



Jean Monnet Module
SCHOOL OF ADVANCED SOCIAL STUDIES

Sustain4EU: Enhancing European Civic Practices and Sustainability as the articles for this thematic issue were collected within this project.



With the support of the
Erasmus+ Programme
of the European Union

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Research in Social Change

AQUANTITATIVESURVEYOFTWITTER'SINFLUENCE
ON ONLINE BUSINESS

Dario Sipos*

School of Advanced Social Studies in Nova Gorica, Nova Gorica, Slovenia

Abstract

The advancement of technology and people's interactions virtually over social media has created many opportunities for online businesses to expand their scope and maintain their cost efficiencies by targeting customers on social media platforms. Twitter is one of the businesses' actively used social media platforms to reach customers. Businesses seem to shift their scope more towards the online side because this is where they can reach customers. Social media platforms facilitate businesses in reaching out to customers and developing their brand image through marketing strategies. The features that attract users towards using Twitter are the word-of-mouth communication generated on it and the freedom of expressing and sharing opinions. This paper investigates how Twitter has played its role in shifting the scope of businesses online and developing their brand image using it as a platform. Additionally, it aims to ascertain how online business activities have impacted customers on Twitter. We used the quantitative method to discover the influence of Twitter activities on online business, and data were collected from 80 respondents. The results have been further analysed using the Likert scale analysis, and to determine the relationship between the variable and to test the hypotheses, multiple regression has been used. The study's results showed a significant relationship between the business's engagement online on Twitter and the customer's loyalty to the brand.

Keywords

social media advertising • social media marketing • online business, brand image • Twitter

1. Introduction

Traditionally businesses used to communicate through person-to-person interactions, but with the appearance of the Internet, there has been a massive shift in marketing strategies, which has changed the way of interaction between the consumer and businesses. There are a number of social media platforms available that can be used by businesses to improve their reach to customers on a large scale and even globally, which can be done much faster now due to the advancement of technology (Bulearca and Bulearca 2010, 296).

The Internet is a powerful source for consumers, creating an opportunity for marketers representing different brands because it has enabled them to take advantage of the electronic word-of-mouth technique. Brands can now manage their marketing strategies to develop the trust of their customers through the messages generated from word of mouth, which has been found to impact the sales of products directly. Businesses have shifted their focus to co-value creation by engaging their customers and making them a part of their strategies, which has been successful in generating electronic word of mouth and engaging more customers due to the creation of brand loyalty.

Twitter is considered one of the popular social media platforms providing the necessary tools for businesses to connect with their customers and market their products and services. It offers a simple registration process, and the business can run its social media campaigns using the Twitter profile. The popularity of this social media is more due to the considerable media spotlight, which becomes beneficial for businesses in having a prominent brand name (Zhang, Jansen, and Chowdhury 2011, 161).

When Elon Musk bought Twitter in October 2022, many users of Twitter disagreed. Some users thought it was a good idea, but others were worried about Musk's opinions on free speech. Owing to this development, many Twitter users started searching for other social media websites to use. There are very few alternatives to Twitter. One of these alternatives is called Mastodon, which is a social network that allows sharing of short posts and is not owned by one central company. Lots of people, as well as news organisations, have been interested in Mastodon because of the mentioned features. Twitter and Mastodon have different features and are owned and governed in different ways. These differences

*Corresponding author e-mail: dario@dariosipos.com

create a clear contrast between the two platforms. Recent research shows that only 2.26% of Twitter users deleted their accounts and left the platform, contrary to the popular belief of the Twitter platform's imminent collapse due to users leaving (Bin Zia et al. 2023).

2. Theoretical Background

2.1. Significance of content-type on Twitter

The areas where businesses can apply the use of Twitter include: conveying different updates about the brand, implementing various promotional techniques, and engaging and satisfying the customers to have quality customer service. About 37% of the 2009 Fortune 50 firms have already been using Twitter as a microblogging platform to gain value. However, there is fear among the companies about this platform since it is flexible and offers rapid communication and interaction, which can spread negative or inaccurate news faster, posing a threat to businesses. On the other hand, the flexibility of this mode of communication and its speed enable businesses to solve their customer queries and resolve their issues more quickly (Case and King 2011).

Twitter has established itself as the authoritative source of information for journalists. This perception has been reinforced by journalists who rely on Twitter as a platform for access to powerful individuals and to quote 'ordinary people'. However, this practice often treats tweets as content rather than sources that need to be verified. As a result, tweets are treated as interchangeable building blocks of news, rather than as unique sources with their messages and ideas. By analysing a dataset of news stories that include tweets, a study by Molyneux and McGregor (2022) offers evidence that social media platforms have significant power in shaping journalism and legitimising certain views of different subjects. This research highlights the role of journalists in transferring some of their authority to Twitter, ultimately influencing the participants and content of public discourse (Molyneux and McGregor 2022).

2.2. Importance of user-generated content

The advent of the world wide web in 1989 created a global network through the Internet. With time, several social media platforms have been developed that have allowed users to generate and share the content of their choice. User-generated content and spreading information through word of mouth on social media platforms have shifted power towards customers. Businesses can take advantage of online social media platforms only if they manage to access a customer base that is oriented towards their brand. Also, staying updated with the new features and updates of the media platforms is a challenge for businesses because they have to modify their marketing strategies accordingly. Social media platforms are

an effective medium to have customer information that can be used by marketers that can facilitate them targeting the right customer segment. Social media facilitates businesses to develop a web presence and build customer relationships (Hensel and Deis 2010).

Promotion of deals and obtaining feedback from customers can be done conveniently using Twitter as a marketing platform. Consumers trust online brand contents, which is in the form of reviews by other users, and thus they consider it to be a valuable source. Electronic word of mouth is based on the consumer's judgement about the product or service offered by the brand and the consumer's behaviour towards the purchasing decisions. The research conducted under different studies has shown that a positive brand image results from positive word of mouth (Chung and Park 2012). The type of content businesses share on their social media platforms plays a significant role in defining a particular brand. Information sharing with the users is made possible with the help of content generated on social media platforms, which can be categorised as an emotional appeal or customer engagement content. Marketers determine which kind of content can be helpful for effectively communicating the brand's message to the users in response to the content shared on Twitter: users express gratitude, inquiry, information, comment or support. In this way, the goal of two-way communication can be achieved using Twitter as a marketing tool for brands (Taecharungroj 2017, 552).

