

SECURITY AND PRIVACY OF CUSTOMER DATA AS AN ELEMENT CREATING THE IMAGE OF THE COMPANY

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Abstract:

COVID-19, mobility, socio-social changes have transferred to the world of social media communication, purchasing activities, the use of services. Corporate social media has been created to support clients in using various services, give them the possibility of easy communication without time and local barriers. Unfortunately, they still very rarely take into account the security and privacy of customers. Considering that the purpose of this article is to investigate the impact of social media on the company's image, it should be remembered that this image also works for the security and privacy of customer data. Data leaks or their sale are not welcomed by customers. The results of empirical research show that the safety, simplicity and variety of services offered on social media have a significant impact on the perceived quality, which in turn positively affects the reputation. The authors proposed a methodology based on the Kano model and customer satisfaction in order to examine the declared needs and undefined desires and divide them into different groups with different impacts on consumer satisfaction. The interview participants were employees of 10 randomly selected companies using social media to conduct sales or service activities. 5,000 people from Poland, Portugal and Germany participated in the study. 4,894 correctly completed questionnaires were received.

Key words: *social media in the company, security and privacy, online company, corporate image*

INTRODUCTION

The COVID-19 pandemic that has been ongoing since 2019 has contributed to an increase in activity in all types of social media [1]. The emergence of social media resulted in the transfer of social life, communication there, often also shopping, work, technical forums, places for providing information and advice [2, 3]. These sites are not considered a data or privacy threat at all [4]. All social media activities are based on the user's consent, which threatens our privacy. The individual stages of registration require data and consents, but keeping a profile allows you to use photos, locations, news, but also to obtain data from joining events, groups or liking company websites.

Officially, this data is used for marketing and profiling purposes, but it is a tempting booty for online players [5]. Another problem is the use of social media for business communication or business e-mails, which puts enterprises at risk. The published reports and scientific research show that in 2020 51% of the population is actively using social networks [6, 7]. This number is growing at an alarming rate from year to year, and the pandemic has magnified this effect [7]. As research shows, the most popular social networking sites still include facebook, YouTube, Instagram and TikTok [8, 9]. Statistical reports in many countries agree that every second or third activity related to the use of the Internet is activity in

social media [10, 11, 12]. The first is still searching for information, followed by social media, products or services and e-mail [13].

The owners of social media websites administer personal data in many categories, often we also declare a place of work [14], holidays or hobbies [15], and users have no idea about it at all [16, 17]. On the basis of voluntarily provided data [18, 19], such as IP address [20], brand and model of a laptop or phone [21], searched content, calendar information or clicked ads, as well as the content of the cloud [22], a person's profile can be built [23]. All network traffic is monitored, which means that having a company for the free and voluntary data collected, companies have to pay for the portals to direct their activities to the right people. Activities carried out by social networks threaten not only our pocket but also the safety and privacy of users [24, 25, 26].

The research article deals with the security and privacy gap in using company profiles for sales and marketing activities. The quality of these activities and the customer's sense of security have a positive impact on the perception of the company [27, 28].

LITERATURE ANALYSIS AND RESEARCH MODEL

In today's world, an individual who does not have a profile on one of the social networks does not exist in society [29, 30]. Users of social networks prefer to meet with each other in the virtual world than in the real world. In today's world, social media has taken over the role of interpersonal contacts [11]. As a result, the ability to make interpersonal contacts is lost, because in virtual reality it is easier to make contacts due to the sense of anonymity. The popularity of social networking sites has been noticed by companies [13]. More and more of them have their profiles, on which they present their offer, associate people who like it [31, 32]. When looking for employees, employers use the profiles of potential candidates. Social networks also create jobs, as a person who has something to say on other interesting topics can count on a large number of entries [33].

Social media has proven to be one of the most active online platforms in the world [34, 35]. It is estimated that over 3.6 billion users in 2020 will affect approximately 4.4 billion people within five years [36, 37]. One of the distinguishing features of social media is the facilitation of peer-to-peer communication and seller-buyer relationships [38, 39].

This study analyzes consumer behavior on social media, their perceptions of security and privacy. These behaviors are transferred strictly to the assessment of the image of the company that functions in the world of social media. Social media and company profiles determine their image, but the aspect that the security of resources also determines the company's image is still omitted [40, 41, 42]. Lack of studies declaring security and privacy as an element of the image [43, 44]. There is no definition of what constitutes a company's online reputation [45, 46, 47], this study should reveal some dimensions of social media and their impact on the company's image [48, 49].

We define the following dimensions of the online image: possible threats [50], privacy [51], resource security [52], user security and simplicity [53, 54, 55]. Earlier empirical results show that customer satisfaction increases when they perceive the company and its image as appropriate [56, 57], indicating that image in social media is associated with customer trust and ultimately with the company's reputation [58]. User safety is perceived as the ability to navigate on social media in accordance with the law, with negligible risk, while ensuring that the activities carried out by enterprises are reliable, clear and professional [59, 60, 61, 62, 63]. The time of response to inquiries and response to risks is also an important safety factor [64, 65].

