

Can Fake News About Companies Lead to an Increased Social Media Usage? An Empirical Investigation

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Abstract

The purpose of this study is to examine the relationship between users' optimal experience while surfing SNS, the sharing behavior of fake news about companies, online trust, and increased social media usage. Our theoretical framework enhances flow theory, which is conceptualized as a sequential process, involving social media users' intrinsic interest, concentration, perceived control, enjoyment, and time distortion. Relevant studies from fake news literature, online trust, and social media usage were also included to develop the hypothesis and conceptual model. We conducted an empirical investigation through a questionnaire-based online survey among social media users of the most popular SNS. A convenience sample was chosen, and 922 valid responses were obtained. Using structural equations modeling we tested the research hypothesis and the proposed conceptual model. The findings show that the optimal experience of social media users can be viewed as a sequential process that influences sharing fake news about companies: intrinsic interest influences concentration, concentration influences perceived control, perceived control influences enjoyment, enjoyment influences users time distortion, and time distortion influences sharing fake news about companies on SNS. Moreover, online trust has a positive influence on sharing fake news. Also, the results of this study indicate that sharing fake news about companies while browsing SNS has a positive influence on social media usage. The paper extends the theoretical understanding of the flow theory in the social media context of an emerging market. Marketers can benefit from the results of this study when designing communication strategies via social media, as to know what content to post, how to avoid the spread of fake news, and which aspects to consider enhancing optimal experience among SNS users.

Keywords: social media usage (SMU), fake news, intrinsic interest, concentration, perceived control, time distortion, online trust

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Introduction

As Internet users have increased strongly in recent years, at over 4.95 billion in January 2022, to almost two thirds of the worldwide population, active social media users are also more than ever, reaching about 4.62 billion users. All internet users have spent 12 trillion hours online in January 2022, setting a new milestone for social networking sites and social media usage (DataReportal, 2022). Social media usage is nowadays one of the most popular online activities that have driven researchers and practitioners to develop a better understanding of designing effective online marketing communication strategies. SNS are web-based platforms that enable users to create a public or semi-public profile, generate a list of other users with whom they interact and connect, exchange information and opinions, post comments and share news (Boyd and Ellison, 2007). SNSs are revolutionizing how we “consume” news, since users may nowadays share their own stories and advocate for various causes and events (Shu et al., 2017). 53% of the US population gets their news from social media, such as Facebook (36%), YouTube (23%), Twitter (15%), Instagram (11%), Reddit etc. (Pew Research Center, 2021). Individuals may use social media to keep informed, share experiences, interact with peers, but also to influence cognitions, attitudes, and behaviors of their friends and followers towards companies (Obadă, 2019). On social media, a vast

amount of information is shared as news. In some cases, news seems to be doubtful and deliberately deceptive. Such content is usually referred to as fake news (Zhang and Ghorbani, 2019). Organizations can become victims of the quick dissemination of fake news via social media (Berthon et al., 2018), being drawn into brand crisis, suffering reputational harm, and incurring massive financial losses (Obadã, 2019). Social media attention may be bad for businesses since customers may share negative brand experiences and various brand-related concerns (Hennig-Thurau et al., 2013), thus social media may either help or hurt a company (Kohli et al., 2015). Although literature studied the outcomes of fake news in social media, more research is needed in this area. Given the importance of social media as a communication channel, there is a deficit in our understanding of fake news from consumer perspective (Domenico et al., 2021). Literature is lacking studies regarding the relationship between users' optimal experience while browsing social media, sharing fake news about companies, online trust, and social media usage. The current study aims to fill that gap by proposing optimal experience (Csikszentmihalyi, 1975; 1990) from positive psychology, conceptualized in this paper as a sequential process (i.e., involving social media users' intrinsic interest, concentration, perceived control, enjoyment, and time distortion), as an antecedent of sharing fake news about companies, which leads to an increased social media usage. The study is unique, as it examines the relationship between users' optimal experience while surfing social media platforms, the sharing behavior of fake news about companies, online trust and increased social media usage. These associations have not been examined previously, and to best of our knowledge, no other study of fake news or optimal experience used structural equation modeling (SEM).

