

Intentional vs. unintentional influences of social media friends

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ABSTRACT

On social media, individuals' behavior can be affected as a result of either direct and intended recommendations by social media friends, or unintentional brand-related actions developed by social media friends. This study addresses the differences between intentional and unintentional influences by testing a model that delineates similarity and tie strength as drivers of influence, and purchase intention and social media engagement as the main outcomes. Based on the elaboration likelihood model, we analyze the underlying mechanism of unintentional influences versus intentional ones by comparing the role of source usefulness and information usefulness in the two influential processes. Results of two studies show that individuals can be unintentionally influenced by their social media friends, and the effect is similar to that from intentional influences. However, different mechanisms seem to be involved in the two influential processes. A central route of processing seems to be the mechanism underlying intentional influence, whereas both central and peripheral routes are used when the influence is unintentional.

Keywords: Unintentional influence, similarity, tie strength, source usefulness, information usefulness, ELM, purchase intention, social media engagement

Highlights

- Findings show that intentional and unintentional influences provoke similar outcomes on receivers.
- Unintentional influence is compared to intentional influence of social media friends.
- The intentional influence mechanism is based more on the information exchanged.
- The unintentional influence mechanism is focused on both the source and the information.

1. Introduction

People are exposed every day to a great amount of content on social media. What people are exposed to depends to a great extent on the interests and behavior of those with whom they connect via social media (Bergström and Jervelycke-Belfrage, 2018). On social media, friends become important sources of information (Wang and Chang, 2013) that act as generators of social influence. Social influence includes conformity with the behavior, attitudes, or emotions of others surrounding the person in question (Risselada et al., 2014), as well as interpersonal communication among social media users (Neubaum and Krämer, 2017). In this context, social influence refers to the influence that social media friends exert on the consumption and behavior of other individuals. As Kim and Kim (2018) state, if a social referral or a direct recommendation causes one's social friends to purchase a product or service, social influence occurs. However, social influence can occur in different ways depending on the actions taken by social media friends, and such actions related to consumption experiences of products or brands (Aghakhani et al., 2018; Chen and Shen, 2015) can affect the behavior of receivers (Schultz, 2017).

Most of the actions developed on social media may lack a clear intent to exert influence. Every day, a lot of information about products and brands appears in the content flow of social media without particularly deliberate actions on the side of the user (Bergström and Jervelycke-Belfrage, 2018; Kaiser et al., 2018). All these brand-related actions that occur without intentions to evoke a particular response (e.g., clicking "Like" on a brand page) are likely to be perceived by receivers as unintentional influences (Blazevic et al., 2013). Through these unintentional influences, receivers may find information about a product or brand they have not previously heard about or did not know before, or even find out about something truly useful to them. Information about products and brands can therefore affect receivers as a result of incidental exposure from social media friends' actions or due to direct and intended recommendations by social media friends.

This issue is important because intention is often deemed to be the cause that drives the effect of an action/outcome (Wu et al., 2018). In fact, previous research has demonstrated that intentionality of the action is a key factor when evaluating social influence (Blazevic et al., 2013; Wu et al., 2018; Verlegh et al., 2013). Therefore, it is important to examine the differences between intentional and unintentional influences of social media friends. However, most studies on social media to date have not distinguished between intentional and unintentional influences. As Renton and Simmonds (2017) posited, the literature has yet to examine how unintentional influences affect those who are exposed to them, in comparison to intentional ones. Similarly, Wu et al. (2018) stated that, as receivers, we need to understand how we are affected by others' actions. Specifically, more knowledge is needed about how brand-

related actions developed by social media friends influence receivers of those actions, giving rise to unintentional influences of social media friends, and how these unintentional influences differ from intentional ones on social media.

Unintentional influence is of special relevance in the social media context because many actions of social media users can provoke unintentional influences (Bergström and Jervelycke-Belfrage, 2018; Neubaum and Krämer, 2017; Renton and Simmonds 2017). Individuals are more exposed, and thus more susceptible, to social influences from other consumers on these platforms (Blazevic et al., 2013; Kaiser et al., 2018). In this context, the following questions arise: Do intentional influences provoke similar outcomes compared to unintentional influences? If they do, are there any differences between the two mechanisms of influence? In order to address these questions, two relational concepts, similarity and tie strength, are proposed as drivers of the influence of social media friends. In order to understand the underlying mechanism of influence, and based on the elaboration likelihood model (ELM) framework, two mediators are proposed in the model: information usefulness and source usefulness. Finally, purchase intention and social media engagement are proposed as the main outcomes of social media friends' influence. In order to answer these questions, two empirical studies have been developed. In the first study, tie strength is manipulated and similarity measured; in the second study, similarity is manipulated and tie strength measured.

This paper aims to make three contributions to the literature: (1) It tests a model to explain how social media friends are able to intentionally and unintentionally affect purchase intention and social media engagement. (2) It compares the intentional and unintentional influence of social media friends by analyzing the underlying mechanisms thereof. Based on ELM theory, we propose that unintentional influences are more focused on peripheral cues (such as the source), whereas intentional influences are based on a deeper processing of the information received. (3) Our two studies separate the effect of tie strength between sender and receiver from that of similarity between these two parties by controlling for the effect that similarity has on tie strength (as recommended by Aral et al., 2009). Previous studies (see, e.g., De Bruyn and Lilien, 2008) have highlighted the difficulty in distinguishing the effect of these two relational concepts and the importance of clearly separating them.

2. Theoretical background and hypothesis development

2.1. Intentional vs. unintentional influences of social media friends

Consumer socialization through peer communication using social media is changing consumer behavior due to the amount of information exchanged between individuals (Wang et al., 2018). Communication is a process by which an individual—the sender/source—transmits a message to modify the behavior of other individual—the receiver (Shi et al., 2018). This perspective is in

line with most studies on interpersonal influence, which have focused on intentional influences (Koo, 2016; Wang and Chang, 2013). These studies have investigated situations in which the sender deliberately and openly gives an opinion, perhaps with the intention of evoking a particular response from the receiver (Levy et al., 1998). However, there are cases in which it is possible for influence to occur without the sender having an intention to exert this influence (Blazevic et al., 2013; Kaiser et al., 2018). Therefore, the concept of interpersonal influence is broader than that usually studied, as this influence can be intentional as well as unintentional (Huston, 2002).

In relation to the definition of “intentional,” Motley (1986, p. 5) referred to “the simple presence of the intention the sender might have to transmit a message.” Thus, in intentional influence the sender communicates the message with the aim of influencing the behavior of the receiver. In contrast, unintentional influence occurs without the intention of the person that executes the action, because the receiver derives meaning from unintentionally meaningful behaviors (Motley, 1986). When the influence reflects an incidental consequence of an individual action, it should be considered as unintentional (Kaiser et al., 2018). In unintentional influence, senders are not intentional actors in the message dissemination process (De Bruyn and Lilien, 2008). Therefore, the sender plays a much more active role in intentional influences than in unintentional ones.

Both intentional and unintentional influences operate in human interactions (Motley, 1986), and both types of influence are also present in social media (Blazevic et al., 2013). Online recommendations are a typical example of intentional influences because the individual consciously selects a social media friend to whom they recommend a product or service. Another form of intentional influence occurs when individuals select one or several social media friends and invite them to join a brand page. Directly asking someone to share a brand page or a post are other forms of intentional influence because in each type the sender has a clear intention when sending the message to the receiver.

Nevertheless, the majority of actions that individuals perform on social media are activities that leave some signs or traces and result in incidental exposure to product-related information. This information about products and brands appears in receivers’ feed mixed in with other updates, and its influence on consumption is indeed incidental, as opposed to planned (Bergström and Jervelycke-Belfrage, 2018; Kaiser et al., 2018). Among those actions, the Like button could be considered the most representative tool for unintentional influence on social media. Most individuals usually press the Like button to indicate their preferences without any purposeful influencing activity (Naylor et al., 2012).

Many other actions performed on social media can also leave some signs for others, and may unintentionally influence them. For instance, individuals can go beyond the Like button on Facebook. In February 2016, Facebook introduced additional emotional signals (Love, Haha, Wow, Sad, Angry), called reactions, that users can apply when interacting with posts. These reactions are an extension of the Like button, and give users more ways to express their feelings towards a message in a quick and easy way (Badache and Boughanem, 2017). As with the Like button, expressing these new reactions may also impact receivers thereof¹.

Automatic notifications constitute another tool for unintentional influence because they are sent by the social network site (SNS) without the individual's intention of influence. Many social media apps, such as social media games, push notifications that appear in the newsfeed of app users' friends (Bergström and Jervelycke-Belfrage, 2018). App users are not usually aware of when or how many automatic notifications are sent to other people on social media, but these can also affect the behavior of receivers.

Unintentional influences can even occur without the influencer developing any action at all on social media (Wu et al., 2018), such as via actions taken by third parties. For instance, tagging others in photos or videos that are related to products or services, such as specific clothes or tourist destinations, may impact individuals who are exposed to those photos; these individuals are usually friends of the person tagged. When one is tagged on Facebook, one's Facebook friends may view that content (depending on the person's privacy settings), even if it has been posted by a third party. As a result, individuals who click Like on a brand page, or carry out any other action on social media that does not carry intention but leaves some sign, may become passive transmitters of brand information, and this information can unintentionally influence their social media friends' decisions and behaviors (Schultz, 2017). The key that distinguishes unintentional from intentional influences is the fact that unintentional influences occur without the intention of the person executing the action on social media (Blazevic et al., 2013). That person does not aim to influence any social media friend in particular, but is using social media as part of his/her everyday life. However, the intentionality of the sender may not coincide with the receiver's perceptions. For example, a sender may click the Like button in relation to brand information on social media with no intention to influence their social media friends, but receivers could perceive intentionality in this action. Likes are sometimes motivated by a brand incentive and receivers could consider this action as intentional. Since the influence on the receiver depends on whether the action is perceived to be intentional or unintentional

¹ Facebook uses an algorithm (EdgeRank) that decides which stories appear in each user's newsfeed or on their Facebook wall. Every action friends, groups, or brand pages take is a potential newsfeed story that may appear on the wall, but not all updates or news stories appear on the wall. It would be overwhelming if the wall showed all of the possible stories from one's friends, so Facebook's algorithm uses more than 10,000 variables to predict how interesting each story will be to each user (information available at edgerank.net).