Social media, and Twitter in particular, have become an important tool for scientists to communicate their work to the public. However, with changes in Twitter's leadership in October 2022, the future of Science Twitter is uncertain, and other platforms may take its place. Despite this uncertainty, it is evident that social media is beneficial for science communication and will continue to be an important aspect of the scientific community (Insall 2023, 1).

The frequency of information received from friends or other sources can influence individuals to adopt it within online social networks. Investigating this dynamic of social influence is essential to comprehending social interactions and user behaviour regarding the spread of online information. However, quantifying social influence is difficult in online social systems where interactions and communication content are closely monitored. The study by de Oliveira, Marques-Neto and Karsai (2022) demonstrates that users are more likely to adopt retweets than hashtags. Additionally, the study discovered that both metrics are unevenly distributed and interrelated, and their dependence on social influence topics and aggregation levels varies.

2.3. Impact of marketing strategies of businesses on Twitter

Customers share their impressions of the brand through their engagement with the brand content and let other users know

about the brand experience on Twitter. Customers' purchase intentions are shaped by how effectively a brand delivers its message. A Twitter user can view interactions of different customers through the brand profile, which has created a lot of convenience for the buyers and the challenge of maintaining the profiles of the brands. The perceptions about a particular brand lead to the following of the brand, which in turn impacts the purchasing decisions of the customer as well as the creation of user-generated content about the brand (Chu, Chen and Sung 2016, 421).

Although Twitter is one of the advertising tools businesses can benefit from, the challenge lies in increasing the number of followers and developing the brand through marketing strategies. The communicative power of this platform plays a significant role as it has a large number of users. Twitter can be useful for businesses in many ways; it can be used as a marketing tool to obtain the customer's following, or it can be used for market research to acquire familiarisation with the various elements of the market, such as competitors and customer preferences. Various social media platforms have led to new marketing paradigms focussing on customer satisfaction as the primary goal instead of focussing only on improving products or services. Various platforms allow customers to give their feedback about a brand and express their perspective on their brand image through online reviews (Geho, Smith, and Lewis 2010).

The research by Ahmad and Biyani (2023) on Twitter indicates that numerous structural modifications occur in companies engaged in merger and acquisition activities. Additionally, the acquirer may encounter growth prospects and challenges following the merger, while the management and employees of the target company may experience unfavourable alterations. All these aspects influence businesses in their marketing decisions, as well as whether they should continue advertising on Twitter.

2.4. Stakeholder analysis and influencer marketing through Twitter

Twitter plays an important role in facilitating businesses to devise strategies and plan for future actions, from grasping consumers' attention to the involvement of various stakeholders in the business. Updates about the changing social circumstances are communicated much faster on Twitter, which is vital information for businesses because they can have a better stakeholder analysis using the platform of Twitter (Jansen et al. 2009).

Celebrity endorsements serve as an essential means of creating electronic word of mouth, and brands adopt such strategies that involve celebrities to attract a large customer base through the followers of those celebrities. Such tactics, on the one hand, give a chance to celebrities to earn a profit, and for businesses, it acts as an opportunity to attract a

customer base. The followers of celebrities primarily blindly follow their advice and are ready to experience the brands that are being followed by popular celebrities. The number of followers of celebrities is much greater than that of the brands; therefore, brands use celebrity endorsement techniques to develop a brand image (Burkhalter, Wood, and Tryce 2014, 319).

Influencer marketing is increasingly used for brand management by businesses using Twitter to offer collaborations and engagement with others on the platform to improve the brand image. There has been an increase in the number of brands over the year, creating market saturation and competition among the brands to gain the maximum market share. To cope with this situation, brands find influencer marketing an effective tool to position themselves in the market (Arora et al. 2019, 86).

Deals and sales offered by the brand serve as an effective promotional means to engage the customers. The online platforms keep reminding the customers about the coming deals and sales so that they do not miss out on their favourite products. New product launches can also be followed using online social media platforms (Rohm, Kaltcheva and Milne 2013, 295).

Ante's study (2023) analyses the real-world impact of the online activities of a prominent figure in the technology industry, who is one of the wealthiest people globally, with a significant following (over 110 million followers) on Twitter, and who uses the Twitter platform to frequently communicate on a range of topics, including cryptocurrencies. The mentioned research employs an event study method to examine the impact of the Twitter activity on short-term cryptocurrency returns and volume. Essentially, it was investigated whether there is an effect on cryptocurrency markets. The results of the research indicate that the social media activity of influential people can have a substantial effect on cryptocurrencies. This raises concerns about conflicts of interest, market manipulation and the protection of investors.

2.5. Application of Twitter by businesses

Businesses have shifted their focus towards the participation and engagement of customers by modifying their social media strategies. Businesses in today's world continuously message their customers with their brand communication. Additionally, they have increased the participative role of social media platforms, where they give their customers a chance to witness their products or services. Other customers trust such messages more than the businesses praising themselves. Involving the customers in social media strategies also increases the traffic on these platforms, making it easy to create brand awareness (Thoring, 2011, 141).

In order to disseminate information related to the brand, marketers use social media as a promotional tool for information

diffusion to build their social network. For example, the cruise industry uses Twitter to attract people interested in travelling. Their communication with the customers was analysed, showing that they use content generated on four different levels to reach out to their customers. These four levels include content generated by the company, travel agencies, celebrities and bloggers. Sharing information and the latest updates makes it possible for this industry to reach customers more effectively (Park, Chihyung, and Bongsug 2016).

The term 'digital native' refers to the group of people who have been brought up in the Internet age. This segment of individuals is found to be more influenced by businesses' social media marketing tactics. They prefer to interact with businesses through online communication to stay updated with information related to different brands. This kind of brand–consumer relationship development in the digital age has become an opportunity for businesses (Rohm, Kaltcheva, and Milne 2013). In the fall of 2022, as several tech companies grappled with the difficult decision to lay off numerous employees, Elon Musk's disorganised and confrontational management of his recently acquired Twitter workforce made those layoffs especially challenging. While Musk may have boasted about his approach to cutting jobs, his actions prompted a wave of employee self-advocacy and legal action, providing a warning for any company contemplating severe terminations (Pawanpreet et al. 2023). The negative reaction of the public to the mentioned layoffs and how they are handled created a situation of many businesses not investing in Twitter advertising and the platform struggling to attract big businesses to invest again.