The paper is structured as follows: Section 1 provides the hypothesis and conceptual model development based on the optimal experience involving social media users' intrinsic interest, concentration, perceived control, enjoyment, and time distortion, sharing fake news about companies, online trust and social media usage. The research hypotheses based on an extensive literature review are also presented. Section 2 describes the research methodology, while section 3 contains the results and discussions. The paper ends with theoretical and managerial implications, research limitations and future research suggestions.

1. Hypothesis and conceptual model development

According to Csikszentmihalyi (1975, p. 36), flow is the “holistic sensation that people feel when they act with total engagement”, being an *optimal experience* because it represents “a psychological state in which the person feels simultaneously cognitively efficient, motivated, and happy” (Moneta and Csikszentmihalyi, 1996, p. 277). Individuals who feel such an experience engage in activities that interests them intrinsically, concentrating on the task at hand and perceiving both a sense of control and enjoyment. Furthermore, they are unconscious of the passing time (Csikszentmihalyi, 1975). The most common *five characteristics of optimal experience* are: *intrinsic interest, concentration, perceived control, enjoyment, and time distortion* (Celik and Uslu, 2022). In the online environment, flow transforms into a subjective human-computer-mediated interaction experience that reflects the user's perception of the site's interaction as playful and exploratory (Novak et al., 2000).

Social media users may engage in a task while browsing SNS being intrinsically or extrinsically motivated. As flow represents a theory of intrinsic motivation, individuals experiencing it are often driven by satisfying internal rewards rather than relying on external pressures or extrinsic benefits (Csikszentmihalyi, 1975). *Intrinsic interest* has been acknowledged as an important feature of optimal experience (Csikszentmihalyi, 1975; Huang, 2003; Huang et al., 2012) because, in flow, individuals find the action intrinsically interesting and engage in it for the sake of enjoyment rather than for utilitarian goals (Hoffman and Novak, 2009). This allows social media users to concentrate on the task at hand to such an extent that they have little attention left to consider anything else (Novak et al., 2000). Therefore, we propose the following hypothesis:

H₁: *The intrinsic interest of social media users has a positive influence on concentration while browsing SNS.*

Concentration is described as the degree to which one is focused on or paying attention to the task at hand, thus representing another major component of optimal experience (Huang et al., 2012; Pelet et al., 2017). When browsing SNS, users select a specific range of information that is transposed into awareness, and “that’s all that matters...” (Csikszentmihalyi, 1975, p. 58). Due to SNS displaying new and relevant information to users on a screen, this allows them to focus on the activity and to interact with the computer, perceiving a high level of control. Therefore, we posit that:

H₂: *The concentration of social media users has a positive influence on perceived control while browsing SNS.*

Csikszentmihalyi (1975) argues that optimal experience occurs when an individual perceives he best controls own actions, being “the masters of his own fate” (Csikszentmihalyi, 1990, p. 3). *Perceived control* represents an important characteristic for enhancing customer experience (Huang, 2003; Huang et al., 2012). For social media users', control refers to how individuals perceive their ability to navigate successfully online and how the web responds to their actions (Ghani and Deshpande, 1994). SNS predisposes users to perceive a sense of control by offering responsive interactive elements, such as chat, comment, poke, likes, shares etc. (Pelet et al., 2017), which they know how to use (Novak et al., 2000), thus allowing them to sign in and out. As a result, users' optimal experience is fun (Privette, 1983), pleasant, and exciting (Pelet et al., 2017). Therefore, we hypothesize that:

H3: *The perceived control of social media users has a positive influence on enjoyment while browsing SNS.*

Enjoyment occurs during an activity when a person perceives a balance between their skills and the challenges of the performed tasks (Csikszentmihalyi, 1990). Social media users experience a sense of enjoyment, as virtual environments are more enjoyable, regardless of the performance repercussions (Lu et al., 2009). Enjoyment represents a key characteristic for enhancing customer experience (Pelet et al., 2017). Enjoyment is linked to the joy of discovery, of finding, learning, or observing something for the first time (Pace, 2004), so individuals in flow spent actively more time on social media (Hoffman and Novak, 2009). Therefore, we hypothesize that:

H4: *The enjoyment of social media users has a positive influence on time distortion while browsing SNS.*