(Blazevic et al., 2013), it is important to examine intentionality from the perspective of the receiver. In this sense, prior work has shown that whether receivers perceive an action as intentional can affect how they react to the action (Wu et al., 2018). Thus, this study analyzes type of influence (intentional vs. unintentional) from the receiver's point of view.

Recent studies have shown evidence for both types of influence on social media. Regarding intentional influences, Koo (2016) found that direct recommendations from friends affect the purchase intention of those who receive them. Similarly, Wang and Chang (2013) observed that a message from a friend on Facebook affects the purchase intention of receivers. In addition, previous studies have shown that consumers' recommendations on Facebook affect receivers' intention to adopt the recommended product (Aghakhani et al., 2018).

Regarding unintentional influence, recent studies have supported its effect on receivers. For instance, Likes, the most typical tool of unintentional influence, drive traffic and increase sales (Ding et al., 2017; Lee et al., 2015). Additionally, Mochon et al. (2017) found that Facebook Likes have a positive causal effect on offline customer behavior. Regarding the new emotional signals (Love, Haha, Wow, Angry, Sad), Badache and Boughanem (2017) recently demonstrated that these can be used to estimate the relevance of the information that elicited these emotional reactions, so that these new social signals may be used to estimate the impact of a message. Regarding automatic notifications, Aral and Walker (2011) showed that automatic notifications from a consumer's actions within an application may be received by their friends, and such notifications may build awareness of new products the consumer is engaging with and encourage those friends to eventually adopt the product themselves.

Since both intentional and unintentional influences operate on social media, and have been shown to have clear effects on receivers' behavior, it is necessary to analyze how intentional versus unintentional influences differ in the extent to which they change receivers' opinions and behaviors toward products and brands. However, to date, no evidence has been found that one influence provokes similar or different outcomes compared to the other. It is also unknown whether the influence occurs under similar or different mechanisms. In order to address this gap in the literature there is a need to delineate a model to explain the intentional versus unintentional influence of social media friends. To this end, we first propose the drivers and outcomes of social media friends' influence. Based on ELM theory, we next propose the mediators that may be useful for conducting comparisons between the two mechanisms of influence.

2.2. Drivers and outcomes of social media friends' influence

Regarding the drivers of social media friends' influence, a number of existing relational characteristics can determine the influential process; that is, the influence that one individual

exerts on another (Blazevic et al., 2013). Similarity and tie strength are two of the most studied variables in the social influence literature (Blazevic et al., 2013; Brown and Reingen, 1987; De Bruyn and Lilien, 2008), and two of the main factors of social influence studied to date (Chu and Kim, 2011; Gilly et al., 1998). For that reason, these two characteristics of the relationship—the strength of ties and the similarity between them—should be considered when examining the influence of social media friends (Bapna and Umyarov, 2015; Chu and Kim, 2011, Teng et al., 2014).

In this context, similarity refers to the extent to which two or more individuals are similar in aspects such as values, likes, dislikes, and experience (De Bruyn and Lilien, 2008). Tie strength is defined as “the level of intensity of the social relationship” (Koo, 2016, p. 44). This concept refers to the degree to which one is more or less involved in a given social relationship, feels close to the other person in the relationship, and values that relationship (Wilcox and Stephen, 2013). The strength of ties on social media may range from strong primary ties, such as with family and close friends, to weak ties, such as with online acquaintances and complete strangers (Teng et al., 2014).

Although some studies have confounded similarity and tie strength, there is a consistent and reasoned position in the literature that tends to separate them, considering that tie strength is conceptually different from similarity (Bapna and Umyarov, 2015; De Bruyn and Lilien, 2008; Steffes and Burgee 2009; Teng et al., 2014). In fact, the relationship between two individuals may be high in tie strength but low in similarity, or, conversely, low in tie strength but high in similarity. The latter is very likely to occur among social media friends, where people may know one another very little or have a distant relationship, but share many interests and hobbies. In many other cases, individuals may rate high in both concepts, as individuals with high tie strength may have similar likes and behaviors and individuals with high similarity may seek to strengthen their relationship, leading to high tie strength. Thus, tie strength and similarity are usually correlated (De Bruyn and Lilien, 2008). This correlation has provoked methodological problems when trying to assess the two concepts (Aral and Walker, 2014; Bapna and Umyarov, 2015; Rogers, 2003). Therefore, it is important to examine the effect of similarity and tie strength in a context that clearly allows for the two concepts to be distinguished from one another (Chu and Kim, 2011).

Both similarity and tie strength are proposed as drivers of the proposed model because there is wide support in the literature regarding the influence of these two relational characteristics on receivers. Similarity is very important on social influence (Chu and Kim, 2011; Gilly et al., 1998) because similarities between the sender and receiver increase the likelihood that the sender influences the receiver (Blazevic et al., 2013; Naylor et al., 2012). Regarding the role of tie strength, as it occurs offline (Brown and Reingen, 1987), strong-tie sources are perceived as

more influential compared to weak-tie sources on social media (Aral and Walker, 2014; Koo, 2016).

As for the consequences of social media friends' influence, purchase intention and social media engagement have been selected as the outcome variables for our model. This selection includes a combination of both commercial (purchase intention) and social (social media engagement) outcomes. Purchase intention in this context is conceptualized as the intention to buy something via the social media platform. Regarding social media engagement, a social outcome is included because social activities have been identified as one of the most important trends of e-commerce (Ko, 2018). Additionally, social media engagement is especially important because the influence of social media friends is subject to a social multiplier effect, such that once an individual has been influenced, that person may start influencing their own networked friends, thereby contributing to the diffusion of the product/brand (Bapna and Umyarov, 2015). Following previous research (Cvijikj and Michahelles, 2013; De Vries and Carlson, 2014; Luarn et al., 2015), social media engagement is conceptualized as the intention to interact with a message in the form of clicking the Like button next to, commenting on, and sharing that message.

Once we have established the drivers and outcomes of social media friends' influence, we need to examine the internal process or mechanism that leads from the drivers to the outcomes of the model. The mechanisms underlying each influential process may be examined through the introduction of mediating variables. ELM is suitable for this purpose because it deals with how attitudes change by analyzing the internal processes that occur during message elaboration. In fact, it is often used regarding behavioral changes in message receivers (Chang et al., 2015). It has also been used to examine influential processes (Bhattacharjee and Sanford, 2006), and was recently applied to individuals' behavior on SNSs (Aghakhani et al., 2018; Shi et al., 2018).

2.3. The Elaboration Likelihood Model

ELM is based on a theory of the processes responsible for an individual's yielding to persuasion. In essence, it proposes that attitude change and consequent behavior change may be caused by two routes of influence, the central route or the peripheral route, wherein cognitive elaboration is much higher in the central route than in the peripheral route (Petty and Cacioppo, 1986). These two routes are usually simplified as mutually exclusive, although people typically evaluate a message employing both routes (Aghakhani et al., 2018).

When elaboration is high—that is, under the central route—people are more likely to carefully examine the content of the message (Petty and Briñol, 2012). Under this route, persuasion will likely result from a person's careful and thoughtful consideration of the true merits of the information presented in the message. Judgments based on this central route tend

to persist over time and to have more consequences for other judgments and behaviors (Petty and Briñol, 2012). In contrast, when elaboration is low, people tend to minimize their cognitive efforts, and messages received are judged with relatively little elaboration (Petty and Cacioppo, 1986). Under the peripheral route people are more likely to be influenced by peripheral cues, without careful consideration of the argument content. Thus, the central route processes message-related arguments, whereas the peripheral route processes cues (Bhattacharjee and Sanford, 2006; Shi et al., 2018).

In regard to the mechanisms of influence that are used on social media, information should be important for individuals when elaboration is high—that is, under the central route (Aghakhani et al., 2018). Thus, information usefulness is a key variable in assessing the extent to which individuals process social media messages through the central route. Information usefulness refers to the degree to which the information is perceived to be valuable, informative, and helpful (Sussman and Siegal, 2003). In contrast, individuals may focus on peripheral cues when elaboration is low—that is, under the peripheral route. In this sense, one of the most studied peripheral cues is the source of the message (Kim and Benbasat, 2009). Therefore, we have introduced source usefulness into the model in order to assess the extent to which the individual is using the source, and therefore the peripheral route of processing. Source usefulness is the degree to which an individual is willing to use and request information from the source, and this source is generally used as a peripheral cue when consumers process the message (see, e.g., Shi et al., 2018). In sum, information usefulness and source usefulness are proposed as mediators of the social media friends' influence model, and these mediators will allow us to assess the extent to which individuals are using the central and the peripheral routes of processing. Relationships in the proposed model are explained in the following section.

2.4 The influence of social media friends: Proposed model

Having identified the drivers (similarity and tie strength), mediators (information usefulness and source usefulness), and outcomes (purchase intention and social media engagement), we can delineate a model that explains the influence of social media friends. Based on previous findings, similarity and tie strength are proposed to affect the perception of information usefulness and source usefulness. Information that comes from similar sources is perceived as more useful for making a decision than is information that comes from dissimilar sources (Kaiser et al., 2018; Steffes and Burgee, 2009). In addition, similar sources of information are perceived as more useful and valuable compared to dissimilar ones (Chu and Kim, 2011; McPherson et al., 2001; Teng et al., 2014). Thus, similarity is positively related to both information usefulness and source usefulness in the proposed model.

