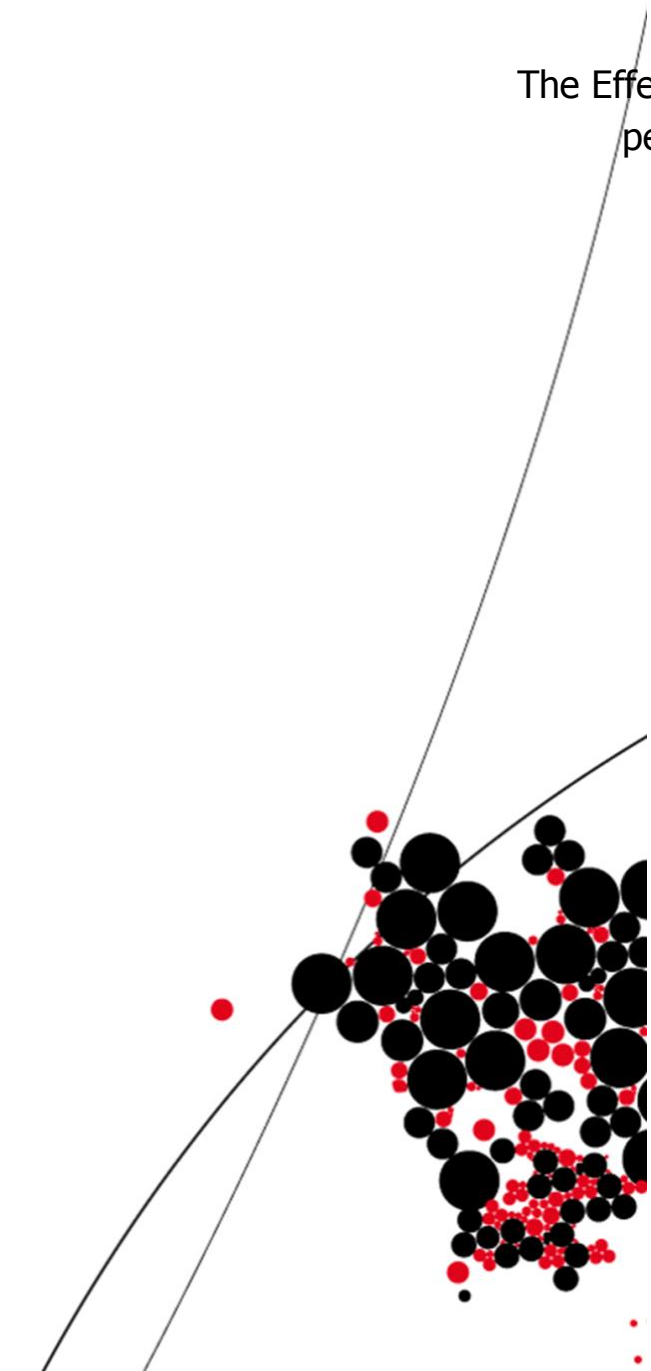# Influence on Facebook

The Effects of Cialdini´s Principles of Persuasion and persuasive Sources on Purchase Intention and Persuasiveness on Facebook

Laura Tölken
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Influence on Facebook

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ABSTRACT

The principles of persuasion (Cialdini, 2001) were adapted from the corporate communication into the marketing domain years ago. They are a common and widely used marketing-tool to make consumers comply with purchase-requests in the offline environment. Therefore, it was logical to adapt these principles into the field of social media. Consequently, this research deals with the adaption of the principles of persuasion into the online-environment of Facebook and tests their effectiveness in influencing on purchase intention and persuasiveness. In addition to the principles of persuasion, sources that are present in social media and could make use of the principles are researched as well. The focus in this research lies on five of the seven persuasive principles and on three different persuasive sources which influence users on social media. The principles in this research are reciprocity, commitment and consistency, social proof, authority, and scarcity; the persuasive sources are a brand page and an ordinary user, and, as a combination of both, a user sharing a former posted post by a brand site.

To investigate whether the combination of the principles and sources differ in effectiveness, a 5x3 in between-subjects experimental research design was constructed. In an online survey, 446 responses from mainly German and Dutch Facebook-users were collected. It became clear that no significant difference between the principles or the sources was detectable. As a consequence, no principle/source-combination is superior compared to other combinations and can therefore be recommended.

To conclude, no significant principle, source, or combination of both is more effective than another in influence on purchase intention and persuasiveness. Therefore, it is recommended to further research within this area to fully understand how each principle works in social media and what advantages and disadvantages the online adaption of these bring. For marketers, it is recommended to adapt the principles of persuasion in the future and to adjust them for the purpose of advertising a certain product needs. The same applies for the sources. It is recommended to further use all sources in social media for advertising, because no difference in effectiveness was detected.

Keywords: principles of persuasion, Facebook, social media, social media marketing, purchase intention, persuasiveness

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1. INTRODUCTION

Social Network Sites (SNSs) such as Facebook, Twitter and Instagram are used by millions of people nowadays (Kaplan & Haenlein, 2010). Kaplan and Haenlein (2010) describe SNS as "applications that enable users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other" (p. 63). SNSs have become crucial parts of our daily lives (Kaplan & Haenlein, 2010).

The original intention of SNSs was to connect single users with each other in a digital world. But by now the situation has changed profoundly and SNSs are full of organisations and companies that want to gain attention of consumers. This leads to a competition of the content, because every organisation or company wants to have the attention of the users (Romero, Galuba, Asur & Huberman, 2011). As a consequence, SNSs changed to a "24/7 collaborative world" (Hanna, Rohm & Crittenden, 2011) where users not only are connected to each other, but are constantly confronted with content with a marketing background (Mangold & Faulds, 2009). SNSs still behold their original purpose of connecting people, but further have developed to a place of influence that changed the way marketers operate (Hanna, Rohm & Crittenden, 2011). Thus, SNSs are more than just platforms where people can connect with each other, like it was the case some years ago; people are currently confronted with all kinds of advertisements and marketing techniques from companies.

But the connection between single users is still relevant. Agnihotri, Dingus, Hu, and Krush (2016) state that in times of social media, information gathering is easier than ever before, because SNSs are full of opinions, beliefs, and experiences of other users. This includes, among other things, information about companies. With SNSs, people can share their experiences and are able to talk about advantages and disadvantages of their experiences with certain companies and organisations. By doing so, they can both promote and harm the reputation of them.

Hence, SNSs are not only a platform for single users to connect and share experience, but in addition, companies try to reach the users as well and engage in communication with them. The involvement of these companies in social media leads to influence, as well as the involvement of other users does (Hanna, Rohm & Crittenden, 2011; Romero, Galuba, Asur & Huberman, 2011.) As a consequence, users influence each other and are influenced through organisations that settled down in SNSs (Hanna, Rohm & Crittenden, 2011). Thus, users are constantly influenced through two different stake holders on social media, namely other users and organizations.

In times of traditional advertising, companies used the persuasive principles of Cialdini (2001) to influence consumers (Guadagno & Cialdini, 2005; Guadagno, Muscanell, Rice & Roberts, 2013). These principles encompass reciprocity, commitment and consistency, social proof, authority, and scarcity, which are included in this research. Further, the principle of liking and the most recent formulated principle, the principle of unity (Cialdini, 2016), are persuasive principles as well, but are

not the focus of attention in this research. The chosen principles are presented in the following paragraph.

The principle of reciprocity deals with the simple rule of "this for that"; in online marketing, good and reliable content is provided, for the purpose that users are willing to share personal information in return. Whereas, the principle of commitment and consistency deals with the rule that people stick to what they have begun. Online marketing makes use of this, for instance when a website first asks just for the name of the user, but later wants more personal information, the users are often willing to answer these personal questions, because they want to finish what they have started earlier. The third principle, the principle of social proof, deals with the assertion that people turn to others when they are not sure how to behave. Online shops often make use of this uncertainty; when looking at a particular product, other products are shown that other customers, who are interested in the viewed product as well, have brought. The principle of authority deals with the rule that people look at authority figures when they are uncertain, thus online marketing is using this phenomenon as well. Authority figures are placed on information websites about particular content to validate that the content is true and reliable (Physioc, 2013). The last principle that is researched in this study is the principle of scarcity. This principle simply says that products that are scarce are cherished more through customers. In online marketing, deadline techniques are used to display that certain products are, for instance, only available for a short period of time (Fennis & Stroebe, 2015).

Because these principles are widely used in advertising and marketing, it is a logical consequence that they found their way to social media. Therefore, the principles of Cialdini (2001) are one cornerstone of this research. The crux is to get to know, how influence in social media happens when the principles of persuasion are involved and whether there are any differences. The aim of this study is to gain more insights in the success of influence techniques from interpersonal and organisational background. In this research the principles are combined with three different persuasive sources, in particular a fictive brand, an ordinary user who shares a brand post, and an ordinary user who creates a post. Therefore, this research deals with a 5x3 in between-subjects experimental research design.

In general, online influence is not sufficiently researched by now, so it is of great importance to shed more light on the mechanisms and principles, which are used in social media and might influence the average users. In this research, the online influence is researched as "persuasiveness" and "purchase intention", which are expected to be dependent from the principles of persuasion and the sources. For this purpose, the following research question is formulated:

RQ: How do Cialdini´s persuasive techniques and the persuasive sources affect the effects of product information?

2. THEORETICAL FRAMEWORK

According to Mangold and Faulds (2009), internet-based messages became a major factor in influencing consumer behaviour. They argue that social media have the power to influence the customer`s "awareness, information acquisition, opinions, attitudes, purchase behaviour, and post-purchase communication and evaluation." (p. 358). Therefore, it is crucial to have a look on the existing literature about online influence, more precisely, the influence that takes place on social media directly, thus, a user´s current confrontation with a certain post and the immediate influence that is evoked by that.

