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INSTAGRAM MARKETING:
A STUDY ABOUT THE EFFECT OF VISUAL CONTENT ON CUSTOMER ENGAGEMENT IN THE AIRLINE INDUSTRY

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Reykjavik, 15.05.2017
Declaration of Research Work Integrity
This work has not previously been accepted in substance for any degree and is not concurrently being submitted in candidature for any degree. This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged with explicit references. References are appended. By signing the present document, I confirm and agree that I have read RU’s ethics code of conduct and fully understand the consequences of violating these rules in connection with my thesis.

Reykjavik 15.05.2017 290389-4379

Place and date ID No. Signature
Acknowledgment

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Abstract

Companies are consistently trying to attract the attention of consumers in different ways and social media can be used as a tool for achieving this. Great engagement on social media is important since it tends to create loyal customers and loyal customers may lead to an increased revenue for companies. In order to achieve engagement on social media the content has to be right, but knowing what kind of content to post on social media in order to achieve this can be difficult. Earlier research has shown that pictures on social media creates more engagement than plain text, but little research has been done on what kind of pictures. Therefore, this thesis is focused on the effect of visual content on engagement rate in Instagram in the airline industry. This thesis includes three studies that were done to get a better understanding on what kind of visual content companies should use in order to achieve a higher engagement rate on their Instagram posts. The three studies show that visual content has an influence on the engagement rate on Instagram. Posts with pictures of an animals reach higher engagement rates than pictures without animals. A reason for this may be that animals often are seen as family, and create emotions. The findings in this thesis also show that pictures including people achieve longer viewing times than pictures without people. This thesis offers two contributions. First, it provides insight in how visual content influences engagement rate and viewing time in Instagram posts. Second, it gives a foundation on how future studies in this field could be conducted.

Keywords: social media, Instagram, visual content, customer engagement
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Figure 1. Modified framework on brand post popularity on Instagram. Original framework by de Vries et al., (2012). Journal of Interactive Marketing, 26, p. 84.

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1 Introduction

With the rise of social media in the beginning of the 21st century the airline industry underwent, as any other business, a big change. Social media changed the communication between consumers and businesses, from a one-way communication model, to a two-way communication model (Champoux, Durgee & McGlynn, 2012; Vanauken, 2014). The most known type of social media are social networking sites, such as Facebook, Twitter, and Instagram (Go & You, 2015). Facebook is by far the biggest platform with over 1.71 billion monthly active users, and platforms like Instagram (500 million monthly active users), Twitter (313 million monthly active users), and Snapchat (200 million monthly active users) does not come near the popularity of Facebook (Statista, 2016).

Looking at the numbers of users for each platform, it is clear that social media plays an important role in how people and companies interact today. Today a lot of businesses, are using social media platforms to promote their services and/or products. A study conducted by Stelzner (2015), focusing on social media sites as a marketing tool in B2C industries, found that 97% of the marketers use social media to promote their business and 92% said that social media plays an important role in their marketing strategy. Social media can be used as a tool for companies to implement in their marketing mix, and are according to Mangold and Faulds (2009), influencing consumers’ behaviour in many different ways, such as opinions, attitudes, and purchase behaviour. Social media are not only being used by companies as a direct advertising tool, but are also being implemented in many firm’s traditional customer relationship management routines (Choudhury & Harrigan, 2014). According to McEleny (2016), social media platforms are the most important tools when it comes to building customer relationship in the airline industry.

According to Pan, MacLaurin, & Crotts (2007), consumers are posting more often, especially when travelling, of their own opinions on different social media sites such as blogs and social media networks. It is also becoming popular to look up information on social media sites (Tong, Bao, & Chong, 2016). Instagram, is the seventh biggest social media site (Statista, 2016), and the perfect platform to share pictures and opinions. With a couple of clicks, one can easily share a picture to broad audience.
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Since the travel and tourism industry is heavily relied on word of mouth and pictures of destinations, social media plays an important role in the marketing efforts (Xiang & Gretzel, 2010).

Instagram has the highest engagement level in almost every industry according to TrackMaven (2016). It may not be the biggest social media platform, but it is the most engaging and the fastest growing social media platform in almost every industry (Allen, 2016). The average engagement rate on Instagram is 4.21% while the average engagement rate on Facebook is as low as 0.7% (Elliot, 2015). A reason for the high engagement rate, according to Smilansky (2015), is that consumers are more likely to engage with image-based content than with text-based content. Instagram is also the best social media platform when it comes to reaching out to consumers. Almost 55% of the users on Instagram say that they are following their favourite brands, and 44% of the users use Instagram when looking for information about products or services (Mander, 2015). Instagram can definitely be seen as a success story, and two other reasons for its popularity can be traced back the increase usage of smartphones and its’ user friendliness (Montenegro, 20016; Lunden, 2014). Since the tourism industry is one of the most competitive industries (McEleny, 2016), it is crucial for companies to being present where the customers are (Jashi, 2013; Gruen, Osmonbekov, & Czaplewski, 2006). More companies in the travel industry are using Instagram as a marketing channel and according to Hospitality Net (2016), Instagram is one of the top-five marketing channels in the travel industry.

There are several reason why companies in the travel industry should implement Instagram in their marketing mix. According to DeMers (2015), Instagram drives up sales and creates engagement. One can suggest, that Instagram, is the best way to create engagement and relationship to firm’s consumers (TrackMaven, 2016; Smilansky, 2015; Hutchinson, 2015). These findings show that Instagram is a perfect tool for businesses trying to reach out to potential consumers and create engagement in forms of likes and comments, since pictures creates more engagement than plain text (Smilansky, 2015). Yet, knowing what kind of content to post can be difficult since different posts can achieve different engagement rates.

Creating social media sites is not hard, yet many companies struggle with creating the right content for it’s customers (Schultz & Peltier, 2013). Pictures are often more engaging than text to much text can harm the attention to a consumer Sabate, Berbegal-Mirabent, Cañabate, and Lebherz (2014).
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One of the reasons for this could be that the attention span of people is getting shorter. According to a study done by Microsoft, the average attention span of a human is eight seconds (Watson, 2015).

Engagement on social media can be measured in different ways such as likes, shares, and comments (De Vries, Gensler, & Leeflang, 2012; Peters, Chen, & Kaplan, 2013). De Vries et al. (2012) has developed a framework to measure what kind of content that creates the best engagement on Facebook. Their study concluded that Facebook posts with high level of vividness and posts with high level of interactivity are in favour of more engagement than posts with low level of vividness and low level of interactivity (De Vries et al., 2012).

Previous research (Palmer & Koenig-Lewis, 2009; Hansson, Wrangmo, & Søilen, 2013; Van Noort, Voorveld, & van Reijmersdal, 2012), show that Facebook posts with a descriptive and inspiring content are more likely to increase the engagement rates than posts without a picture. There are also other factors affecting engagement rates such as colour and the subject presented in the post. Research about the impact of colours have shown that different colours attract different amount of attention from the viewer (Middlestadt, 1990; Choi & Singh, 2011). Products held against a blue and cold background are, according to Middlestadt (1990), more liked than products against a red and warm background. Choi & Singh (2011), argues that colours of red often are more appealing than the the colours of blue.

Images of people and faces are often used to attract attention of the viewer (Riegelsberger, Sasse, & McCarthy, 2003; Cyr, Head, & Larios., 2009). Images with some kind of emotion can, according to Pilarczyk & Kuniecki (2014) draw the attention of a consumer almost immediately. It is not only pictures of humans that are used to engage the viewer, animals are often used in advertisement to attract and engage people. Animals are often being used because they evoke emotions and have long been associated with humans (M. B. Holbrook, Stephens, & Holbrook, 2001; Sanders, 1990). Animals can be used to promote products or services without having any connections to the brand itself (Kim, Lim, & Bhargava, 1998). The perception of an animal can be transferred to the perception of the brand (Phillips, 1996). Different animals are used in different advertisement. Horses are often seen in advertisements promoting products and services perceived as masculine (Spears, Mowen, & Chakraborty, 1996).
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The existing research about brand post popularity has been focusing on social media sites such as Facebook and Twitter. This thesis is therefore going to focus on visual content affecting brand post popularity on Instagram. This thesis is focusing on the travel industry, and more specifically on the airline industry since it is one of the most competitive industries (Jashi, 2013). Instagram is being studied because of the lack of academic research in the field but also because the increased use of Instagram among companies.

The purpose of this research is to get a better understanding about what kind of visual content on Instagram that increases customer engagement and how consumer’s viewing behaviour towards different kinds of pictures on Instagram in the airline industry is affected by the visual content in the post.

1.1 Structure of The Thesis

This thesis is divided into nine chapters and three studies. The three studies are based on each other. Study two is based on study one and study three is based on study two. The first chapter consisted of an introduction to the different themes in this thesis. The second chapter consists of a literature review, of earlier research done on the topic, focusing on, social media usage in the travel and tourism industry, social media and customer relationship, and visual content affecting brand post popularity. The third chapter is a description of Instagram and the airline companies that are being analysed in this thesis. The purpose, research questions and hypothesis will be presented in the fourth chapter. The fifth chapter describes study one. The sixth chapter describes study two and the seventh chapter describes study three. The eighth chapter is discussing the findings from all of the three studies, as well as the limitations and further research.
2 Literature Review

The literature review is going to be divided into four parts. The first part concludes studies about social media and customer relationship. The second part covers research about social media in the travel industry. The third chapter focuses on research done about variables affecting a post’s popularity on social media. The fourth and final part concludes earlier research done on the affect of visual content in images.

2.1 Social media and Customer Relationship

Social media has changed the way companies and customer interact with each other and earlier research show that the use of social media can have an effect on customer relationship (Maecker, Barrot, & Becker., 2016; Hennig-Thurau et al., 2010; Malthouse, Haenlein, Skiera, Wege, Zhang, 2013; Kumar, Bezawada, Rishika, Janakiraman, & Kannan, 2016; Singhal, 2016; Elena, 2016; Phua, Jin, & Kim, 2016; Gamboa & Goncales, 2014). A well maintained social media strategy can have a positive effect on the relationship between a company and its customers, and social media can increase sales and the reduce customer turnover (Maecker et al., 2016; Elena, 2016; Gamboa & Goncales, 2014). According to Hennig-Thurau et al. (2010), social media has changed the marketing environment, and that the most important thing for companies today is to create a well functioning social media strategy. According to Malthouse et al. (2013), social media has empowered the customers and made them king. The consumers can filter what they want to see, therefor it is important for companies to create interesting contact points on their social media marketing campaigns in order to create good relationships.

