to first fixation,  $F(2, 99) = 0.85$  with  $p = 0.43$ . The results showed that conditions had no significant effect on fixation duration,  $F(2, 99) = 0.50$  with  $p = 0.61$ . The results also showed that conditions had no significant effect on fixation count,  $F(2, 99) = 0.57$  with  $p = 0.57$ .

Since none of the tests for attention were significant, hypothesis 3a (participants pay more attention to congruent banner ads than incongruent banner ads) was not supported. Hypothesis 3b relied on hypothesis 3a to be supported, therefore hypothesis 3b (if participants pay more attention to a banner, their evaluation of the brand will be more positive) was not tested.

Lastly, we tested hypothesis 4: Participants are more likely to purchase a product when the brand evaluation is positive than if the brand evaluation is negative.

**Table 3. Correlations brand evaluation and purchase intention**

	Purchase intention incongruent	Purchase intention congruent	Purchase intention neutral
Brand evaluation incongruent	0.52**	0.39**	0.35**
Brand evaluation congruent	0.40**	0.54**	0.39**
Brand evaluation neutral	0.41**	0.46**	0.45**

\*\* . Correlation is significant at the 0.01 level (2-tailed)

In Table 3, correlations are shown between brand evaluation and purchase intention. In the table all correlations are significant and positive, this means that if brand evaluation increases so does purchase intention. Participants with a higher brand evaluation were thus more likely to purchase a product. The hypothesis is thus supported by the data.

To investigate further, we performed a couple of mixed ANOVA's. The results showed that condition had a significant effect on brand evaluation,  $F(2, 99) = 7.69$ ,  $p = 0.001$ . This means that participants did evaluate one colour combination better than another. Contrasts revealed that only the congruent condition was significantly different from neutral,  $p < 0.001$  with  $M_{\text{difference}} = -0.21$ . This means that participants preferred the neutral condition over the congruent condition and that the brand evaluation was higher for the neutral condition. The results showed no significant difference between the

conditions,  $M_{\text{incongruent}} = 4.01$  ,  $M_{\text{congruent}} = 4.14$  &  $M_{\text{neutral}} = 4.23$  ,  $F(1, 99) = 0.25$  with  $p = 0.62$ .

The results showed that condition had a significantly effect on purchase intention,  $F(1.66, 99) = 5.28$  with  $p = 0.01$ . Again, this showed that participants had a higher purchase intention for either the congruent condition, the neutral condition or the incongruent condition than any of the other conditions. After comparison, the data showed that participants had a higher purchase intention in the congruent condition than the incongruent condition,  $p = 0.01$  with  $M_{\text{difference}} = 0.32$ . The data also showed that participants had a higher purchase intention in the congruent condition than in the neutral condition,  $p = 0.03$  with  $M_{\text{difference}} = 0.18$ . This means that in general participants had a higher purchase intention in the congruent condition than the other conditions, the participants were more willing to buy if the colour matched the product. The results showed no significant difference between conditions,  $M_{\text{incongruent}} = 3.23$  ,  $M_{\text{congruent}} = 3.54$  &  $M_{\text{neutral}} = 3.36$  ,  $F(1, 99) = 0.54$  with  $p = 0.47$ .

## Discussion

At the start of our research we wanted to know more about banner ads, especially regarding congruence of colour and product types. Also we wanted to give recommendations for new opportunities for marketers. By conducting our research we can come to the conclusion that congruence of product categories with colours is more complex than we thought. Not all our hypotheses were confirmed, but hypothesis 4 was (Participants are more likely to purchase a product when the brand evaluation is positive than if the brand evaluation is negative). Our research did however give new insights regarding the effectiveness of banner ads. Therefore, we can say that we met the goal of our research.