In order to evaluate this, the following sections first give a literature review of different forms of influence on social media. Then, the persuasive principles, which are a crucial part of advertising in general and one of the cornerstones of this research, are laid out and examples are shown. Further, the stakeholders on social media which are chosen to research in this study are presented. Lastly, the combination of the principles of persuasion and the stakeholders are explained.

2.1 INFLUENCE IN SOCIAL MEDIA

Even though the emergence of SNSs was already more than a decade ago, there are just a few studies which try to explain how influence on SNSs works and how people perceive this persuasion. Hanna, Rohm, and Crittenden (2011) state that the online behaviour has shifted from the traditional web 1.0 model to the interactive web 2.0 that allows sharing content and influencing each other. Thus, the influence that comes from organisations via advertising has changed in the way it is displayed to the users: The messages in web 1.0 were designed to reach people, but the web 2.0 allows them to participate. Therefore, the manner in which influence is conveyed from the sender is different than before, because they want people to engage (Hanna, Rohm & Crittenden, 2011). In addition, Heinrichs, Lim, and Lim (2011) and Denegri-Knott (2006) state that a power shift has emerged on SNSs between the consumers and the companies, who once were the ones who exclusively created messages, because by now, the consumers are able to send messages as well.

Furthermore, Cox (2010) focuses on the attitude users have towards certain advertisements in SNSs. She argues that advertisements on SNSs are not all equal in the judgement of the users. Leader board, blogs, video, brand page, and brand channel formats are perceived to have the most positive attributes, while pop-ups, expendable and floating ads are seen as most negative. This article deals with advertising on social media, but does not explain to what extent posts have an impact on users and if there are differences between different posts as well as the other attributes of social media are different in attribution. Even though this research is an indicator for influence on social media, it does not take into account whether the posts are persuasive.

The literature review shows that much research is done in the field of social media, but that just a few articles focus on types of posts in SNSs. For example, De Vries, Gensler, and Leeflang (2012)

conducted a research to show differences in perception when a brand post is positioned on a brand fan page on different places. They argue that different drivers enhance influence, for example, vividness or interactivity. But they conducted their research on a closed fan site, therefore, it can be assumed that all fans of this fan site have a positive attitude towards that brand. The same goes for the research of Rauschnabel, Praxmarer, and Ivens (2012). They conducted a study into features of posts on Facebook and whether the "likes" on the posts differ from other posts that are different in the size, the amount of text, the number of media elements, and in invitation to respond to the post. Here, a sort of influence, which is evoked through post-characteristics, is indeed measured, but these posts also occur on a brand fan-page and not in the open timeline. Thus, even though this research takes into account to what extent influence differs when post-attributes differ as well, the environment of a closed brand fan-page only allows to measure the attitude of users who might be positive towards the eyed brand. The influence which is measured here and in the research of De Vries, Gensler, and Leeflang (2012) differs from the form of influence which can occur in the open areas of SNSs, because the attitude on a closed fan site might differ from open timelines. This shows again that it is crucial to have a closer look on posts that can occur in everybody`s timeline and the effect which can come with these, because these posts affect users with different attitudes towards a certain brand.

Cheng and Zhou (2010) conducted a study that deals as well with posts and their impact on SNSs. They argue that electronic Word-of-Mouth (e-WOM) is one important source for consumer´s purchase decision. Furthermore, they state that there are three factors that influence the effectiveness of e-WOM, namely information source, the receiver, and the relationship between these. Therefore, it can be concluded that posts in SNSs, which are a form of e-WOM, are influenceable and can differ in their degree of influence when these determinants change. This implies that one message that is send from two different information sources to the same receiver might evoke different effects. In addition, Erkan and Evans (2016) found that other factors of e-WOM are influential as well. According to them, quality, credibility, usefulness and adoption of information, needs of information, and attitude towards information are the factors of e-WOM that influence users purchase intention. This underlines again that e-WOM is able to influence others. But these two studies deal with all different kinds of e-WOM and do not focus on posts exclusively; therefore, it is crucial to research influence that is evoked by posts and to discover if there are differences in that influence when the source changes, but the content of a post stays the same.

In addition, Van Noort, Antheunis, and Van Reijmersdal (2012) state that "SNSs campaigns are able to influence attitudes, behavioural intentions, and behaviour" (p. 41). Therefore, persuasion indeed takes place in SNSs like Facebook, but it depends on several factors if it is successful. One of these factors is the tie strength between the sender and the receiver of a message, or in other words the persuader and the persuadee. This is congruent with the influenceable factors of Cheng and Zhou (2010) and Erkan and Evans (2016). Strong ties are perceived as more credible (Brown, Broderick &

Lee, 2007) and have therefore the greater ability to persuade (Pornpitakpan, 2004), because people do not perceive these strong-tied relationships as persuading at all. Thus, a message from a source that is perceived as highly credible is perceived as less persuasive (Brown, Broderick & Lee, 2007; Pornpitakpan, 2004). Therefore, a marketing message which is received via a friend by sharing the actual message or by writing about the message may be perceived as more credible than a message which comes directly from an organisational source. That shows the importance of researching about the different sender-receiver-relationships and their effects on influence.

As shown above, the variety of articles, which deal with social media do focus on influence and postings, but they do not try to explain if influence within social media is greater when the source of a post is different from one another. Hence, it is crucial to have a look on how a message is perceived when it comes from different sources and to what extent it influences the receiver. In addition, the manner in which a persuasive message is created and written needs to be considered as well. For this purpose, it is chosen to focus on the principles of persuasion by Cialdini (2001), because these deal with worded persuasion in offline advertising.

2.2   CIALDINI`S SEVEN PRINCIPLES OF PERSUASION

To research as precise as possible in how far influence in SNSs takes place and what differences can occur there, Cialdini`s principles of persuasion (2001) are used. These principles tend at simple heuristics "consumers may use as a rule of thumb in a given influence setting." (Fennis & Stroebe, 2015, p.323). Moreover, the principles are applied by marketers to make the consumer agree in a compliance situation (Fennis & Stroebe, 2015). Cialdini (2009) explains that these techniques work on deep processes in a subtle and indirect way for the purpose that people are not conscious and not aware that they are being persuaded. The principles aim at the heuristics people use very often, which are mental shortcuts or so called "scripts" that people can re-enact without paying attention (Abelson & Schank, 1977; Fennis & Stroebe, 2015). Thus, Cialdini´s principles are a tool to persuade people on a deep level and try to make them comply by activating simple scripts they often use in certain situations.

Cialdini (2001) argues that there are just a few people who have inborn the charisma and the "art" to persuade others. The rest of the people, those who do not have that inborn trait to be persuasive with their charm, often try others to comply by telling them that they have to follow their lead. Cialdini argues that such behaviour is not as successful as persuading someone with his identified techniques. He defined that there are seven principles of persuasion with which it is easier to persuade others, because these principles tend at the points where the majority of people are vulnerable to persuasion and sets them in a mood where they just have to re-enact certain learned behaviours. He applied these principles to leadership and organizations; he argues that a good leader needs to persuade his followers

deeply and with the right techniques. But these principles were adopted by marketers, so the principles are often used in commercial settings (Fennis & Stroebe, 2015).

In this research, the principles are applied in the social media-marketing context and are thus taken from their offline-environment into the environment of SNSs. Although Cialdini stresses that the principles need to be combined to fully work, this research observes them apart from each other to figure out their functions and dysfunctions on SNSs; to give advice in how far they can be used to influence users and customers via Facebook and other social media sites.

In the following, each persuasive technique is described.

Reciprocity

The first principle, the principle of reciprocity, says "give what you want to receive" (Cialdini, 2001, p. 75). One practical example of this principle might be gift offering; when offering a gift, one might receive a gift later in turn, because the person feels to return the favour he received earlier. In online marketing, the principle of reciprocity is used by some websites which honestly depict what users can expect from them when assigning. Because these websites are sincere and genuine, users often give in turn their email-address and other personal information (Physioc, 2013). According to Gouldner (1960), the norm of reciprocity is a social norm which is widely used around cultures.

Commitment & Consistency

The second principle of persuasion is commitment and consistency. According to this principle, "people align with their clear commitments" (Cialdini, 2001, p. 76). That means that people stick to what they promised, no matter in how far the situation might change. Cialdini argues that three features need to be fulfilled when you want someone to be persuaded with the principle of commitment and consistency: The request needs to be public, what means that you need witnesses, when someone agrees to the persuasive tool you use. Besides, it is important that no one is forced to agree, everyone needs to behave according to his free will. The last feature is about being active, what means that the people who should be persuaded have to agree actively by signing a form or saying their agreement orally. An example for the principle of commitment and consistency from the field of online marketing might be a website that is asking its users to fill in their name to have access for the features of that website, but later wants to know more personal information (Physioc, 2013).

Social Proof

The third persuasive principle is social proof. According to this principle, people turn to others and observe their behaviour to guide or validate their own. One of the most common examples of this is the experiment of Asch (Henle, 1961). He proofed that people even follow the opinion of others when they are certain in their own behaviour and know that others are false. This stresses the importance and

power of the social proof principle. A more recent example of social proof in online marketing is amazon. Here, when looking for a certain product, other products are shown that customers, who as well were interested in that one viewed product, bought as well. Thus, related products are shown with the claim that other people, who were interested in the same product, are interested in these products as well (Physioc, 2013). This tends at the most important part in this principle, namely that customers see that others have chosen or behaved in a particular way and get the feeling that this behaviour or choice is right.

Authority

The fourth principle simply says that people turn to experts. According to Cialdini (2001), the principle of authority is less psychological than the other five, because authority is not something to fool people with, it is a fact: Someone is authoritarian on a certain domain or he is not. Therefore, to use the principle of authority to persuade others, authority must not be made up, but it must be made more visible so that people can see the connection between the persuasive attempt and the authoritarian figure (Cialdini, 2001). One example of the authority principle in online marketing is a photo of a famous person who is an expert for a certain domain. For instance, a famous athlete on a website that deals with information for sports (Physioc, 2013).