3. Research Design and Methodology

The present study sought to develop an in-depth analysis of the brand–consumer relations that are created and sustained by the online businesses that use Twitter as a platform of communication to develop a feeling of brand recognition, and eventually brand loyalty, in customers and potential customers alike, as well as to examine how the use of such communication impacts business performance and success. The results of the study would be justified using statistical tools and techniques. The hypotheses that are going to be tested include the following:

- The degree of effectiveness of a business's engagement with customers through Twitter's word-of-mouth communication influences all of the following, namely customer involvement, user-generated content, customer loyalty and customer perception.

An online survey was used to identify the relationship between businesses and customers regarding their interaction online on Twitter. Data were collected from 80 respondents and

then analysed to arrive at the results. The statistical analysis technique has also been used to validate the data further and describe the relationship between the variables to test the hypotheses. The study's participants mainly include digital natives who used Twitter often. The research has focussed on ascertaining the relationship between online businesses and their relationship with the customers, and not on any specific brand or industry.

4. Research Results and Discussion

The study aimed to determine the relationship between customers and their interaction with online businesses on Twitter. The main variables studied to determine the relationship between online businesses on Twitter and consumer interaction include customer engagement, customer loyalty, customer perception and word of mouth through user-generated content.

The online survey consisted of 16 questions that the respondents were supposed to answer. Survey results are explained in the form of graphs and charts for convenience of analysis. The responses from the questionnaire contributed to determining the results through concrete responses. The results from the responses are discussed as follows:

The study respondents included 52% females and 48% males, and their age group was between the ages of 18 years and 26 years. The participants' response about the usage of Twitter is illustrated in the following charts and graphs to make the relationship between customers and online businesses clear in terms of the respondent's perspective about it, based on the question, '*What is your Twitter usage frequency?*'.

Considering the participants' responses (Figure 1), it can be concluded that they are digital natives and spend most of their time on Twitter and like to stay in touch with updates. About 35% of the respondents have claimed in their response that they use Twitter many times a day. From analysing the responses, it is evident that the frequency of Twitter usage among this segment of the population is quite high, which, by way of offering businesses a segment that they can target conveniently, provides them a highly useful opportunity to explore ways in which existing ties of customer loyalty can be deepened, together with those in which new ones could be established.

To ascertain which business industry is popular among the respondents, the following question was included in the questionnaire: '*Which industry brands do you think are more often followed by you on Twitter?*'.

According to the responses from the participants, the most popular industries they follow on Twitter include food, fashion and sports (Figure 2). The food industry was popular to almost the same extent among both genders, whereas in the case

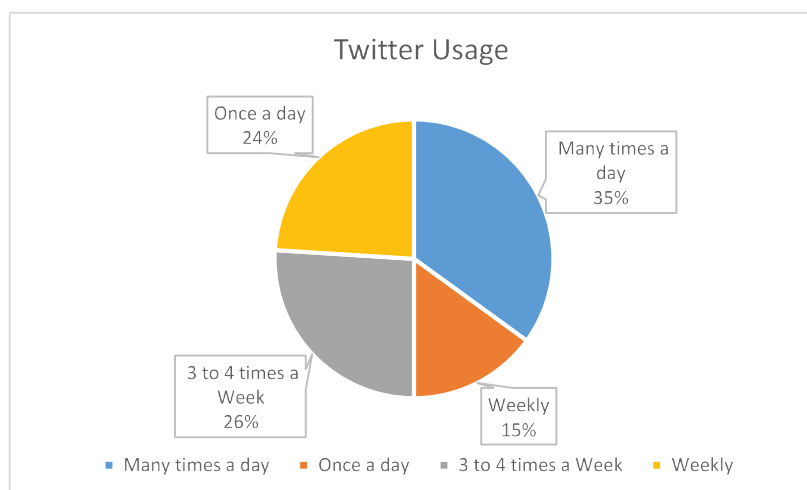


Figure 1. Frequency of Twitter usage.
Source: Sipos (2022), own research.

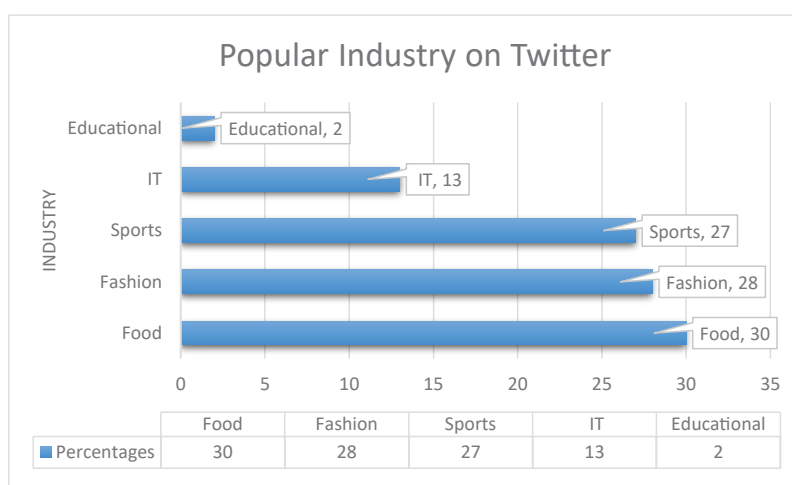


Figure 2. Popular industry on Twitter.
Source: Sipos (2022), own research.

of the fashion industry, the following by females was greater. On the other hand, males responded more to the option of the sports industry, which very few females selected. So, this shows the interests of the users in terms of the industry that they follow on Twitter.

The following group of questions was used to determine the expectations of the customers from different brands on Twitter, starting with the question: *'What features of Twitter do you consider most useful?'*

The feature of Twitter that attracts the users most is networking through Twitter as it enables them to form social relationships through which they can connect, know about each other and share their views about different stuff.

Some 32% of the respondents used Twitter to connect with others. After this feature, the most popular features include increasing awareness and sharing information, which were about 18% and 19%, respectively (Figure 3). Knowing about the point of view of others was found to be the least important among the available options. Since these observations point out a significant opportunity to benefit from social networking developed on Twitter, businesses depending on the online sphere of operation for acquiring and retaining a sizeable portion of their customer base, so as to ensure the viability of their online business prospects, need to pay careful attention to this opportunity. For this reason, businesses consider celebrity endorsement an effective way to promote

their brand and create awareness about it. They deliver their brand message to their entire social network by taking a single celebrity on board. The followers of that particular celebrity then share it among their networks, enabling the brands to reach the maximum number of people.