Regarding tie strength, strong-tie sources are likely to transmit information that is of higher value compared to weak-tie sources because of the former's higher trustworthiness (Cheung et al., 2008; Koo, 2016). In a similar vein, Wang and Chang (2013) observed that information is more likely to be considered useful when it comes from close sources, whereas information from acquaintances is more likely to be seen as less valuable or more suspicious. Additionally, previous studies have shown that close friends have a higher degree of trust in one another when compared to acquaintances (Wang and Chang, 2013). Thus, the higher the tie strength between individuals, the higher the likelihood that one person will consult or ask the other for advice when making decisions (Chu and Kim, 2011; Renton and Simmonds, 2017). Therefore, in the proposed model tie strength is positively related to both information usefulness and source usefulness.

Regarding the impact of information usefulness on the outcomes of the model, the informative content of the message has been shown to have a direct impact on the influence of the message received (Cheung and Thadani, 2012), because it enables the individual to make better choices (Sykes and Ventakesh, 2017). Therefore, the higher the information usefulness of the message, the higher the purchase intention (Park and Lee, 2008; Wang and Chang, 2013; Lee and Ko, 2015). Information usefulness may also affect receivers' engagement with messages on social media. In this sense, Cvijikj and Michahelles (2013) found that informational content is one of the main drivers that leads active users to participate in engagement behaviors on social media, such as liking, commenting on, and sharing. Similarly, De Vries and Carlson (2014) revealed that consumers who perceive information to be of high value have a higher intention to engage with it. Therefore, information usefulness has a positive effect on both purchase intention and social media engagement.

Finally, the extent to which the source of the message is considered useful by receivers may enhance the receivers' intention to buy the product or brand object of social influence. Several studies have confirmed that the perception of the source determines its level of persuasion (Cheung et al., 2008; Teng et al. 2014; Sykes and Ventakesh, 2017). Therefore, the higher the usefulness of the source, the higher the intention to buy the product or brand. As for social media engagement, the perception of the source may also affect receivers' behavior (Shen et al., 2014; Teng et al., 2014), including individuals' engagement with the message on social media. Thus, source usefulness has a positive impact on the proposed outcomes.

The relationships identified based on previous research and included in the proposed model are depicted in Figure 1, which is useful for examining the underlying mechanisms of intentional and unintentional influences.

Figure 1. Proposed model

2.5 Hypothesis formulation: Differences in the mechanisms underlying intentional vs. unintentional influences

In this section, we propose that whether the influence is perceived to be intentional or unintentional will determine which of the two routes of processing is used by receivers. According to ELM, the likelihood of elaboration depends on the motivation and ability to process a message (Petty and Cacioppo, 1986). Assuming that most individuals generally have the ability to process the brand-related messages that come from their social media friends (as these messages are usually very simple and short), receivers' motivation to process the message would be the primary factor determining their likelihood of elaboration. This motivation may vary depending on whether the influence of the social media friend is perceived to be intentional or unintentional.

When a social media friend sends an intentional message about a product or brand on social media, the act can be seen by the receiver as purposeful. In this situation, the reaction of the receiver may be more reflexive than in one of unintentional influence (Gasiorek and Giles, 2012). In fact, Aghakhani et al. (2018) recently showed that when receiving an explicit message from a social media friend the cognitive part of the elaboration process is more important than when exposed to a Like alone. According to Verlegh et al. (2013), when intention is perceived in the message, the receiver will engage in an inference-making process in attempting to understand the motivations behind the message. Similarly, Blazevic et al. (2013) proposed that when receivers are aware that the sender is trying to influence them, they will think about the recommendation itself. Therefore, there seems to be some consensus regarding the idea that when receivers perceive intentionality in a message, motivation to process the message is high. In terms of ELM, this higher motivation means that the central route of persuasion will be more likely in intentional influences than in unintentional ones.

In contrast, under unintentional influences, receivers do not perceive intentionality in the sender's action, and the motivation to process the message may be therefore lower. As there are no ulterior motives to be inferred (Verlegh et al., 2013), receivers will probably focus on peripheral cues (Bhattacharjee and Sanford, 2006). This assumption is corroborated by Gupta and Harris (2010), who proposed that consumers with low information processing motivation are more likely to seek some heuristic cues or other ways to minimize their cognitive effort to make a decision. This reasoning is perfectly in line with the idea that it is very difficult for individuals to carefully process every message received in daily communication, and decisions are sometimes based on a more superficial processing of peripheral cues (Bhattacharjee and Sanford, 2006). As a result, individuals who perceive a message as unintentional may be more inclined to use the peripheral route in their decision-making process.

The above reasoning leads us to think that the intentional and unintentional influences that take place in social media may operate through different mechanisms. For influences perceived as intentional, the central route of processing will be the preferred mechanism of influence. In contrast, for influences perceived as unintentional, receivers will more likely use the peripheral route of processing. Therefore, depending on whether the influence is perceived as intentional or unintentional, the relationships proposed in the model may differ between the two influential processes, as the effect of the drivers (similarity and tie strength) on the outcomes can occur through different paths.

As stated above, when receivers perceive intentionality in a message they will conduct greater elaboration. Following the ELM framework, the central of route processing will then be activated and receivers will be more likely to carefully examine the content of the message (Petty and Briñol, 2012). Thus, individuals will develop a deeper examination of the arguments of the message, thereby using information (operationalized as information usefulness in the model) as the main element in their decision process. Consequently, the influence that similarity and tie strength have on purchase intention and social media engagement will be more pronounced through information usefulness for intentional influences than for unintentional ones. In contrast, when individuals do not perceive an intention of influence, elaboration will be lower and receivers will probably use peripheral cues in their decision process. According to ELM, the source of the message is considered to be one of the most important peripheral cues (Kim and Benbasat, 2009). Thus, using the source (operationalized as source usefulness in the model) may serve to simplify the receivers' decision process. Consequently, the effect that similarity and tie strength have on purchase intention and social media engagement will be more pronounced through source usefulness for unintentional influences than for intentional ones. On the basis of this reasoning, we propose the following hypothesis:

H1: The type of influence (intentional vs. unintentional) will moderate the indirect effects of similarity and tie strength on purchase intention and social media engagement.

H1a: The indirect effects of similarity and tie strength on purchase intention and social media engagement will be more pronounced through information usefulness for intentional influences than for unintentional influences.

H1b: The indirect effects of similarity and tie strength on purchase intention and social media engagement will be more pronounced through source usefulness for unintentional influences than for intentional influences.

3. Study 1: Methodology

3.1. Study design and data collection

A 2 x 2 between-subjects experimental design was developed in which tie strength (strong vs. weak) and type of influence (intentional vs. unintentional) were manipulated. This design was used to generate substantial variation in tie strength and in the type of influence, which is a common and recent approach to dealing with independent variables (De Meulenaer et al., 2015; Sugathan et al., 2017). Participants were contacted through an online panel and were randomly assigned to one of the four experimental conditions. In total, a sample of 604 Facebook users participated in the study. Facebook was selected because it is the most popular social media platform around the world (Ko, 2018).

In order to develop the stimuli, we used a fictitious new restaurant called “DeTapas.” Previous studies have successfully used restaurants when analyzing consumer recommendations and interpersonal influence (Wetzer et al., 2007). Services create ambiguity and confusion related to consumer choices because of the heterogeneity of quality, the higher associated risk, and their intangible nature (Lim and Chung, 2011). The novelty of the service ensured that our participants could be influenced by others rather than by their previous attitudes toward the restaurant. Participants of the study were exposed to a personalized Facebook wall.

In order to manipulate tie strength, individuals were instructed at the beginning of the questionnaire to write the names of five of their Facebook friends with whom they had either a strong or a weak relationship (see Appendix A for the specific instructions used in this manipulation). Following Koo (2016), strong ties were equated with close friends, and weak ties with acquaintances. One of those five friends (either strong or weak tie) was randomly and automatically selected by the system to personalize both the stimuli and the questionnaire for each participant. This manipulation ensured a high variance in this variable.

The type of influence (intentional vs. unintentional) was manipulated (see Appendix B). Similar to Aral and Walker (2011), we used a direct recommendation for the intentional condition. This action allows users to select a friend and to send a direct message to recommend a product or service. The sentence “Look at this new restaurant that has just opened!” was included as a message to reinforce the intentionality of the influence. The action of inviting the friend and writing the message requires conscious and deliberate action from the user, and for that reason we considered it as an intentional influence.

For the unintentional condition, participants were exposed to a Facebook wall on which they saw that one of their Facebook friends had clicked “Like” on the brand page of DeTapas restaurant. This stimulus simulated the automatic notification that Facebook sends when individuals click Like on a brand page on Facebook. Automatic notifications are passively

triggered by normal user activity (Aral and Walker, 2011). Unlike the intentional influence, the individual does not usually have a specific or clear intention to influence any particular friend with this action (there is no option to select specific friends, no personal invitation, no text to be written).

In order to check whether the intentional and unintentional conditions were clearly distinguished by receivers, we conducted a pretest with 40 individuals (20 for each condition). Following exposure to this stimulus, participants of the pretest were asked about the intentionality they perceived their friend had with the direct recommendation or with the action of clicking Like on the brand page. Following Gasiorek and Giles (2012), three items on a 10-point scale were used for this pretest (Cronbach's $\alpha=0.762$). The items were the following: (1) My friend tried to influence me; (2) My friend deliberately communicated with me; (3) My friend consciously sent the message to me. Results clearly showed that individuals perceived higher intentionality in the intentional influence condition than in the unintentional one ($M_{\text{Intentional}}=6.92$ vs. $M_{\text{Unintentional}}=4.26$; $F(1,39)=16.527$, $p<0.05$).

