

Bachelor Thesis

The effect of social media interactivity on relationship quality



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Abstract

With the development of technology, the speed of social media development is getting faster and faster. The relationship between the company and its customers is getting closer. Company profits are increasingly affected by the quality of the relationship between customers and the company. Therefore, relationship quality has become a key research topic for the company. The interaction of social media will affect the quality of the relationship between the company and its customers to a certain extent. This study examines the relationship between the quality of the relationship between the company and its customers and their interactions on social media. In addition, this research also examines commitment, trust, satisfaction, responsiveness, social influence, and media richness. These factors mainly affect the relationship between relationship quality and social media interaction. This study describes how to analyze the impact of social media interactions on relationship quality from a customer's perspective. In order to answer the research questions and obtain customers' opinions, this paper uses quantitative research to interview customers of different types of brand social media through questionnaires. From what customers feel about the company's commitment to customers, trust, and customer satisfaction through social media interactions, the impact of social media interactions on the quality of the relationship between the company and customers can be derived. In order to promote the development of the company.

Keywords:

Social media, Relationship quality, Trust, Commitment, Satisfaction, Interactivity, Responsiveness, Social influence, Media richness

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1. Introduction

1.1 Background

In the literature, relationship marketing is a significant research subject. In the last two decades, several relationship marketing studies have been performed in a variety of contexts such as business to business, buyer to seller, and service (Vincent and Webster 2013). These studies look at important aspects of all types of relational exchange. According to previous studies, companies try to build and retain long-term partnerships with customers in order to mitigate risks and lower transaction costs (Morgan and Hunt 1994). In this line of research, key questions include how to maintain strong relationships and how to turn reluctant customers into loyal ones in both online and offline environments (Verma et al. 2015). Though the concept of relationship quality is generally accepted in both theory and practice, still there are disagreements on its definition and implementation. However, relationship marketing is thought to be the source of relationship quality. Relationship marketing, according to Grönroos (1996 p 23), reflects on long-term profitable relationships with customers and other stakeholders such that both parties' goals are fulfilled. On the other hand, Berry (1983 cited in Hennig-Thurau and Hansen 2004) discusses relationship marketing by stressing more on consumer retention and relationship enhancement. When it comes to forming and maintaining relationships, it's important that both parties involved see the partnership as valuable and beneficial to them. As a result, when relationships with partners are valued and worth investing in, relationship quality emerges (Danaher, Conroy and McColl-Kennedy 2008).

Relationship quality is thought to be a multidimensional construct aimed at fostering long-term partnerships and achieving win-win outcomes for all parties involved (Morgan and Hunt 1994). Hennig-Thurau and Klee (1997) claim that relationship quality takes into account collaboration among network partners in order to meet needs and wants. Furthermore, Crosby, Evans, and Cowles (1990) argue that relationship quality is based on confidence in a particular organization's ability to provide satisfaction in partners'

relationships. As a result, quality partnerships include not only cognitive but also emotional components (Moliner et al. 2007).

It is a central principle in relationship marketing that assesses the intensity or closeness of a relationship (Hennig-Thurau et al. 2002). High relationship efficiency, from the customer's perspective, means that a consumer has confidence in the brand's future success as a result of previous positive experiences (Crosby et al. 1990). In the literature, relationship quality is generally thought of as a multidimensional construct (Liang et al. 2011, Smith 1998). Three most commonly used components in previous studies are: commitment, trust, and satisfaction, based on previous studies.(Athanasopoulou,2009). The term "commitment" refers to a person's ability to keep a relationship going (Moorman et al. 1992). As a result, it denotes the probability of preventing a breakup (Aaker 1991). Accordingly, commitment is needed to sustain worthwhile relationships between consumers and businesses (Shankar et al. 2003).

Moreover, in order to increase the trust of customers in the brand, the company needs to convey the brand concept to customers, the value the brand will provide to customers, in order to attract customers who are consistent with the brand concept. If the brand concept conveyed by the company happens to be a hot topic in society, the company can attract more customers whose interests are consistent with the brand concept. Companies need to provide customers with clear, and true brand information. Moreover, companies need to understand the needs and problems of their target audience, and develop appropriate services and solutions for customers based on their needs and problems. Companies can attract more new customers by sharing their customers' positive comments on their brands. Communicating with customers by showing real products to customers, so as to strengthen the relationship between the brand and customers. The company needs to establish a good reputation to enhance the enthusiasm of marketers, thereby promoting marketers to provide customers with better customer service. They can use social media to strengthen the communication between brands and customers, so as to ensure the social connection between the company's brand and customers. (Laroche, et. al, 2013).

Social media has become the place for consumers to freely discuss and exchange opinions. This interaction has dramatically changed the fundamentals of communication between the brand and customers. The process for how brand contents are created, distributed and consumed is no longer the same as in the past, today brand image can be created and delivered online via consumers (Hanna, Rohm and Crittenden, 2011; Kaplan and Haenlein, 2010). Thus, with the evolution of social networks more brands established brand pages and used it as marketing tactics. In fact, by creating their brand pages on different social media platforms, they allow people with common interests to discuss and share experiences by posting their user-generated content, which provides opportunities for instant engagement (Habibi, Laroche and Richard, 2014). Social networking sites provide participants with a popular environment for social activities in which they can engage by sharing resources such as information, ideas, and advice about their shared interests. Traditional consumers' communication power has moved to social media users, who may or may not have had a purchasing experience or a strong interest in a brand. Nonetheless, Organizations should aim to make greater use of virtual communities on social media to engage with members of the general public, in order to conduct social CRM (Huang et al., 2018).

1.2 Problem discussion

Previous research such as Athanasopoulou (2009), Crosby et al. (1990), Zhang and Bloemer (2008), has shown that the quality of the relationship between customers and businesses can result in a variety of positive outcomes, such as sales effectiveness, repurchase behaviour, customer retention, and loyalty. According to Sanchez-Franco et al. (2009), the nature of the relationship between customers and Internet service providers has a big effect on customer loyalty. Hence, some studies such as Casaló et al. (2010), Moliner et al. (2007) have looked into the factors that influence relationship quality. According to Moliner et al. (2017), relationship quality describes the nature of the relationship between the customer and the company. This nature refers to the expectations and needs of the customer and the company for their relationship. The quality of the relationship is affected by the trust of the customer to the company, the company's commitment to the customer, and the customer's satisfaction.

Among them, the customer's trust in the company and the company's commitment to the customer are closely related to the company's management of the relationship between the customer and the company, and the company's commitment to the customer is closely related to the customer's trust in the company. The quality of the relationship affects the behavior of the customer, and the company ensures that the commitment to the customer is conducive to improving the quality of the relationship (Moliner et al, 2017).

Customers' trust in the company and its employees and customers' satisfaction with the relationship between buyers and sellers, companies should establish, maintain and develop long-term cooperative relationships with customers to enhance customer trust and satisfaction, and continuously improve the quality of the relationship. In order to increase economic returns. Generally, relationship quality also includes commitment. Customer satisfaction with the brand will have an impact on the brand's commitment. High-quality satisfaction leads to the brand's commitment to customers. The brand's satisfaction of customers' social needs forms a promise (Hennig-Thurau, et. al, 2002). The interaction between the customer and the company will have a positive impact on customer satisfaction, and changes in customer satisfaction will have an impact on the quality of the relationship. The company can make promises to customers based on the interaction between the customer and the company. The company's commitment to customers will have an impact on customer behavior, which will affect brand loyalty, and thus affect the quality of the company's relationship with customers (Kuo & Feng, 2013).

With the development of social media, in order to improve the quality of the relationship between companies and customers, many company account names have begun to set up brand communities. The interaction of social media has prompted the change of customers from bystanders to participants. It means that organizations gradually need to provide customers with unforgettable experiences and optimize the social media they need to use to promote the improvement of the organization's social network. Organizations can use social media to share experiences and increase customer loyalty. The development of social media will have an impact on interactivity (Lowry et al., 2009). Interactivity includes the social influence of the brand and its ability to interact and communicate with customers (Huang, et.

al, 2018). Studies have shown that marketers can help identify content that can increase organizational influence through customer feedback on the perceived interactivity of the brand, so as to determine the content that can increase organizational influence, so as to improve brand interactivity to promote organizational influence. Thus, it is important to help customers strengthen their perception of brand community interaction (Huang, et. al, 2018).

Scholars have primarily studied interactions between brands and consumers in such settings through the lens of the relationship model (e.g., Crosby et al, 1990), with the aim of identifying the factors that make such interactions more long-lasting and enduring. Naturally, relationship quality has been a major focus of their efforts, as it is the most important target for managers (Gummesson, 2002), given its importance in delivering value to consumers, fostering loyalty, and thus boosting brand equity (Zaichkowsky et al, 2010). Considering this, It is a real challenge for organizations to build successful customer-brand relationships through social networking sites.

Interactivity is related to the customer's perception of the company, and pays more attention to the transmission of information between the customer and the company, which means that interactivity pays more attention to the process. Therefore, interactivity includes responsiveness. Generally, responsiveness refers to the company's timely response to customer needs. It can be thought of as the probability of a customer's response to the brand. The responsiveness is affected by the partner, the accuracy of the information exchange between the customer and the company, the customer's response to the company, motivation, and sensitivity of the customer's response. Responsiveness has an impact on interactivity. Thereby affecting the quality of the relationship between the customer and the company (Avidar, 2013). Social influence is conducive to promoting people's research on relationship quality. Social influence will cause the behavior and thoughts of customers to be affected. It can be used to describe the relationship between groups. The size of social influence depends on the degree of relationship between customers and the company, and the degree of interdependence between customers. Customers will change their behaviors, thoughts or attitudes according to the social environment. Thereby changing the relationship between groups and improving the quality of the relationship between customers and the company

(Smith, et. al, 2016). Media richness means the ability of the company to disseminate information. Media richness is affected by the media's ability to spread a variety of information, the directness of customer responses, the variety of languages, and the objects that the media focuses on. The speed of user communication increases with the increase in media richness. Rich media will provide customers with more information, which will help promote the company's development. Less rich media is more suitable for simple tasks. The more feedback from customers, the richer the media. Simple media make simple tasks better. Thereby improving the relationship between the customer and the company, and then affecting the quality of the relationship between the customer and the company (Dennis & Kinney, 2000).

According to the literature reviewed, this paper designed this framework to help the authors of this paper to conduct research. This project aims to study the impact of social media interactivity between customers and companies on relationship quality.