Safety has been shown to be one of the most important determinants of social media adoption by Generation Y [66]. As some previous studies show, safety can be considered an important dimension of quality and a positive corporate image [67, 68]. To test the effects of security research in social media, we make the hypothesis: H_1 : The behavior of people in social media on company profiles has an impact on the image of the company. H_2 : Security and privacy determine the level of image evaluation.

Each client, employee, person has contact with the company's social media, leaves an individual trace, a kind of evaluation after their stay on such a profile. Silent users constitute a lack of interest and this is an immeasurable value, if they leave no likes or comments after their stay. Most often they kill time browsing the internet. Social media users who are interested in us are active on company profiles, becoming customers of services, products, propositions, those who interact with the enterprise.

Conscious users of social media pay attention to various aspects of their activities, including their safety and privacy. Research on security shows patterns of conduct and safe behavior, some of them know the rules on privacy. However, knowing the rules has nothing to do with the behavior presented by users. The noticed research gap contributed to the desire to recognize it. The aim of the study was:

- identifying factors influencing the company's image in social media,
- determining the relationship between security and privacy and the image in social media.

The respondents were from 18 to 70 years old. Among them were 63% women and 36% men. The study used an online survey as a research method. The interview participants were employees of 10 randomly selected companies using social media to conduct sales or service activities. 5,000 people from Poland, Portugal and Germany participated in the study. 4,894 correctly completed questionnaires were received.

The analysis of the data obtained as a result of the conducted research included three stages: in the first stage, the research model was built, in the second stage the results were compared, and in the third stage, inference was made.

RESULTS

On the basis of previous studies presented in many scientific papers, the factors that occurred most often were identified as repeating, ie those that are often referred to by employees of the studied enterprises and scientists [69]. Gathering information on the features that determine the image of an enterprise [70, 71, 72], one can also analyze the rich literature on this subject [73]. By analyzing this article and the research conducted by the authors, as well as other works, it was possible to distinguish a group of factors that are most often defined as those that have the greatest impact on the sense of security and privacy [74]. These factors helped to create the survey on which the survey was based [75, 76, 77]. In the first part of the empirical results, we discuss the factors perceived by the respondents: the three elements: image, security and privacy. The study shows that these factors are located in three main areas, presented in Table 1 (the adopted scale is from 1 to 7, where 1 means little importance, and 7 – complete determination).

Table 1
Factors determining image in social media

No	Threat/Opportunity	Customer's point of view	the company's point of view
security			
1	password policy	4	1
2	breaking into user accounts	1	1
3	fake accounts	3	1
4	no need to register an account	7	7
5	viruses/worms	7	5
6	ads/links	7	7
privacy			
7	the need to provide data	5	7
8	use of photos/locations	5	7
9	extending the privacy policy	2	7
10	Security of internet connections, internet access control	6	3
11	Protection of access to programs, databases, files	1	4
12	access to groups	4	2
corporate image			
13	image perception	3	6
14	access to the data	5	5
15	clear structure	1	5

The factors described by the clients have been grouped and included in fifteen points. The analysis shows that company customers and their owners have completely different perceptions of the same problems. They look to EU for different aspects.

This stage of research is primarily a questionnaire describing the potential attributes that should characterize the company's image among potential customers and employees. [34, 36]. The respondents were asked to rate the attributes in cases where they occurred (positive attributes) and when they did not occur (negative attributes). On the basis of the answers, it was possible to indicate features that should be taken into account (must be), but also those that affect the overall customer satisfaction (one-dimensional). The list of positives of the Kano questionnaire features is presented in Table 1. The assessment of these features (answers to these questions) was based on the following scale: (a) "I like it", (b) "It must be like this", (c) "I don't have nothing against it", (d) "I can take it", (e) "I don't like it".

Table 2
Attributes to be assessed

Attribute Number	Attributes (Positive Attributes)
1	A company with a good reputation, taking care of its image, should have corporate social media.
2	Applications, portals and social media sites have a positive impact on the perception of the company.
3	Concern for shared content affects the image.
4	A company profile allows for certainty of answers from people who serve the company's website.
5	The client is convinced that the profile is confirmed and professional.
6	The customer is convinced that his data is safe and will not be used or sold without his consent.
7	The customer agrees to the privacy policy and its rules.
8	The company provides the opportunity to ask questions on a forum and privately.
9	People who are not users of the portal cannot read any correspondence.
10	Conditions for the use of biometric tools should be accessible and understandable.
11	Each company can establish its own policy/regulations for its profile.
12	The offered solutions should be customer-friendly and inspire trust.
13	Building the image of a safe company that cares about the entrusted data has a positive reception among customers.
14	The company should examine the level of its image in terms of security and privacy.
15	A company with a good reputation, taking care of its image, should have corporate social media.

The comparison of the results obtained with the Kano model is presented in Table 3. The Figure 1 presents a graphical presentation of the results obtained in Table 3.