Customers engaging with companies on social media are more likely to stay with the specific company and purchase more, affecting the revenue of a company (Mecker et al., 2016; Singhal, 2016; Phua et al. (2016). Kumar et al. (2016), argues that firm-generated content uploaded on a company's social media site can affect the behaviour of the customer in a positive way. Firm-generated content can enhance the relationships between companies and customers, have a positive influence on the purchase intention and therefore, can have a positive impact on a firm’s revenue (Kumar et al., 2016). Social media is also the ideal channel to inspire customers, especially in the tourism industry, but companies must understand how to use the different visual aspects on social media sites (Harrigan et al., 2016).
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Table 1 presents the main findings from earlier research about social media, customer relationship and engagement.

Table 1

*Studies About Social media and Customer Relationship*

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maecker et al.</td>
<td>2016</td>
<td>Social media can have a positive effect on customer relationship.</td>
</tr>
<tr>
<td>Hennig-Thurau et al.</td>
<td>2010</td>
<td>Companies must understand how customers use social media in order to have a positive effect.</td>
</tr>
<tr>
<td>Malthouse et al.</td>
<td>2013</td>
<td>Interesting contact points social media will attract the customer’s attention.</td>
</tr>
<tr>
<td>Kumar et al.</td>
<td>2016</td>
<td>Firm-generated content can have a positive impact on customer relationship</td>
</tr>
<tr>
<td>Singhal</td>
<td>2016</td>
<td>Companies that have a successful social media strategy, are often more likely to have more loyal customers.</td>
</tr>
<tr>
<td>Elena</td>
<td>2015</td>
<td>Social media can have a positive effect on customer relationship.</td>
</tr>
<tr>
<td>Harrigan et al.</td>
<td>2016</td>
<td>Social media can have a positive effect on customer relationship.</td>
</tr>
<tr>
<td>Phua et al.</td>
<td>2016</td>
<td>Successful social media strategy, will attract loyal customers.</td>
</tr>
<tr>
<td>Gamboa &amp; Goncalves</td>
<td>2014</td>
<td>Social media will increase customer loyalty.</td>
</tr>
</tbody>
</table>
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2.2 Social Media – a New Way of Searching for Information

Consumers have shifted from using traditional media to using social media when looking for information, and electronic word-of-mouth is considered more reliable than traditional media (Gruen et al., 2006; Park, Lee, & Han., 2007). Electronic word-of-mouth can be seen as a modern version of word-of-mouth (Chu & Kim, 2011). People share information and opinions on social media and this has led to that companies have changed their focus from using traditional media to different social media when trying to reach out to current and potential customers. The travel industry is one of the most competitive industry and it is crucial for companies to implement social media to satisfy demanding customers (Jashi, 2013).

The travel industry is an information-heavy industry and it is heavily relying on word-of-mouth. Therefore, companies must understand the importance of being presence where their customers are, that is social media (Xiang & Gretzel, 2010; Pan et al., 2007; Gruen et al., 2006). Online-tourism domains, as Xiang, Woeber, and Fesenmaier (2008) refers to, are becoming more important in the travel industry. Online-tourism domains consist of different online platforms, such as search engines, booking sites, web sites, and social media. According to Xiang & Gretzel (2010), social media pages are updated more often than regular web pages, which means that Google foe example, is favouring these sites over traditional web sites. Social media sites are updated more often because it is easier (Xiang & Gretzel, 2010). Social media is according to Gretzel (2006) the perfect site for search engines. Consumers are switching from looking up information on traditional search engines to searching social media. A reason for this is that consumers do not use their computers to the same extent as they used to do (Tong et al., 2016). Today, consumers are using their mobile phones as their main tool for searching information about products and services. It is simply easier, and more convenient, to use and be active on social media through one’s smartphone than trough a web browser on a computer (Tong et al. 2016). These findings make it clear that travel industry have to change their focus from using traditional web sites as their main promotion channel to using social media as their main promotion channel.

Uploading experiences and opinions about a specific topic has never been easier. People are using their mobile phones to capture the environment around them and uploading it on social media. Electronic word-of-mouth is not only about text, but also about photos from that specific occasion/place.
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In the travel industry, photographs taken by consumers create a true perception of the destination (Fatanti & Suyadnya, 2015). These pictures can be uploaded to social media to be discussed, shared, and commented on. Instagram can be an effective tool for a company trying to promote a destination (Fatanti & Suyadnya, 2015). Instagram is already the fifth most used social media channel in the travel industry (Hospitality Net, 2016). A reason for the popularity of is that photos engage people more than text (Palmer & Koenig-Lewis, 2009; Hansson et al., 2013; Van Noort et al., 2012).

Social media is like an open playfield for consumers to share their thoughts and opinions and social media is where customers receive the most authentic travel information (Jashi, 2013). Companies have the opportunity to draw people’s attention while looking for information by having the right content on their social media sites. A travel company can attract consumers to engage with their content. But the right content is not always so easy to create. Table 2 presents the main findings from earlier research about social media in the travel industry.

Table 2

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xiang &amp; Gretzel</td>
<td>2010</td>
<td>Consumers search for travel information on social media.</td>
</tr>
<tr>
<td>Pan et al.</td>
<td>2007</td>
<td>Consumers are posting experiences on social media.</td>
</tr>
<tr>
<td>Xiang et al.</td>
<td>2008</td>
<td>Consumers search for travel information on social media.</td>
</tr>
<tr>
<td>Gretzel</td>
<td>2006</td>
<td>Social media sites are better ranked on search engine than traditional sites.</td>
</tr>
<tr>
<td>Fatanti &amp; Suyadnya</td>
<td>2015</td>
<td>Social media sites that are including photos are becoming more important for tourist destinations.</td>
</tr>
<tr>
<td>Hospitality Net</td>
<td>2016</td>
<td>Instagram is the fifth most used social media channel in the travel industry.</td>
</tr>
</tbody>
</table>
2.3 Content Affecting the Popularity of a Brand Post

Knowing what kind of social media content that will engage customers is crucial for all marketers using social media as a part of their marketing mix. According to Cvijikj, Spiegler, and Michahelles (2011), there is a difference in popularity between brand posts on Facebook. Facebook posts that consists of a status update containing product information caused the greatest number of comments, while videos caused the greatest number of likes. Posts that had a photo in it, had the longest interaction duration, but the least amount of likes and comments (Cvijikj et al., 2011). Post that were linked with a competition were not as popular as post containing a question (Cvijikj et al., 2011).

According to Chauhan & Pillai (2013), it is important for brands to optimize their messages on social media in order to sustain the interest level of the consumers. Their findings show that not only the content had an effect on the popularity, but also the convenience of the post, meaning that the post have to be posted when the consumer is most likely to read it.

Sabate et al. (2014), did a similar study as Cvijikj et al. (2011), on Facebook posts. According to their study posts including a picture got the highest rate of engagement and will achieve the highest amount of attention from consumers. Using images will significantly increase the brand post popularity. Videos are according to Sabate et al. (2014) not adding additional engagement, when compared to posts with images. One reason for this could be the fact that images takes longer to view (Sabate et al., 2014). Their findings also show that depending on what time of the day a post is posted; the engagement rate is different. Posts posted during business hours are more likely to get more comments, while posts, posted outside office hours are more likely to get more likes (Sabate et al., 2014). The reason for this might be that it is more convenient for a person to write a comment from a desktop computer, used at work, than from a mobile phone.

A study by De Vries et al. (2012), found that Facebook posts with high level of vividness and posts with high level of interactivity are in favour of more customer engagement that posts with low level of vividness and low level of interactivity and that posts including a question are in favour over posts without a question. A study by Luarn, Lin, and Chiu et al. (2015), also show that Facebook posts with high level of vividness will affect the popularity of a brand post positively.
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This is in line with a study done by Van der Heide, D’Angelo, and Schumaker (2012) who argues that posts with high vividness will create more customer engagement in terms of likes and comments. Luarn et al. (2005) found that posts including a picture and a text were most popular. This is most likely due to the fact that photos are attracting people's attention better than only text. A study by Cvijikj, Spiegler, and Michahelles (2013) found that posts including a photo will generate a higher customer engagement rate than a post with a text. The authors conclude that posts with a link in it will not engage people as much as a post with a photo. The study by Cvijikj et al. (2013), did not find any evidence that the time of the day, or day of the week, will have any significant effect on the post popularity. Other previous research does also show that Facebook posts with a descriptive and inspiring content are more likely to get higher engagement rate than posts without a picture (Palmer & Koenig-Lewis, 2009; Hansson, Wrangmo, & Søilen, 2013; Van Noort et al., 2012). A study by Berger & Milkman (2012), shows that inspiring content get shared the most.

Earlier studies on brand post popularity shows that pictures are engaging more than text but most of the studies have been focusing on social media sites such as Facebook and Twitter. Little research has been done about brand post popularity on Instagram. This thesis is trying to help to fill that gap. Table 3 will present the main findings from earlier research about visual content affecting the popularity of a brand post.
## CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

### Table 3

*Studies About Brand Post Popularity on Social Media*

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cvijikj et al.</td>
<td>2011</td>
<td>Posts consisting of a status update containing information about a subject caused the greatest number of comments and post consisted of videos the greatest number of likes. Posts that had a photo in it, had the longest interaction duration, but the least amount of likes and comments.</td>
</tr>
<tr>
<td>Chauhan &amp; Pillai</td>
<td>2013</td>
<td>The convenience of the post, for the consumer is affecting the engagement rate.</td>
</tr>
<tr>
<td>Sabate et al.</td>
<td>2014</td>
<td>Posts including a picture will have the highest amount of engagement, and will achieve the highest amount of attention from consumers.</td>
</tr>
<tr>
<td>De Vries et al.</td>
<td>2012</td>
<td>Posts with high level of vividness and post with high level of interactivity are in favor of more engagement that post with low level of vividness and low level of interactivity.</td>
</tr>
<tr>
<td>Luarn et al.</td>
<td>2015</td>
<td>Posts with high level of vividness will affect the popularity of a brand post positively.</td>
</tr>
<tr>
<td>Heide et al.</td>
<td>2012</td>
<td>Posts with high vividness will create more engagement in terms of likes and comments.</td>
</tr>
<tr>
<td>Cvijikj et al.</td>
<td>2013</td>
<td>Posts including a photo will have higher engagement rate.</td>
</tr>
<tr>
<td>Palmer &amp; Koenig-Lewis</td>
<td>2009</td>
<td>Posts including a photo will have higher engagement rate.</td>
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<tr>
<td>Hansson et al.</td>
<td>2013</td>
<td>Posts including a photo will have higher engagement rate.</td>
</tr>
<tr>
<td>Van Noor et al.</td>
<td>2012</td>
<td>Posts including a photo will have higher engagement rate.</td>
</tr>
</tbody>
</table>
2.4 The Effect of Visual Content in Pictures

Earlier research show that pictures on social media are in many cases more popular than just text. Different types of images can also draw different amount of attention, and the visual content in images influences how much attention and engagement images are getting.