3.2 Procedure

Several questions introduced at the beginning of the questionnaire were used to personalize the stimuli and the rest of the online questionnaire with the name of the participant on Facebook, the names of their Facebook friends, and the location of the restaurant. Participants were then exposed to the stimulus, in which they could see that one of their previously mentioned friends had clicked Like on the brand page of a new restaurant called DeTapas, or had sent them a direct recommendation about its brand page (Appendix B). After being exposed to this stimulus, participants completed the rest of the questionnaire.

3.3 Measurement

Several scales were adapted from the literature to measure the constructs used in the present research (the items are detailed in Table 1). Similarity was measured using a semantic-differential scale based on Chu and Kim (2011). This scale is composed of three items. To facilitate the responses, this scale was personalized for each participant with the name of his/her Facebook friend. Source usefulness was measured by adapting the scale of Liang et al. (2011), composed of two items, and was also personalized with the name of the participant's Facebook friend. The information usefulness scale was composed of five items adapted from the studies of Kempf and Smith (1998) and Purnawirawan et al. (2012). Additionally, purchase intention was adapted from Chiang and Jang's (2006) study and was composed of three items. Social media engagement was measured with three indicators that reflected the most typical interactions that could be performed by individuals (press the Like button, share the brand page, comment on the brand page) on Facebook. This measurement was based on Luarn et al. (2015).

Regarding tie strength, participants indicated the strength of the relationship with their friend (this question was also personalized with the name of the Facebook friend) on a semantic-differential scale composed of three items based on Brown and Reingen (1987). Individuals also had to remember the scenario they were allocated to by indicating what type of relationship they had with their Facebook friend (friend or acquaintance). Concerning the type of influence, participants were also required to recall the condition they had been assigned to by answering the following question: “My Facebook friend clicked Like on the brand page” (unintentional influence) or “My Facebook friend sent me a recommendation about the brand page” (intentional influence). In addition, they were asked about the intentionality they perceived their friend had with the recommendation or with the action of clicking Like on the brand page by using the same scale that was used in the pretest (Gasiorek and Giles, 2012). Attitude towards social network sites was included in the questionnaire as a control variable. It was measured using seven items adapted from Alhidari et al.’s (2015) scale. All measurements used in the questionnaire used 10-point scales.

4. Results of Study 1

4.1 Manipulation checks and sample characteristics

The mean age of the sample was 32 years old, and 48% of the subjects were male. No significant differences were found ($p > .10$) among the experimental conditions for these variables.

The majority of individuals remembered the scenario in both manipulations, tie strength (83.08% for strong ties, 90.11% for weak ties) and type of influence (80.14% for intentional influence, 75.54% for unintentional influence). In addition, participants in the strong-tie condition had a stronger relationship with their selected Facebook friend compared to participants in the weak-tie condition ($M_{\text{strong ties}}=7.78$, $M_{\text{weak ties}}=3.90$; $F(1,602)=516.58$, $p < 0.01$). Similarly, participants in the intentional influence condition perceived more intentionality compared to individuals in the unintentional influence condition ($M_{\text{intentional}}=5.16$, $M_{\text{unintentional}}=4.49$; $F(1,602)=15.418$, $p < 0.01$).

In order to analyze the moderating effect of type of influence (intentional vs. unintentional), we used the scale of perceived influence. The median split procedure was employed to divide the sample into two groups (De Meulenaer et al., 2015).

4.2 Common method variance

As a self-reported questionnaire was used, we conducted two tests to analyze the common method variance. First, we conducted Harman’s single-factor test (Podsakoff et al., 2003). This analysis produced six factors, with the first accounting for only 45% of the variance. Second, we modeled all items as indicators of a single factor representing the common method effect (Malhotra et al., 2006). The confirmatory factor analysis (CFA) showed poor fitness ($p=0.000$, NNFI=0.299;

IFI=0.362; CFI=0.360; RMSEA=0.219). These results suggest that common method variance is not a great concern in the model.

4.3 Tie strength treatment

Although tie strength and similarity can be clearly distinguished theoretically (Aral and Walker, 2014; Brown and Reingen, 1987), their use in the same model may be problematic. As explained in the literature review, tie strength tends to be correlated with similarity, making their measurement difficult to untangle in practice (Rogers, 2003). In fact, both variables are highly correlated in our data (0.609). Therefore, we did not use the full tie strength variable in the analysis; instead, we used the random component of this variable—that is, the variance of tie strength that is not explained by similarity. Following Mukras (1993), we calculated the random component of tie strength by regressing the three items used to measure similarity on the continuous measurement of tie strength. The residuals of the regression were saved as a new variable, which was then used in the analyses. As the residuals are the variation of the dependent variable that is not explained by the independent variables (Mukras, 1993), they compose the random component of tie strength.

4.4 Scale validation

Scale validation was calculated using data on the intentional and unintentional influence conditions separately. Descriptive statistics of the variables are shown in Table 1, and correlations between them in Table 2.

Table 1. Descriptive statistics (Study 1)

Table 2. Bivariate correlations (Study 1)

We assessed the validity of the scales by performing a CFA for each group. The model was found to have acceptable fit indices for the intentional (χ^2 (232) =743.156, $p<0.01$; NNFI=0.904; IFI=0.920; CFI=0.920; TLI=0.904; RMSEA=0.081) as well as for the unintentional (χ^2 (232) =591.756, $p<0.01$; NNFI=0.918; IFI=0.932; CFI=0.931; TLI=0.918; RMSEA=0.076) group. As Table 3 shows, each item has significant factor loading ($p<0.01$) for the theorized constructs. All values are over 0.60 (Bagozzi and Yi, 1988). These results ensure the convergent validity of the measures used.

The Cronbach's alpha coefficients are all greater than 0.70 (Nunnally, 1978). The composite reliability is above the standard of 0.60 suggested by Bagozzi and Yi (1988). In addition, we tested the average variance extracted (AVE) for each factor. The results show that the 0.50 minimum suggested by Fornell and Larcker (1981) is exceeded by all constructs. These findings support the reliability of the multi-item measures used in the study. We assessed discriminant validity using two approaches. First, we compared the AVE for each of our constructs with the

squared correlation between construct pairs (Fornell and Larcker, 1981). Table 4 shows that the AVE exceeds the squared correlations for all measures. Second, the confidence interval was calculated at plus or minus two standard errors around the correlation between the factors (Anderson and Gerbing, 1988); none of the confidence intervals in the analysis included 1.0. These two tests provide evidence for the discriminant validity of our measures.

Table 3. Measurements of convergent validity and reliability (Study 1)

Table 4. Measurement of discriminant validity (Study 1)

4.5 Results

Previous to the hypotheses testing, it is necessary to explore whether the effect of intentional and unintentional influences is similar. We developed an ANOVA test in which purchase intention and social media engagement were the dependent variables. Results show that there are no differences in either purchase intention ($M_{\text{unintentional}}=3.89$, $M_{\text{intentional}}=3.98$; $F(1,602)=0.217$, $p>0.1$) or social media engagement ($M_{\text{unintentional}}=4.03$, $M_{\text{intentional}}=4.08$; $F(1,602)=0.051$, $p>0.1$) between the intentional and the unintentional influence conditions. Therefore, both unintentional and intentional influences of social media friends exert similar outcomes on receivers.

The research model proposed in Figure 1 was tested using a structural equation modeling (SEM) approach and was tested separately for both conditions. Attitude toward social network sites was introduced as a control variable into the model. The structural model's fit to the data is acceptable for both intentional influences ($\chi^2=804.032$ (239), $p<0.01$; NNFI=0.897; IFI=0.912; CFI=0.911; TLI=0.897; RMSEA=0.084) and unintentional ones ($\chi^2=635.123$ (239), $p<0.01$; NNFI=0.912; IFI=0.925; CFI=0.924; TLI=0.912; RMSEA=0.079).

As shown in Table 5, the control variable affects both dependent variables, social media engagement and purchase intention, for the intentional and unintentional groups. Regarding the proposed model, Table 5 shows the results obtained for intentional and unintentional influence. For intentional influence, all proposed relationships are positive and significant except for the relationships between source usefulness and the outcomes of the model (purchase intention and social media engagement), which are not significant. For unintentional influence, the only non-significant effect is the path from tie strength to information usefulness.

Table 5. Comparison of results for intentional and unintentional influence (Study 1)

A multi-group SEM analysis was conducted to test the moderation effect of the type of influence (intentional vs. unintentional). With that aim, the model was first tested for all individuals ($N=604$) and was found to have acceptable fit indices ($\chi^2=1439.154$ (478), $p<0.01$; NNFI=0.904; IFI=0.917; CFI=0.917; TLI=0.904; RMSEA=0.082).

As Jöreskog and Sörbom (1993) proposed, we used a chi-square difference test in order to compare a model in which the path to be moderated was restricted to be equal in the two groups, with an unconstrained model in which this path was allowed to vary freely across the groups. If the unconstrained model demonstrated a significantly lower chi-square value than the constrained model did, the moderating effect could be said to exist. As we can see from Table 5, the type of influence (intentional vs. unintentional) moderates the relationship between similarity and source usefulness ($\Delta\chi^2= 4.795$, $p<0.05$). Similarity exerts a positive and significant effect on source usefulness for both types of influence ($\beta_{\text{intentional}}=0.332$; $p<0.01$; $\beta_{\text{unintentional}}=0.526$; $p<0.01$); however, this effect is stronger for unintentional influence than for intentional influence. Additionally, the type of influence moderates the relationship between tie strength and information usefulness ($\Delta\chi^2= 4.160$, $p<0.05$). Tie strength has a positive effect on information usefulness for intentional influence ($\beta_{\text{intentional}}=0.130$; $p<0.01$), but this relationship is not significant for unintentional influence ($\beta_{\text{unintentional}}=-0.013$; $p>0.1$).