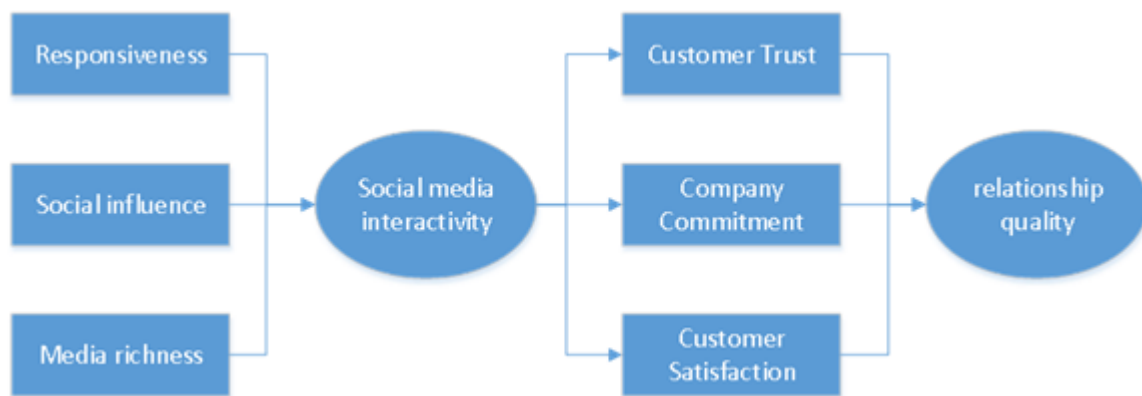


Figure 1 The effect of social media interactivity on relationship quality simulation models.

According to the model, the interactivity of social media improves the trust of the customer to the company, the company's commitment to the customer, and the customer's satisfaction. The interactivity of social media is embodied in three dimensions. They are Responsiveness, Social influence and Media richness. Whether changes in these three areas will cause changes

in social media interactivity, and then affect the quality of the relationship from trust, commitment and satisfaction, so as to improve the quality of relationship research.

1.3 Purpose

The purpose of this research is to study how customers' social media interactivity influences relationship quality.

2. Theoretical framework

2.1 Relationship quality

Trust, satisfaction and commitment are the components that have been included in some studies (Garbarino and Johnson 1999; De Canniere, De Pelsmacker, and Geuens 2009; Moliner et al. 2007). According to Athanasopoulou (2009), the aforementioned components of relationship quality are the dimensions often found in studies about relationship quality. Hence, relationship quality is approached through its three components: commitment, trust, and satisfaction, based on previous studies (Athanasopoulou, 2009).

2.1.1 Trust

Trust is a psychological condition in which a customer expresses his or her trusting values (such as integrity and reliability) in a business or other entity (Doney and Cannon 1997). Long-term relationships are built on trust between partners, and trust is considered essential for long-term relationships (Bendapudi and Berry 1997). When partners have confidence in each other, they are willing to take more chances, share knowledge on emerging market developments, be more supportive of others in the relationship, and work through issues that arise during a business relationship (Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994). According to Anderson and Weitz (1989, 312), trust can be defined as the confidence and belief of one party that his/her needs will be fulfilled by the other party in the

future. Trust is formed if partners have confidence in one another in addition to believing the service is reliable and has high integrity (Moorman, Zaltman and Deshpande 1992). As a result, uncertainty in a partnership is reduced because partners have more confidence in each other. Trust is viewed as a component in the formation of long-term relationships between partners. It is the product of promises made (Gronroos 1990).

Trust is an important prerequisite for the formation of customer loyalty. The trust between customers and the company is conducive to promoting customer loyalty. Trust refers to the customer's positive expectations of the company and their reliance on the company (Jambulingam, et. al, 2009). Trust helps to strengthen the closeness of the relationship between the customer and the company. The higher the degree of trust between the customer and the company, the more loyal the customer is to the company. The stronger the company's capabilities, the more customers trust the company (Jambulingam, et. al, 2009). The relationship between fair trade and customer loyalty between a company and its customers depends on the trust between the company and its customers. When the customer believes that the transaction with the company is fair, the customer's trust in the company increases, and the customer's loyalty also increases (Jambulingam, et. al, 2009). The trust between the customer and the company strengthens the relationship between the customer and the company. When the company is full of kindness to customers, the trust of customers in the company will increase. Trust can promote the cooperation between the company and its customers, which is conducive to improving the company's customer loyalty (Jambulingam, et. al, 2009).

2.1.2 Commitment

When partners in a company network are able to form long-term relationships, they begin to show devotion to those in the network (Moorman, Zaltman and Deshpande 1992). As partners look for a trustworthy partner, they build a network. This lays a solid foundation for the development of high-quality, long-term relationships (Moorman, Zaltman and Deshpande 1992). When all committed partners have a shared purpose that is realized in the partnership, the growth of these relationships is successful (Moorman, Zaltman and Deshpande 1992).

According to Morgan and Hunt (1994), commitment is based on a positive attitude toward a relationship partner and the desire to establish long-term mutual collaboration between the partners. As a result, commitment can be characterized as "a long-term desire to keep a valued relationship" (Moorman, Zaltman, and Deshpande 1992, 316).

Partners retain their relationships when partnership is valuable to both sides, based on this, Bowen and Shoemaker (1998, 15) claim that when partners are committed to one another, they are able to make short-term sacrifices in order to reap long-term rewards. As a result, commitment emerges in a partnership that is beneficial to all parties involved. It also involves the aim to maintain and deepen relationships with partners in the future (Morgan and Hunt 1994). It involves emotions such as the conviction that continuing a partnership is more important than ending it, as well as a sense of duty to a partner to keep the relationship going (Bansal, Irving and Taylor, 2004).

2.1.3 Satisfaction

Long-term relationships are more likely to form among network partners who are more likely to remain and cooperate with the organization. When a product or service meets the needs and wants of its customers, it is said to be satisfying. Satisfaction can be defined as the assessment of a particular good or service in relation to potential alternatives that can also fulfill a specific need or desire (Shiv and Huber, 2000). Oliver (1981) describes it as the overall psychological state that occurs when the emotion associated with unfulfilled expectations is combined with the customer's prior feelings about the experience. As a result, consumer satisfaction is shaped by their preferences and previous experiences (Crosby et al. 1990, Smith 1998), which include their shopping experiences and other encounters with businesses. If a high level of satisfaction is achieved, it is actually easier to create online customer relationships (Wang and Head 2007). Moreover, it is the collaboration between partners that defines the Long-term relationships and thus leading to joint value creation (Gummesson, 2002). However as Bennett and Rundle-Thiele (2004) state, having a satisfied customer does not equate to loyalty.

Companies and customers buy products or services for different reasons. Therefore, these differences need to be considered when measuring satisfaction. Satisfaction reflects the company's business capabilities. It is a measure of the quality of the company's products, services, and company operations (Anisor, et. al, 2010). In other words, the measurement of satisfaction is an evaluation of the company's products and services based on customer psychology (Anisor, et. al, 2010). The higher the satisfaction, the higher the customer's loyalty to the company, which will also lead to a certain degree of customer repurchase of the company's products. Satisfaction is subjective, so there is uncertainty in simple measurements. Researchers are required to conduct sampling and statistical analysis (Anisor, et. al, 2010). Satisfaction measurement requires researchers to first understand the differences between samples and then evaluate customer expectations. Satisfaction is to retain the company's existing customers, to ensure customer loyalty and product repurchase (Anisor, et. al, 2010). Satisfaction measurement includes the evaluation of customer satisfaction with product quality, product packaging, transaction commitments, prices, the company's responsiveness and problem-solving capabilities. Researchers can interview customers, collect customer feedback on the company's product preferences, make data charts, analyze customer satisfaction, and achieve satisfaction measurement. Marketers can obtain customer requirements through the measurement of satisfaction, thereby urging the company to better meet customer requirements (Anisor, et. al, 2010).

2.2 Interactivity

One of the primary characteristics of company brand pages on social networking sites is interactivity. The content that is shared by the companies on their social media accounts, as well as how often they communicate with their fans, are generally regarded as essential considerations. As previously discussed, User views of a company's brand page's interactivity are referred to as interactivity (Kuo and Feng 2013). In other words, interactivity determines whether the brand page is involved and whether the company engages with its followers on a regular basis. The importance of interactivity in website quality has been established by Chiu

et al. (2005) and Jang et al. (2008). According to Jang et al. (2008), interactivity is an essential characteristic of online brand communities that can lead to loyalty.

Interactivity is a multifaceted term with a long history in academia. According to Rafaeli (1988), communication efficiency is the most important factor in interactivity. A higher degree of interactivity would be viewed in the virtual world if organizations have stronger contact with their members on Social media platforms. Previous studies have described Perceived interactivity as the users' psychological condition during their interactions with a website (Wu, 2006). Newhagen, Corders, and Levy (1995), were the first to suggest the idea of perceived interactivity. Interactivity was described in their research on the content analysis of e-mail messages by the two dimensions of efficacy (including the sense of system efficacy) and perceived interactivity. Wu (1999) then used these two dimensions to explore perceived interactivity, referring to them as "internally dependent efficacy" and "externally based system efficacy." The first term stands for "perceived control," while the second stands for "perceived responsiveness." A third dimension of "communication" was defined by McMillan and Hwang (2002) and Liu (2003) to calculate the degree of two-way interaction. For calculating perceived website interactivity, several researchers have chosen these three dimensions as their core constructs.

It is thought that the degree of perceived interactivity of social media use differs significantly from that found on websites. According to Tremayne (2005), manipulating interactivity requires changing the essence of the dimensions involved depending on the online medium or website. Thus, Huang et al. (2018), without taking into account communication or perceived control, used perceived interactivity in their study and described the model as users' perception of interactivity in the brand community on social media. This is due to the fact that in the sense of virtual communities on social media, the gap in contact and control is very small (Huang et al., 2018).

This study will be based on the "social media interactivity" model from Huang et al., (2018) to specifically distinguish between social media-influenced interactivity and website interactivity, which involves "responsiveness", "social influence" and "media richness". All

of these dimensions are important factors that social media users consider when interacting with virtual communities on social media platforms.

2.2.1 Responsiveness

Responsiveness refers to the company's response to customer needs or market changes at the right time to maintain its competitive advantage. The definition of responsiveness will vary according to the company's field. Some people think that responsiveness means the length of time the company communicates with customers. Under certain circumstances, responsiveness can be regarded as the realization of the company's requirements for marketing goals (Ebrahim, et. al, 2014). Responsiveness helps the company analyze the overall ability to interfere with the business. Some people think that responsiveness refers to the ability to help companies quickly confirm customer product needs and the time to obtain products (Ebrahim, et. al, 2014). Some people think that responsiveness can help evaluate how quickly customers order products. However, sometimes responsiveness represents the ability to respond to time (Ebrahim, et. al, 2014).