There has been a lot of research regarding, the impact of colours in pictures, and especially in the field of the impact of colours in advertisement. According to Panigyrakis & Kyrousi (2015); Lee & Barnes (1989); Schindler (1986), colours play a major role in advertisement, and choosing the right colour is crucial. The aspects of a colour, such as hue, brightness, and saturation are affecting how the brain perceives colour. Castelhano & Henderson (2008), explains that colours helps the human brain to understand the structure of an object, meaning that if the colour is different from what we are used to see, it will take longer time for the brain to understand what the object is. According to Aslam (2006), the saturation and brightness of a colour is affecting the perception more than the hue of a colour. Saturation can be explained as how intense a colour is. The more saturation, the more intense the colour is (Techopedia, 2017). The brightness of a colour can be explained by how much light the colour is radiating. A colours hue is the set of pure colours in a colour mix (Work With Color, 2017). Research also show that vivid content will increase click-through rates on banner advertisement (Lothia, Donthu, & Hershberger, 2003).

Pictures with similar colours are more pleasant for the human eye to watch (Schloss & Palmer, 2011; Sanocki & Sulman, 2011). According to Middlestadt (1990), products against a blue background are more liked than products against a red background. This contradicts the findings of Choi & Singh (2011), who found that the colour sphere of red is often considered more appealing than the the colour sphere of blue.

A challenge, today is to understand what kind of visual content in images that are affecting the differences in customer engagement on social media (Bakhshi & Gilbert, 2015). A study by Bakhshi, Shamma, and Gilbert (2014), found that images with faces are 38% more likely to receive a like than an images without faces. According to King (2015), pictures on Instagram that are lighter, have more background, are more cold in the colour tone, and lower in saturation, get higher engagement rate than dark and warm pictures with no background.
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King (2015), argues that pictures with one dominant colour is more likely to get a higher level of engagement. Bakhshi & Gilbert (2015), researched about what kind of pictures gets shared the most on the social media networking site Pinterest. The result in their study was that colour pictures had an advantage over black and white pictures. Black and white images do not impact the viewer as much as colour pictures in newspaper advertisement according to Schindler (1986). Bakhshi & Gilbert (2015), found that pictures with a dominant colour of red, and with high saturation are more likely to get shared. Pictures with a dominant colour of blue, black, green, and yellow were less likely to be shared (Bakhshi & Gilbert, 2015).

Advertisement is used to evoke emotions and the use of images in advertising helps to increase the levels of emotion response (Cyr et al., 2009). Pictures affect consumers more than text in advertisement (Short, Williams, & Christie, 1976). Images of people are often used to increase consumer loyalty towards a company, and to get the attention of consumer (Riegelsberger et al., 2003; Cyr et al., 2009). Images with a “friendly” face were especially known to increase the trust and the attention (Riegelsberger et al., 2003). A study done by Small & Verrochi (2009), show that when people see an image of a sad human face, the viewer will feel the same set of emotions. Images with some kind of emotion will, according to Pilarczyk & Kuniecki (2014), draw the attention of a consumer almost immediately. Facial expressions are according a way of communicating without a language, all expressions have the same meaning in all languages (Batty & Tailor, 2003). Facial expressions can be seen as a universal language (Batty & Tailor, 2003). Images of people has been used in advertisement to attract viewers. People are however not the only subject that have been used to get the attention of the viewer, animals are common to use in order to catch the viewer’s eye. Table 4 presents earlier research done on the topic about how different content in a picture affects how much attention and popularity the image is getting.
Table 4

*Studies About the affect on different types of images and the affect on colors*

<table>
<thead>
<tr>
<th>Author &amp; Co-authors</th>
<th>Year</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panigyrakis &amp; Kyrousi</td>
<td>2015</td>
<td>Colors play a major role in advertisement.</td>
</tr>
<tr>
<td>Lee &amp; Barnes</td>
<td>1989</td>
<td>Colors play a major role in advertisement.</td>
</tr>
<tr>
<td>Schindler</td>
<td>1986</td>
<td>Black and white images do not have as much impact on the viewer much as color pictures in newspaper ads.</td>
</tr>
<tr>
<td>Castelhano &amp; Henderson</td>
<td>2008</td>
<td>Colors helps the human brain to understand the structure of an object</td>
</tr>
<tr>
<td>Aslam</td>
<td>2006</td>
<td>Saturation and brightness of a color is affecting the perception more than the hue of a color.</td>
</tr>
<tr>
<td>Schloss &amp; Palmer</td>
<td>2011</td>
<td>Pictures that have colors that are similar to each other are according to more pleasant for the human to watch.</td>
</tr>
<tr>
<td>Sanocki &amp; Sulman</td>
<td>2011</td>
<td>Pictures that have colors that are similar to each other are according to more pleasant for the human to watch.</td>
</tr>
<tr>
<td>Middlestadt</td>
<td>1990</td>
<td>Products against a blue background are more liked than products against a red background.</td>
</tr>
<tr>
<td>Choi &amp; Singh</td>
<td>2011</td>
<td>The color of red is often considered more appealing than the the color of blue</td>
</tr>
<tr>
<td>Bakhshi et al.</td>
<td>2014</td>
<td>Images with faces are 38% more likely to receive a like than an image without faces.</td>
</tr>
<tr>
<td>Bakhshi &amp; Gilbert</td>
<td>2015</td>
<td>Pictures where the dominant color is red, and have a high saturation, are more likely to be shared.</td>
</tr>
</tbody>
</table>
2.5 The Use of Animals in Advertisement

The use of animals in advertising is now news. One in five of the commercials shown under the Super Bowl broadcast during the last decade has included animals in it (Horovitz, 2003a, 2003b, 2004, 2005, 2006). Animals can be used in advertisement without having any relevance to the brand or product, and advertisements featuring animals are more liked than advertisements without animals (Kim, Lim, & Bhargava, 1998). One reason for using animals in advertising is because animals evoke emotions within the viewer (M.B. Holbrook et al., 2001). Humans has associated themselves with animals for a long time, and there are three reason for this; 1. Animals provides us with a source of food, and clothing, 2. Animals offers companionship, 3. Animals provides a cultural meaning that can be transferred (Sanders, 1990; Morgado, 1993). In the USA alone, animals are found in 69 million homes and are often seen as family (The American Pet Products Manufacturers Association (APPMA), 2006). The bond between animals and humans are often the reason why advertisers use animals, even if the promoted product does not have any connection to animal itself (Holbrook, 2001). Animals are often with us during our most intimate moments and are sometimes seen as our children and friends (Holbrook, 1996b & 1997a).

Different animal characters can give a special meaning to a brand. For example, if an animal associated with positivity, the attitudes can be transferred to the brand and have a positive effect on the brand (Phillips, 1996; Lancendorfer, Atkin, & Reece, 2008). Different animals can also be associated with different product categories (Spears et al., 1996). Animals can usually be associated with a cultural meaning and this meaning can be transferred to the brand (Lloyd & Arch, 2013). Dogs, cats, birds, and horses are the most used animals in print advertisement (Spears et al., 1996). Dogs are mainly used in advertisement that promotes products/services for the family, while horses usually are used to promote manliness and strength (Spears et al., 1996). Wild animals are often associated with promoting a service. Table 5 presents the main finding about the use of animals in advertisement.
Table 5

*Studies About Animals in Advertisement*

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kim et al.</td>
<td>1998</td>
<td>Animals can be used in advertisement without having any relevance to the brand and still have a positive effect on the brand.</td>
</tr>
<tr>
<td>Hoolbrook</td>
<td>2001</td>
<td>Animals evoke emotions in humans.</td>
</tr>
<tr>
<td>Sanders</td>
<td>1990</td>
<td>Humans have associated themselves with animals for a long time.</td>
</tr>
<tr>
<td>Morgado</td>
<td>1993</td>
<td>There are three main reasons why humans have associated themselves with animals for a long time.</td>
</tr>
<tr>
<td>Cerchia</td>
<td>1990</td>
<td>Humans have associated themselves with animals for a long time.</td>
</tr>
<tr>
<td>Hoolbrook</td>
<td>1996b &amp; 1997a</td>
<td>Animals can be seen as our friends and children.</td>
</tr>
<tr>
<td>Phillips</td>
<td>1996</td>
<td>Animals characters are often transfers to the brand.</td>
</tr>
<tr>
<td>Spears et al.</td>
<td>1996</td>
<td>Different animals can be associated with different products categories.</td>
</tr>
<tr>
<td>Lancedorfer et al.</td>
<td>2008</td>
<td>The use of animals in advertisement can have a positive effect on the attitudes towards a brand.</td>
</tr>
<tr>
<td>Lloyd &amp; Arch</td>
<td>2013</td>
<td>The cultural meaning of an animal can be transferred to a brand when used in an advertisement.</td>
</tr>
</tbody>
</table>
3 Analysis of Instagram and the airlines in this study

As stated in the introduction this study will focus on brand post popularity on Instagram within the airline industry. In order to get a better overview of Instagram and the airlines used in this study this chapter will describe the features of Instagram and give a brief overview of the airlines.

3.1 Overview of Instagram

Instagram is a photo and video sharing network that was founded in 2010. Uploading photos and videos can be done in different ways but the easiest way is to use the mobile app itself. The use of Instagram is free and can be used by anybody that has a smartphone. Photos and videos of people that one follow is shown in the news feed. Instagram can be seen as a simplified version of Facebook, that emphasises mobile use and visual content. In order to follow a person, one has to look up the person and click on the follow button. Some profiles are private which means that one has to get accepted to see the content on their account. (Moreau, 2016)

Users of Instagram can follow others and engage in photos or videos in different ways. The engaging tools on Instagram are: liking, commenting, sharing as a message, tagging, or by third-party app repost a post. The interaction with the app is easy. When you see a picture that you want to like, double tap it or press the heart icon under the picture (appendix A). Writing a comment can easily be done by pressing the balloon icon (appendix A).