The type of influence also moderates the relationship between information usefulness and the outcomes. Specifically, information usefulness has a stronger effect on the outcomes for intentional than for unintentional influence (Dependent variable: purchase intention, $\beta_{\text{intentional}}=0.664$, $p<0.01$; $\beta_{\text{unintentional}}=0.236$; $p<0.01$; $\Delta\chi^2= 4.379$, $p<0.05$; Dependent variable: social media engagement, $\beta_{\text{intentional}}=0.716$, $p<0.01$; $\beta_{\text{unintentional}}=0.496$; $p<0.01$; $\Delta\chi^2= 6.717$, $p<0.01$).

Moderated mediation effects were tested by following Preacher et al.'s (2007) recommendations. They proposed that moderated mediation effects be tested by analyzing the conditional indirect effects, which are the indirect effects that are potentially conditional on the value of the moderator. In other words, the significance of the indirect effects will be tested for the different values of the moderator. Therefore, we tested the indirect effects of similarity and tie strength on purchase intention and social media engagement through information usefulness and source usefulness for both types of influence (intentional and unintentional). The indirect effects were calculated using SEM.

As shown in Table 6, all indirect effects through information usefulness are significant for intentional influence, but only two of the indirect effects (that similarity has on the two outcomes) are significant for unintentional influence. Overall, the results seem to support the idea that the indirect effects are more pronounced through information usefulness for intentional influences than for unintentional influences, providing support for H1a.

Regarding source usefulness, the indirect effects from the drivers to the outcomes of the model are not significant for intentional influences; that is, source usefulness does not mediate the relationships between similarity and tie strength and the two outcomes for this type of influence.

In contrast, the results support the indirect effects from the drivers to purchase intention and social media engagement through source usefulness for unintentional influences (see Table 6). Thus, H1b is also supported. Figure 2 shows the results obtained for both types of influence.

Table 6. Comparison of the indirect effects for intentional versus unintentional influence (Study 1)

Figure 2. Comparison of results for intentional versus unintentional influence (Study 1)

5. Study 2: Methodology

An additional study was developed to enhance the external validity of the results obtained in Study 1, and to test the hypothesis manipulating similarity rather than tie strength. Thus, another 2 x 2 between-subjects experimental design was developed in which similarity (low vs. high) and type of influence (intentional vs. unintentional) were manipulated. Participants were again contacted through an online panel and were randomly assigned to one of the four experimental conditions. In total, a sample of 577 Facebook users participated in Study 2. We used the same fictitious restaurant, and the type of influence (intentional vs. unintentional) was manipulated in the same way as in Study 1.

In order to manipulate similarity, individuals were instructed to write the names of five of their Facebook friends that were very similar to them or very different from them (see Appendix C for the specific instructions used in this manipulation). One of those five friends (either high or low in similarity) was randomly and automatically selected by the system; this approach was taken in order to personalize both the stimuli and the questionnaire for each participant. This manipulation also ensured high variance in this variable.

The procedure was similar to that followed in Study 1, while the measurement was the same as in Study 1 except for the fact that we introduced a manipulation check measure for the variable similarity. Individuals had to remember the scenario they were allocated to, and were asked to indicate whether the friend that had clicked Like on the brand page, or had sent the recommendation for the restaurant, was very similar to them or very different from them.

6. Results of Study 2

6.1 Manipulation checks and sample characteristics

The mean age of the sample was 35 years old, and 42% of the subjects were male. No significant differences were found ($p > .10$) among the experimental conditions for these variables.

The majority of individuals remembered the scenario in both manipulations, similarity (77.85% for high similarity, 85.32% for low similarity) and type of influence (83.21% for

intentional influence, 78.41 % for unintentional influence). In addition, participants in the condition of high similarity perceived themselves to be more similar to their Facebook friend compared to participants in the condition of low similarity ($M_{\text{high similarity}}=7.18$, $M_{\text{low similarity}}=4.34$; $F(1,575)=317.23$, $p<0.01$). As in Study 1, participants in the intentional influence condition perceived more intentionality compared to individuals in the unintentional influence condition ($M_{\text{intentional}}=5.71$, $M_{\text{unintentional}}=4.46$; $F(1,575)=54.51$, $p<0.01$).

6.2 Common method variance

We analyzed common method variance following the same procedure as that used in Study 1. The results obtained indicate that common method variance is not a problem in this model. First, Harman's single-factor test (Podsakoff et al., 2003) produced six factors, with the first accounting for only 43.5% of the variance. Second, the common method effect showed poor fitness ($p=0.000$, NNFI=0.413; IFI=0.487; CFI=0.486; RMSEA=0.251).

6.3 Scale validation

Scale validation was also conducted using data for the intentional and unintentional influence conditions separately. Descriptive statistics of the variables are shown in Table 7, and correlations between them are shown in Table 8.

Table 7. Descriptive statistics (Study 2)

Table 8. Bivariate correlations (Study 2)

As in Study 1, we assessed the validity of the scales by performing a CFA for each group. The model was found to have acceptable fit indices for the intentional ($\chi^2(232)=575.530$, $p<0.01$; NNFI=0.920; IFI=0.933; CFI=0.933; TLI=0.910; RMSEA=0.074) as well as for the unintentional ($\chi^2(232)=708.830$, $p<0.01$; NNFI=0.899; IFI=0.933; CFI=0.933; TLI=0.910; RMSEA=0.074) groups. As Tables 9 and 10 show, the results ensure the composite reliability and the convergent and discriminant validity of the measures used.

Table 9. Measurements of convergent validity and reliability (Study 2)

Table 10. Measurement of discriminant validity (Study 2)

6.4 Results

In order to understand the effect of the type of influence on the outcomes of the model, we developed an ANOVA test in which purchase intention and social media engagement were the dependent variables. Results show that there are no differences in either purchase intention ($M_{\text{unintentional}}=3.99$, $M_{\text{intentional}}=4.21$; $F(1,575)=1.095$, $p>0.1$) or social media engagement ($M_{\text{unintentional}}=4.28$, $M_{\text{intentional}}=4.52$; $F(1,575)=1.605$, $p>0.1$) between the intentional and the unintentional influence conditions. Therefore, results obtained in Study 2 resemble those

obtained in Study 1, as influences perceived as intentional provoke similar outcomes compared to influences perceived as unintentional.

The research model proposed in Figure 1 was tested separately for both conditions.² Attitude toward social network sites was also introduced to the model as a control variable. The structural model's fit to the data is acceptable for both intentional influences ($\chi^2=637.709$ (239), $p<0.01$; NNFI=0.910; IFI=0.923; CFI=0.922; TLI=0.910; RMSEA=0.078) and unintentional ones ($\chi^2=759.152$ (239), $p<0.01$; NNFI=0.920; IFI=0.908; CFI=0.907; TLI=0.893; RMSEA=0.085). Table 11 shows the results obtained for intentional and unintentional influence. For intentional influence, and in line with the results obtained in Study 1 (see Table 5), all proposed relationships are positive and significant except for those between source usefulness and the outcomes of the model (purchase intention and social media engagement), which are not significant. For unintentional influence, the path from tie strength to information usefulness is not significant, as also found Study 1; however, in this case the path from source usefulness to purchase intention is also non-significant.

Table 11. Comparison of results for intentional and unintentional influence (Study 2)

As in study 1, a multi-group SEM analysis was conducted to test the moderation effect of the type of influence (intentional vs. unintentional). The model was first tested for all individuals (N=577) and was found to have acceptable fit indices ($\chi^2=1396.861$ (478), $p<0.01$; NNFI=0.901; IFI=0.915; CFI=0.914; TLI=0.901; RMSEA=0.082).

As shown in Table 11, type of influence (intentional vs. unintentional) moderates the relationships between similarity and source usefulness ($\Delta\chi^2= 10.141$, $p<0.01$), between tie strength and information usefulness ($\Delta\chi^2= 3.909$, $p<0.05$), and between information usefulness and purchase intention ($\Delta\chi^2= 4.589$, $p<0.05$). All these moderations resemble those obtained in Study 1; the only difference is that in Study 2 moderation of the relationship between information usefulness and social media engagement was not significant.

Regarding the moderated mediation effects, results obtained for Study 2 are shown in Table 12. As in Study 1 (see Table 6), information usefulness mediates the relationship between similarity and the outcome variables for intentional and unintentional influence. Information usefulness also mediates the effect that tie strength has on purchase intention and on social media engagement for intentional influence. However, information usefulness is not a mediator in the relationships between tie strength and the outcomes for unintentional influences. Thus, information usefulness is more relevant to explain the influential process on intentional

² Tie strength and similarity were treated as in Study 1. The random component of tie strength was used.

influences. These results resemble those obtained in Study 1. Therefore, this study provides further support for H1a.

Regarding source usefulness, none of the indirect effects from the drivers to the outcomes of the model are significant for intentional influences, which provides additional support for the results obtained in Study 1 for this condition. Regarding the unintentional condition, indirect effects through source usefulness are significant for social media engagement but are not significant for purchase intention (Table 12). Therefore, Study 2 supports H1b for social media engagement but not for purchase intention. Figure 3 shows the results obtained for both types of influence.

Table 12. Comparison of the indirect effects for intentional versus unintentional influence (Study 2)

Figure 3. Comparison of results for intentional versus unintentional influence (Study 2)

7. Discussion

Several studies have supported the existence of intentional and unintentional influence of social media friends (see, e.g., Aral and Walker, 2014), but they have failed to provide an explanation of the mechanisms underlying both types of influence. Driven by the need for a theoretical rationalization about these influential processes, and drawing on ELM, the present study proposes and empirically tests a model to explain the differences between intentional and unintentional influences of social media friends.