### *Theoretical and practical implications*

The first two hypotheses we tested were hypothesis 1: Using functional colours that are congruent with functional products, will lead to a more positive evaluation of the ad, and hypothesis 2 Using sensory-social colours that are congruent with sensory-social products will lead to a more positive evaluation of the ad. In contrast to what we expected, both hypotheses were not supported by the data. There might be some explanations why the data did not support the hypotheses. In a study of Huang and Wan (2019) the researchers discuss the role colour-flavour incongruence on product evaluation. In their study, colours are matched with certain flavours that are incongruent or congruent with each other. The difference with our study was that Huang and Wan matched colours with flavours for certain products, where as we matched our colours with a product based on the use of the product (functional or sensory-social). Huang and Wan (2019) concluded that their participants evaluated products in a slightly more



negative way when the colour and flavour were incongruent with each other. What is important for our study, is that association between the colour and the flavour mattered for the evaluation. For example, the colour of a potato chips bag did not have a strong association with a certain flavour. When the researchers made the colour-flavour of the potato chip bag incongruent, the evaluation of the participants did not change much from when the colour-flavour was congruent. A possible explanation why our hypotheses were not supported by the data could thus be that there was a lack of association between the colour and the products.

For another explanation about why the data did not support the hypotheses, we can look at the study of Fleck and Quester (2007). In this study, the researchers discussed the role of congruence between sponsors and events in a literature review. Fleck and Quester (2007) found that a mild level of mismatch between the sponsor and the event, could be a positive thing. The incongruency added unexpectedness that enhanced positive evaluations especially for the sponsor. In our study you could see the banner ad as a sponsor for the product (event). The study of Fleck and Quester (2007) might explain why we could not support our hypotheses with the data, since incongruence might lead to a positive evaluation.

Next we tested hypothesis 3: Participants pay more attention to congruent banner ads than incongruent banner ads. The data did not support the hypothesis. For an explanation about why the data did not support the hypothesis, we could look at the study of Novak, Hoffman and Yung (2000). In this study, it was shown that websites are viewed more holistically if all the information on the website is similar to each other. According to the research of Zhang, Bao and Xiao (2018) colour may help to see the

website as a holistic whole, which in turn increases attention to the webpage. For our study we reasoned that the informational text should match the product shown in the banner ads (see appendix for examples). For example, when we had a banner ad for a hammer, the text was an informational about the use of a hammer. However, the informational texts were not the only thing shown on the website, there was a general background colour (white) and different topics on the left in another colour (grey). If these colours would have been a different shade of the same colour as the banner ad, this might have added to see the website as a holistic whole and thus increase attention.

Another reason that might explain the insignificant data may have to do with banner blindness. Banner blindness is the tendency to avoid paying attention to stimuli that preattentively resembles a banner ad (Benway & Lane, 1998). A study of Resnick and Albert (2014) tested whether task difficulty and banner location had an influence on banner blindness. They found that when participants were given a task, attention to the banner ad diminished. However, when participants could look at a website freely, attention was not as heavily loaded and the ad got more attention. In our study, participants got the task that they had to answer questions about the informational texts shown on the website. Maybe this relatively easy task was enough to load the attention of the participants in a way that there was no difference between the conditions, since their visual attention was not focussed on the banner ads. Resnick and Albert (2014) also did research whether location of the banner ad mattered. They found that banner blindness for banner ads on the right part of the screen was highest. In our study, the banner ad was on the right part of the screen, this may thus strengthen the banner blindness.

The last hypothesis we tested was hypothesis 4: Participants are more likely to purchase a product when the brand evaluation is positive than if the brand evaluation is negative. The data supported the hypothesis. This means that brand evaluation is an important predictor for purchase intention. Even though, much research has already been done about brand evaluation and the role it plays for purchase intention, our research added some new insights (Naylor, Lamberton & West, 2012; Hartmann & Apaolaza-Ibanez, 2012). In our study, we were able to measure that the participants preferred the congruent condition over the other conditions for purchase intention. This was not part of the hypotheses, but by investigating it the data gave some insights about purchase intention. By investigating which condition the participants preferred, we could say that we added new insights to the already known literature about purchase intention. With these new insights, we suggest that advertisers use congruent colours that match the product they are selling to increase the purchase intentions of potential customers.