With the following question, we examined user opinion on the benefits of using Twitter: *'What are the benefits of Twitter that make you use it?'*

The main benefit that the users of Twitter believe in is having an awareness of brands (Figure 4). This platform has enabled

them to know more about the brands than before, with 35% of the respondents believing it to be beneficial. The response also shows that they find it a valuable platform for interacting with the online presences of various brands, with these interactions typically assuming the form of providing them with feedback, and with 27% of the respondents finding it to be a benefit of the Twitter platform and 23% of the participants finding it helpful to share content about a particular brand, the latter of these being also a critical factor for online businesses to consider to ensure maximum customer satisfaction.

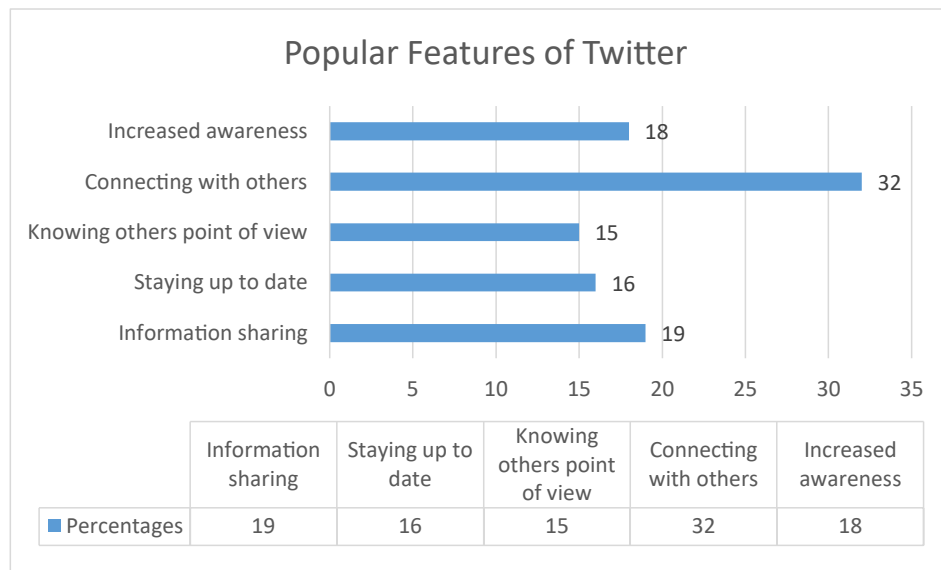


Figure 3. Popular features of Twitter.

Source: Sipos (2022), own research.

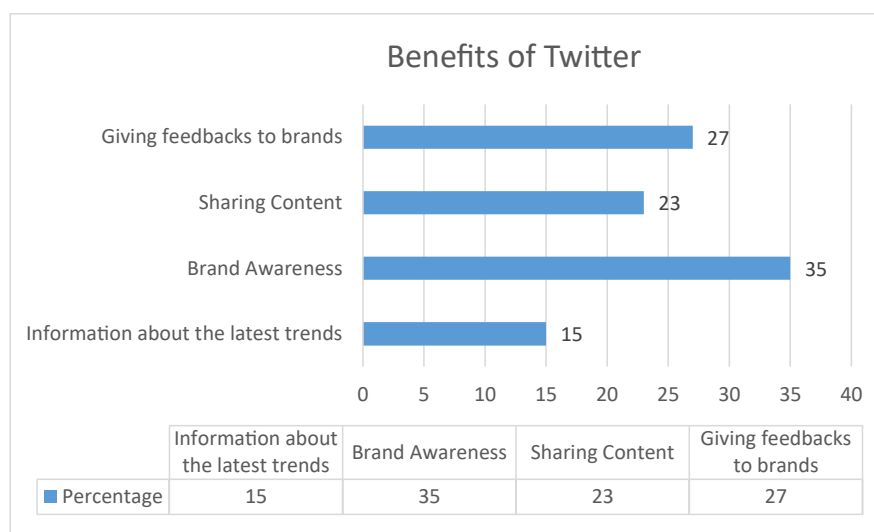


Figure 4. Benefits of Twitter.

Source: Sipos (2022), own research.

Information about the latest trends was found to be the least important among the offered options.

Using the following question, we examined respondents' view on the credibility of source information: *'Does the source of information matter to you on Twitter, or do you believe in user-generated content?'*

The results of the responses show that Twitter users find customer reviews to be an essential source of information related to a brand, while it seems that the majority of them use it as a medium to obtain information pertaining to brands (Figure 5). Official sources of information are considered an important factor after the customer reviews, which the users find credible. Significantly, few participants responded that customer reviews are not important to them. These results show reasons that the shift of the businesses has been more towards the customers rather than just improving their product or service.

Furthermore, we investigated the type of content influencing users with the following question: *'What kind of content on Twitter influences you the most while choosing a brand?'*

The answers to this question show the customers' preference in terms of the content that different brands share. That is an essential insight for businesses so that they can design their content accordingly. Among the respondents, 34% find the direct message about the product or service influential, whereas 32% are interested in the ethics followed by the business while developing their product or service. The responses also depict the importance of pictures and videos posted by a brand, amounting to 21% and 13%, respectively (Figure 6). Businesses should be conscious enough while designing their direct message and maintaining their ethics and overall organisational culture to ensure the satisfaction of the different stakeholders.

To investigate the correspondent's opinions on the optimal frequency of the brand posting content on Twitter, we asked

the following question: *'How often should a quality brand post content on Twitter?'*

Online businesses need to know the ideal frequency with which content needs to be shared on Twitter, because sharing too much or insufficient content can affect customer satisfaction. From the responses (Figure 7), it is evident that the majority of respondents prefer to have weekly updates about the brand. Two to four times a week is the frequency of updates that is preferred by 29%, whereas daily updates are desired by 21%. In contrast, 15% of participants in the study prefer to have seasonal updates. Businesses can design their content frequency according to the customer's preferences.

The factors that affect respondents' buying decisions are crucial for businesses to shape their advertising campaigns, and thus, to investigate, we asked the following question: *'What are the factors that affect your buying decisions?'*

This question was mainly designed to determine what factors are essential for the customers to make their buying decisions. The quality of the content shared by the brand is an important factor for the customers, as 38% of them positively responded to this option, together with 32% of them finding the quality of a product or service an important factor, 17% finding the brand image more essential and 13% not being bothered by the content shared by a brand (Figure 8). These data provide valuable insight into the customer touchpoints that can be used by businesses to influence the customers' buying decisions.