Based on previous research, we have delineated similarity and tie strength as drivers of influence (Chu and Kim, 2011; Teng et al., 2014), information usefulness and source usefulness as mediators (Sussman and Siegal, 2003, Shi et al., 2018), and purchase intention and social media engagement (Luarn et al., 2015; Ko, 2018) as outcomes of the proposed model. Building on the ELM framework (Petty and Cacioppo, 1986), two empirical studies were used to test and compare the proposed relationships for intentional and unintentional influences. The results obtained in both studies indicate that the mechanisms underlying intentional and unintentional influences of social media friends differ. Intentional influences are based more on an evaluation of the information received, whereas unintentional influences are based on both the source of the influence and the information received. The theoretical contributions of the study and the practical implications of our findings are discussed below.

5.1 Theoretical contributions

First, we contribute to the literature by extending prior research that has dealt with the unintentional influence of social media friends (Bapna and Umiyarov, 2015; Lee et al., 2015).

Interestingly, the present study shows that intentional and unintentional influences exert a similar effect on receivers' behavior. Results are highly consistent across the two studies in this respect. There are no differences in any of the outcomes—either purchase intention or social media engagement—between intentional and unintentional influences. This result highlights the importance of unintentional influence in this context, since many brand-related actions performed on social media leave some signs for others that may exert an impact on receivers that is similar to that of direct and intentional messages. To the best of our knowledge, this is the first study to compare the intentional and unintentional influences of social media friends, rather than studying each type of influence in isolation. In addition, we have found that similarity and tie strength influence purchase intention and social media engagement through two mediators, information usefulness and source usefulness. These mediators aim to capture two of the aspects that are most evaluated by individuals when they receive information—the source, and the information per se (Bhattacharjee and Sanford, 2006; Cheung and Thadani, 2012).

Second, we contribute to the literature by explaining the different mechanisms through which intentional and unintentional influences operate. In this vein, this study enhances understanding of both intentional and unintentional influences of social media friends. The two empirical studies confirm that, as proposed, the indirect effects are more pronounced through information usefulness for intentional influences than for unintentional influences. In terms of ELM, the central route is more important for intentional influences. In fact, it is the only significant route of processing for intentional influences, since the indirect effects through source usefulness are not significant in either of the two empirical studies developed. Thus, information usefulness seems to be the key mediator for intentional influences. This means that when receivers perceive a social media friend as trying to influence them, the most important aspect considered in making a decision is the information received about the product or brand.

In contrast, both source usefulness and information usefulness are important in unintentional influences. When the receivers do not perceive intentionality, both the information received and the source will be considered in the decision. Overall, these results indicate that both routes of influence—the central route through information usefulness and the peripheral route through source usefulness—may be used at the same time when receivers do not perceive intentionality, confirming that these routes are not mutually exclusive (Aghakhani et al., 2018). Regarding the moderation proposed, none of the indirect effects through source usefulness were significant for intentional influences, whereas these indirect effects were significant for social media engagement across the two studies. This moderated mediation highlights the role of the source when the influence is perceived as unintentional.

Third, this study contributes to the literature by conceptually and empirically distinguishing similarity from tie strength. This distinction has been reported as a key challenge for the development of effective marketing strategies (Aral et al., 2009). Similarity and tie strength have traditionally characterized the relationship between two individuals (Brown and Reingen, 1987; Chu and Kim, 2011), and although they are different concepts (Teng et al., 2014), they have been confounded in some studies (see, e.g., Aral and Walker, 2014). Conceptually, this paper contributes to the literature by illustrating that two individuals may rate high in similarity and low in tie strength, and vice versa. Empirically, this study contributes to previous works via the creation of an experimental design that involved the manipulation of tie strength to ensure a high variance of this variable (De Meulenaer et al., 2015). We then used the random component of tie strength (Mukras, 1993), thereby eliminating the correlation problems that have appeared in previous studies (Rogers, 2003) and distinguishing between the two concepts, which has been acknowledged as a difficult task (Shalizi and Thomas, 2011). Thus, even if they are highly correlated, as was the case in our study, researchers may be able to analyze similarity and tie strength as different variables, thereby clearly identifying their separate effects. We think that the way we have dealt with tie strength and similarity may be useful for future studies.

5.2. Managerial implications

For businesses, the ultimate goal of using social media is to increase the company's profitability (Ko, 2018). In this vein, the results of this study can help businesses because they may be used to improve the profitability of firms' social media strategies.

First, this paper has demonstrated similar outcomes derived from both intentional and unintentional influences of social media friends. Results are highly consistent across the two studies in this respect. This knowledge may be used in the promotion of brand pages. One of the most used promotional strategies consists of encouraging the action of clicking Like on social media brand pages. As explained in the paper, when this action is developed by the individual, it may result in unintentional influence. Thus, the social media platform (i.e., Facebook) should collect information derived from unintentional actions—that is, the signs left by users throughout the network—which companies can use to design their promotion strategies. In this sense, this study's findings suggest that the information used to promote brand-related content should be based on the unintentional actions developed by social media friends. For instance, Facebook offers the option to segment "by connections" (i.e., by friends) when promoting a brand page. By following this segmentation, only individuals who are friends of those who have liked the brand page will be exposed to this promotion. Given our results on unintentional influences, this type of segmentation should be further used in order to enhance the success of social media campaigns.

Second, as similarity and tie strength were found to be important drivers of social media influence, social media platforms could improve their segmentation options by allowing companies to select which social media friends should be exposed to the promoted brand page. This new option could be based on either similarity or tie strength, or even on both of these. This would imply that the promoted brand page will be shown to social media friends who share interests with the individual who has liked the brand page (similarity), to social media friends with whom the individual feels close (tie strength), or to social media friends who are both similar and close to the individual. According to the results obtained in our two studies, promoting the brand page by using these new segmentation options could be very efficient for increasing purchase intention and social media engagement.

Third, our findings could be useful for advertising campaigns in which companies encourage consumers to engage with brand-related content on social media. If the company encourages social media users via active recommendation of brand-related information (e.g. “to participate in the contest you have to send this post to five of your friends”), this action is likely to be perceived as intentional and receivers will evaluate the message received based on information usefulness. In contrast, if the company is just asking users to click Like on the brand page (e.g., “Give me a Like”), receivers of this action are more likely to perceive the message as unintentional, and they will not only consider the information received but also the source of the message. Thus, when companies feel that receivers will perceive the brand-related information as useful (e.g., new product characteristics, such as a price reduction), the most appropriate strategy should be to encourage social media users to actively engage with brand-related content, and even to send direct messages to their friends. Otherwise, companies should encourage consumers to simply like the brand page or the post containing brand-related information, or to take other actions (such as the new Wow and Haha reactions on Facebook) if the informative content is less relevant in the consumer decision process (e.g., an entertainment video).

Finally, the results obtained could be very useful with respect to improving the design of social media platforms’ newsfeed algorithms based on unintentional actions developed by social media friends. Thus, as these algorithms determine which content appears on each individual’s newsfeed, managers should be able to consider who should be exposed to these unintentional actions. In this sense, managers should use signs and traces derived from unintentional influences as liking, loving, or playing brand-related games, or even actions developed by third parties associated with close and similar social media friends. As we have found, receivers will focus on source usefulness when analyzing messages derived from unintentional influences. Purchase intention and social media engagement will be encouraged if social media platforms follow these recommendations.

5.3. *Limitations and further research*

It should be noted that this study has some limitations, which present opportunities for future research. First, both samples were composed of Facebook users. Facebook is one of the most popular social media platforms, but it is not absent from criticism and has been losing its hegemony in favor of others, such as Instagram, that have better performance in terms of companies' sales. Second, this study investigated only one service category—a restaurant. This service may entail a moderate level of involvement (Koo, 2016); furthermore, services are usually more subject to others' influence compared to tangible products. Thus, our results could have been different if we had investigated highly involved, affect-laden, or riskier services and products. Future studies should consider investigating a more diverse group of products and services, because finding different results on social media engagement and purchase intention across products and services could further enhance the managerial implications derived from this study. Third, our two empirical studies only compared one type of unintentional influence (liking a brand page) and one type of intentional one (sending a brand-related message to a friend). Nevertheless, intentionality of the message is a continuum variable (Wu et al. 2018), so that each influence can be considered as more or less intentional. In this study we have focused on the two ends of this continuum, the Like as the most representative means of unintentional influence (although we could also have used the new Facebook reactions), and the direct message to a friend as the most representative intentional action. However, social media friends may perform other actions located on the middle points of the continuum. For instance, a comment posted on an SNS regarding a brand may be considered as less intentional than sending a direct message about the same brand to a selected friend, but more intentional than a simple Like on the brand page. Therefore, the perceived intentionality of these actions, as well as their consequences for consumers' behavior, should be further researched. Fourth, this study was not developed in a real social media environment, which may have altered the realism of the research. We tried to mitigate this problem by using the names of the participants, the names of their mentioned friends, and the location of the restaurant, and thereby personalizing the study, but we recognize that the research still comprised an online experiment developed in a non-natural setting.