Uploading photos and videos onto Instagram is also simple. In the first version of the app it was only possible to upload a photo that was taken with the app itself (Moreau, 2016). Today, a photo can be uploaded from any camera if it is transferred to a mobile phone first. This feature might be one of the reason why Instagram is popular among photographers. Photographers can easily share their work with a whole community. When uploading a photo, it is possible to add filters to it, and this might be one of the key factors to Instagram’s success since filters can enhance the pictures.

There are three different formats that Instagram let’s its user to upload; square, portrait, or landscape. Landscape photos are photos that are wider than tall. Portrait photos are photos that are taller than wide. Square format photos are photos where the all the sides are the same length. Until 2015 it was only possible to upload pictures in form of a square, which was the signature feature of Instagram.
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According to Kastrenakes (2015), photos in portrait form seem to attract more engagement than square photos, while square format seems to engage more than photos in landscape format.

As earlier discussed, Instagram is becoming a popular marketing tool. According to Au (2012), marketers can post different kinds of pictures on Instagram, in order to create engagement. The pictures can be categorized into; pictures of products, pictures of the production, behind the scenes pictures, pictures showing what the product can do, pictures of the people working at the company, and pictures of people using a specific product (Au, 2012). Engagement on Instagram can be measured by the amount of followers, likes, and comments (Erkan, 2015). But also on the basis of the amount of mentions, and reposts. Pictures that are getting most engagement are pictures that are less product-oriented and more experience-oriented (Erkan, 2015).

According to Phua et al. (2016), consumers that follow brands on Instagram, are showing a higher engagement rate than consumers on any other social media platform. Instagram has several advantages over other social media platforms. Instagram lets the user geo-tag a photo, tag another user in the photo, and use specific hashtags on a photo in order to make it more visible for other users (Fatanti & Suyadnya, 2015).

3.2 Instagram’s Engagement Tools

Likes: Liking a photo or a video on Instagram is easy. By double tapping the picture or pressing the heart shaped icon above the picture to give it a like. If a user has a public profile other user can like the content without following the person. A user can choose to have a private profile which means that only people that have been accepted by the user is to view the content and like it.

Comments: By pressing the balloon shaped icon a user can comment on a picture. A comment can be infinite but can only consist of text. Instagram does not allow users to comment a photo or a video by posting a visual content. This is a big difference from example Facebook and Twitter, where people can post comments including pictures. Users can also tag another user in the comment, by using the @-sign in front of the username. This can be seen as one sort of electronic word of mouth. Users can also use the hashtag symbol #subject, in order to get reach more people with the post. If a user writes a comment on a post with the hashtag symbol (e.g. #love), the picture will be included with all the others pictures using the same hashtag.
\textit{Direct Message:} A user can send a photo or video to another user by clicking the paper airplane icon underneath a picture or video. This will send the content to another privately. The owner of the picture can not see if someone has sent the post to another person. The receiver of a direct private message will get a notification in the top right corner in his news feed. If a person sends a post that is posted by a private user, the receiver will not be able to see it.

\textit{Repost:} Reposting can be seen a third way of engaging. Reposting means that a person takes a another user’s photo or video and posts it on his/her page. There is no easy way of doing this in the official app, but can be done in several third-party reposting apps (appendix B). Reposting can be seen as using content from another user for free, this might be risky if not done accordingly. Berner (2015), states that if a person posts a image without the permission of the original uploader the image can be taken down. This means that in order to repost an image the user need to ask the owner of the picture permission before reposting it. Getting reposted can be a good thing as well, by getting reposted the user will get more reach and attention, which will help to attract more followers.

\textit{Hashtag & Mentioning:} Using hashtags in a picture is a good way to get a better reach of the picture. Using a hashtag, the photo or video is going to be connected with that particular hashtag, meaning that when other users search for that specific hashtag they find pictures with that hashtag. By using the symbol @, a user can mention other user. By doing this the mentioned account will get a notification that another user has mentioned them. This is an effective way of sharing pictures others. It can also be seen as a type of electronic word of mouth.

\subsection*{3.2 Overview of Icelandair}

Icelandair was founded in 1937, in Akureyri, in the northern part of Iceland. In 1940, the company moved its headquarter to Reykjavik, the capital of Iceland. Icelandair is a part of the Icelandair Group, which has 12 subsidiaries, focusing on Iceland as a tourist destination (Icelandair, 2017a). The location of Iceland is very convenient for an airline company. With the location, Icelandair can easily connect passengers flying from and to North America and Europe. This is one of the main strengths that Icelandair has. The location of the hub can be used as a marketing tool when attracting new customers.
And that is exactly what Icelandair has been doing. They are offering stopovers in Iceland, for free, for passengers flying from Europe to North America, or North America to Europe (Icelandair, 2017b). Icelandair offers different kind of services for their passengers, including Wi-Fi and on board entertainment (Icelandair, 2017c). The Wi-Fi service is free for passengers in Saga Class and for passengers with a Saga Gold Membership card. The internet speed can be classed as 3G speed on the ground, which according to Icelandair, makes it great for emailing, doing light browsing, and communicating on social media (Icelandair, 2017d). Icelandair is active on different social media. On their brand page on Facebook they have over 400,000 likes (Icelandair Facebook Page, 2017), 65,000 people follow them on Twitter (Icelandair Twitter Page, 2017), their YouTube channel has over 6,000 subscribers (Icelandair Youtube Page, 2017), and their Instagram has reached over 230,000 followers (Icelandair Youtube Page, 2017).

### 3.3 Overview of Scandinavian Airlines

Scandinavian Airlines (hereafter called SAS), founded in 1918 by Det Danske Luftfartselskab A/S, is the leading airline company in Scandinavia with over over 100 destinations over Europe, Asia, and the US (SAS, 2017a). As a member of the Star Alliance, SAS can provide its customers with flights to all around the world (SAS, 2017b). SAS focuses a lot on their loyal customers and offers more flights than any other Nordic Airline. SAS is an active user of social media, and is presented on different social media channels, such as Instagram, Facebook, Twitter, Google+, and YouTube. Their biggest social media channel is Facebook with almost two million followers (SAS Facebook Page, 2017). SAS’ Instagram channel has 131,000 followers (SAS Instagram Page, 2017), their Twitter account has 94,000 followers (SAS Twitter Page, 2017). Their YouTube channel has attracted just under 6,000 subscribers (SAS Youtube Page, 2017).

### 3.4 Overview of Finnair

Finnair is one of the oldest operating airline companies in the world with over 100 destinations around the world. Finnair was founded 1923 under the name Aero. Finnair is specialised in flying between Europe and Asia, due to the geographical location of Helsinki, the main hub for Finnair. Finnair flies to 17 destinations in Asia, 70 destinations in Europe, and four destinations in the US (Finnair, 2017).
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Finnair employs just under 5,000 people and has been awarded the best airline in Northern Europe seven years in a row, from 2010 to 2016 (Finnair, 2017). Finnair is using several different social media channels to connect with their customers.

Their biggest social media channel in terms of followers is Facebook with almost 500,000 followers (Finnair Facebook Page, 2017). Twitter is the second biggest channel with 76,000 followers and Instagram comes on a third place with 68,000 followers (Finnair Twitter Page, 2017; Finnair Instagram Page, 2017). Finnair’s YouTube channel has almost 13,000 followers (Finnair Youtube Page, 2017).

3.5 Overview of Norwegian

Norwegian was founded in 1993, and is the third largest low-price airline in Europe. The airline is flying to over 130 destinations in Europe, the Middle-East, North-Africa, Thailand, West-Indian, and the US. Norwegian has one of the youngest airline fleet, which is can be seen as a competitive advantage. Norwegian has been awarded a lot of awards including: The world’s best website among low-price airline 2016, The world’s best low-cost airline for long-haul flights 2016, and The best low-price airline in Europe 2016. (Norwegian, 2017)

Norwegian is present on different social media channels such as Facebook, Instagram, Twitter, and YouTube. Their Facebook page has over 800,000 likes, while their Instagram has just over 72,000 followers (Norwegian Facebook Page, 2017; Norwegian Instagram Page, 2017). Norwegian’s Twitter channel is almost as popular as their Instagram channel with just under 68,000 followers (Norwegian Twitter Page, 2017). Their YouTube channel has 3,800 followers (Norwegian Youtube Page, 2017).

3.6 Social Media Usage of the Selected Airline Companies

All the airlines that are included in this study are active on various social media sites. Facebook is by far the largest social media channel for all the airlines. SAS has the biggest Facebook page. Icelandair has the biggest Instagram channel, with over 230,000 followers, which is over 100,000 more followers than the second biggest. YouTube is not as popular as any other platforms. Finnair has the most subscribers with just under 13,000. The social media platform Google+ is only used by SAS. SAS is by far the biggest airline on all the social media platforms, except for on Instagram, where Icelandair holds the first place.
4 Objectives and Research Questions

The literature review shows that there are a lot of studies focusing on brand post popularity on social media and what kind of content that draws attention from consumers. Studies about brand post popularity has mostly been focusing on Facebook and Twitter, while studies about what kind of visual content that draws attention has mostly been focusing on printed and online advertising and not so much on social media. Earlier research about the use of animals in advertising is limited, and research about the use of animals in social media advertisement is almost non-existing, despite the fact that animals are often used in advertisement. Earlier studies show that pictures on social media have a higher engagement rate than posts consisting of only text.

The purpose of this thesis is to better understand the impact of visual content on customer engagement rate. The study is also going to measure consumer’s viewing behaviour on pictures on Instagram with different visual content.

This research consists of three different studies. The first study consists of a descriptive statistics analysis and was conducted in order to get an overview of what kind of Instagram posts that are being posted by the four different airlines today. The second study was done to get a better understanding about how engagement rate is affected by the visual and was executed by a multiple regression analysis. Multiple regression can be a good way to get an overview of a cause and effect model but can also be misleading. According to Nisbett (2015), experiments are more superior to research than multiple regression. One of the reason is that assumptions are often wrong when it comes to human behaviour, therefore this research did conduct a third study in form of an eye-tracking experiment to get a better understanding about how the viewers viewing behaviour. With the purpose in mind, three research questions have been developed:

Q1: What kind of photos are Icelandair, Finnair, SAS, and Norwegian posting today on Instagram?

Q2: What kind of posts should airline companies post on Instagram in order to achieve a better engagement rate?

Q3: How are different subjects in Instagram photos affecting viewing time?
4.1 Modified Framework for Instagram

This research is based on earlier research on the topic of brand post popularity. A modified framework by Vries et al., (2012) was used as a foundation in study two. The original framework was not used despite its popularity due to its limitations. There are several differences in the content uploaded on Instagram of Facebook and the framework used in this study has been adjusted to fit Instagram. The adjusted framework can be seen in figure 1. The different variables that may effect on engagement level are based on earlier research about brand post popularity on social media and visual content in social media posts and advertising.