From our study, we have a few suggestions for marketers to increase sales for either functional products or sensory-social products. In our study we found that congruency did not improve the evaluation (likeability) of the ad, however congruency did increase brand evaluation. From our research we could say that brand evaluation is a predictor of purchase intention. Given this knowledge using congruency between colour and product category is still recommended. To promote sales, marketers should thus use congruency between colour and product category. For functional products, we recommend to use the colour blue. For sensory-social products, we recommend to use the colour red.

*Limitations and recommendations for future research*

Our research has some limitations. First of all, in our research we did not measure actual behaviour when it came to purchase intent, we only measured the intention to buy the product. We measured the willingness to purchase a product with a questionnaire, which only measured intentions. Research of Sheeran (2002) shows that intentions are not the same as actual behaviour. It is however a good predictor of behaviour according to Sheeran (2002). Therefore, we can say that our outcome variable (purchase intention) has enough expression value to predict actual behaviour. Secondly, as already mentioned in the discussion, we did not take into account “banner blindness” enough. According to research of Resnick and Albert (2014) “banner blindness” is highest on the right part of the screen. In our research, the banner ads were shown on the right part of the screen which could have made the effect of the “banner blindness” greater. For future research we suggest to show the banner ads on a the left or upper part of the screen to counter the “banner blindness” as much as possible. Thirdly, before we started our research, we did not perform a pre-test to check what colour would be best for our research. We based our choice of colours on a research of Bottomley and Doyle (2006). From their study, the best choices for our study should be red and black. We did choose blue in stead of black for our study, since it made the ad better readable and there was not much of a difference between the two colours in terms of functionality. Bottomley and Doyle (2006) did not use students for their research (we did) and their research was performed in the United Kingdom. In the United Kingdom, people might have different associations with certain colours as they do in the Netherlands. We therefore suggest to perform a pre-test in the same population to determine which colour is the best option.

For future research we also suggest to take into account what role memory plays on the ad/brand evaluation and purchase intention. During our research we heard from multiple participants, after they were done with the experiment, that they did not remember much of the banner ads. By accounting for memory in the research, the experiment could provide new insights. Lastly, in our research we only tested participants that were a student. Maybe other results could be found for different groups.

In this study colour-product congruency is tested, much is still unknown about this subject. Therefore we suggest for other researchers to take heart and to explore more about this subject, more research is required.

### *Epilogue*

In this study, I have learned that colour-product congruency is more complex than what I at first imagined. I got new insights and I hope that our research added new insights for marketers. Also we hope that scientific literature might benefit for our research and gets new insights. Special thanks to Erik de Kwaadsteniet for helping me writing this study and thanks to Marlot Bielschowskij, Daniela Marais and Niki Vlug for gathering the data together with me.