To ascertain the extent up to which the customers believe in sharing content about a particular brand and the ways in which they prefer to do so, the following question was included: *'How do you share positive content for a brand if it meets your expectations?'*

The results (Figure 9) show that 43% prefer to share positive content about a brand, whereas only 7% believe sharing

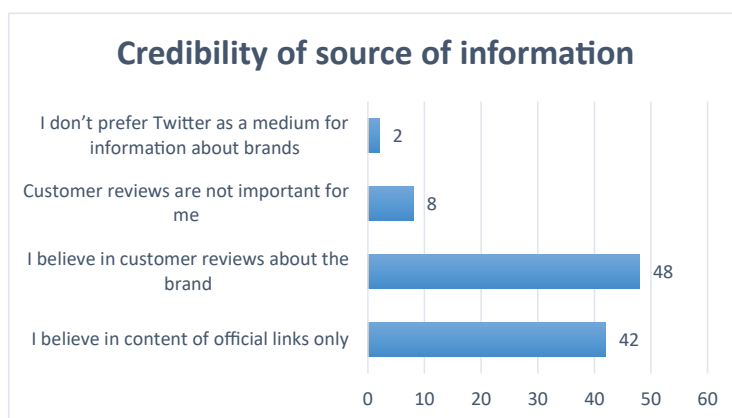


Figure 5. The credibility of the source of information.

Source: Sipos (2022), own research.

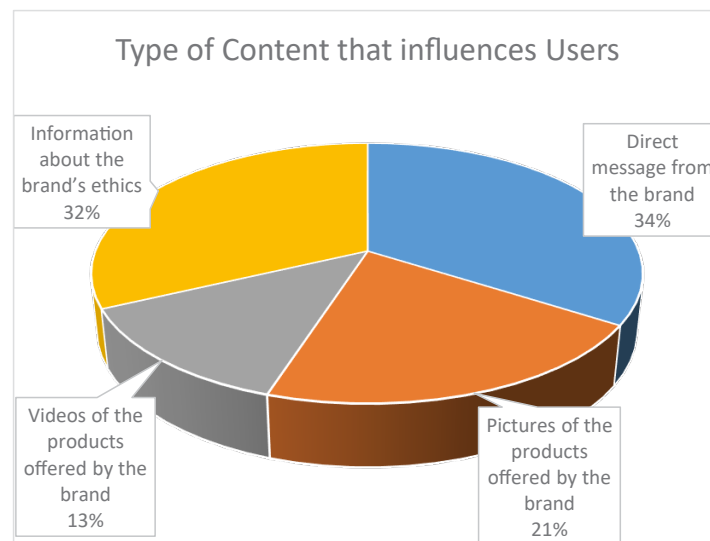


Figure 6. Type of content that influences users.
Source: Sipos (2022), own research.

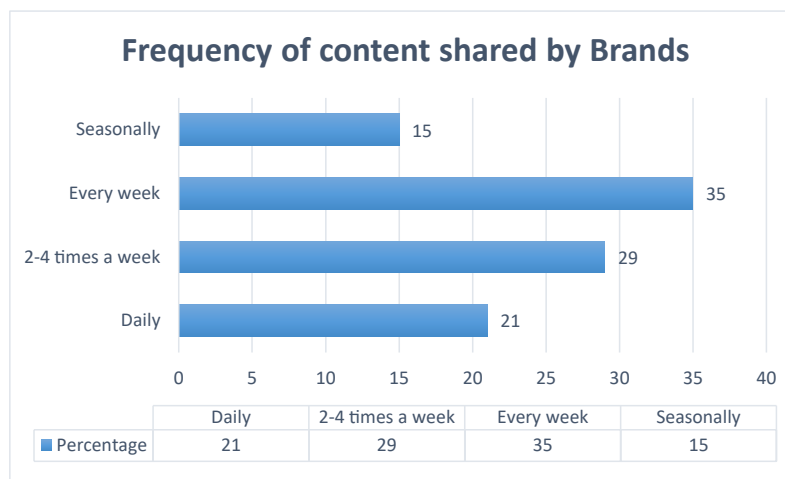


Figure 7. Frequency of content shared by brands.
Source: Sipos (2022), own research.

content is unimportant. Further, 34% prefer to retweet the brand post instead of generating content themselves. Out of the participants, 16% reported the sharing of feedback through comments. The responses show that the majority of respondents believe in generating, by themselves, positive content about a brand that is preferred by them.

To determine how the Twitter platform can be a challenge for businesses owing to the sharing of negative content by customers, we further investigated the effect of such sharing by asking: *'Do you believe sharing negative comments by customers of a brand can help create awareness among other customers?'*

In the context of communication using the Twitter platform, although the simultaneous characteristics of the ease of sharing information with customers and the delivery of information in a short time are highly useful, it needs to be cognised at the same time that the speedy delivery of information can pose a challenge for businesses if the information transmitted has a negative character. Among the participants, 35% responded that negative comments do create awareness among other customers about the brand, and 33% believe that the impact of this awareness depends on how the brand responds to it. Further, 9% find that negative comments are unimportant, whereas 23% consider the source

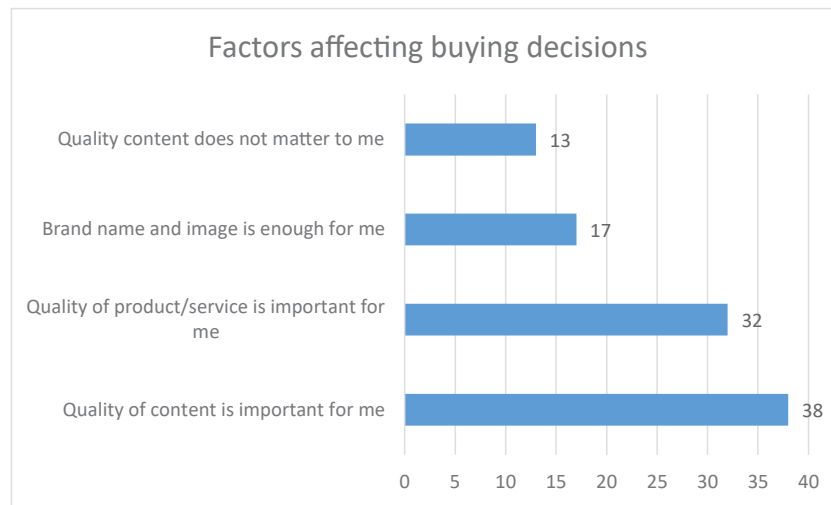


Figure 8. Factors affecting buying decisions.
Source: Sipos (2022), own research.