![Modified framework on brand post popularity on Instagram. Original framework by de Vries et al., (2012). Journal of Interactive Marketing, 26, p. 84](image)

*Figure 1. Modified framework on brand post popularity on Instagram. Original framework by de Vries et al., (2012). Journal of Interactive Marketing, 26, p. 84*
4.2 Visual Content Affecting Engagement Rate

**Interactivity.** Different type of text attracts different amount of attention and can affect the engagement rate of a brand post. Posts that are interactive, such as asking a question are more likely to achieve more attention from consumers than posts, for example, promoting a product or service (De Vries et al., 2012). Other studies have found that posts with an inspiring and descriptive text tend to get higher engagement rates (Hansson et al., 2013; Van Noort et al., 2012; Cvijikj et al., 2011). Based on previous research it is to believe that posts with high interactive text reaches greater amount of engagement than posts with low interactivity. Hypothesis number one is as following:

*H1: Posts with engaging text will affect the engagement rate positively.*

**Colour.** There is a lot of research focusing on the impact of colours in advertisement (Panigyrakis & Kyrousi, 2015; Lee & Barnes, 1989; Schindler, 1986). There have been several different outcomes in various studies. King (2015) & Middlestadt (1990), argues that cold and blue colours are more appealing, while other studies argues that images with red colours are seen as more appealing (Bakhshi & Gilbert, 2015; Choi & Singh, 2011). Images that are shown in black and white are less likely to be liked on social media (Bakhshi & Gilbert, 2015). Studies have also shown that pictures consisting only of colours similar to each other, are more pleasant to look at (Schloss & Palmer, 2011; Sanocki & Shulman, 2011). Based on previous research the author of this thesis believes that the engagement level will be affected by the type of colour. Hypothesis number two is as following:

*H2: The engagement rate on Instagram post is affected by the colours in the picture.*
**Format.** The format of the picture is according to Häggström (2017), affecting the engagement rate. Posts consisting of a picture in portrait format is generating higher engagement rates than pictures in landscape format. According to Kastrenakes (2015), photos in portrait form attracts more engagement that square photos, and square photos engage more that photos in landscape format. Hypothesis 3 are as following:

**H3a:** Posts in portrait format is generates a higher engagement rate than posts in landscape and square format.

**H3b:** Posts in landscape format generates a higher engagement rate than square format but lower than posts in portrait format.

**Subject.** Different subjects in a picture draws different amount of attention. Earlier research show that images of people often are used in advertisement to increase consumer’s trust towards a company (Riegelsberger et al., 2002; Cyr et al., 2009). Images with a human face are according to Riegelsberger et al. (2003); Small & Verrocchio (2009); Pilarczyk & Kuniecki (2014), the best way to draw attention from consumers. Animals are often used in advertisement because humans have a special connection to animals, due to the fact that animals can be seen as family members. Based on previous research the author of this thesis believes that Instagram posts with people and animals draw higher engagement rate than pictures without people. Hypothesis 4 and 5 are as following:

**H4a:** Instagram posts with people affects the engagement rate positively, and have a longer viewing time than posts without people.

**H4b:** Instagram posts with animals, affects the engagement rate positively, have a longer viewing time than posts without animals.

**H5a:** Instagram posts with people have a longer viewing time than posts without people.

**H5b:** Instagram posts with animals have a longer viewing time than posts without animals.
5 Study One

Study one was conducted to get an overview what kind of Instagram posts Icelandair, Finnair, SAS, and Norwegian are posting on their Instagram. The difference in the engagement rate was also measured. The engagement rate on social media can be measures in different ways (De Vries et al., 2012; Peters, et al., 2013). The engagement rate for this study was calculated by adding the likes and comments in a posts and divide it by total amount of followers. Study one will also give a better understanding if the Instagram content posted by the airlines is the right content. According to Schultz & Peltier (2013) creating content is not hard by creating the right content for online customer engagement can be rather difficult. It is important to analyse the content to see if the current content is engaging the viewers. Customers that are engaged with the social media effort by a company are more likely to stay loyal to the company (Mecker et al., 2016; Singhal, 2016; Phua et al., 2016). Study one is answering research question number 1:

Q1: What kind of photos are Icelandair, Finnair, SAS, and Norwegian posting today on Instagram?

5.1 Methodology

The methodology section, will describe and give an overview of the method and process used in the study. It will describe how the study were conducted.

Data. The data for study one consist of Instagram posts from the four different airlines described in the previous chapter. A total population of 2,290 Instagram posts were collected between Feb 2016 and Feb 2017. Of the total population a sample size of 200 Instagram posts (50 per airline) where randomly selected using Microsoft Excel’s random sample function. From the total population, Instagram posts consisting of video where deleted since this study is focusing on still pictures and not moving pictures.
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**Operationalization of variables.** The operationalization of variables section, describes and give an overview of how variables were operationalized in study one.

*Interactivity Categorization:* The text variable was categorized into three levels; low, medium, and high (Table 6). Posts with only a description of the picture is considered are having low level of interactivity, while post with an inspirational, informational, or promotional text are having a medium level of interactivity. Posts with a question or an invite to tag another user are considered to have a high level of interactivity.

Table 6

*Operationalization of Interactivity Variable*

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Only a description.</td>
<td>Seljavallalaug 😊 Photo by @the_kafka ! #MyStopover</td>
</tr>
<tr>
<td>Medium</td>
<td>Inspirational, informational, or promotional text.</td>
<td>Laura just stayed the weekend in Iceland, going on a wild adventure with her Icelandair Stopover Buddy. Check out her experience at @laura_scott. Photo by @laura_scott ! #MyStopover</td>
</tr>
<tr>
<td>High</td>
<td>Question or an invite to tag another user.</td>
<td>Where in Iceland can you find this lovely church? Photo by @mountains_rocks ! #MyStopover</td>
</tr>
</tbody>
</table>
**Inter-coder Reliability Test.** A Cohen’s Kappa test was done in order to determine if there was an agreement in the judgment between the two assessors, that is the author of this thesis and a external assessor, in the category that needed a subjective valuation: *interactivity*. The assessor was given table 6 as instructions. The was an agreement between the two assessors, $k = .619$, $p < .001$. According to Viera & Garrett (2005), a value of .619 refers to a substantial agreement.

**Procedure.** The total population of 2,290 Instagram posts were collected with NEXT analytics. The data was inserted into Microsoft Excel and 200 posts were selected using Microsoft Excel’s random sample function. The 200 posts were analysed in terms of four variables: interactivity, colour, subject, and format.

### 5.2 Results

A one-way between-groups analysis of variance was conducted in order to explore if there are any statistically significant differences in the mean score of the engagement rate across the four airlines. The engagement rate ranged from 0 to 7% ($M = 2.97$, $SD = 2.233$). There was a significant difference between the airlines $F (3, 196) = 6.287$, $p < .01$. Calculating the effect size using eta squared shows that the actual difference was small ($.09$). The Tukey HSD test implies that the mean score for Icelandair ($M = 3.94$, $SD = 1.443$) was significantly different from Finnair ($M = 2.23$, $SD = .694$), and SAS ($M = 2.52$, $SD = .573$) but not from Norwegian ($M = 3.20$, $SD = 3.947$),

Of the 200 Instagram posts analyzed 24.5% had a picture of an airplane in them, making a picture of an airplane the most common. The second most common picture content consisted of a person with his/her face showing. The least common picture content was picture of food, which only were presented in 2.0% of the pictures. Table 7 shows the distribution of the different picture content used on Instagram per airline. There is a big difference in the types of subjects used in the pictures posted by the different airlines. Icelandair are mostly focusing on nature and landscape photos while Norwegian and SAS are focusing on posting pictures of airplanes and Finnair on posting pictures of people.
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Table 7

Distribution of Different Subjects in Instagram Posts Per Airline

<table>
<thead>
<tr>
<th>Airline</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norwegian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plane</td>
<td>17</td>
<td>34.0</td>
</tr>
<tr>
<td>View From Plane</td>
<td>14</td>
<td>28.0</td>
</tr>
<tr>
<td>Person No Face</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>Inside Plane</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Person With Face</td>
<td>8</td>
<td>16.0</td>
</tr>
<tr>
<td>City</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Landscape / Nature</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
<tr>
<td>Finnair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plane</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>View From Plane</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Person No Face</td>
<td>9</td>
<td>18.0</td>
</tr>
<tr>
<td>Inside Plane</td>
<td>6</td>
<td>12.0</td>
</tr>
<tr>
<td>Person With Face</td>
<td>14</td>
<td>28.0</td>
</tr>
<tr>
<td>City</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Landscape / Nature</td>
<td>4</td>
<td>8.0</td>
</tr>
<tr>
<td>Animal</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Food</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
<tr>
<td>Icelandair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plane</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>View From Plane</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Person No Face</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Inside Plane</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Person With Face</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>City</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Landscape / Nature</td>
<td>27</td>
<td>54.0</td>
</tr>
<tr>
<td>Animal</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
<tr>
<td>SAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plane</td>
<td>25</td>
<td>50.0</td>
</tr>
<tr>
<td>View From Plane</td>
<td>10</td>
<td>20.0</td>
</tr>
<tr>
<td>Person No Face</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Inside Plane</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Person With Face</td>
<td>9</td>
<td>18.0</td>
</tr>
<tr>
<td>Food</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>
CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

The most common picture format was square. Over 50% of the Instagram posts were in square format. Almost 25% of the Instagram posts had a picture in portrait format, whereas 21.5% were in landscape format.

The text below the pictures contained mostly a low level of interactivity. Table 8 gives an overview over the interactivity level of the Instagram posts posted per airline.

Table 8

<table>
<thead>
<tr>
<th>Airline</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norwegian</td>
<td>Low</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
</tr>
<tr>
<td>Finnair</td>
<td>Low</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
</tr>
<tr>
<td>Icelandair</td>
<td>Low</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
</tr>
<tr>
<td>SAS</td>
<td>Low</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>
CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

Table 9 shows that Over 20% of the pictures posted on Instagram by the airlines had a dominant color of dark gray. The second most frequent dominant colour was black followed by red-tone colours. Lighter colours were not as common as dark colours.