The degree to which a communication exchange resembles human discourse, according to Heeter (1989, p223), is characterized as responsiveness to the consumer. As a result, the highest level of interactivity is humanlike responsiveness, thus media aim with higher interpersonal interactivity to respond to the users like humans. according to Wu (1999), perceived responsiveness, which is characterized as the speed with which a person on an brand community on social media can receive responses from the host or other members. Consumers' overall assessments and evaluation of online consumption experiences are determined by responsiveness (Rodgers, Negash, and Suk 2005). When users try to obtain timely information in virtual communities, responsiveness is critical (Wu, 1999). Consumer attitudes toward websites are influenced by perceived responsiveness. In a similar way, perceived responsiveness is predicted to have a positive impact on brand communities on social media (cui et al., 2010).

2.2.2 Social influence

The perceived amounts of clicks, shares, and retweets that members earn in their virtual communities are used to determine a community's influential strength. Members will learn what content has impact and what content does not by receiving such reviews. In order to attract and maintain social media users, both personal influence on the group and the community's influence on its members are essential factors (Huang et al 2018; Wang and Lin, 2011) . As a result, users' perceptions of these types of power contribute to increased virtual community social network interactivity. Furthermore, the literature on the topic has often regarded social influence as a measure of a community's dominant capacity, rather than as akin to colleague opinion toward the use of a particular medium (Wang and Lin, 2011). As a result, the study's aim is to assess users' perceptions of social influence in Social media brand communities, as well as the impact on relationship quality. Social influence will affect the customer's personal evaluation of the product (Muchnik, et. al, 2013). Research on social influences shows that positive social influences can lead to false highs in the company's assessment of market advantages. However, negative social influences enable companies to promptly correct the exaggerated part of the assessment of advantages (Muchnik, et. al, 2013). The social influence will have an influence on the company's market evaluation. Therefore, researchers need to avoid personal product biases caused by social influences (Muchnik, et. al, 2013). In order to resolve the resulting personal product bias, social influence researchers can adjust product ratings and audits by predicting the market in advance (Muchnik, et. al, 2013). The social influence is closely related to the customer's decision to trust the product. Individual customers' decision-making will be affected by other factors, and customers' opinions on products depend on their level of trust in the product. The higher the customer's trust in the product, the greater the social influence of the product (Wei, et. al, 2019).

2.2.3 Media richness

The “media richness” dimension, which reflects a member's understanding of the variety of media available in a virtual community, is also to be calculated. According to Daft et al.,

(1987), different media have varying degrees of richness, with "richness" described as the ability to allow users to communicate information and thus promote the acquisition of common meaning and understanding. If some of the social cues that are present in face-to-face contact become available through modern information technologies, social media users appear to have higher expectations of interactivity. Richer, personal communication media are generally more effective for communicating ambiguous topics in contrast with leaner, less rich media. (Daft et al., 1987).

Media richness is used to define the ability of social media to convey information. In order to judge the richness of media, the company needs to evaluate the responsiveness of social media, the source of social media to obtain brand information, and the richness of the language used by social media (Mandal, et. al, 2015). In order to achieve marketing goals, companies need to choose social media with appropriate richness based on the characteristics of their brand (Mandal, et. al, 2015). The right social media can attract more customers for the company. Rich social media is closely related to large organizations such as banks and communities, and it is conducive to improving brand interests (Mandal, et. al, 2015). In order to increase media richness, companies can build social communities on social media to gather customers who like the same brand. Companies can also create interesting branded content to attract more customers. Companies can also choose the right time to publish a certain number of brand articles to develop their own business (Mandal, et. al, 2013).

3. Conceptualization

3.1 Social media interactivity and relationship quality

For Hypotheses and research models We propose a research model to understand how consumers' perceived social media interactivity impacts relationship quality, based on the theoretical context of this study. First, according to previous studies Liang et al. (2011), authors understand the importance of relationship quality in a social commerce environment is critical because it can be difficult for a business to focus solely on how to manage its online relationships with a large number of consumers through a social networking site. Next,

authors suggest that interactivity can have a positive impact on the relationship quality (Liang et al, 2011). The social media interactivity as mentioned previously, is represented by three dimensions in this study which are as follows; responsiveness, social influence and media richness (Liang et al, 2011). Therefore, according to previous research, relationship quality can be evaluated by analyzing the three components of trust, commitment, and satisfaction.

In order to test The effect of social media interactivity on relationship quality, this paper needs to test trust, commitment and satisfaction with responsiveness, social influence and media richness. According to the theoretical framework, social media interaction has an impact on relationship quality, and the proposed hypothesis will test how social media interactions between customers and companies affect relationship quality.

This paper establishes three hypothetical models. Each hypothesis has three sub-hypotheses.

H1: Interactivity positively affects Trust.

H1a: Responsiveness positively affects Trust.

H1b: Social influence positively affects Trust.

H1c: Media richness positively affects Trust.

H2: Interactivity positively affects commitment.

H2a: Responsiveness positively affects commitment..

H2b: Social influence positively affects commitment..

H2c: Media richness positively affects commitment.

H3: Interactivity positively affects satisfaction.

H3a: Responsiveness positively affects satisfaction.

H3b: Social influence positively affects satisfaction.

H3c: Media richness positively affects satisfaction.

This paper will make 9 models and 3 All models to verify the assumptions above.

Model 1-4 trust is used as the dependent variable, and the independent variables are responsiveness, social influence and media richness to help verify that interactivity positively affects trust. Models 5-8 use commitment as the dependent variable, while independent variables are responsiveness, social influence, and media richness to help test that interactivity positively affects commitment. Model 9-12 satisfaction is the dependent variable, and the independent variable is responsiveness, social influence and media richness to help test the positive impact of interactivity on satisfaction.

4. Methodology

4.1 Research approach

When conducting research, there are many considerations that must be weighed and agreed upon so that the researcher can establish a clear picture and direction of the research process. This is often done so that the researcher can get a better understanding of the study design and method to use (Bryman & Bell, 2015). It is suggested that it is the relationship between the hypotheses used, the process used, the data gathered, and finally the values. It is the relationship between the research that has been done and the theories that have been established in general (Bryman & Bell, 2015).

4.1.1 Deductive Approach

There are two types of research methods, according to Bryman and Bell (2015). The inductive approach is one of the research methods, whereas the deductive approach is the other. An inductive approach to science means that it is focused on the relationship between theory and research. According to Malhotra (2019), an inductive approach is used to construct general theories or ideas, while a deductive approach is used to evaluate an existing theory (Malhotra, 2019). The deductive approach is often connected to a quantitative

approach since it often includes theory and hypothesis testing on a large sample size (Bryman and Bell, 2015). The deductive method used in this study focuses on the relationship between current theory and the results of the analysis. To better understand the deductive research method, Bryman and Bell (2015) demonstrate that it starts with the processing of established hypotheses.

The authors of this study have developed the current theory chapter based on previous studies to study the relationships between variables, therefore, in order to successfully carry the study hypotheses were created. When the hypotheses are stated, data collection starts, leading to the acceptance or rejection of current theories based on the study's findings. If the hypothesis is approved or dismissed, a revision of the current theory may be made, allowing for new emerging study. The key point of deductive analysis is that it is constantly being created and tested (Bryman and Bell, 2015).

Previous research and theory indicate that perceived interactivity positively affects relationship quality, and based on that the proposed model is constructed to analyse the relationship. Since the aim of the analysis is to improve our understanding of the effect of interactivity on relationship quality, it's critical to identify variables. Social media interactivity consisting of Social influence, Responsiveness and Rich media will be the independent variables, meaning they will have an impact on another variable. Relationship quality is the dependent variable in this analysis.

4.1.2 Quantitative Research

Quantitative research is one of two forms of research available; qualitative research is the other. This study will be based on quantitative research and therefore it will be deductive. Quantitative analysis is a systematic method of gathering data and quantifying it in order to produce numerical data. Since quantitative analysis necessitates quick and accurate responses, surveys or questionnaires are often used to produce numerical data. Researchers who conduct quantitative analysis also use statistical tools to analyze the results (Bryman and Bell 2015).

Researchers who conduct quantitative analysis also use statistical tools to analyze the results. This involves unbiased data on a study, with the aim of generalizing the results to the entire population of the sample (Bryman and Bell, 2015). Quantitative analysis is useful when attempting to address the how and what of research questions. This means that data sets can be used to produce conclusions about patterns and behaviors in quantitative research. However, this research approach does not provide an explanation for why these patterns and behaviors exist. A qualitative research strategy is needed to obtain this information (Bryman and Bell, 2015).

4.2 Research Design

A research design is a type of framework that helps the researcher collect and interpret the data that will be used in the analysis. There will be no issues between the hypothesis gathered and the operationalization if the analysis design is properly conducted, which basically means that one is gathering data that is accurate with what the study is intended to calculate (Bryman and Bell, 2015). According to Bryman and Bell (2015), there are five different forms of research designs: experimental, cross-sectional, longitudinal, case study, and comparative. This study's design is cross-sectional in nature. In cross-sectional research, the data collection and the analysis is performed at the same time, which is consistent with the study's procedure. Furthermore, in cross-sectional research, an investigation is conducted over a single time span, as this analysis does, and the sample chosen has the potential to be generalizable to a wider population. Questionnaires, which involve two or more variables to be investigated, are the most popular method of gathering data in a cross-sectional design study (Bryman and Bell, 2015).

In this paper several variables will be studied and analyzed. The use of cross-sectional study design in the context of data collection from respondents is a suitable approach because cross-sectional has several advantages. Unique features to begin with, if done correctly, the outcomes of a cross-sectional approach are close to those of a longitudinal study design, but they are less expensive. Furthermore, longitudinal studies take longer since data is collected

at least twice, at different times, and then the variations between the two data sets are depicted. The cross-sectional method, on the other hand, takes less time and therefore was chosen for this analysis (Bryman and Bell, 2015).

4.3 Data Sources

The collection of data will go in one of two directions: primary data collection or secondary data collection. A data source that gathers new data that does not already exist and then analyzes it, is known as primary data. Since in cross-sectional design, data will be collected at a specific time frame, primary data will be the data of choice in this study (Bryman and Bell, 2015). The fact that the purpose of collecting the data is to answer the study's purpose and research question is one of the advantages of using primary data. Secondary data, on the other hand, is a second option that allows for data collection based on previous analysis for a different reason (Malhotra, 2019).