## Appendix

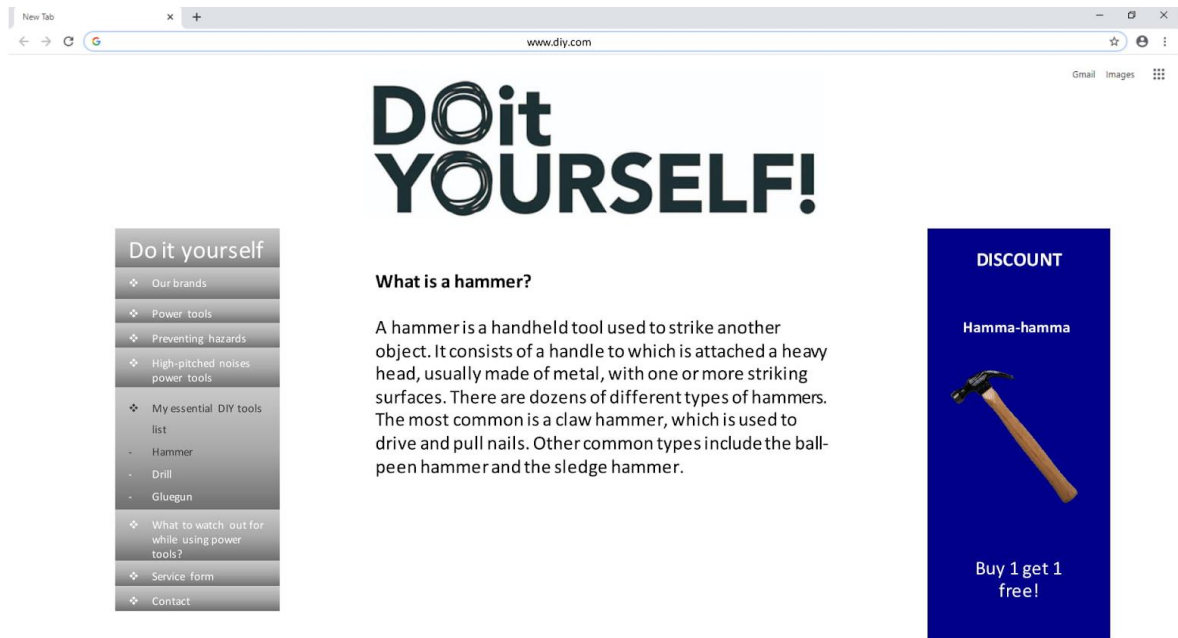


Figure 1. Example of congruent functional product condition.

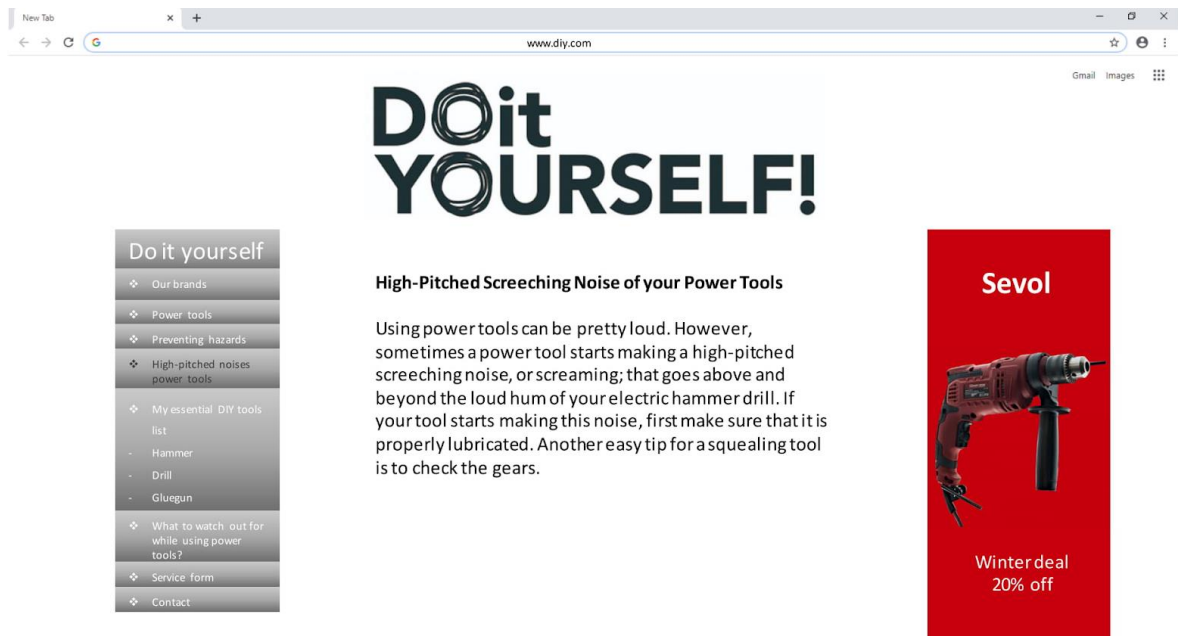


Figure 2. Example of incongruent functional product condition.