Table 9

*Dominant Colours in Instagram Pictures*

<table>
<thead>
<tr>
<th>Colour</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Blue</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Light Purple</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>Light Green</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Dark Purple</td>
<td>14</td>
<td>7.0</td>
</tr>
<tr>
<td>Dark Green</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Light Grey</td>
<td>18</td>
<td>9.0</td>
</tr>
<tr>
<td>Light Blue</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td>Yellow/Brown/Red</td>
<td>26</td>
<td>13.0</td>
</tr>
<tr>
<td>Black</td>
<td>28</td>
<td>14.0</td>
</tr>
<tr>
<td>Dark Grey</td>
<td>46</td>
<td>23.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
</tr>
</tbody>
</table>

5.3 Discussion

The first study was done in order to get an overview of the current situation and answer the question what kind of Instagram posts Icelandair, Finnair, SAS, and Norwegian are posting. The engagement rate was calculated as likes and comment per picture divided by the number of followers.

The average engagement rate for Finnair and SAS are similar. Icelandair has the highest engagement of the airlines. One reason for this might be that Icelandair is focusing on other types of posts compared to Finnair, SAS and Norwegian and are mostly posting pictures of landscape. Since Icelandair is having a higher engagement rate than the other companies it appears that they have a insight in what the customer wants to see Norwegian and SAS are mostly posting pictures of airplanes but there is a big difference in the engagement rate.
CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

Norwegian are writing high interactive texts while SAS are mostly posting low interactive text, which may be the reason for the lower engagement rate.

6 Study Two

A challenge today is to understand what kind of visual content in posts that are affecting the engagement rate on social media (Bakhshi & Gilbert, 2015). The second study was done in order to analyse how the engagement rate in Instagram posts is affected by the visual content. The engagement rate was calculated by adding the likes and comments in a post and divide it by total amount of followers. Posts with engaging text are in favour over more engagement (De Vries et al., 2012; Palmer & Koenig-Lewis, 2009; Hansson, Wrangmo, & Søilen, 2013; Van Noort et al., 2012). A study by Berger & Milkman shows that inspiring content affects the engagement rate positively.

A lot of studies has been done on the effect of colours in advertisement (Panigyrakis & Kyrousi, 2015; Lee & Barnes, 1989; Schindler, 1986; Aslam, 2006). Products against a blue background are usually liked more than products against a red background (Middlestadt, 1990). Choi & Singh (2011), argues that the colours of red is often considered more appealing than the the colours of blue.

The subject of the advertisement can also have an effect on the advertisement itself. Images of people are often used in advertisement to get the attention from the viewer (Riegelsberger et al., 2002; Cyr et al., 2009). But it is not only people that are being used in advertising to attract attention. Animals are being used since animals has been associated with humans for a long time (Sanders, 1990). Animals has been used in one of five commercials during the broadcasting of Super Bowl for the last decade (Horovitz, 2003a, 2003b, 2004, 2005, 2006). Study two is answering research question number 2:

Q2: What kind of posts should airline companies post on Instagram in order to achieve a better engagement rate?
6.1 Method

The methodology section, will describe and give an overview of the methods and processes used in study one.

Data. The data for study two consist of the same data as in study one, that is a sample of 200 Instagram posts from the four different airlines used in this thesis. The independent variables (visual content) in this study was: interactivity, colour, format, and subject. The four independent variables were selected on basis from earlier research and study one.

Operationalization of variables. The operationalization of variables section will describe and give an overview of how the variables were operationalized in study two. The variables were categorized based on the findings in study one.

Interactivity Categorization: The text variable was categorized into three levels; low, medium, and high (Table 6). Posts with only a description of the picture is considered are having low level of interactivity, while post with an inspirational, informational, or promotional text are having a medium level of interactivity. Posts with a question or an invite to tag another user are considered to have a high level of interactivity.

Colour Categorization: The colour variable was operationalized in to dominant colour and colour theme. The dominant colour was dived into ten colour: Light Blue, Light Green, Light Purple, Light Grey, Yellow/Brown, Dark Blue, Dark Green, Dark Purple, Dark Grey, and Black. The categorization was done with software called Color Thief (2017).

Format Categorization: The format variable was divided into three categories, based on the different formats that are allowed on Instagram: landscape, square, and portrait. Landscape photos are photos that are wider than tall while portrait photos are photos that are taller than wide. Square format photos are photos where the all the sides are the same length.
Subject Categorization: The format variable was divided into ten different categories: plane, view from plane, person with no face, inside plane, person with face, city, nature, animal, food, and other. The categories were based on what kind of subjects that are used the most by the airlines. The category *other* includes pictures that does not fit into any of the categories explained above.

**Inter-coder Reliability Test.** A Cohen’s Kappa test was done in order to determine if there was an agreement in the judgment between the two assessors, that is the author of this thesis and an external assessor, in the category that needed a subjective valuation: *interactivity*. The assessor was given table 6 as instructions. There was an agreement between the two assessors, $k = .619$, $p < .001$. According to Viera & Garrett (2005), a value of .619 refers to a substantial agreement.

**Procedure.** The study was conducted by a multiple regression analysis. Multiple regression is a technique to analyse how different independent variables are causing the variance in the change in the dependent variable. The dependent variable was customer engagement rate regarding likes and comments divided by the total number of followers. The independent variables in this study were: *interactivity*, *colour*, *format*, and *subject*. The control variable is the day of the week the post was posted.
6.2 Results

Multiple regression was calculated to predict engagement rate based on *interactivity, colour, format, and subject* of the Instagram post. The control variable for the multiple regression is the day the post was posted. A significant regression was found $F (30,169) = 3.767, p < .001$, with an adjusted $R^2$ value of 0.294. The adjusted $R^2$ values was used instead of the $R^2$ since the sample size was rather small. Table 10 presents the results regarding the visual contents affect on the engagement rate.

High interactive posts were related to a higher online customer engagement rate but the contribution was not significant. Thus, hypothesis 1 was partly supported. Instagram posts with a picture mainly consisting of light gray, dark blue, light green, dark green, or black were related to higher engagement rate, but non of the colours had a significant contribution to the engagement rate. The other colors were negatively affecting the engagement rate, but had no significant contribution either. Hence hypothesis 2 was partly supported.

Instagram posts in portrait format had a significant contribution to a higher engagement rate than Instagram posts in both landscape and square format. Instagram posts in square format were related to a higher engagement rate than both landscapes and portrait but was not significant. The findings support hypothesis 3a but not hypothesis 3b.

Instagram posts with pictures of people were related to a higher engagement rate but the contribution was not significant. Instagram posts with pictures of animals were related to a higher engagement rate and had a significant contribution. Hence hypothesis 4a was partly supported and 4b supported.
### Table 10

**Multiple Regression**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Operationalisation</th>
<th>Engagement $\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colour</strong></td>
<td>(baseline)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Light Blue</td>
<td>-.051</td>
</tr>
<tr>
<td></td>
<td>Dark Blue</td>
<td>.112</td>
</tr>
<tr>
<td></td>
<td>Light Grey</td>
<td>.159</td>
</tr>
<tr>
<td></td>
<td>Dark Gray</td>
<td>-.048</td>
</tr>
<tr>
<td></td>
<td>Light Green</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Dark Green</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td>Light Purple</td>
<td>-.068</td>
</tr>
<tr>
<td></td>
<td>Dark Purple</td>
<td>-.013</td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>.046</td>
</tr>
<tr>
<td></td>
<td>Yellow/Red/Brown</td>
<td>-.090</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>(baseline)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Landscape</td>
<td>.320</td>
</tr>
<tr>
<td></td>
<td>Portrait</td>
<td>.383*</td>
</tr>
<tr>
<td></td>
<td>Square</td>
<td>.391</td>
</tr>
<tr>
<td><strong>Subject</strong></td>
<td>(baseline)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>From Plane</td>
<td>.328</td>
</tr>
<tr>
<td></td>
<td>Inside Plane</td>
<td>.189</td>
</tr>
<tr>
<td></td>
<td>Person Face</td>
<td>.210</td>
</tr>
<tr>
<td></td>
<td>Person No Face</td>
<td>.290</td>
</tr>
<tr>
<td></td>
<td>City</td>
<td>.177</td>
</tr>
<tr>
<td></td>
<td>Landscape/Nature</td>
<td>.472</td>
</tr>
<tr>
<td></td>
<td>Animal</td>
<td>.478*</td>
</tr>
<tr>
<td><strong>Interactivity</strong></td>
<td>(baseline)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>.027</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>.092</td>
</tr>
<tr>
<td><strong>Control Variable</strong></td>
<td>(baseline)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Monday</td>
<td>.207</td>
</tr>
<tr>
<td><strong>Day of Week</strong></td>
<td>Tuesday</td>
<td>.004*</td>
</tr>
<tr>
<td></td>
<td>Wednesday</td>
<td>.105</td>
</tr>
<tr>
<td></td>
<td>Thursday</td>
<td>.014*</td>
</tr>
<tr>
<td></td>
<td>Saturday</td>
<td>.068</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>-.021</td>
</tr>
</tbody>
</table>

*P-Values <.05
6.3 Discussion

The second study was conducted to see what effect the visual content in an Instagram post has on the engagement rate. The text underneath the picture did have a modest positive effect on the engagement rate. The findings show that posts with high interactive text, for example questions tend to have a higher engagement rate than post with a low interactive text. The findings are in line with earlier research about social media posts and the effect of interactivity (De Vries et al., 2012, Palmer & Koenig-Lewis, 2009; Hansson, Wrangmo, & Soilen, 2013; Van Noort et al., 2012).

Study two shows that colours in the picture is affecting the engagement rate. According to Panigyrakis & Kyrouri (2015); Lee & Barnes (1989); Schindler (1986) colours can have a great impact on how people experience an advertisement. Middelstadt (1990) argues that products against a blue background, are found more appealing while Lothia et al. (2003) argues that vivid colours will increase the click-through rated on an online advertisement. Bakshi & Gilbert (2015) findings agrees with Lothia et al’s (2003) findings and argues that pictures with a red dominant colour are more likely to get shared. Vivid colours such as red and yellow are not in favour of a higher engagement rate and are therefore contradicting Bakshi & Gilbert’s (2015) and Lothia et al’s (2003) findings. This study shows that pictures with a dominant colour of dark blue and dark grey are more likely to get a higher engagement rate than pictures with other colours. The engagement rate is affected negatively with yellow, red, brown, dark gray, and light blue. The findings in this study are in line with Middelstadt’s (1990) findings.

The format of the picture did also have an effect of the engagement rate. Pictures posted in portrait format or square are according to the findings in this study in favour over higher engagement rates than posts in landscape format. According to Häggström (2017) and Alan in Kastremales (2015), the format of a post affects the engagement rate. Posts of a picture in portrait format are generating higher engagement rates than pictures in landscape format (Häggström, 2017). According to Kastrenakes (2015), photos in portrait form attracts higher engagement that pictures in square format. The results in study two are in line with Häggström’s (2017) opinion, pictures in portrait format seem to attract more engagement that pictures in square format and is the only format that has a significant contribution to the engagement rate.