The economic perspective of costs, which is a significant factor in student study, is one reason for performing studies based on secondary sources. Second, when gathering data, the time factor must be taken into account. When students have easy access to secondary sources, they may devote more time to other aspects of a study, such as searching for relevant literature, determining an acceptable research query, and evaluating and analyzing the data collected (Bryman and Bell, 2015). Furthermore, primary data takes longer to obtain than secondary data, highlighting the gaps between the two data collection methods. Malhotra (2019), argues that estimates that the costs of gathering primary data are higher than secondary data, but Bryman and Bell (2015) suggest that online surveys and questionnaires are good ways to obtain primary data in a cost-effective manner.

4.4 Data Collection Method

There are various methods for collecting data for a quantitative approach that the researcher can choose depending on the study's intent. Self-completion questionnaires, observations, experiments, and interviews are some of the approaches used (Bryman and Bell, 2015).

However, the researchers of this study determined that a self-completion questionnaire is the best way to collect data because it will help solve the problem by allowing them to measure the variables. The sample size would be greater if a self-completion questionnaire is used, resulting in better generalization for the whole population (Bryman and Bell, 2015).

Interviewing the same number of people would have taken much more time and effort, and would have generated no useful numerical results that could be statistically analyzed. However, since there is no one the respondents can ask or who can answer the participants questions on a self-completion questionnaire, it is important to be consistent with the questions (Bryman and Bell, 2015). However, as long as the questionnaire is formulated in a straightforward and understandable manner, which can be ensured by pre-testing, this should not be a problem.

When performing self-completion questionnaires rather than interviews, the flexibility for both the respondents and the researchers is greater, since the questionnaire can be conducted on the respondents' schedule without the need for an interviewer (Bryman and Bell, 2015). Closed-ended questions would also be well-presented to minimize the possibility of respondents misinterpreting or missing any question, which would have a negative impact on the results. Based on the advantages of performing a self-completion questionnaire, the data collection tool for this study will be a self-completion questionnaire, which will save time, improve the study's efficacy, and achieve its goal (Bryman and Bell, 2015).

4.4.1 Data Collection Instrument

When collecting primary data for this analysis, an online questionnaire was chosen as the tool of choice. According to Bryman and Bell (2015), using online questionnaires provides researchers with a number of benefits. The aim in this study was to learn respondents' standpoint towards relationship quality and social media interactivity. The online survey was produced on Survey monkey platform and then released and circulated on the social media sites such as Facebook targeting a population who own social media accounts and use at least one social media platform on a daily basis.

4.4.2 Questionnaire Design

As mentioned before online questionnaire is the instrument of for collecting primary data for this study. There are many advantages to online questionnaires such as saving time and reaching out to a wide range of individuals in limited time in comparison with physical interviews. Furthermore the design of the questionnaire gives the opportunity to use features such as filter questions. This allows the researcher to design the questionnaire according to the responses to certain questions (Bryman and Bell, 2015). The authors in this study as well used this feature, in order to get into the desired sample. The first question in the questionnaire is designed to determine whether the respondent is part of our desired sample group or not. Therefore, in case respondent give a negative response to first question “ do you use at least one social media platform on daily basis?”; they would be directed to quit the survey.

The cost for online-based surveys are very low since they can be created and distributed free of charge which makes it an ideal choice for students. Overall, an online questionnaire is a justifiable choice to gather primary data with limited sources and within limited time (Bryman and Bell, 2015). On the other hand, it should be noted that this method has its own limitations and drawbacks. One issue can be referred to the construction of questions, since the respondents are not in contact with the questionnaire conductor the questionnaire must be designed in such a way that the questions can be brief, impartial, and without leading the participants skipping the questions' responses (Bryman and Bell, 2015).

4.5 Operationalization

According to Bryman and Bell (2015), to clarify the concepts and measurements used to conduct the research, composing an operationalization table is an important step. Operationalization table not only clarifies the measurements of all the concepts but also classifies them as dependent and independent variables. Therefore, concepts are translated into tangible indicators in order to be measured (Saunders et al. 2016). Initially, researchers need to provide all the necessary information about the main concepts used in research to identify and distinguish them from one another in order to achieve the quality crieta of the research. Thereafter, to measure the concepts, indicators are devised through questions (Bryman and Bell, 2015).

4.5.1 Operationalization Table

Theoretical concept	Items	Source	Questions	Measurement
Relationship quality (Dependent variable)				
<ul style="list-style-type: none"> Trust 	Integrity	(Doney and Cannon 1997). (Bendapudi and Berry 1997). (Moorman, Deshpande and Zaltman 1993; Morgan and Hunt 1994). Anderson and Weitz, 1989, p. 312)	What is your level of trust on the brand's social media?	5 point likert scale
	Reliability	(Moorman, Deshpande and Zaltman 1993). (Moorman, Zaltman and Deshpande, 1992). (Gronroos, 1990).	I would like to recommend this brand to friends or family on social media	5 point likert scale
	Loyalty	(Jambulingam, et. al, 2009).	After becoming a user of this brand social media community, I will continue to use and buy the brand's products in the future	5 point likert scale
<ul style="list-style-type: none"> Commitment 	Desire to collaboration	(Moorman, Zaltman and Deshpande 1992).	By participating in the activities of the social media	5 point likert scale

			community, members can get certain points or rewards	
	Short-term sacrifices	(Bowen and Shoemaker, 1998, 15).	Participating in the brand social media community allows me to get discounts from the brands	5 point likert scale
	Long-term rewards	(Morgan and Hunt, 1994). (Moorman, Zaltman and Deshpande 1992).	When Comparing brands, the brand's response to customers makes me have a better sense of belonging to this brand.	5 point likert scale
<ul style="list-style-type: none"> Satisfaction 	Preference	(Shiv and Huber, 2000). (Gummesson, 2002).	The interaction between the customer and the company's brand about information on social media makes me prefer the brand more.	5 point likert scale
	Better brand	(Oliver, 1981). (Crosby et al. 1990). (Smith, 1998), (Wang and Head, 2007).	The interaction between the customer and the information of the company's brand on social media makes me think this brand is better than other similar brands	5 point likert scale

	Satisfy the needs	Bennett and Rundle-Thiele, 2004) (Anisor, et. al, 2010)	The social media community helped me save money on the brand maintenance, repair, etc.	5 point likert scale
Interactivity (Independent variable)				
• Responsiveness	Speed	(Ebrahim, et. al, 2014). Heeter (1989, p223).	The speed at which the company responds to customer feedback on social media.	3 point likert scale
	Interpersonal communication	Wu (1999) (Rodgers, Negash, and Suk 2005).	.Participate in brands' experience, lottery, voting and other activities on social media	4 point likert scale
	Timeliness	(Cui et al., 2010)	The timeliness at which the company responds to customer feedback on social media.	4 point likert scale
• Social influence	Volumes of clicks, like, share	(Huang et al 2018)	What is the approximate number of social media posts you repost every day?	5 point likert scale

<ul style="list-style-type: none"> Media richness 	Personal influence	(Wang and Lin, 2011). (Muchnik, et. al, 2013)	What is the approximate number of comments you make a day?	5 point likert scale
	Community influence	.(Muchnik, et. al, 2013). (Wei, et. al, 2019).	When buying goods, I use social media as the main source of brands' information	4 point likert scale
	Variety of media	(Daft et al. 1987)	Which social software do you use? (Multiple choice)	7 point likert scale
	Accounts of brands	(Mandal, et. al, 2013)	How many social media accounts of the brands you have followed?	5 point likert scale
	Accounts of fans	(Mandal, et. al, 2013)	How many friends and fans have followed your social media accounts ?	5 point likert scale

4.5.2 Pre-test

Pre-test or pilot studies are crucial while conducting a self-completion questionnaire to not only ensure the questions work properly but also to ensure the functionality of the chosen research instrument as a whole (Bryman and Bell, 2015). Furthermore, since in

self-completion questionnaires the participants do not have the chance to clear up any confusion, conducting pilot study is necessary to avoid wasting time and biases. The pre-test needs to be carried out on a sample comparable to the actual sample but not on the actual sample itself in order to avoid affecting the representativeness of any subsequent.

One important part of conducting the pilot study is to investigate whether the questions are understood properly by the participants (Bryman and Bell, 2015). Furthermore, it is important that the participants evaluate the whole questionnaire to ensure they understand what is required from them in order to achieve the study goal (Malhotra, 2019). In this study, authors selected a comparable sample of seven people in order to carry out the pre-test. The participants were asked to evaluate the questionnaire and specifically clarify how they perceive and interpret the questions.

The procedure was carried both online and in person while the participants were asked to fill out the questionnaire while sharing their thoughts on the comprehensiveness and length of each question. Additionally, participants were asked to point out any inconvenience they encountered throughout the process and thereafter, they were asked to kindly provide any suggestion they have. This process was done without any interference from the authors and only after finishing the whole process the points made by the participants were discussed with them.

The most feedback was regarding the length of the questionnaire and the language of it. In this regard authors tried to rephrase some of the questions into more understandable and simple language. On the other hand, the issue regarding the length of the questionnaire could not simply be resolved since excluding any of the questions could potentially be destructive to the study. Therefore, the authors tried to solve this problem by better sectioning the questionnaire in order to keep the participants focused.

4.6 Sampling

When conducting a study, often collecting data from an entire population of interest is impossible therefore, a representative sample should be selected from the population to carry the study. In other words, researchers need to select a sub-group who are part of the

population of interest to make data collection possible. In order to do a proper sample selection, it is necessary to choose a sampling technique (Bryman and Bell. 2015).

Probability and non-probability sampling are the two most commonly used sampling techniques. When choosing probability sampling techniques, the sample will be randomly selected, this means there is an equal chance for every individual that is part of the population to be selected. On the other hand, in non-probability sampling the individuals are not randomly selected and it includes the most commonly used convenience sampling (Bryman and Bell. 2015).

In convenience sampling the sample is chosen according to the convenience of the researchers. Being in the right place at the right time is often the factor of convenience sampling. There are advantages in this type of sampling such as being less expensive and also not requiring a list of all the population elements. However, this technique has drawbacks too, the most important one is not being able to generalise the results from the data beyond the sample (Acharya et al., 2013). The sampling technique used for this research is convenience sampling, this method was chosen by the authors as it is less time consuming and furthermore regardless of its limitations still achieves the purpose of this research.