While having an optimal experience, individuals are unconscious of time passing and a *time distortion* occurs (Csikszentmihalyi, 1975). Due to the immersive and rewarding nature of online platforms, social media users spent a significant amount of time browsing on them (Pelet et al., 2017). Flow literature (Pelet et al., 2017; Obadă, 2019) considers time distortion as a major characteristic of optimal experience. In flow, hours pass in minutes, and minutes might expand to appear as hours. As a result of the optimal experience, social media users can engage in sharing information, including fake news about companies (Obadă, 2019; Obadă and Dabija, 2022). Therefore, it is reasonable to propose the following hypothesis:

H5: *Time distortion experienced by social media users has a positive influence on sharing fake news about companies while browsing SNS.*

Optimal experience of SNS users can influence sharing fake news about brands (Obadă, 2019; Obadă and Dabija, 2022). Fake news is considered as one of humanity's greatest concerns, having negative effects on society and the economy (Gray et al., 2020). Although fake news is not a new phenomenon, it has grown in popularity in recent years due to its fast dissemination on social media (Obadă, 2019). Social media platforms such as YouTube, Twitter, Facebook, Instagram, or WhatsApp are popular SNS for the rapid transmission of content (Balakrishnan et al., 2021). Opposite to *news*, considered as “independent, reliable, accurate, and comprehensive information” about a context or organization (Kovach and Rosenstiel, 2007, p. 11), fake news is understood as inaccurate, false, or grossly distorted information presented as the “real deal”, but aimed to deceive the audience (Figueira and Oliveira, 2017). Researchers agree that a solid conceptualization of fake news should incorporate the intentionally false and fabricated stories (Allcott and Gentzkow, 2017), yet perceivably realistic (i.e., consistent with an individual's previous beliefs) and presented in a journalistic format (Obadă, 2019).

Online trust of social media users has proven to be an important antecedent of sharing fake news on SNS (Obadă and Dabija, 2022). Trust included the willingness to believe someone based upon positive expectations from past behavior (Mayer et al., 1995). Trust is built in online settings through successful information exchange (Grabner-Kräuter and Bitter, 2013) and is often regarded as a critical component within information sharing process (Lin and Liu, 2012). People may feel secure spreading any news they get from reputable sources, even if it appears to be fake being driven by its speed and popularity (Talwar et al., 2020), or not having time to double check its accuracy. Online trust predicts fake news sharing among social media users (Obadă and Dabija, 2022). Therefore, we posit the following hypothesis:

H6: *Online trust has a positive influence on sharing fake news about companies while browsing SNS.*

Fake news like *parody* (using sarcasm and exaggerations for comic effects rather than to harm audiences), *misleading content* (alter information to portray an issue or individual in a distorted light), *imposter content* (claiming to be someone else), *fabricated content* (intentionally spreading completely false content to deceive and inflict harm), *false connection* (news item's headline, aesthetic elements, and/or factual content do not make logical sense), *false context* (combining accurate and erroneous contextual information), *manipulated content* (falsifying authentic data or graphics in intended to mislead others) can be exploited in different ways on social media, aiming at influencing users cognitions, attitudes and

behaviors (Wardle and Derakhshan, 2017; Fârte and Obadă, 2021), and, particularly, their social media usage. Fake news can increase web traffic (Mills et al., 2019) and, thus, could influence social media usage. Therefore, we infer that:

H7: *Sharing fake news about companies while browsing SNS has a positive influence on social media usage.*