Liking

The principle of liking is about "uncover[ing] real similarities and offer genuine praise" (Cialdini, 2001, p. 74). A famous example of the liking phenomenon is a Tupperware-party. Cialdini (2001) states that people who attend these parties not only buy products because they want these products, instead they keep buying because they want to please the host, who is a friend of them. In online marketing, one example for the principle of liking might be an "about us"- section, where users can meet the owner of a website and might develop a connection to them (McDougall, 2015). Therefore, the liking principle is only applicable if friends are involved or for the use to make friends.

Scarcity

The last of Cialdini´s original six principles is scarcity. This principle says that people want and value things more when they are scarce. Hence, this principle deals with highlighting the scarcity of offers to increase that people want these more. Special offers for example are seen as a sort of deadline technique (Fennis & Stroebe, 2015); this is used offline and online.

Unity

In addition to the original six principles of persuasion (Cialdini, 2001), Cialdini recently formulated another principle, the principle of unity (Cialdini, 2016). This principle explains that persuasion can take place when the influencer and the influencee share a same identity. He argues that sameness

needs to be achieved before the actual persuasion takes place. The unity between influencer and influencee can encourage the persuasion.

All of the principles are used in the research to identify different influences on social media, except of the principle of liking and the principle of unity. Cialdini (2001) argues that the principle of liking is only applicable if friends are involved, which is not possible to sufficiently manipulate in this research. The principle of unity was added later to the already existing six other principles by Cialdini (2016). To fully research the effectiveness of this principle, sameness between the sender and the receiver needs to be achieved, which is not possible to manipulate in this research, either. Therefore, the focus in this research is aimed on the other five principles of persuasion.

2.3 PERSUASIVE SOURCES IN SOCIAL MEDIA

There are many ways to spread a message in social media. When it comes to persuasion, the question arises which aspects a message needs to feature to have the most influence on other users and what differences occur when the sender of a message changes. For this research, the focus of attention has less to do with the use of keywords, attributes of the message or different styles as it was in most of viewed studies in the theoretical framework; in contrast, it deals with three different sources which can be seen as a spectrum from the original source (brand messages) to a message from an average user, with the mixture of both, a message from a brand shared through a user. In the following sections, these three are explained more clearly.

2.3.1 BRAND POSTS

It happens that by now, many brands and organisations decided to join social media (Romero, Galuba, Asur & Hubermann, 2011), even though they already existed before on SNSs, because users share their experience and communicate about them without the brand´s allowance (Kietzmann, Hermkens, McCarthy & Silvestre, 2011). Laroche, Habibi, and Richard (2013) state that these brands and organisations not only display their advertisement in the new environment, instead they "co-create brand performances in collaboration with the consumers" (p.2). This shows that the role the organisations take in social media differ from their roles in other parts of advertisement and marketing, because they try to connect with the users and potential customers, which means they play after the rules of social media and are social as well (Kaplan & Haenlein, 2010). Thus, instead of talking about them, users on social media can talk directly with the brands and organisations. Simultaneously, brands use social media to persuade and advertise. Mangold and Faulds (2009) state that social media has to be considered as the hybrid element of the promotion mix, because it functions as a pivotal point where consumers can meet and talk about products. According to them, brands and companies are not in charge anymore as it comes to the building of their image, they argue that social media gives the power to the consumers. Kirtiş and Karahan (2011) support this. They state that engaging in social media strengthens the brand and bolsters the brand building process. Further, it enhances the

reputation of the brand, because the company is visible and interactive in dealing with the users and customers, what sets the brand equal to them. Therefore, it is of great importance that the brand`s presence on social media is stable and reliable, and the posts which are carried out to potential customers have positive influence and do not backfire. This is underlined by Mangold and Faulds (2009), who argue that a well-integrated marketing mix is necessary to be successful as a company. Therefore, advertising and persuasion via social media is as important as before, first and foremost because the users undertake SNSs and are influenceable as well. They further state that social media combines the old approach of a company persuading the customers with the new approach, that customers persuade each other. Even though the second form of persuasion is not controllable by companies, it is pivotal for brands to engage in social media. SNSs are the main mode of operation for companies (Mangold & Faulds, 2009), and can therefore not be ignored by brands.

2.3.2 USER WRITES BRAND-RELATED POST

The second source of influence on social media are posts which are formulated by users. According to Hansen, Shneiderman, and Smith (2010) "billions of people create trillions of connections through social media each day" (p.3). This shows the power of the mass of ordinary users compared to brands, which are influential as well, but are just a few in number. Therefore, it is crucial to research in how far influence comes not only from mighty companies on social media, but also from the mass of average users.

Romero, Galuba, Asur, and Hubermann (2011) state that to become an influential user, people have to overcome passivity and start creating something. According to Cha, Haddadi, Benevenuto, and Gummadi (2010), there are two key factors of influence; one of them encompasses influence among ordinary users. The influence between these people can occur if users have a relationship. This is underlined by Watts and Dodds (2007), who say that, next to the phenomenon of influential people like opinion leaders, "easily influenced individuals influenc[e] other easily influenced individuals" (p.442). This clearly states that a process of influence between people who are equal takes place. Watts and Dodds (2007) state this in general; therefore, it is necessary to have a look if the influence between people happens online as well as it is happening offline.

Further, these messages of users are part of user-generated content (UGC; Boyd & Ellison, 2008). It is an important device for users to express themselves and communicate with other users (Smith, Fischer & Yongjian, 2012). Smith, Fischer and Yongjian (2012) state that much UGC has the potential to be brand-related and is therefore important for influence concerning the brand which is considered in one particular post. Further, UGC is "created outside of professional routines and practices" and "can be seen as the sum of all ways in which people make use of social media" (Kaplan & Haenlein, 2010, p.61).

Hence, even though messages from ordinary users are unprofessional and carried billion times through social media, users have the power to influence and are therefore an important source of persuasion.

2.3.3 User shares brand post

There is not much scientific literature about sharing posts in social media. Here, with "sharing brand posts", it is meant that a post which was originally formulated by a brand (see 2.3.1) is shared through a user in social media. Then, what Gensler, Völckner, Liu-Thompkins, and Wiertz (2013) describe as "blurring line" (p.25) between the brands and the users network may be blurred even more. According to them, there is no clear distinction between brands and their customers anymore as it was the case before social media. Now, brands converse with customers on a personal level and the brand becomes part of the user as if it were another user. As a consequence, there is no clear separation between the user and the brand anymore, what is meant with the term "blurring line" (Gensler, Völckner, Liu-Thompkins & Wiertz, 2013). The user thus says something about himself by sharing a certain post from a brand page and showing to his whole network that there is a connection between him and that particular brand.

Concerning sharing in general, it can be distinguished between two forms: First, the post is shared without any comment from the user who shares the message. The second form is that the user comments his opinion on the post he shares. In this research, it is focused on the first of these two forms, because the purpose is to measure the effect when the source of the post changes from the original brand to a user.

As mentioned earlier, there is little literature about sharing content from other sources in social media. Kietzmann, Hermkens, McCarthy, and Silvestre (2011) define sharing as the process "to which users exchange, distribute, and receive content" (p.245). This implies the act of sharing foreign content as well as own content. Lee and Ma (2012) argue that sharing news, pressing the "share-button" on a post of a news site in a social network, is an important phenomenon on a social, economic and political layer, because people participate in the spreading of news in large global communities. This can also be the case as it comes to sharing brand posts, but the community may be different. The researchers examine which motivations lead to the act of sharing, but not how it influences users. In addition, Kim and Johnson (2016) argue that brand and organisational content that is conveyed via Facebook by pressing the "share"-button is seen as UGC, because it carries opinions, facts, or user experience with that certain brand or product. Moreover, Luarn, Lin, and Chiu (2015) state that sharing content from a brand page as a user adds value to that content, because user spread it further through social media and their own small network. They further state that this action by a user can be seen as a measurement for success of that particular post that is shared. This shows the importance of the "share"-button in Facebook and why this act of opinion-posting is researched in this study.

In the following section, the connection of these three different sources and the principles by Cialdini (2001) are shown.

2.4 CIALDINI´S PRINCIPLES AND PERSUASIVE SOURCES COMBINED

The first construct, the principles of persuasion, is chosen for two reasons. First, according to Cialdini (2001), these principles are a scientifically proofed way to persuade others, or in other words, to influence them. According to him, this happens offline and with learning. In this research, the crux is to get to know in how far the principles that are successful offline work online as well, which is researched in the environment of Facebook. The other reason is that these five principles are used as a grid to distinguish between different messages; thus to distinguish between the way the messages are written. Even though Cialdini argues that to optimally work the principles need to be combined, they are successfully used in offline advertising apart from each other. Therefore they are researched in this study apart from each other as well. By doing so, the principles of Cialdini are used to determine the content of the messages and to research if the principles which work offline, work online as well and if there are differences in the effectiveness of influence that takes place when the principles are used.

The second construct are the different sources. As mentioned earlier, the tie strength of a source and a receiver is essential for the success of persuasion (Pornpitakpan, 2004; Brown, Broderick & Lee, 2007). Therefore, the sources are identified to measure if there is a difference between a familiar source with a strong bond, like an average user on social media, and a less familiar source with a less strong bond, as a brand.

Thus, to measure the dependent variables purchase intention and persuasiveness, the focus in this research lays equally on the independent variables "persuasive sources" and "principles of persuasion". Hence, this research is about detecting if there may occur different degrees of influences when sources and persuasion are mixed in different combinations.