4.6.1 sample size

The sample size greatly depends on the different factors such as time, cost and precision which need to be evaluated in order to devise a proper sample size. When the population of study is hard to determine accordingly, calculating an exact sample size also will be a difficult task that would need proper attention. Moreover, it is commonly presented that it is better to have a larger sample size, however, the results do not differ much when the sample is above 1000 respondents (Bryman and Bell, 2015). To represent the population of interest and achieve the purpose of the study, the authors determined the sample to be individuals who use at least one Social Media platform on a daily basis.

Furthermore, to calculate the sample size in this study the authors decided to use the formula suggested by Green (1991); $N > 50 + 8 \times 3$ where n = sample size and M = number of independent variables. In this study there are three independent variables therefore the

minimum amount of the representative sample size is 74 units according to this formula. It is important to note that while using this formula to analyse the relationship between variables provides an easy “rule of thumbs”, there are limitations to it therefore, researchers should consider the minimum effect size as well (Green, 1991).

4.7 Data Analysis Method

It is important that researchers have the knowledge to approach and handle the data they have collected in early stages of their research since not any technique can be applied to analyze the data. When it comes to quantitative data, it should be considered that this kind of data will have a meaning only after being processed and analyzed the gathered information properly (Bryman & Bell, 2015). In order to process the data a software called SPSS (Statistical Package for Social Sciences) which is commonly used to process quantitative data is used in this study.

The data analysis in this research was mainly conducted in three steps; Entry, coding and cleaning (Malhotra, 2019), Descriptive statistics (Bryman and Bell) and ordered regression analysis (Yatskiv and Kolmakova, 2011).

4.7.1 Entry, Coding and Cleaning

Following the data collection, the first step is to clean and code the collected data. The data collected usually includes missing values or outliers. Respondents may have skipped a question or given an answer which value is not acceptable. Entering such values into software can provide an unacceptable result. Therefore, it is important to clean and handle the data before entering them into the SPSS software (Malhotra, 2019). The missing values are suggested to be marked as zero in order for Spss to filter them out, yet in this study all the questions were mandatory therefore no missing value was detected. Thereafter, the data were exported to SPSS and then coded in order to facilitate the analysis process (Bryman and Bell, 2015).

4.7.2 Descriptive Statistics

Descriptive statistics summarize analysis of the numerical data and provides researchers with a table which allows them to compare and describe data numerically. The types of statistics shown in descriptive statistics depend on whether the variable is scale or categorical.

Descriptive statistics can include, for instance mean, median, mode, standard deviation, skewness and kurtosis (Bryman and Bell, 2015; Malhotra, 2019; Saunders et al., 2016). The central tendency of data is described in descriptive statistics, it can be measured by the mean, median and mode (Malhotra, 2019). Mean is the average sum of data which is computed by adding all the distributed values and dividing them by the number of values. Median refers to the midpoint of the distributed values and the mode is the most frequented value that occurs in a distribution (Bryman and Bell, 2015).

The standard deviation value is calculated in relation to the mean which shows an average amount of variation, moreover standard deviation is affected by outliers (Bryman and Bell, 2015). Skewness and kurtosis describes the degree of normal distribution. Skewness refers to distortion in a symmetrical bell curve. When the distribution is positively skewed, it is skewed to the left side and if negatively skewed, to the right. The skewness value can be (from -1 to 1) positive, zero, negative, or undefined (Malhotra, 2019).

Furthermore, Kurtosis explains a measure in terms of its relative flatness or peakedness of a curve, a pointed curve is formed in case of positive kurtosis while a more flattened curve is formed in case of negative kurtosis (Malhotra, 2019).

The descriptive statistics table will be discussed and analysed further in the result section.

4.7.3 Regression Analysis

According to Bryman and Bell (2015), regression analysis is one of the most common methods used in research to understand the nature of the relationship between the variables. In addition, regression analysis assists the researchers to analyse the relationship between one

dependent variable and one or more independent variables. The independent variables are the predictors of the variable of interest called the dependent variable.

The use of multiple regression analysis instead of simple linear regression analysis depends on the number of predictor variables, when there are more than one independent variable the model is called multiple regression (Malhotra 2019). Regression analysis finds and provides evidence of statistical significance between the variables, suggesting that variable X and Y are related, however the interpretation of the provided result will be based on the relevant theories (Bryman and Bell, 2015).

Multiple regression analysis has been used in this study due to the several independent Variables that exist, moreover, this technique allows the researchers to determine whether there is a linear relation to the dependent variable. The hypotheses will be tested to determine the existence of a relationship between the independent and dependent variables. It is important that the hypotheses be constructed in such a way that the independent variable in some way affects the dependent variable (Bryman and Bell, 2015). In this study, the dependent variable is relationship quality.

Furthermore, in order to test the hypotheses it is important to conduct a F-test which is used to determine if there is a significant relation between the independent variables and the dependent. In order to see if an F-test is significant, the result of the test is compared to the F distribution table to see if the result is within the significance level. In case of multiple independent variables F-test is conducted. On the other hand, T-test is used to compare two independent groups and evaluate the value of their means to understand whether their means are significantly different (Malhotra 2019).

4.7.4 Correlation Analysis

Correlation analysis determines the strength of the relationship between two metric variables (interval- or ratio-scaled variables). The correlation value can be positive or negative.

According to the nature of the relationship between two variables, a change in one variable may result in an exact same or an opposite reaction in the other variable (Malhotra, 2010).

Correlation analysis presents a value which is also known as correlation coefficient, this value should range from -1 to 1, If the correlation coefficient is 0, it suggests no relationship

between the variables (Malhotra, 2010). When the correlation value falls in the positive range, it suggests a strong relationship between the two variables which means if variable X increases, variable Y increases too. However, this is vice versa if the correlation is negative, in the case of negative value the relationship is deemed as weak and increase in variable X will lead to decrease in variable (Malhotra, 2010).

4.8 Quality Criteria

It is crucial to evaluate the quality of research when conducting quantitative research. The two most important criterias to be evaluated in the research are validity and reliability (Bryman and Bell, 2015).

4.8.1 Content Validity

Content validity, also referred to as face validity, is a crucial validity to the research. This validity evaluates the content of concepts subjectively but in a systematic manner, in other words, content validity is conducted in order to ensure that the indicators are identified correctly and in relation to the concepts (Bryman and Bell, 2015; Malhotra 2019),

To achieve content validity, the operationalization is conducted to help the authors navigate statements in accordance to the theoretical concepts, moreover experienced experts in the field can help to see if the measures capture and relate the concept (Bryman & Bell, 2015). Furthermore, content validity was secured in this research through pre-test on seven individuals in order to ensure the comprehensiveness of intended concepts in the questionnaire.

4.8.2 Criterion Validity

Criterion validity, also referred to as concurrent validity, is used when researchers employ a criterion to see whether chosen measurement scale functions as it is supposed to. Furthermore, criterion validity is used to predict and present suggestions for future studies. (Bryman and Bell, 2015).

However, when measured, there were evident relations and results that appeared that might set a frame for future research. In this research the criterion validity was used to break down the theory concepts in an operationalization table in order to understand the relationship of different concepts and to detect the predictive nature of the indicators in relation to the main concept.

4.8.3 Construct Validity

Construct validity asks the question of whether the measurement actually measures what has emerged from theory or not . Simply put construct validity tests the hypothesis developed from previous studies and addresses the amount to which the sample matches the statistical structure of the investigated model, therefore it is about the relationship between the theory and its measurement instruments (Bryman and Bell, 2015; Malhotra, 2019). In this study, the hypotheses were developed in relation to the previous studies based on interactivity and relationship quality.

4.8.2 Reliability

Reliability aims to ensure the consistency of measures of concepts. It is important in a research to show what is being measured is consistent. (Malhotra, 2019). Consistency in measures of concepts refers to the notion that the result of the data collected, should not vary no matter how many times the test is repeated. Internal reliability is an important indicator of study's reliability. In this case the reliability secures if the respondent's score of an indicator fits the score of another indicator (Bryman and Bell, 2015).

One commonly used test to measure internal reliability is Cronbach's Alpha test (Malhotra, 2019). The Cronbach's Alpha has a value between 1 and 0 which measures the consistency of the responses. The internal reliability of this research was achieved by performing the Cronbach's alpha test in the SPSS program in order to make sure about the consistency of questions in relation to intended measures. The results of Cronbach's alpha test are presented in the result chapter.

4.9 Ethical issues

When creating a questionnaire, ethical and sociological issues are two important factors to consider. From an ethical and sociological standpoint, it is critical that the writers outline what duties they might take when contacting persons who are participating. Researchers should explain ethical considerations since it demonstrates that they have examined how their research may influence others during the data collection process. Researchers are accountable for following ethical guidelines that do not hurt respondents, themselves, or society; there should be no lack of informed consent; there should be no invasion of privacy and lastly no deception must be involved (Bryman & Bell, 2015).

Surveys with an underlying meaning are one part of an issue that is unethical. Surveys that are conducted with the intent of selling a product or that are funded are unethical (Malhotra, 2019). According to Bryman and Bell (2015), research that causes subjects psychological, privacy violation, or physical harm is unacceptable. There are ethical difficulties with the participants, which can be described as a lack of informed consent, invasion of privacy, and dishonesty. Lack of informed consent occurs when individuals are not given the information they need to understand what they are doing. When a respondent's right to privacy is violated, this is known as invasion of privacy. For example, some study topics may be sensitive to respondents, and the researcher must give them the option of not responding. When a researcher lies about their research and makes it appear to be something it is not, this is referred to as deception. Deception frequently involves unfavorable research outcomes and the researcher's professional self-interest (Bryman & Bell, 2015).

Furthermore, the ethical implications of anonymity are examined. Malhotra (2019) further discusses that the researcher conducting the survey must maintain the respondents' identity at all times. In reality, this means that the respondent's names cannot be made public for a third party unless it is explicitly indicated. The authors provided a text in the survey of this research report expressly alerting the participants that their anonymity would be preserved. As previously stated, the goal of this study is educational, and no attempt was made to compromise the participants' privacy.

This study's researchers have ensured that ethical conduct is followed. In order to limit harm to the respondents and their privacy, the researchers analyzed the possible results of the questions posed in the questionnaire. To protect their careers and privacy, the respondents are kept anonymous. Participants also have the opportunity to exit the survey if they no longer wish to participate. When it comes to interpretation and dissemination, the researchers have assumed responsibility. The researchers made sure to keep this ethical concern in mind when publishing the results and interpreting information used in theory. In addition, informed permission is clearly demonstrated, and there has been no fraud. The respondents have all the information they need to know in the survey description to understand what they are engaging in.

Lastly, this study will be carried out in the year 2021, at the time that the world still struggles with the Corona pandemic (World Health Organization, 2021). As a result, the researchers used digital technology to carry out their investigation. Therefore, this study's work technique has no adverse effects on the researchers or participants.