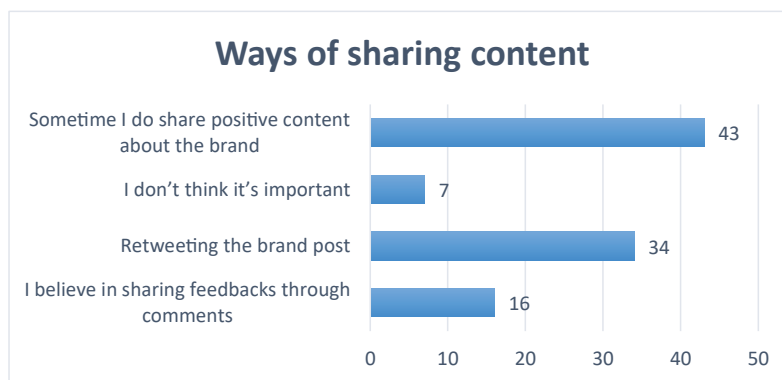


Figure 9. Ways of sharing content.
Source: Sipos (2022), own research.

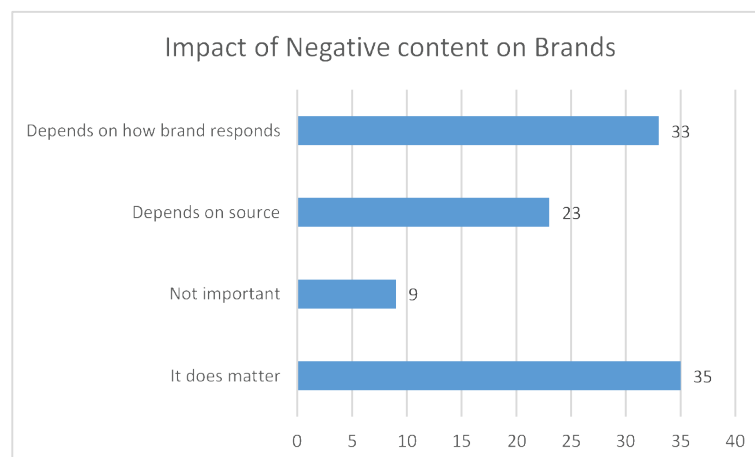


Figure 10. Impact of negative content on brands.
Source: Sipos (2022), own research.

of information as an important factor in creating awareness among other customers (Figure 10).

To create awareness about a brand and ensure customers' loyalty towards it, it is essential to engage them through promotional campaigns. Therefore, we asked respondents the following question: *'Do you think the brand promotional campaigns on Twitter are an effective way to know about a brand?'*

From the customer's perspective, it seems that they find it helpful to be informed of the brand, since it is through such campaigns that businesses provide customers with the brand experience. Among the customers, 43% find these campaigns very helpful, and 32% think that they are moderately helpful (Figure 11). The fraction of participants not believing in the promotional campaigns is only 5%, which means that the promotional campaigns do have a significant impact.

Further, a Likert scale analysis was carried out with the aims of investigating the individual's perceptions of the brands on Twitter, determining the impact of online business on the customer's perception and ascertaining how successful the

use of Twitter proves as a marketing tool. The Likert scale ranges from 1 to 5, and the study's respondents were allowed to choose a value on a scale where 1 represents 'strongly agree' and 5 'strongly disagree'.

The Likert scale results (Table 1) reveal that Twitter users believe in the electronic word of mouth generated on Twitter, and the promotions by brands in the form of deals also keep them engaged with the brands. However, a neutral response has been received in the case of taking part in the campaigns by the brands on Twitter and using Twitter to place orders for a product, service or deals offered by brands. In the case of the quality of the content posted by the brand, it is visible that the consumers are interested and develop their perception of the brand according to the quality of the content. About 38.1% of respondents strongly agree, 21.3% of them agree and 15.7% selected the neutral option, whereas for the disagreeing and strongly disagreeing, the percentages were 23% and 1.9%, respectively. The results of this analysis support the relations mentioned in the hypothesis.

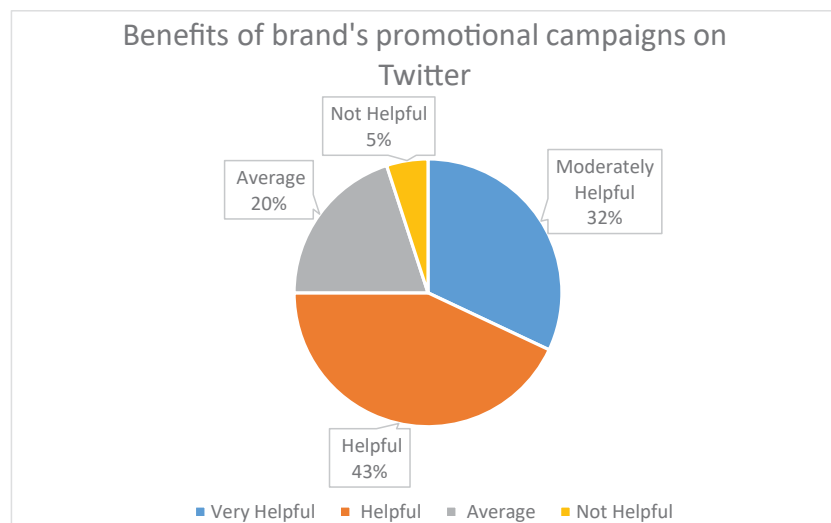


Figure 11. Benefits of the brand's promotional campaigns on Twitter.

Source: Sipos (2022), own research.

Table 1. Likert scale

Questions	1	2	3	4	5
Do you believe in word-of-mouth communication by a brand on Twitter?	45.2	27	12.8	10	5
Are you attracted by the promotional deals of brands on Twitter?	23.7	46.3	17.4	8.6	4
Do you like to be a part of promotional campaigns by brands on Twitter?	15.3	11.1	43	28.7	1.9
Have you ever placed an online order by being motivated by Twitter posts?	12	16	35.5	13.5	23
Do you think that the content shared by the brand defines its image?	38.1	21.3	15.7	23	1.9

Source: Sipos (2022), own research.