As mentioned earlier in this research, brands on social media are a relatively new phenomenon. Therefore, there is not much literature to rely on for further research, but there are some aspects that need to be considered when reasoning about hypotheses. One of such things is that brands use social media to co-create content with their followers (Laroche, Habibi & Richard, 2013). Further, the users see brands as equal on social media (Kirtiş & Karahan, 2011), what implies the sort of "blurring line" (p.25) as Gensler, Völckner, Liu-Thompkins and Wiertz (2013) describe it. Users thus treat brands like they treat other users on social media. This implies that users of social media may have lost the respect they had before the emergence of social media towards brands and companies. Therefore, the differentiation between ordinary users and brands is not that big anymore as it was before the emergence of social media. But as mentioned earlier in this research, strong ties are perceived as more credible (Brown, Broderick & Lee, 2007), which implies that a tie between two humans, regardless the

strength of their relationship, is more credible than a tie between a human and a company. Therefore, it is proposed that in general, a post written by a user is more persuasive than a brand post.

Further, there is no clear evidence about sharing someone else´s posts and which effects this action shows. Hence, it is difficult to formulate how to sort shared brand posts referring to brand posts and user posts. But because of the before mentioned impact of the degree of tie strength (Brown, Broderick & Lee, 2007), it is assumed that shared brand posts have more influence than the original brand post itself. Thus, shared brand posts are seen as more persuasive than brand posts. Therefore, it is assumed that in general posts are more effective when a brand post is shared by a user than the same brand post alone, because it is viewed as more evidenced through the person who has shared the post; the post becomes more reliable when a user shares the post than when no one shared it.

User posts are seen as more influenceable than shared posts by users, because they are written by the user himself. Smith, Fischer and Yongjian (2012) state that UGC is important for users to express themselves and communicate with others, what means that it is worthier than just sharing brand-related content. Because of that, the following hypothesis is formulated:

H1: A post written by a user is more effective than a shared brand post, which is more effective than a brand post, when combined with the principle of reciprocity, commitment and consistency or social proof.

This hypothesis deals with all principles of persuasion except of authority and scarcity. As Cialdini (2001) argues, the principles were originally made for the purpose to lead others, what means that the origin of the principles roots in interpersonal relationship. For this reason, the principles are viewed as successful when applied by single persons, thus by other ordinary users when looking into SNSs. But this only holds for the principles of reciprocity, commitment and consistency, and social proof, because the other two principles developed differently online as explained in the following.

As Jung and Kellaris (2006) state, there is a greater trust in authority figures in advertising in the western world in the more recent times than some years earlier. Consequently, it is reasoned that there is a greater trust in brands using the authority principle than in users using the same principle. This is supported by the reasoning that it does not look realistic and is not assumed as useful for an ordinary user to post a persuasive post with an authority-element. Because of these reasons, the principle of authority is seen differently as the principles of reciprocity, commitment and consistency, and social proof.

Despite that, the assumption that shared brand posts are seen as more evidenced is still applicable here. Thus, even though the principle of authority is seen as more successful when sent from a brand-account than from a user-account, the alternative of sharing the brand-post through a user is seen as the most successful. Therefore, the following hypothesis is formulated:

H2: A brand post shared by a user is more effective than a brand post, which is more effective than a post by a user, when combined with the principle of authority.

The same that is reasoned for posts featuring the authority principle is likewise reasoned for posts containing the scarcity principle. There is no obvious reason for an ordinary user to post the principle of scarcity, even though its original purpose is to persuade through interpersonal relationship (Cialdini. 2001). Therefore, the principle of scarcity does not seem to be as influential when carried in a message formulated by a user as a post by a brand containing the same principle. Further, people from the western world are prone to scarce products (Jung & Kellaris, 2004). That means that the display of scarcity in advertising is working very well in the western society, what implies that a post by a brand featuring the scarcity principle is influential and may be more effective than a similar post by a user. In addition, the shared brand post by a user is viewed as evidenced and therefore as more influential than a brand post, for the same reason as it is stated for the authority principle. Because of these reasons, the following hypothesis is formulated:

H3: A brand post shared by a user is more effective than a brand post, which is more effective than a post by a user, when combined with the principle of scarcity.

The hypotheses show that, except for two exceptions, the post written by a user is always expected to be the most influential, followed by a shared brand post. Thus, it is expected that the original brand post is the least influential. When the authority or the scarcity principle are involved, the shared brand post is seen as the most effective, because these principles work very well in advertisements, what means that people are familiar with this kind of advertising when it is send by a brand source. Above that, a shared post is evidenced based and therefore seen as more effective than just the original brand post.

Besides, it is not possible to hypothesize about ranking the persuasive principles. As mentioned before, Cialdini (2001) advises to combine the principles to fully work, what implies that there is no necessity to rank them. Cialdini sees the principles of persuasion as tools that can be combined and can persuade others in different situations, but he does not mention a ranking or the like. Furthermore, this is not done before, thus there is no literature to rely on. Aside from that, the focus in this research is not to find the best principle of all, but to detect which combinations of principles and sources is more effective than others.

3 METHOD

In this chapter, the used method is presented. In addition to the main-study, a pre-study was conducted to test the stimulus material. Both studies are explained in this chapter.

3.1 RESEARCH DESIGN

The main study consisted of a 3 (persuasive sources) x 5 (persuasive principles) between-subjects experimental research design with 15 different conditions, as shown in table 3.1. The conditions resulted from a mixture of the three persuasive sources and the five persuasive principles, one of each combined yield to one condition. The research was provided by the online survey-service Qualtrics and the participants were randomly assigned to one of the 15 conditions by clicking on an online-link. Therefore, the participants were able to fill in the survey from home.

		Persuasive Sources		
		Brand	**Shared**	**User**
	Reciprocity	Condition 1	Condition 2	Condition 3
Principles	**Commitment & Consistency**	Condition 4	Condition 5	Condition 6
of	**Social Proof**	Condition 7	Condition 8	Condition 9
persuasion	**Authority**	Condition 10	Condition 11	Condition 12
	Scarcity	Condition 13	Condition 14	Condition 15

Table 3.1: Composition of conditions

The purpose of the experiment was to investigate if there are any differences in influence on purchase intention and persuasiveness when the source and the persuasive principle of a Facebook-post are different from another. The 15 conditions therefore differ in the combination of persuasive principle and persuasive source. It is expected, as shown in the hypotheses in the theoretical framework, that some conditions show more influence on purchase intention and persuasiveness than others.

3.2 MANIPULATIONS AND CONDITIONS

As mentioned in the section before, the research design of the main study consists of 15 conditions. To ensure that every condition is clearly separated from another, the stimulus material was made by the researcher. The material is nearly the same for each condition, because every participant has to rate a Facebook-post. But the way the post is written, the picture which is used in the post, and the source which has posted the post differ in the single conditions (see figure 3.2) To keep that under control, the researcher decided to fully construct the posts by herself and not to search for existing posts and use these as stimulus material.

To ensure that the stimulus material looks as real as possible, the posts were placed in a Facebook-like environment with a sidebar and advertising on the sides. The product which was displayed in the stimulus material is a cup of coffee and the brand which is selling it is a fictive coffee store named

"Coffee Station". The product type was chosen because it is gender- and age-independent, thus there are no further exclusion criteria despite having a Facebook-account and being over 18 years old.

In figure 3.2 the stimulus material for the conditions reciprocity-brand, reciprocity-shared, and reciprocity-user is shown as an example; the complete stimulus material used in the main study can be found in the appendix.
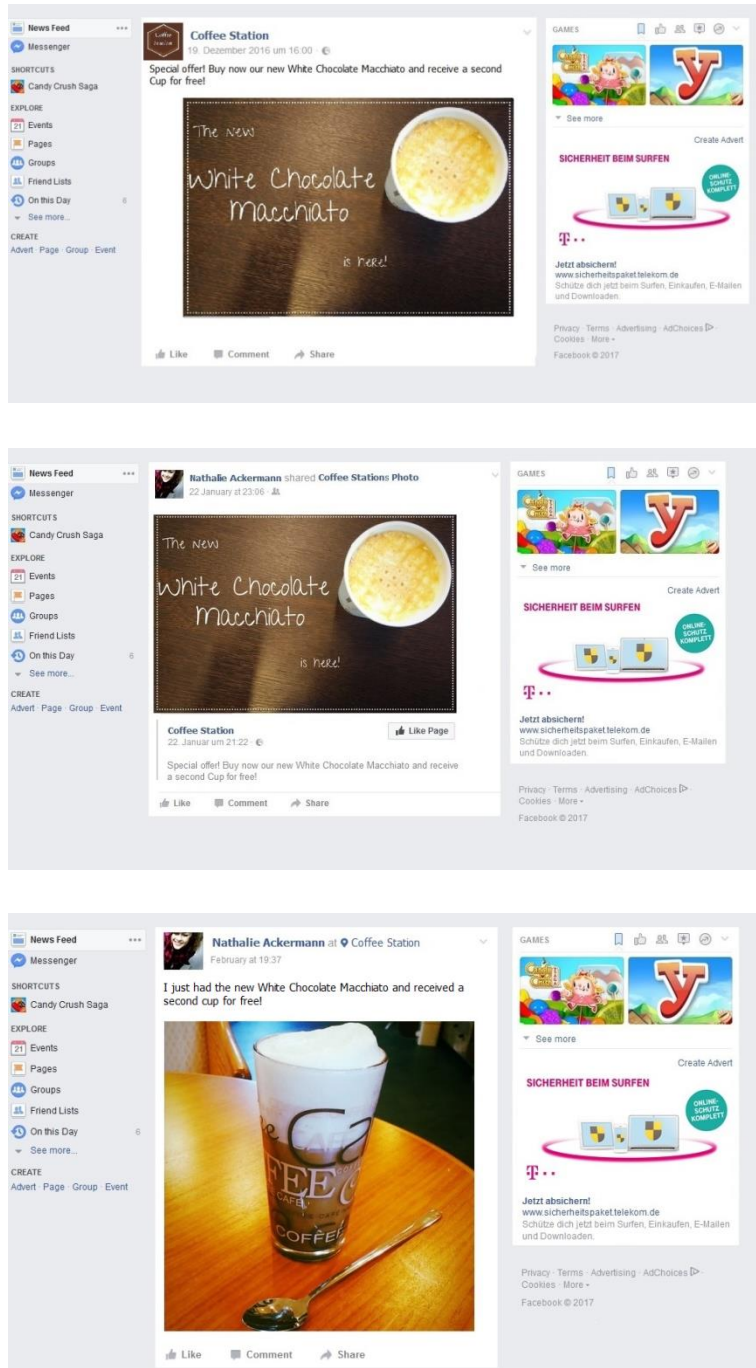

Figure 3.2: Stimulus material for the conditions Reciprocity*Brand, Reciprocity*Shared, Reciprocity*User

Before the main study took place, a pre-study was conducted to ensure that the stimulus material appeared realistic to the respondents. In this study, 31 respondents viewed the stimulus material. Seven items of the scale were taken from Lafferty and Goldsmith (1999); one item was added by the researcher. The participants were asked to rate the Facebook-posts on a five-point bipolar adjective scale. Examples for items are "honest/dishonest", "believable/not believable" and "authentic/unauthentic". The overall opinion was sufficient, each material scored between 3.1 and 4.3. Therefore, the material was indicated as reliable for the main study and so it was used without changing anything. The used scale and the precise results of the pre-study are shown in the appendix.