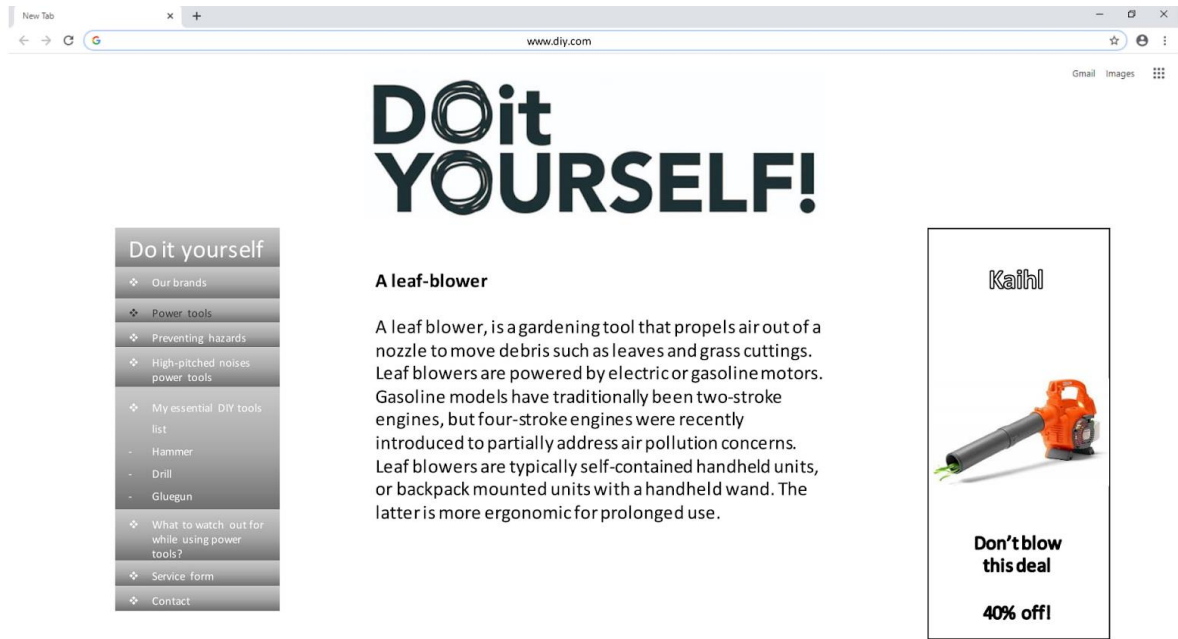


Figure 3. Example of neutral functional product condition.



Figure 4. Example of congruent sensory-social product condition.