4.10 Societal issues

Concerns about society that may develop during a survey are issues that are tied to society, which means that the research should help both society and people. When researchers use society as their primary study platform, they must be cognizant of their actions. Conducting such study carries with it a sense of duty. Orders of morality and law must be upheld (Social Research Association, 2003).

When it comes to interpretation and dissemination, the researcher has duties in regard to society. The study's interpretation and dissemination may cause harm to society because it alters people's behavior, which is not healthy for them. The researcher must consider how the study will affect the respondents. The impacts can be physical, psychological, or career-related, as well as altering their habits or preferences (Bryman & Bell, 2015).

When performing scientific research, it is critical for researchers to consider any potential societal consequences of their findings (Bryman and Bell, 2015). This study sheds light on how important social media is as a tool to businesses to affect and improve the relationship between them and their potential customers. If this research is used by corporations to successfully improve the relationship quality, there will most likely be some issues due to the

content these corporations use and how they use it. Social media is a vast online world that can easily affect its users and issues such as how the content is handled or to whom it is communicated is one big issue.

5. Results

5.1 Basic information and descriptive analysis of samples

There are 103 samples in this questionnaire, all of which are valid.

54.37% of men in 103 samples. And 45.63% of women in 103 samples.

The age group people of 18-24 years old accounted for 15.53% of the total number of participants in the questionnaire. The age group people of 25-30 years old also accounted for 15.53% the total number of participants in the questionnaire. The age group people of 31-40 years old accounted for 28.16% of the total number of participants in the questionnaire. The age group with the largest proportion of people is more than 51 years old. They are 30.10%. The age group with the least proportion of people is 41-50 years old. They are 10.68%.

Monthly Income

Options	Reply situation
0	6.80%
less than 4000 SEK	6.80%
4000-6500 SEK	7.77%
6500-10000 SEK	23.30%
More than 10000 SEK	55.33%

6.8% of the total number of participants in the questionnaire do not have any monthly income. 7.77% of the total number of participants in the questionnaire of the monthly income group with 4000-6500 SEK. 23.30% of the total number of participants in the questionnaire got 6500-10000 SEK. In the monthly income, the option with the largest proportion of people

is more than 10000 SEK. They are 55.33%. The option with the least proportion of people is less than 4000 SEK. They are 6.8%.

Use of social media

Among the 103 questionnaires reported, there were 41 respondents who used more than two types of social media on a daily basis, accounting for 39.81%. A total of 62 people use less than two (including two) social media, accounting for 60.19% .

Options	Reply situation
SINA WEIBO	37.86%
WeChat	92.23%
QQ	57.28%
TikTok	15.53%
FACEBOOK	14.56%
Instagram	11.65%
Twitter	5.83%

37.86% of the total number of participants in the questionnaire using SINA WEIBO. In the selection of social media, the option with the largest proportion is Wechat. They are 92.23%. The option with the least proportion is Twitter. They are 5.83%. 57.28% of the total number of participants in the questionnaire using QQ. The number of people using TikTok accounted for 15.53% of the total number of participants in the questionnaire. The number of people using FACEBOOK accounted for 14.56%. 11.65% of the total number of participants in the questionnaire using Instagram.

Descriptive Statistics

Descriptive Statistics											
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Trust_Integrity	103	4	1	5	352	3.42	1.098	-.216	.238	-.368	.472
Trust_Reliability	103	4	1	5	348	3.38	1.214	-.197	.238	-.775	.472
Trust_loyalty	103	4	1	5	358	3.48	1.243	-.318	.238	-.820	.472
Commitment_Desire to Collaboration	103	4	1	5	360	3.50	1.195	-.375	.238	-.558	.472
Commitment_Shortterm Sacrifices	103	4	1	5	359	3.49	1.162	-.423	.238	-.385	.472
Commitment_Long term Rewards	103	4	1	5	376	3.65	1.126	-.321	.238	-.807	.472
Satisfaction_Preference	103	4	1	5	377	3.66	1.142	-.465	.238	-.640	.472
Satisfaction_Better Brand	103	4	1	5	364	3.53	1.145	-.325	.238	-.654	.472
Satisfaction_Satisfy the Needs	103	4	1	5	353	3.43	1.168	-.216	.238	-.740	.472
Responsiveness_Speed	103	2	1	3	228	2.21	.836	-.422	.238	-1.444	.472
Responsiveness_Interpersonal Communication	103	3	1	4	245	2.38	1.112	.160	.238	-1.319	.472
Responsiveness_Timeliness	103	3	1	4	251	2.44	1.109	.074	.238	-1.327	.472
Socialinfluence_Share	103	4	1	5	238	2.31	1.372	.766	.238	-.662	.472
Socialinfluence_Personal Influence	103	4	1	5	237	2.30	1.251	.939	.238	-.019	.472
Socialinfluence_Community Influence	103	3	1	4	221	2.15	1.158	.405	.238	-1.351	.472
SMn	103	1	0	1	41	.40	.492	.423	.238	-1.858	.472
Mediarichness_Accounts of Brands	103	4	1	5	274	2.66	1.233	.902	.238	-.338	.472
Mediarichness_Accounts of Friends and Fans	103	4	1	5	331	3.21	1.398	.202	.238	-1.538	.472
Valid N (listwise)	103										

Table 1 Descriptive statistics of the Dependent Variable and the Independent Variable

Analysis:

The variable name SMn in Table 1 is a dummy variable conversion of the number of social media users. There are two types of people who use more than two types of social media and those who use less than two types (including two types). According to Table 1, the above summary statistics is a descriptive statistical analysis of all known data. Descriptive statistical analysis is the basic description of data. The number of Samples is 103.

The data with the largest value in the sample data is 5, and the data with the smallest value is 0. This paper selects the mean to represent the central tendency of the data. The highest Mean of Satisfaction_Preference is 3.66, and the lowest Mean of Socialinfluence_Community Influence except SMn is 2.15. Std. Deviation, Maximum, and Minimum are selected to represent the central tendency of the data, and the Mediarichness_Accounts of Friends and Fans The maximum Std. Deviation is 1.398, and the minimum Std. Deviation of Responsiveness_Speed except SMn is 0.836. Skewness and Kurtosis are selected to represent the data distribution pattern. The data of Skewness is positive. The distribution is right-skewed, and the largest right-biased data Socialinfluence_Personal Influence is 0.939. When the data is negative, the distribution is left-biased. The left-biased largest data Satisfaction_Preference is -0.465. The data of Kurtosis value is negative. The lowest value except SMn is Mediarichness_Accounts of Friends and Fans, -1.538. The highest value Social-influence_Personal Influence is 0.019.

5.2 Cronbach's Alpha analysis

variable	Cronbach's Alpha	Numbers of Items
Trust	0.707	3
Commitment	0.714	3
Satisfaction	0.735	3
Responsiveness	0.815	3
Social influence	0.809	3

Media richness	0.828	3
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Table 2 Cronbach's Alpha of the Dependent Variable and Independent Variable

Analysis:

Cronbach's Alpha is used to test reliability. As shown in Table 2, the three answers for each variable are averaged into a new test variable. According to the data in the table, it can be concluded that the data for each variable is greater than 0.6. Meet the requirements of the reliability data sheet, so it proves to be reliable. Cronbach's Alpha in this table has the lowest value named Trust, which is 0.707 and the highest value named media richness, which is 0.828. They both exceed the minimum limit of 0.6, which means that these variables are reliable. They show the internal consistency of the variables, indicating that the researcher does not need to delete or adjust any data to complete the analysis.

5.3 Pearson correlation analysis

		Correlations					
		Trust	Commitment	Satisfaction	Responsiveness	Socialinfluence	Mediarichness
Trust	Pearson Correlation	1	.844**	.824**	.317**	.357**	.273**
	Sig. (2-tailed)		.000	.000	.001	.000	.005
	N	103	103	103	103	103	103
Commitment	Pearson Correlation	.844**	1	.813**	.285**	.324**	.268**
	Sig. (2-tailed)	.000		.000	.004	.001	.006
	N	103	103	103	103	103	103
Satisfaction	Pearson Correlation	.824**	.813**	1	.271**	.271**	.148
	Sig. (2-tailed)	.000	.000		.006	.006	.135
	N	103	103	103	103	103	103
Responsiveness	Pearson Correlation	.317**	.285**	.271**	1	.225*	.240*
	Sig. (2-tailed)	.001	.004	.006		.022	.015
	N	103	103	103	103	103	103
Socialinfluence	Pearson Correlation	.357**	.324**	.271**	.225*	1	.314**
	Sig. (2-tailed)	.000	.001	.006	.022		.001
	N	103	103	103	103	103	103
Mediarichness	Pearson Correlation	.273**	.268**	.148	.240*	.314**	1
	Sig. (2-tailed)	.005	.006	.135	.015	.001	
	N	103	103	103	103	103	103

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

* . Correlation is significant at the 0.05 level (2-tailed).

Table 3 Correlation Analysis of the independent variable and the Dependent Variable

Analysis:

This paper uses bivariate Pearson correlation coefficient analysis for correlation analysis. The correlation coefficient reflects the direction and degree of the change trend between two variables. According to the explanation of the methodology, the purpose of correlation analysis is to evaluate the effectiveness of the structure to assist in evaluating the linkage variables between different. Researchers first need to observe the Pearson Correlation correlation coefficient in the table to ensure that the correlation coefficient ranges between -1 and 1. When correlation coefficient is greater than or equal to 0.8, it can be considered that there is a high correlation between the two variables. The Pearson Correlation values of the dependent variables Trust and Commitment, Trust and Satisfaction, Commitment and Satisfaction are 0.844, 0.824, and 0.813 respectively, and the significance of the dependent variables are <0.001. The high correlation is significant.

A positive value indicates a positive correlation, and a negative value indicates a negative correlation. The larger the absolute value, the stronger the correlation. The correlation coefficients in the table are all positive numbers, indicating a positive correlation between variables. The weakest correlation is the value of Satisfaction and Media richness of 0.148, with significance > 0.05, and the correlation is not significant. The largest correlation coefficient is the value of Commitment and Social influence 0.357, the significance is <0.001, and the correlation is significant, and the correlation coefficients of other variables are between 0.271-0.324, and the significance are <0.001, and the correlation are significant. This paper will further verify these data in the following regression analysis.