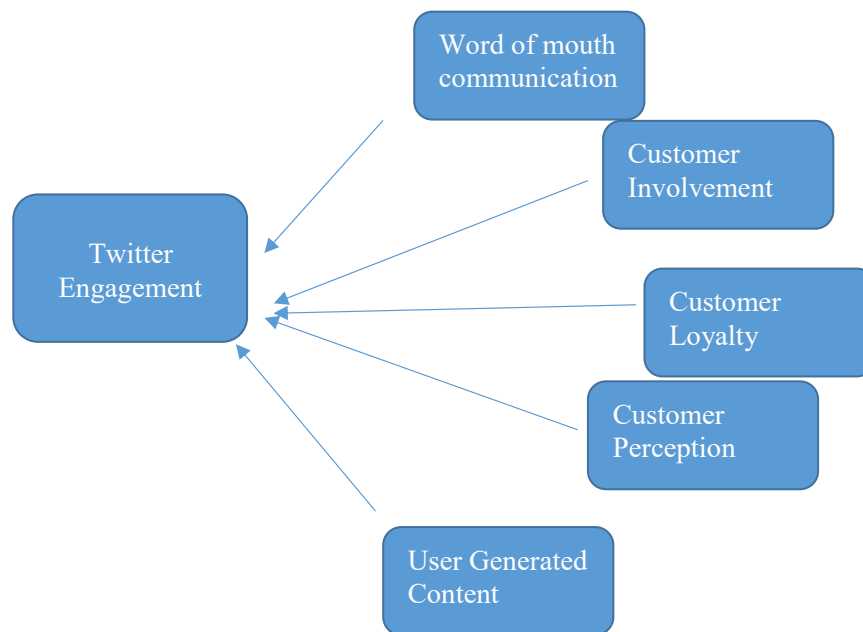


Figure 12. Different variables that have an impact on the Twitter engagement.
 Source: Sipos (2022), own research.

Table 2. Results of multiple regression

Regression statistics								
Multiple R	0.994842278							
R^2	0.989711157							
Adjusted R^2	0.976850104							
Standard error	9.21319438							
	Coefficients	Standard error	t stat.	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-43.7746708	20.96053458	-2.08843	0.105016564	-101.9704445	14.4211	-101.97	14.4211
Customer loyalty	1.134357127	0.301590872	3.761245	0.019753575	0.297006627	1.971708	0.297007	1.971708
Customer involvement	0.602667164	0.362759111	1.661343	0.171980639	-0.404513594	1.609848	-0.40451	1.609848
e-WOM	0.160393444	0.417165603	0.384484	0.720186454	-0.997843952	1.318631	-0.99784	1.318631
Customer perception	0.059059333	0.217424261	0.271632	0.799348276	-0.544607193	0.662726	-0.54461	0.662726
User-generated content	-0.03033291	0.184504212	-0.1644	0.877387685	-0.542598731	0.481933	-0.5426	0.481933

5. Multiple Regression Analysis

In order to determine the relation prevailing between different variables that have an impact on the Twitter engagement of online businesses, multiple regression analysis has been conducted. Using multiple regression analysis, we will determine which variables significantly impact the Twitter engagement of online businesses.

Table 2 represents the result of multiple regression analysis. By interpreting the coefficients, we can determine the variables that are either positively or negatively related to Twitter engagement, and the value of the coefficients determines the extent to which they are related.

Considering the values of the coefficients and the P -values of each of the variables, it is evident that all variables except customer loyalty have an insignificant impact on the Twitter engagement of online businesses. It can be observed from

the value of customer loyalty that if it increases, business engagement increases.

If we take the P -values into account, it seems that they are quite high, which denotes that the relation prevailing between variables other than customer loyalty is not adequately significant; therefore, the variables other than customer loyalty do not hold any importance in this case. The only significant variable, in this case, is customer loyalty, and the rest of them are not good enough to determine the relationship. So the results from the analysis suggest that customer loyalty is positively related to customer engagement, whereas the rest of the variables do not have much impact.

However, one of the limitations of the results could be the limited data available for the analysis of the relationship among the variables. This can be one of the reasons for the exceptionally high R^2 value as well, which could be attributed to the increased number of variables and limited data. So, it can be said that the limitation of the sample from this study's population and including more variables resulted in a high R^2 value. Also, a thin line of differentiation between the variables could be one of the reasons for such results. Accordingly, owing to these limitations, the R^2 value being high may be justified.

6. Conclusion

This study has focussed on analysing the influence of Twitter marketing on online businesses and how the businesses impact potential customers through Twitter use. With the progress of social media and the more progressive use of modern online marketing, it has become a need for businesses to have their online presences established along with the physical ones. In parallel, the appearance of online marketing also challenges businesses to modify their strategies according to the needs of a particular platform they use and satisfy the customers' needs. Online platforms and social media have shifted the power to the customers by providing them with the freedom to voice their views about any product or topic.

Our research focussed on finding the relationship between online businesses and their relationship with customers using the Twitter platform without focussing on any specific brand or industry. Through the analysis, we conclude that the Twitter social media platform is popular among users, which proves to be an opportunity for online businesses to benefit from the social networks developed over this platform through user interactions. The questionnaire results showed that customers consider the content and the campaigns shared by online businesses as valuable means to learn about the brand. Furthermore, the users of Twitter have the power to generate and share content related to information about online brands, which keeps them engaged. Customers

develop their perceptions of brands through word-of-mouth communication on Twitter. This can also change customers' perceptions of a particular brand, impacting the customers' loyalty towards the brands.

Analysing the results of this study makes it evident that Twitter is an effective platform for online businesses to market themselves. At the same time, businesses need to understand how they can utilise this tool strategically in order to benefit from it. While developing their social media strategies, it is essential for businesses to understand what kind of content customers want and feel interested in.

If an online brand fails to meet customer expectations, that can lead to a negative brand image. Also, the shift in power to the customers through online social media platforms imposes a challenge for businesses in handling their social media accounts. So, competent handling of social media platforms is something that online businesses can benefit from, and it is something that allows them to derive the most success in relation to building and sustaining relationships with customers with the least expenditure of effort and expense. Another challenge for businesses is the skills required to technically manage social media platforms to meet the changing expectations of customers. Therefore, businesses need to employ technically skilled employees to handle their presences on the various online platforms.