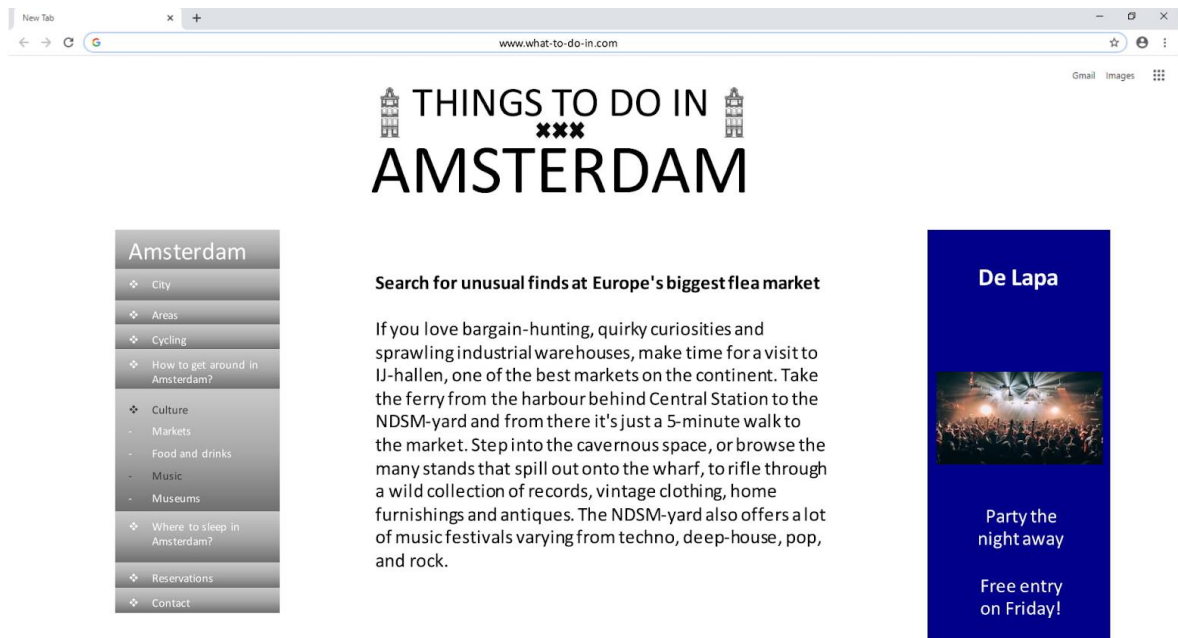


Figure 5. Example of incongruent sensory-social product condition.

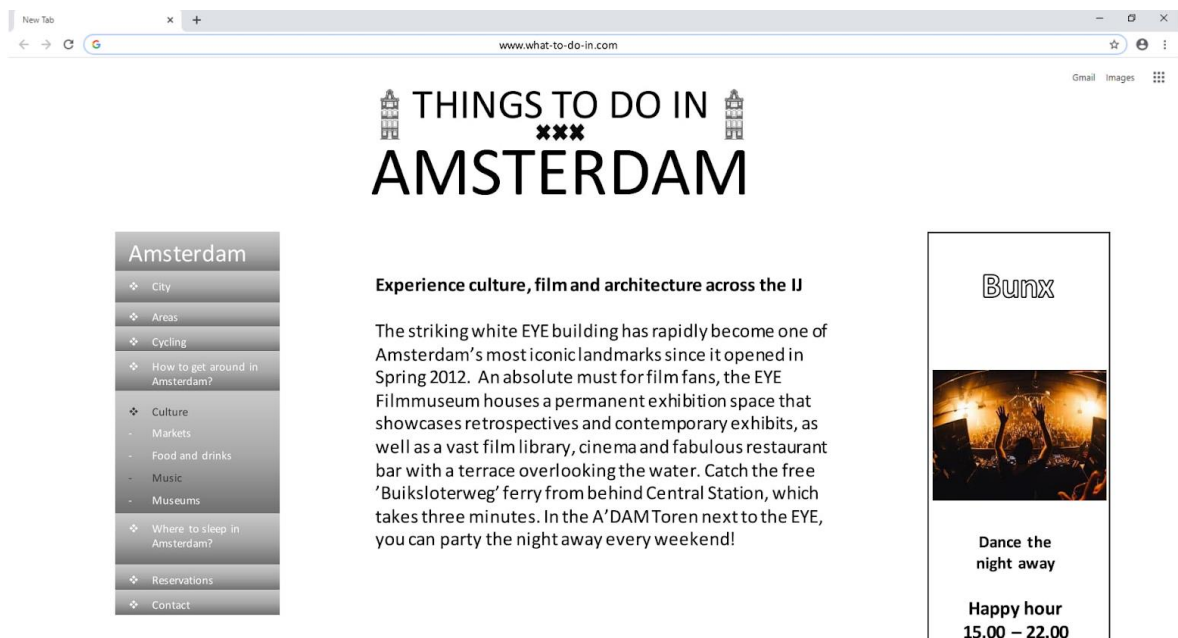


Figure 6. Example of neutral sensory-social product condition.



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