Table 3
Kano questionnaire results

Attribute Number	Assessment of the Attribute	Satisfaction Index	Dissatisfaction index
1	M	0.64	0.38
2	M	0.72	0.21
3	M	0.84	0.07
4	M	0.79	0.19
5	I	0.24	0.38
6	A	0,22	0.72
7	O	0,68	0.78
8	O	0.82	0.53
9	M	0.62	0.12
10	A	0.32	0.89
11	M	0.76	0.35
12	A	0,19	0.62
13	A	0.27	0.71
14	M	0.89	0.45
15	M	0.97	0.30

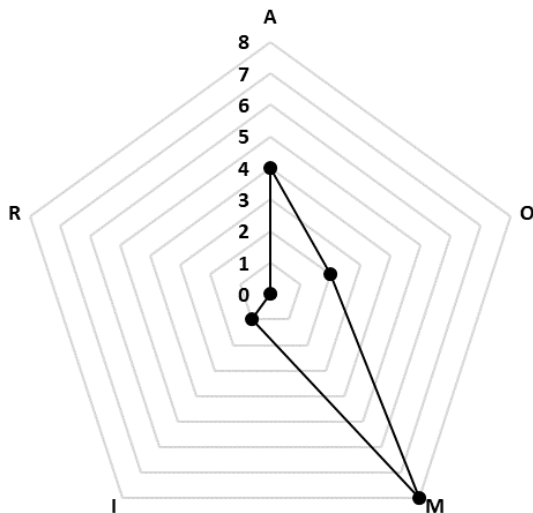


Fig. 1 List of attribute types, where: A – attractive; O – one-dimensional; M – must-have; I – indifferent; R – reverse

When analyzing the results presented in Table 3, it can be seen that the respondents' answers were very diverse. A significant number of clients are aware of the need for their safety and integrity, and a minority of people completely ignore this aspect. Attributes differ in terms of privacy, security and the very image perceived through the prism of these factors. Table 3 lists the functions that the company must perform, marked with the letter M. The lack of such factors means that customers do not feel confident and the perception of the direction drops significantly in their understanding.

It can be concluded that customers completely understand the need for security on social media. By comparing the results of these studies with previous studies available in the literature, it was possible. You can see that the respondents pointed to certain security and privacy features that were repeated in other surveys.

According to the map shown in Figure 1, you can see that many of the attributes were actually a mix of functions. Most of the points are on the right side of the map (high level of dissatisfaction), with most of the points in the center of the map (i.e. in the middle of the right edge,

halfway between the one-dimensional and the basic ones in Table 3). This map helped identify the necessary attributes and other types of attributes. The map of the attributes of this research venture is shown in Figure 2.

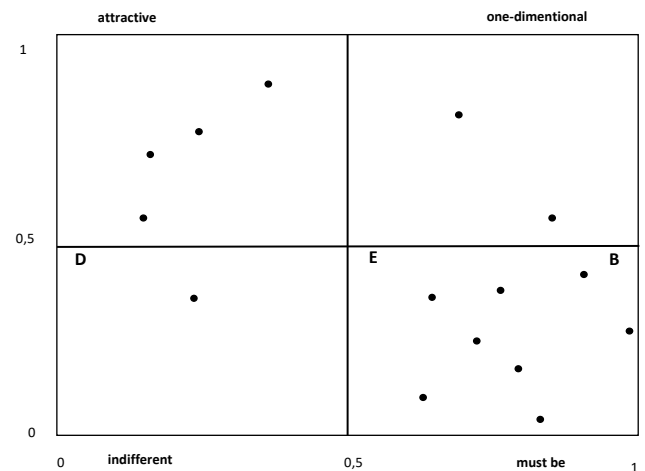


Fig. 2 Map of attributes according to the Kano questionnaire

CONCLUSIONS

The changing environment, constant competition, developing technology, new methods of communication force enterprises to adapt to the constantly changing customer requirements and forms of their service, for example in social media [78, 79]. Social networks are one of the strongest drivers of change [80, 81]. Places where I have a conversation, I do my shopping. This place or tool causes anxiety in many entrepreneurs. These days, companies that stand still when it comes to technology are going backwards when it comes to development. And the factor forcing changes in enterprises is the concept of security and privacy of enterprise customers [82].

The specific dimensions of security, control and privacy in a biometric business have specific advantages and disadvantages [83, 84, 85]. All dimensions need to be linked together for both short and long term benefits, and the company maintains a balance between all these dimensions.

The article uses the company image assessment questionnaire based on the research model and hypotheses, as well as the Kano customer satisfaction assessment model to indicate the features of the company's image. Therefore, it should be emphasized that the respondents are aware of threats and see the need for enterprises to act in a way that ensures a sense of security and privacy.

The methodology used in the article is very universal. The survey questionnaire and the Kano questionnaire created for research purposes can be used by companies from other industries to design activities in social media and assess the quality of their activities and image.

Through this research, this article aims to understand the importance of the quality of a company's content, products and services on social media and its relationship to reputation. This article also aimed to contribute to the current literature by identifying the aspects of corporate social media activity that are arguably the most fueling of

corporate reputation growth. Given that reputation is the perception or public image of a company, it is not directly controlled and therefore difficult to manipulate. For example, future research should include a group of industry-specific respondents and seek to include more objective means of assessing the quality of online e-activity as well as reputation. In addition, there are additional elements that can influence the perceived quality and image.

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