3.3 INSTRUMENT

The dependent variables used to measure if there is any difference in influence based on the source and the persuasive principle in a post are purchase intention and persuasiveness. In this section, the used scales are presented.

Fazli, Sam, Nor, and Tahir (2009) define purchase intention as „the probability that the consumer will purchase the product." (p.20). In addition, Day (1969) says, intentional measures may be more effective than behavioural measures, because intentions do not consider constraints that the client is facing when actually buying a product. Therefore, when measuring the intention to buy a product after a stimulus is set, the real interest in purchasing this product without any considerations for an actual purchase is measured. To measure purchase intention in this research, a scale by Bower (2001) was used. The original scale consists of six items; one item was deleted, because it did not fit with the chosen product. Example items of this scale are: "I am eager to check out the product because of this post." and "I would consider purchasing this product." The reliability for this scale is $\alpha = 0.95$.

The second dependent variable that is measured in this research is persuasiveness. Magee and Kalyanaraman (2010) state that a persuasive website is such that is more likely to affect one`s behavioural intentions. On the basis of this, a post is seen as persuasive, if it is more likely to affect one´s behavioural intentions. To measure this, a scale by Reichert, Heckler, and Jackson (2001) was applied. When a condition scores high on this scale, that principle/source-combination is seen as affective in behavioural intentions. The original items of the scale did not fit sufficiently for the purpose of the measurement and the product which is shown in the stimulus material; hence, the items are changed. Example items from the persuasiveness-scale are: "The post increases my awareness of coffee variations." and "The post is a good way of explaining the attractiveness of coffee variations." The reliability for this scale is $\alpha = 0.86$.

Both of the two scales mentioned above follow the stimulus material in the experiment, therefore, during the participants filled in the questionnaire, they had the opportunity to have a look on the stimulus material they have to give their opinion about.

The last scale that was used consists of eleven items which were taken from a scale by Mittal and Lee (1988) to measure product involvement. Two items were deleted because they did not fit the product which was used in the stimulus material. Examples of the items that were used in this scale are "For me, coffee variations do not matter.", "Drinking coffee variations is an important part of my life.", "Drinking coffee variations fits my style.", and "Drinking coffee variations gives me great pleasure.". The reliability for this scale is $\alpha = 0.93$.

In order to get more insight into the demographic variables of the participants, four questions with regard to gender, age, nationality and the educational background were asked.

The whole questionnaire which was used can be found in the Appendix.

3.4 PROCEDURE

The data was collected online between the 26th April 2017 and the 26th May 2017. Each participant was randomly assigned by Qualtrics to one of the 15 conditions. Every respondent first got to see an introduction, in which the purpose of the research was explained. Additionally, it said that the respondents were asked to give their opinion and that wrong answers are not possible, further, the text informed the participants that everything they answer is treated anonymously and they can stop the experiment at every moment.

After the introduction, the main online experiment started. Participants got to see the stimulus and had to give their opinion on the statements. By doing so, they always had the opportunity to scroll back to look at the stimulus while judging it. As soon as the participants reached at the scale that measured the product involvement, they did not get to see the stimulus anymore.

After this, the last page consisted of four questions about demographic variables. At the end, the participants got to see a message that said that the answers were recorded.

3.5 PARTICIPANTS

In total, 599 people participated in the research. 153 participants had to be deleted because they did not fill in every question or they stopped filling in the questionnaire before they were done. To ensure that only participants who put effort into answering the questions were included, participants who gave the same answer to more than 17 of the 20 items were deleted as well. Therefore, the sample size consists of is N = 446. In the following table, the spreading of the participants across the different conditions is shown.

		Persuasive Sources			Total
		Brand	**Shared**	**User**	
Principles of	**Reciprocity**	29	34	31	94
Persuasion	**Commitment and consistency**	35	29	29	93
	Social proof	27	26	28	81
	Authority	29	28	30	87
	Scarcity	29	30	32	91
Total		149	147	150	**446**

Table 3.3: Distribution of participants across conditions

The majority of the participants were women (female: 73%, male: 27%). The age ranged from 18 to 61 years, with an average of M=23.5 years (SD=3.9). 80% of the participants were German, 10% Dutch, and 10% from other western nationalities. The dominant educational level of the participants was Highschool/Abitur (48%), followed by Bachelor (40%) and Master (8%). The remaining percentages consisted of vocational school, PhD and others.

To investigate if the demographic variables age and gender have influence on the results because the participants are not equally distributed over the conditions with regard to these two demographic variables, additional analyses were done. First, a univariate analysis of variance (ANOVA) was conducted to check if the demographic variable age has influence on the principles of persuasion, the sources, or the combination of both. In table 3.4, the results are presented.

Demographic Variable	Independent Variable	df	F	p
	Sources	2	4.458	0.012
Age	Principles	4	0.260	0.903
	Sources*Principles	8	2.116	0.033

Table 3.4: ANOVAs for the dependent variables purchase intention and persuasiveness and the independent variables

Note: Significant at p>0.05

As the table shows, there are significant differences in the sources-construct and between the conditions, which are combined through the sources and the principles. To check if age has influence on this because participants are not equally distributed in age as the table shows, correlation-analyses were done. Age is not significantly correlated with the dependent variable purchase intention with $r(444) = -.08$, $p = .11$. For the dependent variable persuasiveness, no significant correlation could be detected either with $r(444) = -.05$, $p = .31$. Because there is no significant correlation detectable between the demographic variable age and the two dependent variables purchase intention and persuasiveness, there is no influence the unequal distribution of the demographic variable could make.

For the demographic variable gender, a Chi-square test was done to check if any significant difference is detectable on the independent variables. The test was statistically not significant with X^2 (4, N = 446) = 1.49, p = .83 for the principles of persuasion and X^2 (2, N = 446) = 2.17, p = .34 for the persuasive sources. Thus, there was no difference in gender distribution over the conditions.

4 RESULTS

In this chapter, the results are presented. First, the means of all conditions are shown and explained. On the basis of these means, analyses were done which are presented in the next sections.

4.1 MEANS AND MAIN EFFECTS

The means of the dependent variables purchase intention and persuasiveness in the particular conditions do not differ much from each other in comparison with the other conditions. This can be seen by looking at the following two tables, which were created with the help of SPSS (table 4.1 and 4.2).

		Persuasive Sources		
		Brand	**Shared**	**User**
	Reciprocity	3,76 (1,43)	3,64 (1,70)	3,82 (1,51)
Principles	**Commitment & Consistency**	4,05 (1,31)	4,08 (1,23)	3,59 (1,39)
of	**Social Proof**	3,83 (1,59)	3,62 (1,45)	3,14 (1,26)
persuasion	**Authority**	3,83 (1,50)	3,36 (1,36)	3,49 (1,42)
	Scarcity	3,39 (1,69)	4,05 (1,49)	3,76 (1,38)

Table 4.1: Means and Standard Deviation for the conditions on the dependent variable purchase intention

		Persuasive Sources		
		Brand	**Shared**	**User**
	Reciprocity	4,37 (1,28)	4,51 (1,17)	4,33 (1,32)
Principles	**Commitment & Consistency**	4,58 (1,25)	4,58 (0,95)	4,91 (1,00)
of	**Social Proof**	4,56 (1,39)	4,29 (1,27)	3,80 (1,12)
persuasion	**Authority**	4,54 (1,39)	4,09 (0,97)	4,41 (1,15)
	Scarcity	4,51 (1,28)	4,49 (1,19)	4,40 (1,30)

Table 4.2: Means and Standard Deviation for the conditions on the dependent variable persuasiveness

As shown in the tables, the means are very close to each other, which can be interpreted as a first indicator for no clear significant differences between the conditions in effectiveness for both purchase intention and persuasiveness. Further, no clear direction is detectable regarding the scoring on the dependent variables. The mean for the dependent variable purchase intention is the highest in the consistency and commitment-shared-condition with 4.08 (1.23), whereas the social proof-user-condition is scoring the lowest with 3.14 (1.26). Table 4.2 shows the means for the dependent variable persuasiveness. Here, the lowest mean score is 4.09 (0.97) for the authority-shared-condition and the highest mean score is 4.91 (1.00) for the consistency and commitment-user-condition.

The means for the dependent variables show that even though purchase intention scored in general lower, the persuasiveness is just moderately higher. But still, the mean scores are all very close to each other, which shows that there is no clear distinction between the effectiveness of the different constructs, except of the principles of commitment and consistency, which seems to be the most stable of all principles, spread over all three sources for both dependent variables. Further, all scores range between 3.14 and 4.91 on a 7-point Likert-scale, thus they cannot be viewed as very high. In addition, the analyses and results of the main effects are presented in the following paragraph.

To investigate if there are significant differences between the conditions, three ANOVAs were performed, one for each of the dependent variables purchase intention, persuasiveness, and product involvement. The analyses show that the combination of the independent variables is not significant. In addition, the analyses show that both the sources and principles are not significant, when viewed apart from each other, as well.