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Table 1. Descriptive statistics (Study 1)

	Mean	Standard Deviation	Min.	Max.
SIMILARITY	5.85	2.12	1	10
S1. “Name of the participant’s friend” doesn’t think like me/thinks like me	6.03	2.25	1	10
S2. “Name of the participant’s friend” doesn’t behave like me/behaves like me	5.70	2.27	1	10
S3. “Name of the participant’s friend” doesn’t have likes and preferences like me/ has likes and preferences like me	5.82	2.30	1	10
TIE STRENGTH (RANDOM COMPONENT)	0.00	2.27	-7.40	5.71
INFORMATION USEFULNESS	5.47	1.89	1	10
U1. The information helped me to shape an opinion about the restaurant	5.54	2.04	1	10
U2. I found the information about the restaurant useful	5.63	2.05	1	10
U3. I found the information about the restaurant relevant	5.34	2.13	1	10
U4. The recommendations helped me to know the restaurant	6.12	2.29	1	10
U5. The information helped me to judge the quality of the restaurant	4.72	2.19	1	10
SOURCE USEFULNESS	6.50	2.35	1	10
SC1. I will consider the shopping experiences of “name of the participant’s friend” before going to the restaurant	6.82	2.25	1	10
SC2. I will ask “name of the participant’s friend” before deciding to go to the restaurant	6.17	2.79	1	10
PURCHASE INTENTION	3.94	2.38	1	10
P1. I would book a table in this restaurant through Facebook	3.77	2.42	1	10
P2. I would consider booking a table in this restaurant through Facebook	4.27	2.54	1	10
P3. It is likely that I book a table in this restaurant through Facebook	3.76	2.44	1	10
SOCIAL MEDIA ENGAGEMENT	4.05	2.29	1	10
E1. I will press the Like button on this brand page	4.89	2.70	1	10
E2. I will share this brand page	3.73	2.47	1	10
E3. I will comment on this brand page	3.55	2.36	1	10

Table 2. Bivariate correlations (Study 1)

	Similarity	Tie strength	Information usefulness	Source usefulness	Purchase intention	Social media engagement
Similarity	1	0.000	0.440**	0.596**	0.293**	0.362**
Tie strength		1	0.136**	0.415**	0.415**	0.119**
Information usefulness			1	0.319**	0.422**	0.592**
Source usefulness				1	0.281**	0.333**
Purchase intention					1	0.466**
Social media engagement						1

Note: ** p<0.01; *p<0.05

Table 3. Measurements of convergent validity and reliability (Study 1)

	Intentional Influence			Unintentional Influence				
	Standardized loadings	α -Cronbach	CR	AVE	Standardized loadings	α -Cronbach	CR	AVE
SIMILARITY		0.92	0.923	0.800			0.906	0.764
S1	0.911**				0.895**			
S2	0.912**				0.899**			
S3	0.860**				0.826**			
INFORMATION USEFULNESS		0.93	0.930	0.729			0.909	0.669
I1	0.870**				0.852**			
I2	0.955**				0.931**			
I3	0.917**				0.892**			
I4	0.799**				0.694**			
I5	0.705**				0.692**			
SOURCE USEFULNESS		0.84	0.805	0.674			0.854	0.748
SU1	0.799**				0.743**			
SU2	0.843**				0.971**			
PURCHASE INTENTION		0.96	0.965	0.901			0.958	0.885
P1	0.943**				0.962**			
P2	0.938**				0.935**			
P3	0.966**				0.925**			
SOCIAL MEDIA ENGAGEMENT		0.90	0.882	0.713			0.891	0.733
E1	0.790**				0.787**			
E2	0.878**				0.925**			
E3	0.863**				0.851**			

Note: ** p<0.01; *p<0.05;

Table 4. Measurement of discriminant validity (Study 1)

	Intentional Influence						Unintentional Influence					
	1	2	3	4	5	6	1	2	3	4	5	6
1. Similarity	0.800	(-0.265/-0.033)	(0.197-0.425)	(0.294-0.514)	(0.116-0.34)	(0.074-0.314)	0.764	(-0.132-0.096)	(0.2-0.425)	(0.538-0.742)	(-0.005-0.255)	(0.044-0.32)
2. Tie Strength	0.022	n/a	(0.015-0.259)	(0.24-0.484)	(-0.098-0.13)	(-0.059-0.169)	0.000	n/a	(-0.152-0.108)	(0.21-0.478)	(-0.135-0.125)	(-0.134-0.114)
3. Information usefulness	0.097	0.019	0.729	(0.319-0.551)	(0.33-0.574)	(0.497-0.677)	0.106	0.000	0.669	(0.292-0.572)	(0.234-0.466)	(0.473-0.653)
4. Source usefulness	0.163	0.131	0.189	0.674	(0.087-0.315)	(0.165-0.389)	0.410	0.119	0.187	0.748	(0.17-0.422)	(0.243-0.495)
5. Purchase intention	0.052	0.000	0.204	0.040	0.901	(0.303-0.574)	0.016	0.000	0.123	0.088	0.885	(0.278-0.522)
6. Social media engagement	0.038	0.003	0.345	0.077	0.181	0.713	0.033	0.000	0.317	0.136	0.160	0.733

Note: Matrix shows AVE (diagonal), squared correlation (below the diagonal) and confidence intervals (above diagonal)

Table 5. Comparison of results between intentional and unintentional influence (Study 1)

Path	Intentional influence		Unintentional influence		$\Delta\chi^2$
	Coefficient	Standard Error	Coefficient	Standard Error	
Similarity → Information usefulness	0.291**	0.051	0.302**	0.060	0.109
Similarity → Source usefulness	0.332**	0.053	0.526**	0.058	4.795*
Tie strength → Information usefulness	0.130**	0.042	-0.013	0.047	4.160*
Tie strength → Source usefulness	0.264**	0.043	0.282**	0.049	0.000
Information usefulness → Social media engagement	0.716**	0.083	0.496**	0.057	6.717**
Information usefulness → Purchase intention	0.664**	0.086	0.236**	0.060	4.379*
Source usefulness → Social media engagement	0.072	0.074	0.152*	0.061	0.129
Source usefulness → Purchase intention	0.013	0.086	0.151*	0.068	0.004
Attitude toward SNSs → Purchase intention	0.208**	0.074	0.270**	0.060	
Attitude toward SNSs → Social media engagement	0.184**	0.060	0.188**	0.063	

Note: ** p<0.01; *p<0.05; PI=purchase intention; SNS=social network sites

Table 6. Comparison of the indirect effects for intentional versus unintentional influence (Study 1)

Paths	Intentional influence		Unintentional influence	
	Coefficient	Standard Error	Coefficient	Standard Error
Indirect effects through information usefulness				
Similarity → Information usefulness → Purchase intention	0.193**	0.039	0.071**	0.023
Similarity → Information usefulness → Social media engagement	0.208**	0.045	0.150**	0.031
Tie strength → Information usefulness → Purchase intention	0.087**	0.031	-0.003	0.011
Tie strength → Information usefulness → Social media engagement	0.093**	0.032	-0.007	0.023
Indirect effects through source usefulness				
Similarity → Source usefulness → Purchase intention	0.004	0.029	0.080*	0.036
Similarity → Source usefulness → Social media engagement	0.024	0.024	0.080*	0.031
Tie strength → Source usefulness → Purchase intention	0.003	0.023	0.043*	0.020
Tie strength → Source usefulness → Social media engagement	0.019	0.019	0.043*	0.018

Note: ** p<0.01; *p<0.05

Table 7. Descriptive statistics (Study 2)

	Mean	Standard Deviation	Min.	Max.
SIMILARITY	5.77	2.39	1	10
S1. “Name of the participant’s friend” doesn’t think like me/thinks like me	5.90	2.55	1	10
S2. “Name of the participant’s friend” doesn’t behave like me/behaves like me	5.64	2.55	1	10
S3. “Name of the participant’s friend” doesn’t have likes and preferences like me/ has likes and preferences like me	5.77	2.58	1	10
TIE STRENGTH (RANDOM COMPONENT)	0.04	1.97	-6.64	6.33
INFORMATION USEFULNESS	5.77	1.91	1	10
U1. The information helped me to shape an opinion about the restaurant	5.87	2.12	1	10
U2. I found the information about the restaurant useful	5.99	2.09	1	10
U3. I found the information about the restaurant relevant	5.73	2.16	1	10
U4. The recommendations helped me to know the restaurant	6.36	2.21	1	10
U5. The information helped me to judge the quality of the restaurant	4.88	2.32	1	10
SOURCE USEFULNESS	7.05	2.15	1	10
SC1. I will consider the shopping experiences of “name of the participant’s friend” before going to the restaurant	7.15	2.15	1	10
SC2. I will ask “name of the participant’s friend” before deciding to go to the restaurant	6.94	2.48	1	10
PURCHASE INTENTION	4.10	2.45	1	10
P1. I would book a table in this restaurant through Facebook	3.97	2.15	1	10
P2. I would consider booking a table in this restaurant through Facebook	4.45	2.617	1	10
P3. It is likely that I book a table in this restaurant through Facebook	3.89	2.51	1	10
SOCIAL MEDIA ENGAGEMENT	4.40	2.31	1	10
E1. I will press the Like button on this brand page	5.33	2.70	1	10
E2. I will share this brand page	3.98	2.53	1	10
E3. I will comment on this brand page	3.88	2.52	1	10

Table 8. Bivariate correlations (Study 2)

	Similarity	Tie strength	Information usefulness	Source usefulness	Purchase intention	Social media engagement
Similarity	1	0.024	0.282**	0.492**	0.235**	0.292**
Tie strength		1	0.141**	0.360**	0.005	0.141**
Information usefulness			1	0.474**	0.500**	0.607**
Source usefulness				1	0.293**	0.417**
Purchase intention					1	0.469**
Social media engagement						1

Note: ** p<0.01; *p<0.05

Table 9. Measurements of convergent validity and reliability (Study 2)

	Intentional Influence				Unintentional Influence			
	Standardized loadings	α -Cronbach	CR	AVE	Standardized loadings	α -Cronbach	CR	AVE
SIMILARITY		0.92	0.918	0.790		0.92	0.917	0.786
S1	0.888**				0.928**			
S2	0.915**				0.889**			
S3	0.863**				0.840**			
INFORMATION USEFULNESS		0.90	0.912	0.677		0.92	0.924	0.711
I1	0.826**				0.896**			
I2	0.926**				0.957**			
I3	0.926**				0.898**			
I4	0.697**				0.679**			
I5	0.708**				0.754**			
SOURCE USEFULNESS		0.80	0.813	0.687		0.80	0.808	0.680
SU1	0.758**				0.752**			
SU2	0.894**				0.891**			
PURCHASE INTENTION		0.96	0.962	0.894		0.96	0.962	0.893
P1	0.931**				0.945**			
P2	0.939**				0.958**			
P3	0.967**				0.933**			
SOCIAL MEDIA ENGAGEMENT		0.84	0.851	0.658		0.87	0.880	0.712
E1	0.681**				0.751**			
E2	0.889**				0.919**			
E3	0.848**				0.852**			