The recent events of the acquisition of Twitter and the attendant changes that occurred did not significantly lower the user base of the platform. One of the main reasons for users not leaving Twitter in significant numbers can be found in the lack of an alternative platform with similar features. There are negative changes in the number of businesses advertising on Twitter due to concerns about new content moderation policies. It is yet to be seen if the temporary lower number of businesses that stopped advertising could lead to issues in the long-term profitability of the platform.

References

- Ahmad, Saleem, and Sanjay Biyani. 2023. "Impact of Merger and Acquisition on the Companies Involved: A Case Study of Musk-Twitter Acquisition." *IJFMR* 5 (1). <https://doi.org/grwr6>.
- Ante, Lennart. 2023. "How Elon Musk's Twitter Activity Moves Cryptocurrency Markets". *Technological Forecasting and Social Change* 186 (A). <https://doi.org/10.1016/j.techfore.2022.122112>.
- Arora, Anuja, Shivam Bansal, Chandrashekhar Kandpal, Reema Aswani, and Yogesh Dwivedi. 2019. "Measuring Social Media Influencer Index-Insights from Facebook, Twitter and Instagram." *Journal of Retailing and Consumer Services* 49: 86–101. <https://doi.org/10.1016/j.jretconser.2019.03.012>.
- Bin Zia, Haris, Jiahui He, Aravindh Raman, Ignacio Castro, Nishanth Sastry, and Gareth Tyson. 2023. "Flocking to Mastodon: Track-

- ing the Great Twitter Migration." *Social and Information Networks*: 1–12. <https://doi.org/10.48550/arXiv.2302.14294>.
- Bulearca, Marius, and Suzana Bulearca. 2010. "Twitter: A Viable Marketing Tool for SMEs?" *Global Business and Management Research* 2 (4): 296–309.
- Burkhalter, Janee N., Natalie T. Wood, and Stephanie A. Tryce. 2014. "Clear, Conspicuous, and Concise: Disclosures and Twitter Word-of-Mouth." *Business Horizons* 57 (3): 319–28. <https://doi.org/10.1016/j.bushor.2014.02.001>.
- Case, Carl, and D. L. King. 2011. "Twitter Usage in the Fortune 50: A Marketing Opportunity?" *Journal of Marketing Development and Competitiveness* 5 (3): 94–103.
- Chu, S. C., H. T. Chen, and Y. Sung. 2016. "Following Brands on Twitter: An Extension of Theory of Planned Behavior." *International Journal of Advertising* 35 (3): 421–37.
- Chung, C. W., and Jaimie Park. 2012. "When Daily Deal Services Meet Twitter: Understanding Twitter as a Daily Deal Marketing Platform." In *WebSci '12: Proceedings of the 4th Annual ACM Web Science Conference* 12: 233–42. <https://doi.org/10.1145/2380718.2380748>.
- de Oliveira, Jaqueline Faria, Humberto Torres Marques-Neto, and Marton Karsai. 2022. "Measuring the Effects of Repeated and Diversified Influence Mechanism for Information Adoption on Twitter." *Social Network Analysis and Mining* 12 (16). <https://doi.org/10.1007/s13278-021-00844-x>.
- Geho, Patrick, Sara Smith, and Stephen D. Lewis. 2010. "Is Twitter a Viable Commercial use Platform for Small Businesses? An Empirical Study Targeting Two Audiences in the Small Business Community." *The Entrepreneurial Executive* 15 (1): 73–85.
- Hensel, Kyle, and Michael H. Deis. 2010. "Using Social Media to Increase Advertising and Improve Marketing." *The Entrepreneurial Executive* 15: 87.
- Insall, Robert. 2023. "Science Twitter-Navigating Change in Science Communication." *Nature Reviews Molecular Cell Biology*. <https://doi.org/10.1038/s41580-023-00581-3>.
- Jansen, Bernard J., Mimi Zhang, Kate Sobel, and Abdur Chowdury. 2009. "Twitter Power: Tweets as Electronic Word of Mouth." *Journal of the American Society for Information Science and Technology* 60 (11): 2169–88. <https://doi.org/10.1002/asi.21149>
- Molyneux, Logan, and Shannon C. McGregor. 2022. "Legitimizing a Platform: Evidence of Journalists' Role in Transferring Authority to Twitter." *Information, Communication and Society* 25 (11): 1577–95. <https://doi.org/10.1080/1369118X.2021.1874037>.
- Park, Seunghyun Brian, Michael Ok Chihyung, and Chae Kevin Bongsug. 2016. "Using Twitter Data for Cruise Tourism Marketing and Research." *Journal of Travel and Tourism Marketing* 33 (6): 885–98. <https://doi.org/10.1080/10548408.2015.1071688>.
- Pawanpreet, Dhaliwal, Fernando Menaka, Mahar Kaelyn, and Jahan Sagafi. 2023. "When the Boss is Hardcore, Workers Respond with Confidence ABA Journal of Labor & Employment Law." *ABA Journal of Labor and Employment* 50 (4): 10–11.
- Rohlinger, Deana A., Kyle Rose, and Stuart Shulman. 2023. "Does the Musk Twitter Takeover Matter? Political Influencers, Their Arguments, and the Quality of Information They Share." *Sociological Research for a Dynamic World*. <https://doi.org/10.1177/23780231231152193>.
- Rohm, Andrew, Velitchka Kaltcheva, and George Milne, G. R. 2013. "A Mixed-Method Approach to Examining Brand-Consumer Interactions Driven by Social Media." *Journal of Research in Interactive Marketing* 7: 295–311. <https://doi.org/10.1108/JRIM-01-2013-0009>.
- Taecharungroj, Viriya. 2017. "Starbucks' Marketing Communications Strategy on Twitter." *Journal of Marketing Communications* 23 (6): 552–71. <https://doi.org/10.1080/13527266.2016.1138139>.
- Thoring, Anne. 2011. "Corporate Tweeting: Analysing the use of Twitter as a Marketing Tool by UK Trade Publishers." *Publishing Research Quarterly* 27 (2): 141–58. <https://doi.org/10.1007/s12109-011-9214-7>.
- Zhang, Mimi, Bernard J. Jansen, and Abdur Chowdhury. 2011. "Business Engagement on Twitter: a Path Analysis." *Electronic Markets* 21 (3): 161–75. <https://doi.org/10.1007/s12525-011-0065-z>.