Dependent Variable	Independent Variable	df	F	p
Purchase Intention	Sources	2	0.979	0.377
	Principles	4	0.996	0.409
	Sources*Principles	8	1.060	0.390
Persuasiveness	Sources	2	0.591	0.554
	Principles	4	1.845	0.119
	Sources*Principles	8	1.093	0.367
Product Involvement	Sources	4	0.615	0.541
	Principles	2	1.779	0.132
	Sources*Principles	8	0.765	0.634

Table 4.3: ANOVAs for the dependent variables purchase intention and persuasiveness and the independent variables

Note: Significant at p>0.05

To further investigate if the independent variables have influence on the dependent variables purchase intention and persuasiveness, the dependent variable product involvement was restraint. Here, only participants who scored higher than 3 on the scale that measured product involvement are involved in the test. By doing so, it is checked if there is a difference in the results if only moderately or highly involved people are tested. These tests were done with a sample size of N=274 and are reported in table 4.4.

Dependent Variable	Independent Variable	df	F	p
Purchase Intention	Sources	2	0.961	0.384
	Principles	4	0.494	0.740
	Sources*Principles	8	1.139	0.337
Persuasiveness	Sources	2	0.232	0.793
	Principles	4	1.875	0.115
	Sources*Principles	8	0.675	0.714

Table 4.4: ANOVAs for the dependent variables purchase intention and persuasiveness and the independent variables when only participants who scored higher than 3 on product involvement are researched.

Note: Significant at p>0.05

As seen in table 4.4, no significant results are detected either when only moderately or highly involved participants are taken into account. Therefore, it can be concluded that there is no difference between the different conditions in their effectiveness in influence on the intention to purchase or on persuasion.

4.2 HYPOTHESES

The results of this research show that no combination of the persuasive principles and the persuasive sources in the social media environment is significantly more influenceable than another combination. Therefore, none of the hypotheses is supported through the preceding analyses. In the following table an overview of the hypotheses is shown.

	Hypotheses	Result
H1	A post written by a user is more effective than a shared brand post, which is more effective than a brand post, when combined with the principle of reciprocity, commitment and consistency or social proof.	Not supported
H2	A brand post shared by a user is more effective than a brand post, which is more effective than a post by a user, when combined with the principle of Authority.	Not supported
H3	A brand post shared by a user is more effective than a brand post, which is more effective than a post by a user, when combined with the principle of Scarcity.	Not supported

Table 4.6: Overview of hypotheses

5 DISCUSSION

The purpose of this study was to detect whether posts in Facebook have a bigger impact on influence when the persuasive source which is providing it and the persuasive principle the post is containing differ from other posts. To investigate this, the following research question was used: "How do Cialdini´s persuasive techniques and the persuasive sources affect the effects of product information?" To answer this question, an online experiment was conducted among Facebook users mainly from Germany, but from other western countries as well. Based on the former mentioned results, this chapter provides a discussion, starting with the main findings. After this, a connection to recent scientific literature is made with an explanation for the before mentions findings, as well as limitations and, based on these, suggestions for further research. Then, practical implications are suggested, followed by a final conclusion.

5.1 MAIN FINDINGS

As mentioned in the results chapter, analyses were done to detect if one principle, source, or the combination of both stands out significantly. The results show that no clear distinction in effectiveness towards purchase intention and persuasiveness can be made; therefore no combination of persuasive principles and persuasive sources is superior towards other combinations in the online environment of Facebook.

Consequently, it is confirmed through analyses that no significant difference between the viewed posts containing different sources and persuasive principles is detected. Therefore, no source-principle-combination can be recommended as most or least successfully in Facebook. On the other hand, there is a slight tendency detected towards the principle of commitment and consistency when looking at the mean scores, but this cannot be confirmed as a significant result through analysis.

As the factor of product involvement was included in the analysis, no significance was shown through an ANOVA analysis, whether product involvement was restraint or not. Because of that, it can be concluded that product involvement has no impact on the sources and principles and the combination of these. This means, that independent from how involved people are in the displayed product, there is no significant difference detectable in influence on purchase intention and persuasiveness which is evoked through the displayed posts.

No distinction in effectiveness can be made between the conditions, thus the combinations of different persuasive principles and different sources, and no differentiation in influence between the dependent variables purchase intention and persuasiveness are given either. This can be explained through various explanations, which are presented in the next section, after linking the findings to existing literature.

5.2 THEORETICAL IMPLICATIONS

As shown in the theoretical framework, some studies focused on influence in social media as well. Hence, this chapter links the findings of this research to the already existing findings and explains these.

Van Noort, Antheunis, and Van Reijmersdal (2012) state that tie strength is an important factor for successful persuasion. This is underlined by Brown, Broderick, and Lee (2007), who state that strong ties have a greater ability to persuade. That means, a message from a user should be more persuasive than a message from a brand, because two people might have a better relationship than a person and a brand. This assumption cannot be supported, because no significant differences between the three senders were detectable. On the other hand, Kirtiş and Karahan (2011) found that on social media, brands are seen as equal to other users. Because no significant difference between the brand as a sender and a user as a sender was found, this finding can be supported. Moreover, that brands are not in charge anymore and social media gives the power to the users (Mangold & Faulds, 2009) is partly supported through this research as well. Brands are not the main operators of persuasion, but users are not, either. There was no significant difference in persuasion detectable between the three sources; therefore no source is seen as the most persuading in social media. This is underlined by the statement of Mangold and Faulds (2009). They argue that social media combines the old and the new approach of persuading; that brands and users persuade other users. In addition, Watts and Dodds (2007) argue that people influence each other. This can be supported, although influence happens from brands as well.

Moreover, there is no significant difference between shared posts and user or brand posts. Thus, the assumption of Luarn, Lin, and Chiu (2015) that sharing content from a brand page adds value to that content and is therefore worthier for other users cannot be supported. Even though shared content is seen as UGC, because opinions and experiences are added to an ordinary brand post (Kim & Johnson, 2016), shared brand posts are as influential as brand posts and users posts.

As already mentioned, there is no necessity in ranking the principles, therefore, no findings can be interpreted and linked to existing literature. On the other hand, there was no significant difference between the principles detectable in this research, what implies that they do not differ in their effective in influence.

To sum, all principles and all sources do not differ significantly in influence. This can be clarified through various possible explanations. One explanation might be that the principles of persuasion do not work as good as expected in SNSs and only function in their familiar environment offline, because they are all scored in the moderate area on the scales. On the other hand, the findings can be interpreted in a way that the principles all work moderately well in social media and it needs more research to find out how to apply them individually.

Another explanation of the results might be that users on the internet just do not care about advertising within posts and do not react to influence of posts, because they are aware that SNSs are full of persuasion and advertising is everywhere on the internet. Users have found a way to protect themselves of influence on social media. This might as well be a possible justification why there is no difference between both the principles and the sources.

Moreover, a possible justification why there is no difference between the principles might be that users do not care with which content they are confronted with in particular on social media, but the sheer confrontation of advertising is enough for them to react negatively.

Besides these reasons, it is possible that limitations might be responsible factors for the results of this research as well. These are shown in combination with suggestions for future research in the following section.

5.3   LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This research is a first approach into the topic of persuasive principles on SNS. Because the purpose of this research is to give a first look about the effectiveness of the persuasive principles in social media, as a consequence, a lot of aspects that could be considered in this study were not taken into consideration. Thus, some limitations and suggestions for future research are derived from the conduction and findings of this research. These limitations do not invalid the research, but are seen as weak points and a basis for future research approaches; further, they need to be taken into account when looking at the results of this study.

To begin with, limitations on the basis of the use of the product are made. In this research, a fictive brand was used to promote coffee. A scale was chosen to measure the involvement of the participants into the shown product. But it may be the case that the participants did not like the shown product because of other reasons which could not be determined with the used scale, like prejudices they made with similar real brands. Therefore, that only one product and one fictive brand were shown is seen as a weak point of this research. In addition, it is assumed that the results could look differently when other products than coffee were shown to the participants. Because of these reasons, the results are seen as limited to the used product.

Suggestions for future research are made on the basis of the limitations mentioned before. It is suggested to design a research that contains more than one product for the purpose that findings can be made independently from the used products if an overall tendency is detectable. Another approach could take different product-types and –groups into consideration, to research if the purpose and effect of persuasive sources differ when the product-category differs as well.

In addition, limitations on the basis of the stimulus material are made. As seen in the appendix, the stimulus material consists of a picture that displays a Facebook-post. The main aspects of this picture

are the figurative display of a cup of coffee, a text, and the source of the post. It is seen as a limitation that first of all, the participants do not view the fictive person who is featured in the shared- and user-conditions as a Facebook-friend of them, which may hinder the impact that was wanted to be measured. Furthermore, the pictures which were used to show the coffee possibly have biased the text which contains the principles. It may be the case that the participants focused more on the picture with the coffee than on the text while rating the post, although they were instructed to give their opinion on the whole post ("Please look carefully at the post below and imagine that a *Coffee Station*-shop is available in your neighbourhood."). The fact that the stimulus material is a picture of a Facebook-post and not a real, interactive post may increase the bias, because the participants might felt more suited in an "online laboratory setting" than when they would have rated a real post during they are logged in on Facebook.

To avoid the same weak points in the stimulus material for following researches, some suggestions are made. It is suggested to design the research in a way that the participants are logged in on Facebook. By doing this, two weak points could be eliminated: Firstly, the participants real Facebook-friends could be used to "post" the posts the participants have to rate when assigned to the user- or shared conditions. Secondly, it is assumed that this as well dams the feeling of being judged in an online laboratory for the participants. In addition, it is suggested to avoid using pictures of products in the stimulus material for the purpose of making the participants focus exclusively on the text and thus on the principles of persuasion.