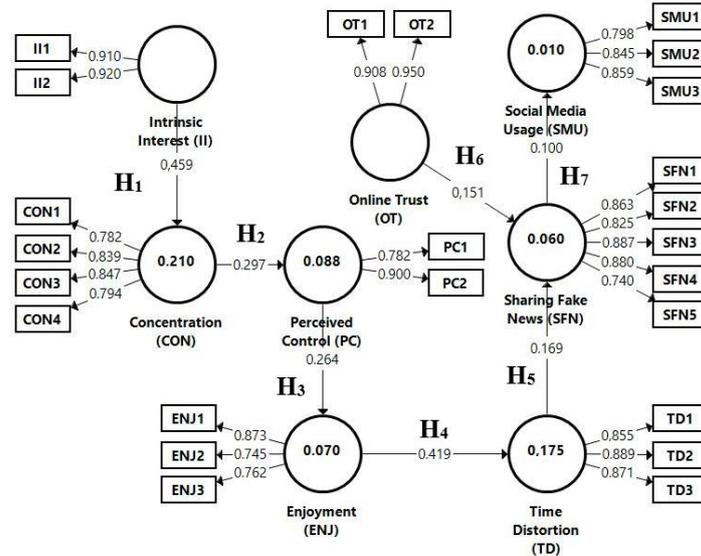


Figure no. 1. Structural model: Prerequisites of Social Media Usage

Source: own development in SmartPLS

2. Research methodology

This paper aimed to determine the prerequisites that influence social media usage by considering users' optimal experience (i.e., intrinsic interest, concentration, perceived control, enjoyment, and time distortion while browsing SNS), online trust and sharing fake news about companies on SNS to be an important antecedent of users' behaviour (see figure 1). The data was collected in November 2021 through a questionnaire-based online survey among social media users. A convenience sample was chosen, and invitations were sent to the users of the most popular Social Network Sites (SNS) sites, such as Facebook, Instagram, LinkedIn, etc. The initial set of 986 responses was assessed considering data quality, and, after this procedure, 922 were retained. About 55.7% of social media users are females and 44.25% males. Most social media users are educated: 6.0% from gymnasium, 7.6% from ten classes, 6.3% from vocational school, 40.6% from high school, 28.4 % from university, and 11.2% from postdoctoral studies. Moreover, 45.8% of respondents were under the age of 30, 44.1 % were between 30 and 50 years old, and 10.1% were above 50 years old. The mean age of the participants was 32.36 years. Furthermore, 43.5% of respondents reported having a low income, 47.6% state having a middle income, and 8.9% reported having a high income. The questionnaire was operationalized as recommended by the literature (Robinson, 2018), scales being adapted from various sources. All items were measured on a five-point Likert scale (ranging from total disagreement to total agreement).

The constructs were measured reflective, containing between two and five items. Intrinsic Interest (II), adapted from Huang (2003) contained two items (“Using social media bored me”; “Navigating the website was intrinsically interesting”), both loadings having above 0.9. Concentration (CON) was adapted from Pelet et al. (2017), the items with loadings between 0.782 and 0.847 referred to the feelings encountered by respondents when using social media (engrossed, absorbed, attentive, concentrated). Perceived Control (PC) was adapted from Jackson and Marsh (1996), consisting of two items with loadings of 0.782 and 0.900 regarding “While using social media, I felt in total control of what I was doing” and “While using social media, I had a feeling of total control”. Enjoyment (ENJ), adapted from Kwak et al. (2014) was measured with three items (“I have fun interacting with social media”, “Using social media provides me with a lot of fun” and “I enjoy using social media”), the loadings varying between 0.745 and 0.873. Time Distortion (TD) was also adapted from Kwak et al. (2014) and was measured with three items with loadings varying between 0.855 and 0.889. They referred to the speed time flies when being on social media, the increased frequency of spending more time on social media than intended and on the fact that “Time appears to go by very quickly when I am using social media”. Online Trust (OT) was adapted from Fang et al. (2016) and consisted of two items (loadings above 0.9) regarding the trust in information and in news about companies shared on social media. Sharing Fake News on Social Media

(SFN) was adapted from Chadwick and Vaccari (2019) and consisted of five items with loadings between 0.740 and 0.887. The construct referred to the accuracy and exaggeration of news shared on social media about companies, the fact that shared news looked initially as being correct, but also of the fact that respondents were aware that they shared fake news. Social Media Usage (SMU) was also adapted from Chadwick and Vaccari (2019) and was based on three items (loadings of 0.798 to 0.859). The construct referred to the average time spent on Facebook, Instagram and TikTok.

3. Results and discussions

The conceptual model from figure 1 was analyzed using SmartPLS 3.0 with structural equations modeling (SEM). The reflective constructs (see table 1) were checked for validity and internal consistency. All loadings > 0.7, average variance extracted (AVE) > 0.7, reliability indicators, and discriminant validity are computed in Table 2. The loadings fulfil the requested minimum thresholds, suggesting that the measures have convergence validity (Hair et al., 2010). The minimum and maximum values range between 0.740-0.950, thus minimum thresholds being fulfilled. We tested reliability using Cronbach $\alpha > 0.7$ (Henseler and Sarstedt, 2013). As the items loadings exceeded 0.7, the model has internal consistency; all AVE values are over 0.5, so the model is adequate (Chin, 1998) and supports the convergent validity of the constructs. The Composite Reliability (CR)>0.7 indicates the reliability of the constructs (Hair et al., 2010). We computed the discriminant validity for each construct (see table 1), with the Fornell-Larcker. For each latent variable, the AVE value must be higher than the correlation coefficient between the competent and all distinct variables (Henseler et al., 2014), the threshold value must be under 0.9.