The subject in a photo had impact on the online customer engagement rate. Pictures consisting of landscapes/nature and animals were affecting the engagement
rates the most. Of all subjects, animals were the only one that had a significant contribution. A reason for this may be that we as humans often fell connected to animals and might there for be liked more.

Pictures of people did not have as much effect on the engagement rate as anticipated. According to earlier research people have often been used in advertisement to catch the attention of the viewer (Riegelsberger et al., 2002; Cyr et al., 2009). According to Bakhshi et al. (2014), images with faces are 38% more likely to receive a like than an images without faces.
7 Study Three

Multiple regression is a good way to get an overview of a cause and effect model but can sometimes be misleading. According to Nisbett (2015), experiments are more superior to research than multiple regression. One of the reasons are that assumptions are often wrong when it comes to human behaviour. Therefore, this research conducted a third study in form of an eye-tracking experiment. The purpose of this experiment was to investigate if the subject in the picture had an effect on the viewer since study two concluded that pictures with animals, landscapes, people and planes were in favour of a higher engagement rate. Earlier studies show that people and animals often are used in order to attract the attention of the viewer (Riegelsberger et al., 2003; Cyr et al., 2009; Cerchia, 1990; Sanders, 1990). Study three is going to answer research question three:

Q3: How are different subjects in Instagram photos affecting viewing time?

7.1 Method

The methodology section will describe and give an overview of the methods and processes used in study three. It will describe how the study was conducted.

Participants. Participants in the third study included students at Westerdals University in Oslo, Norway. Participants included 15 males and 5 females between the ages of 19 and 31 ($M = 24.90$, $SD = 2.634$). Eight participants checked their Instagram 1-5 times per day, five participants checked their Instagram 6-11 times, and five participants checked their Instagram 11-15 times. Two of the participants checked their Instagram more than 15 times per day. The most common time spent on Instagram per day was under 30 minutes. Participants were offered monetary incentives in order to attract more participants. The monetary incentive was 50NOK.

Apparatus & Materials. The equipment used in study three was an eye tracking device and a survey. The eye-tracking experiment was done with Tobii Eye Trackers and Tobii Studio. The Tobii Studio is a powerful and easy to use software to analyse eye-tracking data (Tobii Studio, 2008). According to Tobii Studio (2008), the Tobii Eye Trackers and Tobii Studio is suitable for different psychological experiments as well as evaluating user experience when looking at for example websites. A survey was handed out before the experiment (appendix C).
**Procedure.** The data was collected during two days at Westerdals University in Oslo, Norway. One dependent variable: *Total fixation length*, were used to predict the viewing behaviour per Instagram post. One independent variable: *subject*, was used to predict the change in viewing time per Instagram post. The participants were first asked to fill out a survey about their Instagram use. After the survey the participants were asked to look at the middle of the computer screen in front of them. Before starting the experiment, the camera was calibrated accordingly to each participant in order minimize errors. When the calibration was done the participants were asked to read the instructions shown on the screen and begin the test (appendix D). The participants were shown 64 pictures. The pictures were selected on the basis of the results in study 1 and 2, and were divided as followed: 16 pictures with animals, 16 pictures of animals, 8 pictures of people, 8 pictures without people, 8 pictures of planes, 8 pictures of the view of the airplane. The pictures of animals and without animals were exactly the same except for the subject. The pictures of a person/people and without a person/people were exactly the same except for the subject. Example pictures can be seen in appendix E.
CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

7.2 Results

**T-Tests.** A paired sample t-test was conducted in order to compare viewing times between: pictures with animals and without animals, pictures with people and pictures without people, pictures with animals and pictures without animals, pictures of the view from an airplane and pictures with animals, and pictures of the view from an airplane and pictures with people. Table 11 presents the results.

Table 11

_Differences in Mean Viewing Times Per Picture Category_ | Mean | N  | Std. Deviation | t   | df  | Sig. (2-tailed) |
---|---|---|---|---|---|---|
Pair 1 | Picture With Animal | 3.531 | 320 | .241 | .156 | 319 | .876 |
| Picture Without Animal | 3.529 | 320 | .242 | | | |
Pair 2 | Picture With Person | 3.528 | 160 | .255 | 102.7 | 159 | .000 |
| Picture Without Person | 1.774 | 160 | .142 | | | |
Pair 3 | Picture With Animal | 3.546 | 160 | .245 | .960 | 159 | .338 |
| Picture With Person | 3.528 | 160 | .255 | | | |
Pair 4 | View From Plane | 3.525 | 160 | .274 | -.997 | 159 | .330 |
| Picture With Animal | 3.546 | 160 | .245 | | | |
Pair 5 | View From Plane | 3.525 | 160 | .274 | -.141 | 159 | .888 |
| Picture With Person | 3.528 | 160 | .255 | | | |

The were no significant difference the viewing time between pictures with animals and pictures without animals. When comparing where the participants looked at, the heat map showed that the animal took up almost all of the attention. When showing the exact same image but without the animals the participants viewing pattern was different but the viewing time was similar (picture 1). Thus hypothesis 5a is not supported.

There was a significant difference between pictures with people and pictures without people, meaning that hypothesis 5b is supported. Observing the viewing pattern between pictures with people and pictures without people showed similar results as with pictures with animals and pictures without animals (picture 1).
CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT

The were no significant difference in viewing times between pictures with animals and pictures with people. The paired sample t-test did also show that there was no significant difference between pictures of the view from plane and picture with animals, and pictures of the view from plane and pictures with people.

Picture 1

Heat Maps Showing What the Participants Looked at. Animals Vs. No Animals and Person Vs No Person
An independent-samples t-test was conducted in order to compare viewing time of different pictures with gender. Table 12 represents the results.

Table 12

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture With Animal</td>
<td>1</td>
<td>240</td>
<td>3.539</td>
<td>.238</td>
<td>1.028</td>
<td>.609</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>80</td>
<td>3.507</td>
<td>.250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture Without Animal</td>
<td>1</td>
<td>240</td>
<td>3.533</td>
<td>.236</td>
<td>.498</td>
<td>.329</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>80</td>
<td>3.517</td>
<td>.262</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture With Person</td>
<td>1</td>
<td>120</td>
<td>3.534</td>
<td>.246</td>
<td>.505</td>
<td>.349</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>40</td>
<td>3.511</td>
<td>.283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture Without Person</td>
<td>1</td>
<td>120</td>
<td>1.778</td>
<td>.145</td>
<td>.658</td>
<td>.940</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>40</td>
<td>1.761</td>
<td>.133</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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There was no significant difference in the viewing time of any of the pictures for male and female. Table 13 presents the results from a paired sample t-test comparing viewing time between animals.

Table 13

*Viewing Time Per Animal*

<table>
<thead>
<tr>
<th>Pair</th>
<th>Picture With Puffin</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Picture With Puffin</td>
<td>3.507</td>
<td>80</td>
<td>.239</td>
<td>-.417</td>
<td>79</td>
<td>.678</td>
</tr>
<tr>
<td></td>
<td>Picture With Horse</td>
<td>3.518</td>
<td>80</td>
<td>.232</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 2</td>
<td>Picture With Puffin</td>
<td>3.507</td>
<td>80</td>
<td>.239</td>
<td>-2.85</td>
<td>79</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Picture With Whale</td>
<td>3.583</td>
<td>80</td>
<td>.244</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 3</td>
<td>Picture With Puffin</td>
<td>3.507</td>
<td>80</td>
<td>.239</td>
<td>-.266</td>
<td>79</td>
<td>.791</td>
</tr>
<tr>
<td></td>
<td>Picture With Sheep</td>
<td>3.515</td>
<td>80</td>
<td>.247</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 4</td>
<td>Picture With Horse</td>
<td>3.518</td>
<td>80</td>
<td>.232</td>
<td>-2.60</td>
<td>79</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td>Picture With Whale</td>
<td>3.583</td>
<td>80</td>
<td>.244</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 5</td>
<td>Picture With Horse</td>
<td>3.518</td>
<td>80</td>
<td>.232</td>
<td>.102</td>
<td>79</td>
<td>.919</td>
</tr>
<tr>
<td></td>
<td>Picture With Sheep</td>
<td>3.515</td>
<td>80</td>
<td>.247</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 6</td>
<td>Picture With Whale</td>
<td>3.583</td>
<td>80</td>
<td>.244</td>
<td>2.71</td>
<td>79</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>Picture With Sheep</td>
<td>3.515</td>
<td>80</td>
<td>.247</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The was no significant difference in viewing times between pictures of puffins and pictures of horses, pictures of puffins and pictures of sheep, or between pictures of horses and pictures of sheep. There was a significant difference in viewing times between pictures of puffin and pictures of whales, pictures of horses and pictures of whales, and between pictures of whales and pictures of sheep.
7.3 Discussion

Study three was conducted as an eye-tracking experiment since experiments are more superior to research than only statistical analysis such as multiple regression (Nisbett, 2015). The purpose of the eye-tracking experiment was to investigate if the subject in the picture had an effect on the viewing time. Study two concludes that pictures with animals, landscapes, people and planes were in favour of a higher engagement rate and earlier studies show that people and animals are often used in order to attract the attention of the viewer (Riegelsberger et al., 2003; Cyr et al., 2009; Cerchia, 1990; Sanders, 1990).

The findings in this study shows that there is no significant difference in viewing time between photos with animals and photos without animals. Photos without animals can be seen as landscape photos. The reason for this might be that the participants were looking for something in the picture. Heat map in picture 1 show that the participants viewing behaviour was different from when they were shown photos with animals and photos without animals. When the participants were shown photos with an animal the participant mostly focused on the animal. In the photos with animals the animal took up a large area of the picture. This study show that animals are not affecting the viewing time as anticipated despite the fact that animals had a significant affect on the engagement rate.

There was significant difference in viewing time between photos with people and photos with no people. The heat maps show that when the participants were shown photos with people they tended to look at the people. When participants were shown photos without people they tended to spread their gaze over the picture (picture 1). Studies by Cyr et al. (2009), Riegelsberger et al. (2003), Small & Verrochi (2009), and Pilarczyk & Kuniecki (2014) show that pictures with people are affecting the viewer in different ways and are used to attract the viewer. This study shows that photos with people are having a significant longer viewing time than pictures without people.