Note: ** p<0.01; *p<0.05;

Table 10. Measurement of discriminant validity (Study 2)

	Intentional Influence						Unintentional Influence					
	1	2	3	4	5	6	1	2	3	4	5	6
1. Similarity	0.790	(-0.232-0.076)	(-0.002-0.314)	(0.228-0.524)	(0.110-0.346)	(0.060-0.344)	0.786	(-0.198-0.046)	(0.06-0.328)	(0.442-0.658)	(-0.005-0.275)	(0.087-0.343)
2. Tie Strength	0.006	n/a	(0.084-0.328)	(0.254-0.506)	(-0.105-0.087)	(0.038-0.298)	0.006	n/a	(-0.130-0.165)	(0.222-0.470)	(-0.194-0.050)	(-0.121-0.131)
3. Information usefulness	0.024	0.042	0.677	(0.308-0.576)	(0.384-0.596)	(0.432-0.656)	0.038	0.001	0.711	(0.281-0.533)	(0.346-0.570)	(0.494-0.686)
4. Source usefulness	0.141	0.144	0.195	0.687	(0.161-0.401)	(0.202-0.470)	0.303	0.120	0.166	0.680	(-0.058-0.338)	(0.207-0.447)
5. Purchase intention	0.052	0.002	0.240	0.079	0.894	(0.388-0.583)	0.018	0.005	0.210	0.042	0.893	(0.325-0.561)
6. Social media engagement	0.041	0.028	0.296	0.113	0.205	0.658	0.046	0.000	0.348	0.107	0.196	0.712

Note: Matrix shows AVE (diagonal), squared correlation (below the diagonal) and confidence intervals (above diagonal)

Table 11. Comparison of results between intentional and unintentional influence (Study 2)

Path	Intentional influence		Unintentional influence		$\Delta \chi^2$
	Coefficient	Standard Error	Coefficient	Standard Error	
Similarity → Information usefulness	0.144*	0.057	0.177**	0.056	0.375
Similarity → Source usefulness	0.206**	0.043	0.379**	0.049	10.141**
Tie strength → Information usefulness	0.199**	0.055	0.044	0.058	3.909*
Tie strength → Source usefulness	0.253**	0.051	0.300**	0.047	0.111
Information usefulness → Social media engagement	0.446**	0.079	0.530**	0.062	0.145
Information usefulness → Purchase intention	0.615**	0.092	0.484**	0.066	4.589*
Source usefulness → Social media engagement	0.146	0.092	0.135*	0.062	0.4376
Source usefulness → Purchase intention	0.135	0.108	0.038	0.077	1.129
Attitude toward SNSs → Purchase intention	0.234**	0.070	0.138	0.073	
Attitude toward SNSs → Social media engagement	0.236**	0.045	0.214**	0.073	

Note: ** p<0.01; *p<0.05; SNS=social network sites

Table 12. Comparison of the indirect effects for intentional versus unintentional influence (Study 2)

Paths	Intentional influence		Unintentional influence	
	Coefficient	Standard Error	Coefficient	Standard Error
Indirect effects through information usefulness				
Similarity → Information usefulness → Purchase intention	0.089*	0.038	0.086**	0.030
Similarity → Information usefulness → Social media engagement	0.064*	0.027	0.094**	0.034
Tie strength → Information usefulness → Purchase intention	0.122**	0.033	0.021	0.028
Tie strength → Information usefulness → Social media engagement	0.089**	0.029	0.023	0.031
Indirect effects through source usefulness				
Similarity → Source usefulness → Purchase intention	0.028	0.023	0.014	0.030
Similarity → Source usefulness → Social media engagement	0.030	0.019	0.051*	0.024
Tie strength → Source usefulness → Purchase intention	0.034	0.028	0.011	0.023
Tie strength → Source usefulness → Social media engagement	0.037	0.023	0.041*	0.019

Note: ** p<0.01; *p<0.05

Figure 1. Proposed model

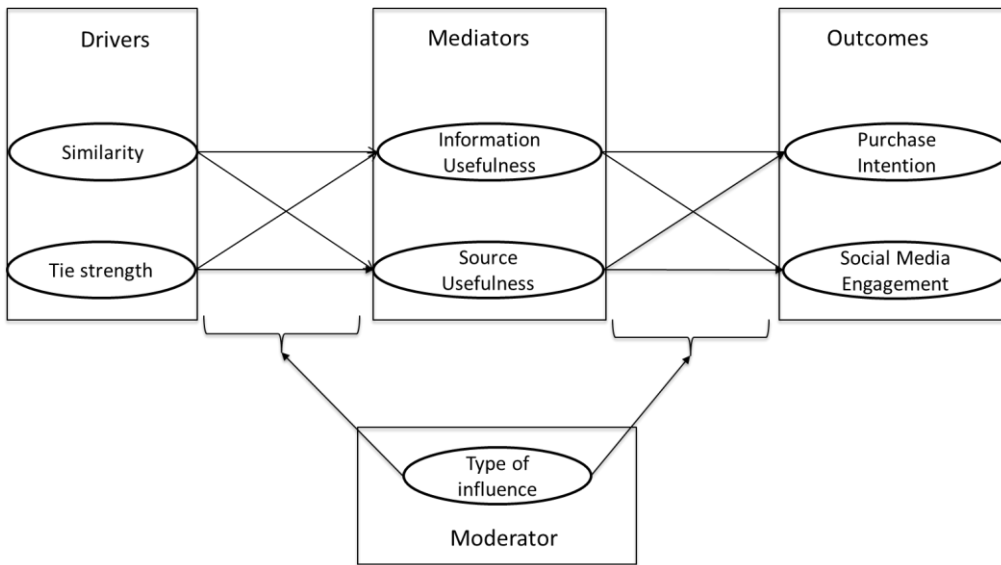


Figure 2

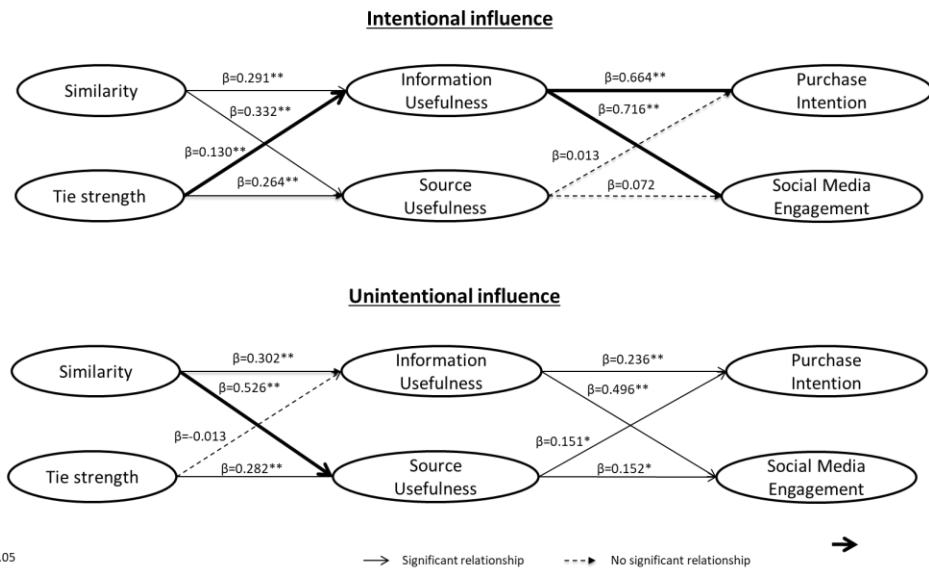
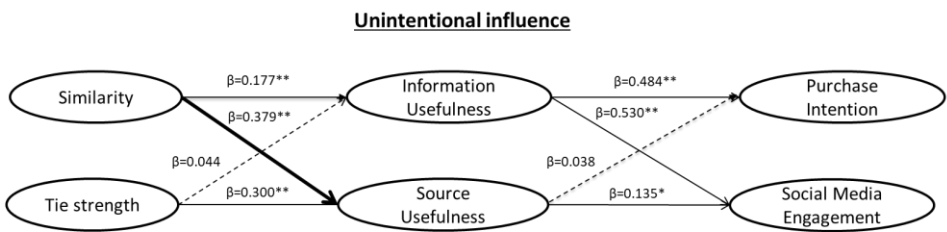
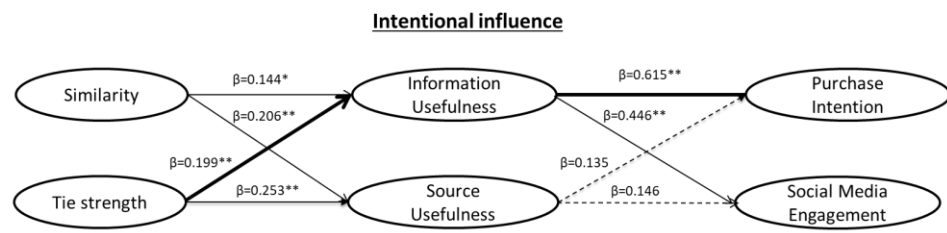


Figure 3



**p<0.01; *p<0.05

→ Significant relationship

---→ No significant relationship

→ Significantly more pronounced relationship in this group compared to the other one