Facebook was chosen as the researched medium, because it allows picture- and text-communication in a post and does not constraint the words that can be used like Twitter does. Therefore, because this research was limited to Facebook, the findings are limited as well to that medium. In addition, the stimulus material was designed to look as realistic as possible and like a Facebook-post someone sees with their laptop or stationary computer. Thus, for people who did the online experiment on their smartphones or tablets, the design might not look as realistic as for the participants who participated in the experiment on their laptop or stationary computer. Because this could not be controlled, it is also seen as a weak point of this research.

Because this research took place in the environment of Facebook, it is suggested for future research to conduct researches that try, firstly, to research in the same manner for other social media like Instagram, Twitter, and Snapchat. Secondly, it is suggested to research what the similarities and differences in these SNSs are and which principles function in which network better than others. Further, the distinction between the design in smartphone/tablet and laptop/stationary computer is important to be taken into account.

To summarize, some limitations were detected during and after the conduction of this research. These limitations especially concern the used product and the universality of the findings, the stimulus material, the used medium and its display discrepancies.

5.4 PRACTICAL IMPLICATIONS

Although the results show no difference between the single sources and principles, some practical implications can be made for future advertising on Facebook.

The results imply that influence from a brand post, a user post, and a shared brand post is nearly equal. That means that all three sources are seen as equally effective when trying to persuade users in social media. Therefore it is suggested for marketers to further use all three sources, thus to post from the brand site and to encourage users to share these posts and to post by themselves. Although the scoring for all three sources is not that high, the sources are seen as moderately effective for the purpose of persuading users or influencing them in their intention to purchase. Hence, it is suggested for future marketing to use all three sources at first. Because these conclusions are closely connected to the used product, it is advised for future marketing to take that into account and to further investigate which sources work best with the regarding product.

In addition, the suggestions for the principles of persuasion are approximately the same. No clear distinction could be made between the principles in their effectiveness on influence. But it can be said that all principles are nearly equally effective in their persuasion, therefore it is suggested for future marketing to use all principles and to further examine, which principles work best for which product type. As mentioned before, these findings are closely connected to the used product and can therefore not be seen as generally valid for all advertised products.

As a consequence of the above, it is suggested to use the sources and principles together in social media as they were researched in this study. Even though no distinctions between the different sources and principles can be made in terms of effectiveness, it can be advised that the principles work in the Facebook-environment moderately good. Thus, it is suggested for marketers to further use the principles and sharpen these for the purpose of creating a tool for the right objective that wants to be achieved and combining them with the persuasive sources on social media.

5.5 CONCLUSION

As described during the outline of this paper, this is one of the first studies conducted about the use of persuasive principles in social media. Therefore, even though this research is just one small approach towards this subject, it can contribute to science and society with its findings and shortcomings that occurred.

To conclude, the main findings of this research show that no difference in effectiveness is measureable when sources and principles are compared among another differently, although, the use of the persuasive principles in Facebook is recommended. Even though it needs to be taken into account that these findings are only applicable for the product that was chosen in this research, this study still provides first findings for the whole field of the use of persuasive principles in social media. Additionally, even though the findings do not provide much information for future research approaches, the limitations show what needs to be considered when working further in this field of online communication and suggest what to consider when designing the research.

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APPENDIX

APPENDIX I: PRE-STUDY

The following five-bipolar adjective scale was used to determine if the stimulus material appeared to be real and not constructed to the participants.

Honest	X	X	X	X	X	Dishonest
Not trustworthy	X	X	X	X	X	Trustworthy
Not credible	X	X	X	X	X	Credible
Not believable	X	X	X	X	X	Believable
Convincing	X	X	X	X	X	Unconvincing
Realistic	X	X	X	X	X	Unrealistic
Authentic	X	X	X	X	X	Unauthentic
Unreliable	X	X	X	X	X	Reliable

In the following table, the number of participants, the minima, maxima and means for each construct in the pre-test are shown.

n	Construct	Min	Max	Mean
6	Reciprocity/Brand	3,13	4,50	3,646
	Reciprocity/Shared	2,63	4,68	3,500
	Reciprocity/User	3,00	4,00	3,500
6	C&C/Brand	2,80	5,00	3,729
	C&C/Shared	3,13	4,13	3,500
	C&C/User	2,50	5,00	3,896
6	Social Proof/Brand	2,88	4,38	3,458
	Social Proof/Shared	3,00	4,50	3,708
	Social Proof/User	2,80	5,00	4,271
5	Authority/Brand	2,25	4,00	3,125
	Authority/Shared	2,25	4,25	3,375
	Authority/User	2,50	5,00	4,000
8	Scarcity/Brand	2,13	4,50	3,188
	Scarcity/Shared	2,13	4,25	3,188
	Scarcity/User	2,88	5,00	3,656

Table 6.1: n, minima, maxima and means oft the pre-study results.

APPENDIX II: STIMULUS MATERIAL

In the following, the stimulus material which was used in the main study is shown.
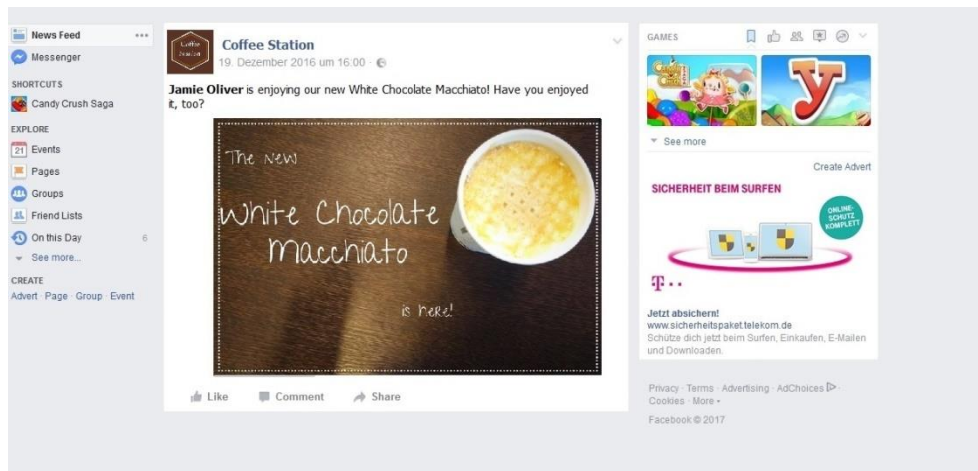
Brand x Reciprocity
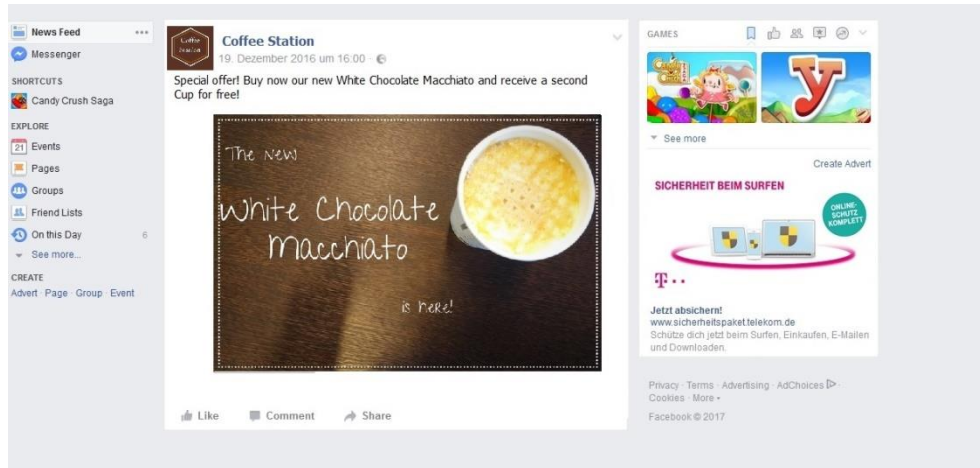
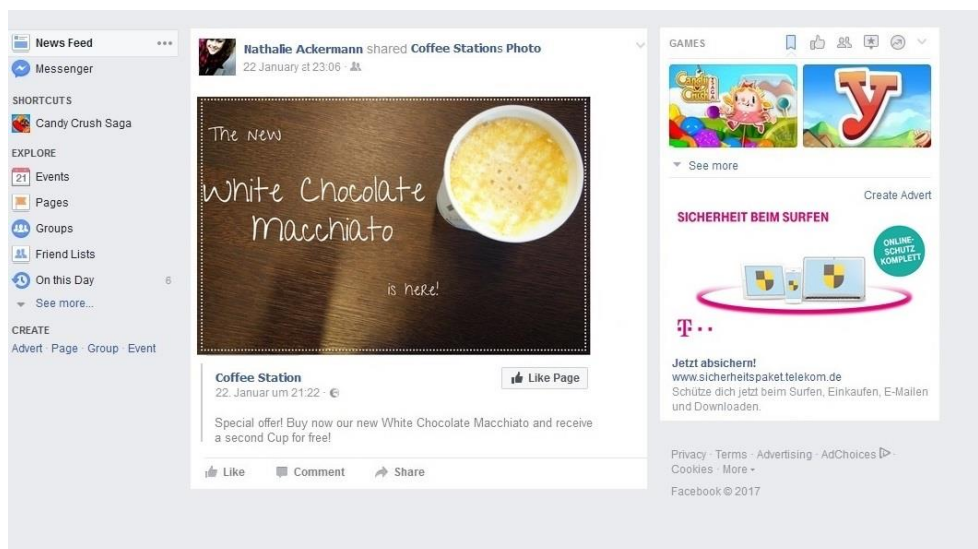Brand x Commitment & Consistency
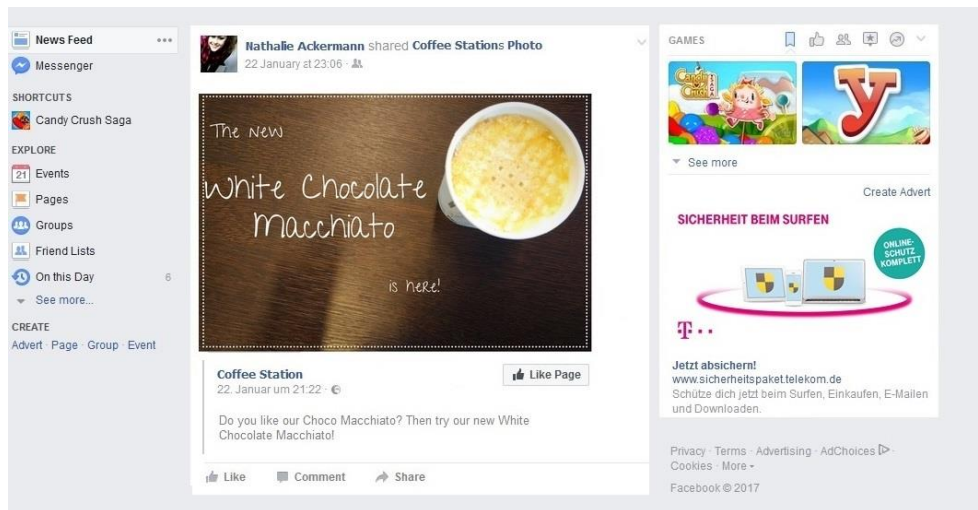