5.4 Summary of models for ordinal regression

	Exp.sign	Model 1	Model 2	Model 3	Model 4 (All Model)
Dependent		Trust	Trust	Trust	Trust
Intercept		2.258*** (0.359)	1.743*** (0.446)	2.354*** (0.385)	0.832* (0.527)
(no controls)		NA	NA	NA	NA
Independent					
Responsiveness(H1a)	+	0.317** (0.153)			0.224* (0.152)
Social influence(H1b)	+		0.357*** (0.153)		0.264** (0.158)
Media richness(H1c)	+			0.273** (0.120)	0.137 (0.120)
R ²		0.100	0.128	0.075	0.203
Adjusted R ²		0.091	0.119	0.066	0.178
Std.Error of the Estimates		1.02366	1.00798	1.03806	0.97337
F-value		11.247**	14.766***	8.155**	8.382***
Degrees of freedom(df)		1	1	1	3
*p<0.05, **p<0.01, ***p<0.001, N=103					
S.E.(standard error) is presented within parenthesis for each of the independent variables, following below the Beta value.					

Table 4: Hypothesis Test: Regression Analysis (1)

Analysis:

It can be seen from the All model of table 4 that Responsiveness, Social influence, and Media richness are used as independent variables, and Trust is used as the dependent variable for linear regression analysis. The adjusted R² value of the model is 0.178, that is, the independent variable can explain 17.8% of the change in the dependent variable. The model F-value value F=8.382, P<0.001, the model passed the test and was statistically significant. It also shows that at least one of Responsiveness, Social influence, and Media richness will have an impact on Trust.

If the Beta's sig<0.05, it means that X has an influence on Y. Accept the hypothesis, otherwise, reject the hypothesis. In this case, we accept H1a, H1b, and reject H1c. The regression coefficient B is a positive number, which means X has positive influences on Y, and the B values of H1a and H1b are both positive, indicating that Responsiveness and Social influence have positive influences on Trust. The Beta value of H1b is greater than the Beta value of H1a, and H1b is explaining the influence on the dependent variable Trust is more important.

	Exp.sign	Model 5	Model 6	Model 7	Model 8 (All Model)
Dependent		Commitment	Commitment	Commitment	Commitment
Intercept		2.514*** (0.359)	2.045*** (0.447)	2.518*** (0.381)	1.188* (0.531)
(no controls)		NA	NA	NA	NA
Independent					
Responsiveness(H2a)	+	0.285** (0.153)			0.197* (0.153)
Social influence(H2b)	+		0.324** (0.153)		0.233* (0.159)
Media richness(H2c)	+			0.268** (0.119)	0.147 (0.121)
R ²		0.081	0.105	0.072	0.171
Adjusted R ²		0.072	0.096	0.062	0.146
Std.Error of the Estimates		1.02326	1.01003	1.02865	0.98171
F-value		8.936**	11.835**	7.787**	6.813***
Degrees of freedom(df)		1	1	1	3
*p<0.05, **p<0.01, ***p<0.001, N=103					
S.E.(standard error) is presented within parenthesis for each of the independent variables, following below the Beta value.					

Table 5: Hypothesis Test: Regression Analysis (2)

Analysis:

It can be seen from the All model of table 5 that Responsiveness, Social influence, and Media richness are used as independent variables, and Commitment is used as the dependent variable for linear regression analysis. The value of the model Adjusted R² is 0.146, that is, the independent variable can explain 14.6% of the dependent variable. The model F-value value $F=6.813$, $P<0.001$, the model passed the test, and it was statistically significant. It also shows that at least one of Responsiveness, Social influence, and Media richness will have an impact on Commitment.

If the Beta's $\text{sig}<0.05$, it means that X has an influence on Y. Accept the hypothesis, otherwise, reject the hypothesis. In this case, we accept H2a, H2b, and reject H2c. The regression coefficient B is a positive number, which means X has positive effects on Y. The B values of H2a and H2b are both positive, indicating that Responsiveness and Social influence have positive influences on Commitment. The Beta value of H2b is greater than the Beta value of H2a, and H2b is explaining the impact on the dependent variable Commitment is more important.

	Exp.sign	Model 9	Model 10	Model 11	Model 12 (All Model)
Dependent		Satisfaction	Satisfaction	Satisfaction	Satisfaction
Intercept		2.553*** (0.363)	2.278*** (0.458)	2.967*** (0.394)	1.647** (0.552)
(no controls)		NA	NA	NA	NA
Independent					
Responsiveness(H3a)	+	0.271** (0.155)			0.216* (0.159)
Social influence(H3b)	+		0.271** (0.157)		0.213* (0.165)
Media richness(H3c)	+			0.148 (0.123)	0.030 (0.126)
R ²		0.074	0.073	0.022	0.121
Adjusted R ²		0.064	0.064	0.012	0.094
Std.Error of the Estimates		1.03560	1.03571	1.06401	1.01907
F-value		8.015**	7.992**	2.272*	4.526**
Degrees of freedom(df)		1	1	1	3
*p<0.05, **p<0.01,***p<0.001, N=103					
S.E.(standard error) is presented within parenthesis for each of the independent variables,following below the Beta value.					

Table 6: Hypothesis Test: Regression Analysis (3)

Analysis:

It can be seen from the All model of table 6 that Responsiveness, Social influence, and Media richness are used as independent variables, and Satisfaction is used as the dependent variable for linear regression analysis. The value of the model Adjusted R² is 0.094, that is, the independent variable can explain 9.4% of the change in the dependent variable. The model F-value value F=4.526, P<0.01, the model passed the test, and it was statistically significant. It also shows that at least one of Responsiveness, Social influence, and Media richness will have an impact on Satisfaction.

If the Beta's sig<0.05, it means that X has an influence on Y. Accept the hypothesis, otherwise, reject the hypothesis. In this case, we accept H3a, H3b, and reject H3c. The regression coefficient B is a positive number, which means X has positive effects on Y. The B values of H3a and H3b are both positive, indicating that Responsiveness and Social influence have positive influences on Satisfaction. The Beta value of H3a is greater than the Beta value

of H3b, and H3a is explaining the influence on the dependent variable Satisfaction is more important.

6. Discussion

6.1 Hypotheses

In order to verify a model of the positive influence between social media interaction and relationship quality designed in the Problem discussion based on the literature review, three hypotheses were established. Each hypothesis has three sub-hypotheses, and regression analysis was used to verify the paper's Hypothesis. First of all, in order to test the reliability of the variables, this paper did Cronbach's Alpha analysis on the summated scales. The results showed that the variables set in this paper have high reliability. Next, this paper did a correlation analysis and the results showed that except for Satisfaction The correlation with Media richness is not significant, and the other independent variables and dependent variables are all significantly correlated. The dependent variables are highly correlated and significant.

Through linear regression analysis, the hypothesis that Beta significance is less than 0.05 is accepted, and the hypothesis that Beta significance is greater than 0.05 is rejected. It means that the Responsiveness and Social influence of social media have an impact on the three aspects of relationship quality Trust, Commitment, and Satisfaction. The regression coefficient B is a positive number, indicating that the impact of Responsiveness and Social influence on Trust, Commitment, and Satisfaction is positive. On the other hand, the hypothesis that Media richness has a positive effect on three aspects of relationship quality is rejected.

independent variable	dependent variable	Hypotheses	accepted or rejected

Responsiveness Social influence Media richness	Trust	H1: Interactivity positively affects Trust	accepted
Responsiveness	Trust	H1a: Responsiveness positively affects Trust	accepted
Social influence	Trust	H1b: Social influence positively affects Trust	accepted
Media richness	Trust	H1c: Media richness positively affects Trust	rejected
Responsiveness Social influence Media richness	commitment	H2: Interactivity positively affects commitment	accepted
Responsiveness	commitment	H2a: Responsiveness positively affects commitment	accepted
Social influence	commitment	H2b: Social influence positively affects commitment	accepted
Media richness	commitment	H2c: Media richness positively affects commitment	rejected
Responsiveness Social influence Media richness	satisfaction	H3: Interactivity positively affects satisfaction	accepted

Responsiveness	satisfaction	H3a: Responsiveness positively affects satisfaction	accepted
Social influence	satisfaction	H3b: Social influence positively affects satisfaction	accepted
Media richness	satisfaction	H3c: Media richness positively affects satisfaction	rejected

Table 7 Overview of the results of the Hypotheses test

6.2 Weaknesses of items and questionnaires

Through the collection of questionnaire data, this paper realizes that there are some weaknesses in the setting of items in the operation table. The connection between some items and questions are not close. For example, loyalty cannot fully measure trust, therefore, the question of loyalty of the questionnaire is not closely related to the item.

6.3 Discussion of the Variables

According to the content of the theoretical part, trust, satisfaction and commitment belong to the three components of research relationship quality. Doney and Camion (1997) and other related studies indicated that customer loyalty depends on the degree of customer trust in the company. Trust refers to customers' recognition of the company's values, reliance on the company, and confidence in the company's services. Trust is conducive to promoting cooperation between customers and the company. The higher the degree of trust, the more loyal the customer is to the company and the easier it is to improve the quality of the relationship. According to Athanasiopoulou (2009) and other related studies, commitments also have an impact on the quality of relationships. Commitment indicates that the customer hopes to maintain a long-term relationship with the company. It means that the customer and the company will establish a close social connection, and it also promotes the improvement

of the quality of the relationship between the customer and the company. This leads to the healthy development of the relationship between them. According to Crosby et al. and other related studies, customer satisfaction also affects the quality of the relationship between the customer and the company. Customer satisfaction is composed of personal preferences and experience. The higher the customer satisfaction and the closer the relationship between the customer and the company, the higher the quality of the relationship between them. However, customer satisfaction has certain instability. Therefore, the company needs to obtain more intuitive satisfaction data based on customer satisfaction with product quality, price, and the company's ability to solve problems, so as to better meet customer needs.

According to the content of the theoretical framework, the three dimensions of relationship quality are affected by the three dimensions of social media interaction. The three dimensions of social media interaction include responsiveness, social influence and media richness. Responsiveness refers to the company's feedback on customer issues. In order to ensure a competitive advantage, the company needs to respond to customer questions in a timely manner, so as to ensure that customers get timely information about the company on social media. According to Jang et al. (2008) and other literature studies, interactivity is a basic feature of online brand communities, which can lead to loyalty. The level of customer loyalty depends to a certain extent on the level of trust the customer has in the company. Customer loyalty increases as customers' trust in the company (Jang et al, 2008). All these dimensions are important factors that social media users consider when interacting with virtual communities on social media platforms (Ebrahim et al. 2014). Responsiveness means that the company responds to customer needs or market changes at the right time to maintain its competitive advantage. In some cases, responsiveness can be regarded as the realization of the company's requirements for marketing objectives (Ebrahim et al. 2014).