There was no significant difference in viewing times between photos of animals and photos of people, between photos of the view from the plane and photos with animals, or between photos of the view from plane and photos with people. When comparing viewing time to gender this study concludes that there was no significant difference in viewing times between gender.
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When comparing different animals there was a significant difference between whales and puffins, whales and horses, and between whales and sheep. Photos with whales got a longer viewing time than all the other animals.

8 General Discussion

The tourism industry is one of the most competitive industries (Jashi, 2013) and it is heavily relied on electronic word of mouth (Xiang & Gretzel, 2010), which makes it important for companies to post engaging content on social. Social media is an ideal place to inspire customers but companies must understand what kind of content to upload (Schultz & Peltier, 2013). Earlier research shows that the online customer engagement rate is affected by the type of content in a post (Palmer & Koenig-Lewis, 2009; Hansson, Wrangmo, & Soilen, 2013; Van Noort et al., 2012; De Vries et al., 2012; Peters, et al., 2013; Cvijikj et al., 2011; Chauhan & Pillai, 2013; Sabate et al., 2014; Luarn et al., 2015; Van der Heide et al., 2012). Creating a well maintained social media strategy is important since it can have a positive effect on customer relationship (Maecker et al., 2016; Elena, 2016; Gamboa & Goncales, 2014). Engaged customers are often loyal customers which can lead to increased sales and reduce customer turnover (Mecker et al., 2016; Singhal, 2016; Phua et al., 2016). Social media is an ideal place to inspire customers but in order to get the most out of all the advantages of social media companies have to understand the importance of posting the right content.

This thesis offer two contributions. First, it provides insight in how visual content on Instagram posts affects the engagement rate and viewing time. Second it gives a foundation on how similar studies should be conducted in the future, which will be discussed under “Limitations and Further research. The findings in this thesis show that the visual content in Instagram posts can have an impact on engagement rate per Instagram post.

The results show that Instagram pictures including animals are in favour of more engagement than pictures of airplanes, view from the airplane, people, landscapes, or food. The reason for this might be that humans have a strong connection with animals (Sanders, 1990; Morgado, 1993; Hoolbrook, 1996b; Hoolbrook, 1997a; Hoolbrook, 2001). Animals are a part of our daily life, and in the US alone, animals can be found in 69 million homes. (The American Pet Products Manufacturers Association, 2006). Animals play an important role in our daily life and are can be seen as our our friends (Holbrook, 1996b & 1997a). Instagram posts consisting of pictures with people does not
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affect the engagement rate as much as pictures with animals. In fact, Instagram posts consisting of pictures with people did not have significant effect on the engagement rate. The only other variable that had a significant effect on the engagement was the format of the photo. A photo in portrait format (higher than wide) had a positive impact on engagement rate. The findings in this thesis are in line with Häggstöm’s (2017) and Kastrenakes (2015) findings that portrait photos are more liked than photos in landscape or square format.

The dominant colour in a picture did have a minor effect on the engagement rate. Instagram posts with a picture mainly consisting of light gray, dark blue, light green, dark green, or black were related to higher engagement rate but none of the colours had a significant contribution. Colours of red, yellow, and brown had a negative effect on the engagement rate but again, a non-significant contribution. The results in this thesis are in line with Middlestadt’s (1990) findings that products against a blue background are more liked than products against a red background. According to King (2015), pictures on Instagram that have a blue tone are engaging more and the findings in this thesis support King’s (2015) arguments. Choi & Singh (2011) and Bakhshi & Gilbert (2015) argue that pictures that have a red tone are in favour over pictures in blue and cold tone, which the findings in this thesis do not support.

Different visual content may affect the engagement rate but not so much the viewing time of a post. Study three in this thesis show that participants viewing times on different Instagram posts did not change as much as anticipated. The only significant difference was when participants were shown picture of people and without people. Earlier research show that pictures with people are affecting the viewer in different ways and are used to attract the viewer (Cyr et al., 2009; Riegelsberger et al., 2002; Small & Verrochi, 2009; Pilarczyk & Kuniecki, 2014). The findings in this thesis support the earlier studies.

Study two in this thesis show that pictures with animals had a significant contribution on the engagement rate. Despite this, pictures of animals did not have a significant effect on the viewing time. The reasons for this are unclear. One reason may be that the participants were looking for something in the photos without animals. In pictures with animals the animal took up a large space of the picture, but in the pictures with people the subject had a rather small share of the picture.
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The airlines in this thesis are mostly posting pictures of planes and the second most subject is landscape or people. Study two showed that photos of animals had a significant positive contribution on the engagement rate but photos of animals were only present in 4% of the posts. The subjects used in Instagram posts varied a lot depending on the airline. Norwegian and SAS are mostly posting photos of airplanes while Finnair are focusing on photos with people. Icelandair are mostly posting photos of landscapes and animals. Icelandair has the highest engagement rate of all the airlines, which means that the photos are engaging the viewer. The average engagement rate for Icelandair was 3.94%, for Norwegian 3.20%, for SAS 2.52%, and for Finnair 2.23% while the average engagement rate on Instagram is 4.21% (Elliot, 2015). The findings in this thesis show that there is not a significant difference between the engagement rate of Icelandair and Norwegian despite the fact that they are posting totally different pictures. A reason for this might be that while Icelandair are posting photos that are in favour of a higher engagement rate, Norwegian is focused on high interactive text below their photos. This makes it clear that it is only the type of photos that affects the engagement rate but the also the text. In order to get a higher engagement on Instagram rate, companies have to focus on both the photo as well as the text.

8.1 Conclusions

This thesis gives valuable information on what Instagram post airlines should post to achieve a higher engagement level. Knowing what kind of content to post is important since engaged customer often are loyal customers (Mecker et al., 2016; Singhal, 2016; Phua et al., 2016). A well maintained social media strategy is important for companies since it can affect the relationship with the customer (Maecker et al., 2016; Elena, 2016; Gamboa & Goncales, 2014). This research does also contribute to the social media literature in two ways. First, there is a big gap in the social media research sphere as it is today since most research about online customer engagement has been focusing on Facebook and Twitter, and not Instagram. Second, most of the earlier research has been focusing on statically methods, while this thesis takes it one step further and adds an experimental element to the research.
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For airlines, this study recommends posting the following types of posts in order to achieve high customer engagement:

- Photos of landscapes, animals and people in portrait format.
- Posts with a high level of interactivity in the text below.
- Posts with a blue tone to them.

Combining all of the recommendation should, according to this thesis, give the highest possible engagement rate

8.2 Limitations and Further Research

There are several limitations in this study. First, the study does not take into account the external environment as a variable that could affect the engagement rate. Icelandair’s high engagement rate could be affected of the popularity of Iceland as a tourist destination.

Second, the eye-tracking results can be misleading. The participants might have been searching for something when they were shown pictures without an animal, thus there was no significant difference in the viewing time between pictures with animals and without animals.

Further research about customer engagement should focus more on Instagram since it is one of the most popular social media channels. Studies about customer engagement on social media should also take into account the external environment. Further research should also be focusing on experimental studies such as eye-tracking, since it is more superior to research than statistical research.
References


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SAS Twitter Page. (2017). SAS. Retrieved from https://twitter.com/SAS?ref_src=twsrc%5Egoogle%7Ctwcamp%5EsERP%7Ctwgr%5Eauthor


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Appendix A – How to Like and Comment On Instagram
Appendix B – Reposting Apps from Google Play Store
Appendix C – Survey for Participants in Eye-Tracking Experiment

Instagram

The purpose of this study is to give us a better understanding about consumer’s Instagram usage. This study is being conducted by Reykjavik University with the help of Westerdals University. The results of this study is going to be used in a Master’s Thesis about Instagram Marketing. Your response will be anonymous and will never be linked to you personally. Please write down your participant number below. If you have any questions, do not hesitate to ask the supervisor.

Participant Number:

1. Gender?
   - Female
   - Male
   - Other

2. How old are you?
   - Under 20 years old
   - 21 – 26 years old
   - 27 – 32 years old
   - 33 - 38 years old
   - Over 39 years old

3. On average, how much time do you spend on Instagram per day?
   - Under 30 minutes
   - Between 30 minutes and one hour
   - Between an hour and two hours
   - Over two hours

4. On average, how many times do you check Instagram per day?
   - 1 – 5 times
   - 6 – 10 times
   - 11 – 15 times
   - 16 – 20 times
   - Over 20 times
5. **What are your three main reasons for being on Instagram?**
   - To follow friends
   - Being inspires by other
   - To inspire others
   - Follow celebrities
   - Follow companies/brands
   - Searching for information
   - Other

6. **Do you follow companies / brands on Instagram?** (If you don’t follow, please continue to question 10)
   - Yes
   - No

7. **What kind of companies/brands do you follow on Instagram?**
   - Airline companies (e.g. American Airlines, Norwegian, etc.)
   - Food Brands (e.g. Coca-Cola)
   - Clothing Brands (e.g. Nike, H&M, etc.)
   - Sport Brands (e.g. Nike, Adidas, etc.)
   - Celebrities (e.g. Kim Kardashian)
   - Athletes (e.g. Roger Federer, Usain Bolt, etc.)
   - Inspirational Figures/Persons
   - NGOs (e.g. Unicef, UN, etc.)
   - Other

8. **Why do you follow companies on Instagram?** (Please write why you follow companies on Instagram)

   __________________________________________

   __________________________________________

   __________________________________________
9. Have you ever liked, commented, or tagged a friend in the comment section, in an Instagram post by a company?
   - Yes
   - No

10. Have you ever searched for something on Instagram? (For example, inspiration about cooking)
   - Yes
   - No

11. How often do you travel abroad?
   - Less than once a year
   - More than once a year

12. When going abroad, do you use Instagram to look up the destination?
   - No, never
   - Yes, sometimes
   - Yes, every time

13. Do you have any additional comments about your use of Instagram?
Appendix D – Example of Picture Used in The Eye-Tracking Experiment
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CUSTOMER ENGAGEMENT ON INSTAGRAM: THE EFFECT OF VISUAL CONTENT
Appendix E – Instructions for Participants Before Taking the Eye-Tracking Experiment

Instructions for the participant

Thank you for taking part in this study. The purpose of this study is to get a better understanding about consumer’s attention, behavior, and attitudes while using Instagram. The study is strictly confidential, and we do not collect any personal information such as your name or email address. You will soon be showed a set of images. Please look at the pictures as you would do when scrolling your feed on Instagram. You can click to the next picture whenever you feel like it. There is no time limit. If you have any questions, please ask the supervisor now.

Thank you for your cooperation!