Brand x Social Proof

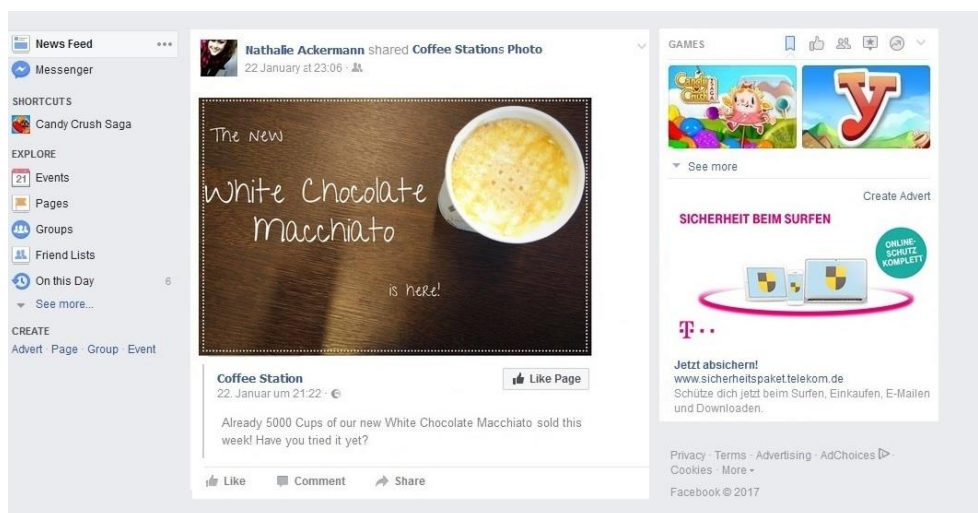Brand x Authority

Brand x Scarcity
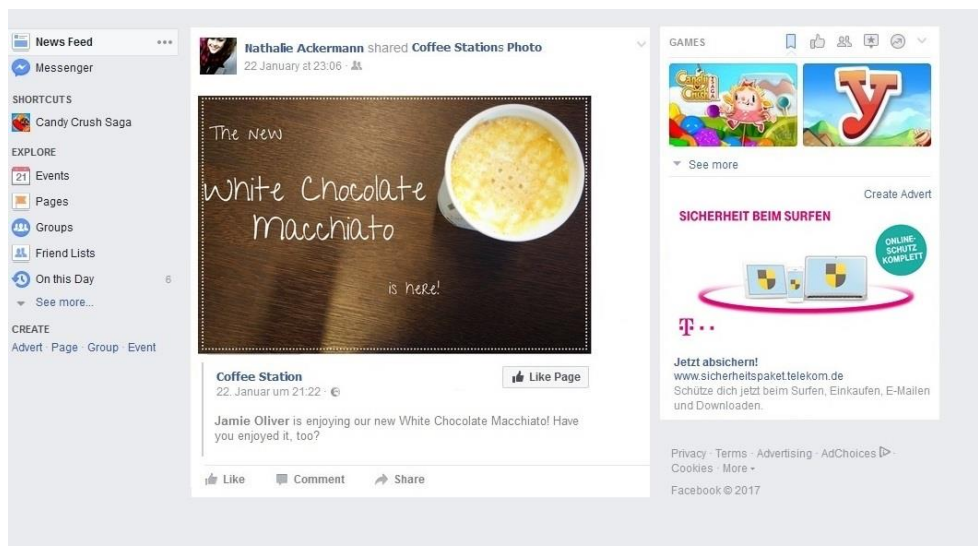

Shared x Reciprocity

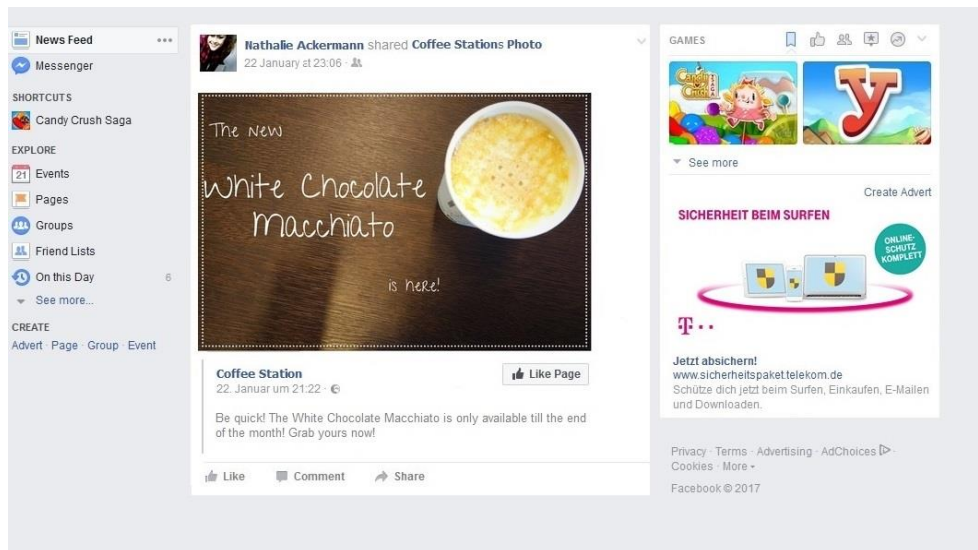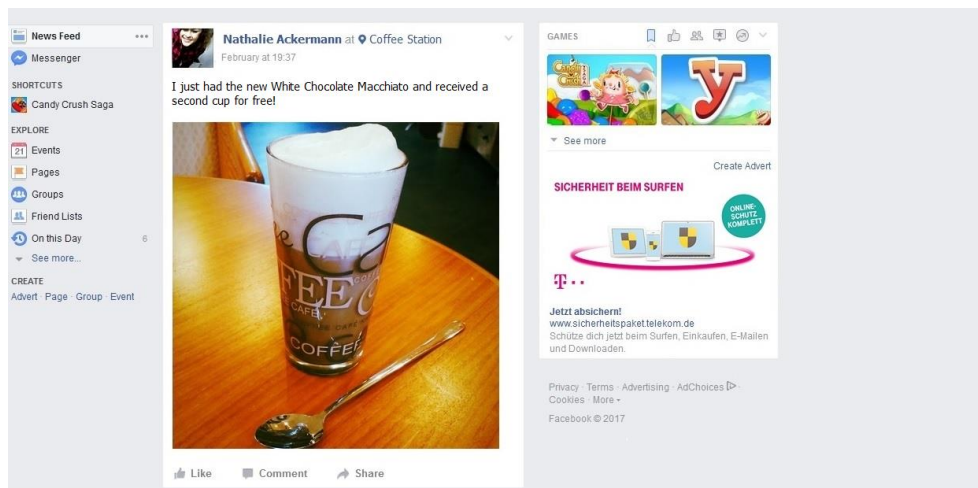## Shared x Commitment & Consistency

Shared x Social Proof

Shared x Authority

Shared x Scarcity

User x Reciprocity

User x Commitment & Consistency

User x Social Proof

User x Authority

User x Scarcity

APPENDIX III: SCALES FOR MAIN EXPERIMENT

In the following, the scales that were used in the main study are displayed. All items were measured with a 7-point Likert-scale (1 - strongly disagree, 2 - disagree, 3 - somewhat disagree, 4 - neither agree nor disagree, 5 - somewhat agree, 6 - agree, 7 - strongly agree).

Variable Purchase Intention (Bower, 2001)

- I am eager to check out the product because of this post.
- I intend to try this product.
- It is likely that I will buy this product when it becomes available.
- I would consider purchasing this product.
- I plan to buy this product.

Variable Persuasiveness (inspired by Reichert, Heckler & Jackson, 2001)

- The post makes me think positively about coffee variations.
- The post increases my awareness of coffee variations.
- The post is a good way of explaining the attractiveness of coffee variations.
- The post might have a positive effect on my behaviour towards coffee variations.

Variable Product Involvement (Mittal & Lee, 1988)

- Coffee variations are very important to me.
- For me, coffee variations do not matter.
- Drinking coffee variations is an important part of my life.
- I like the way I see myself when I am drinking coffee variations.
- Drinking coffee variations helps me express my personality.
- Drinking coffee variations makes me look good to others.
- Drinking coffee variations fits my style.
- Drinking coffee variations is compatible of how I like to think of myself.
- I can´t say I particularly like coffee variations.
- Drinking coffee variations gives me great pleasure.
- Drinking coffee variations is a good way to relax.

Demographic Questions

- What is your gender? (Male/Female)
- What is your age?
- What is your nationality? (German/Dutch/Other)
- What is your highest level of education? (Highschool or Abitur/Vocational School/Bachelor/Master/PhD/Other)