Social influence includes the feedback that customers receive from other customers on social media. More feedback means greater social impact. The more positive the social influence, the greater the company's market advantage. Negative social influence can help prompt

companies to correct their exaggerated assessments of their market advantages in a timely manner. The degree of social influence depends on the customer's trust in the product, and the customer's trust in the product is affected by the evaluation of the product by other customers. The higher the trust, the greater the social impact of the product.

Media richness affects the ability of social media to convey information. Companies can judge the richness of media by evaluating the responsiveness of social media, the social media sources from which brand information is obtained, and the richness of the language used in social media. Companies need to choose appropriate rich media to help them achieve their marketing goals. The appropriate richness of the media can attract more customers for the company. The higher the richness of social media, the more beneficial it is to increase customers' interest in the brand. Companies can build social communities on social media, gather customers with the same preferences, create interesting brand content, publish a certain number of brand articles at the right time, and attract more customers to increase the richness of the media.

According to the data analysis research of this paper, responsiveness of the three dimensions of interactivity has positive influences on the three dimensions of relationship quality. Social influence has a positive effect on relationship quality. Media richness has no positive effect on relationship quality. Responsiveness refers to the speed and timeliness of the brand's response on social media, and the communication between customers and the brand has a positive impact on the quality of the relationship. Social influence refers to the use of clicks, sharing and comments on social media to improve customers' Trust towards companies, improve customer satisfaction, and promote long-term cooperation between brands and customers. Media richness draws negative conclusions. In terms of trust and commitment, the diversity and universality of media richness prevents customers from feeling the company's desire for long-term cooperation and short-term sacrifice. Regarding the impact of media richness on satisfaction, the diversity of social media, and social media The diversity of brand accounts and the diversity of customers' friends and fans on social media have enabled

customers to have more information sources and more diversified evaluations of brands, which in turn led to rapid changes in customers' preferences for brands. With higher requirements, it has become more difficult to improve customer satisfaction.

7. Conclusion

In summary, the purpose of this research is to study how customers' social media interactivity influences relationship quality. In order to achieve this purpose, this paper establishes three hypothetical models. Each hypothesis has three sub-hypotheses. According to the research results, this paper draws The two dimensions of Responsiveness and Social influence of social media interactivity have positive influences on relationship quality. The hypothesis that Media richness of social media interactivity has a positive impact on relationship quality is rejected. Therefore, this paper concludes that social media interactivity has a positive effect on the relationship quality.

7.1 Model improvement

In summary, this paper demonstrates the model designed for the discussion of the problem from two aspects: literature review and sample quantitative analysis. The theoretical literature supports model design through question discussion. Quantitative analysis makes the model consistent with reality. Excluding assumptions that are inconsistent with the quantitative research results, resulting in the following model.

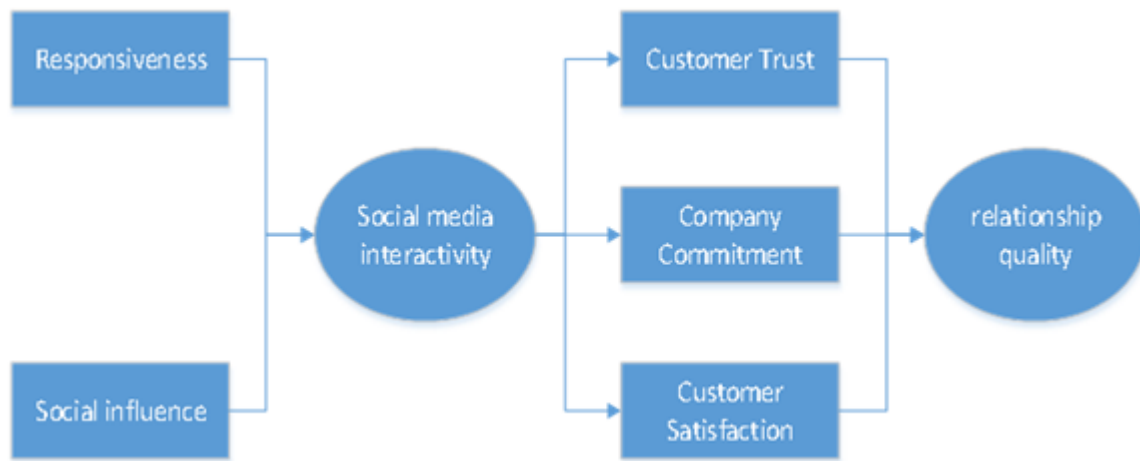


Figure 2 The improved research model

7.2 Theoretical and practical Implications

In summary, social media interactivity has positive influences on relationship quality, and social media interactivity helps to improve customer Trust, companies' Commitment and customer Satisfaction. The two dimensions of responsiveness and social influence in interactivity have positive influences on the relationship quality of trust, commitment, and satisfaction.

From the perspective of corporate costs and profits, companies must focus on multiple influential social media to establish brand accounts and social media communities in their social media interactions. The speed of interactive Responsiveness should be fast, interpersonal communication should be unblocked, and timeliness should be timely. Expressing social media companies' desire for long-term cooperation is strong and sincere, but don't use too many methods such as discounts on social media that sacrifice short-term benefits and reduce profits to attract customers. The "price war" on social media can only cause other brands to fight back more violently, which has a negative impact on the quality of the relationship, which in turn reduces profits and even damages revenue. Therefore, in the social media community, companies must improve the quality of services and optimize customer experience in the social media community, and give customers long-term return promises to increase the willingness and stickiness of customers for long-term cooperation, in

order to increase the company's revenue. Due to the powerful communication capabilities of social media, many consumers are more inclined to use social media as a channel to vent their dissatisfaction with the brand, and negative reviews can directly affect the good image and reputation of the brand, and companies need to be positive and timely in response to negative reviews. The sincere response to avoid huge losses for the brand.

7.3 Limitation and Suggestions for Further Research

From the three multiple linear regression analysis established by SPSS, Adjusted R² is 0.178, 0.146, 0.094, and the independent variable can explain 9.4%-17.8% of the change of the dependent variable. From the results, the fit is low. Although the model proposed in this article may deviate from reality, researchers can take the following actions in future research. First, they can improve the fit of the model by transforming or adding independent variables. The second is to extend the survey period and further expand the sample size to obtain sufficient data. This article finds from the current questionnaire data statistics table that most of the people over the age of 50 who participated in the survey have less interaction with social media. For example, they are not interested in the 1-2 point sharing and commenting options. Their scores on issues related to relationship quality are between 2-3 levels or even lower. Future research can focus on how to improve the social media interaction of this group of people in order to have a more positive influence on the quality of the relationship.

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Appendix 1

Questionnaire:

A questionnaire on factors affecting relationship quality on social media

Personal information and related questions about your use of social media.	
Do you use at least one Social Media platform on a daily basis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
1. You are a...	<input type="checkbox"/> Man <input type="checkbox"/> Woman <input type="checkbox"/> Other
2. Your age is...	<input type="checkbox"/> Under 18 years old <input type="checkbox"/> 18-24 years <input type="checkbox"/> 25-30 years <input type="checkbox"/> 31-40 years <input type="checkbox"/> 41-50 years

	<input type="checkbox"/> 51+ years
3. Your monthly income	<input type="checkbox"/> 0 <input type="checkbox"/> less than 4000 SEK <input type="checkbox"/> 4000-6500 SEK <input type="checkbox"/> 6500-10000 SEK More than 10000 SEK
4. Which social software do you use? (Multiple choice)	<input type="checkbox"/> Sina WEIBO <input type="checkbox"/> WeChat <input type="checkbox"/> QQ <input type="checkbox"/> FACEBOOK <input type="checkbox"/> Instagram <input type="checkbox"/> TikTok <input type="checkbox"/> Twitter
5. What is the approximate number of social media posts you repost every day?	<input type="checkbox"/> 0 Article <input type="checkbox"/> 1-4 Articles <input type="checkbox"/> 5-10 Articles <input type="checkbox"/> 11-20 Articles <input type="checkbox"/> More than 20 Articles

<p>6. What is the approximate number of comments you make a day?</p>	<p><input type="checkbox"/> 0 Article</p> <p><input type="checkbox"/> 1-4 Articles</p> <p><input type="checkbox"/> 5-10 Articles</p> <p><input type="checkbox"/> 11-20 Articles</p> <p><input type="checkbox"/> More than 20 Articles</p>
<p>7. How many social media accounts of the brands you have followed?</p>	<p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1-50</p> <p><input type="checkbox"/> 51-100</p> <p><input type="checkbox"/> 101-150</p> <p><input type="checkbox"/> More than 150</p>
<p>8. How many friends and fans have followed your social media accounts ?</p>	<p><input type="checkbox"/> 0</p> <p><input type="checkbox"/> 1-50</p> <p><input type="checkbox"/> 51-100</p> <p><input type="checkbox"/> 101-150</p> <p><input type="checkbox"/> More than 150</p>
<p>9. The speed at which the company responds to customer feedback on social media.</p>	<p><input type="checkbox"/> No response</p> <p><input type="checkbox"/> Slow response</p> <p><input type="checkbox"/> Rapid response</p>

What is your evaluation of social media				
	Often	Occasionally	Rarely	Never
10. When buying goods, I use social media as the main source of brands' information	1	2	3	4
11. Participating in brands' experience, lottery, voting and other activities on social media	1	2	3	4
12. The timeliness at which the company responds to customer feedback on social media.	1	2	3	4

Questionnaire on customer's Trust					
	Strongly Disagree			Strongly Agree	
13. What is your level of trust on the brand's social media?	1	2	3	4	5
14. I would like to recommend this brand to friends or family on social media	1	2	3	4	5
15. After becoming a user of this brand social media community, I will continue to use and buy the brand's products in the future	1	2	3	4	5

Questionnaire on Brand/Company's Commitment					
	Strongly Disagree				Strongly Agree
16. By participating in the activities of the social media community , members can get certain points or rewards	1	2	3	4	5
17.Participating in the brand social media community allows me to get discounts from the brands	1	2	3	4	5
18.when comparing brands, the brand's response to customers makes me have a better sense of belonging to this brand.	1	2	3	4	5

Questionnaire on customer satisfaction					
	Strongly Disagree				Strongly Agree
19.The interaction between the customer and the company's brand about information on social media makes me prefer the brand more.	1	2	3	4	5
20. The interaction between the customer and the information of the company's brand on social media makes me think this brand is better than other similar brands	1	2	3	4	5
21.The social media community helped me save money on the brand maintenance, repair, etc.	1	2	3	4	5