Table no. 1. Discriminant validity analyses

CON	ENJ	II	OT	PC	SFN	SMU	TD	Construct	Cronbach $\alpha > 0.7$	AVE > 0.5	CR > 0.7
0.816								CON	0.833	0.666	0.888
0.507	0.795							ENJ	0.711	0.632	0.837
0.459	0.681	0.915						II	0.806	0.838	0.912
0.272	0.310	0.246	0.929					OT	0.846	0.864	0.927
0.297	0.264	0.245	0.119	0.843				PC	0.702	0.710	0.830
0.109	0.132	0.134	0.179	-0.006	0.841			SFN	0.895	0.707	0.923
0.202	0.165	0.116	0.053	0.026	0.100	0.835		SMU	0.784	0.696	0.873
0.538	0.419	0.367	0.168	0.099	0.194	0.270	0.872	TD	0.842	0.760	0.905

* Note: II: Intrinsic Interest; CON: Concentration; PC: Perceived Control; ENJ: Enjoyment; TD: Time Distortion; OT: Online Trust; SFN: Sharing Fake News; SMU: Social Media Usage; AVE: Average variance extracted; CR: Composite reliability.

We also assessed the level of collinearity of all items in the measurement model. The highest value is 3.411 (SFN3) < 5 (Sarstedt et al., 2017), indicating no multicollinearity. We employed next a bootstrap procedure to test the hypotheses and highlight the relationships between latent variables. All hypotheses were accepted with a significant, positive relationship based on t-statistics. The collinearity of the constructs in the structural model was analyzed. The highest VIF value of the inner model is 1.029 (OT→SFN), below the threshold value, so there is no multicollinearity. The goodness of fit of the saturated model is also acceptable. The square root mean residual (SRMR) has a value of SRMR=0.054<0.08 (Sarstedt et al., 2017).

Table no. 2. The path coefficients of the structural equation model

Paths	Path Coefficients	Standard Deviation	T-Value	CI ¹	P-Value	Hypotheses
II→CON	0.459	0.031	15.024	0.395-0.512	0.000***	H ₁ -Supported
CON→PC	0.297	0.035	8.508	0.223-0.358	0.000***	H ₂ -Supported
PC→ENJ	0.264	0.032	8.212	0.192-0.320	0.000***	H ₃ -Supported
ENJ→TD	0.419	0.030	13.840	0.357-0.474	0.000***	H ₄ -Supported
TD→SFN	0.169	0.032	3.044	0.107-0.228	0.000***	H ₅ -Supported
OT→SFN	0.151	0.034	4.436	0.079-0.211	0.000***	H ₆ -Supported
SFN→SMU	0.100	0.033	3.044	0.036-0.159	0.002**	H ₇ -Supported

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; II: Intrinsic Interest; CON: Concentration; PC: Perceived Control; ENJ: Enjoyment; TD: Time Distortion; OT: Online Trust; SFN: Sharing Fake News; SMU: Social Media Usage. ¹CI=Confidence Interval (2.5%-97.5%).

H₁ assumed that the intrinsic interest of social media users has a positive influence on concentration while browsing SNS. The results ($\beta=0.459$; T-value=15.024; $p<0.001$) indicate a positive and strong influence, so, **H₁** is supported. **H₂** presumed that the concentration of social media users exerts a positive influence

on perceived control while browsing SNS. The results ($\beta=0.297$; T-value=8.508; $p<0.001$) confirm the strong and positive influence, so, **H₂** can be accepted. **H₃** inferred that the perceived control of social media users has a positive influence on enjoyment while browsing SNS. The obtained results ($\beta=0.264$; T-value=8.212; $p<0.001$) also highlight a strong and positive influence. That is why, **H₃** is to be validated. **H₄** posited that the enjoyment of social media users influences positively users time distortion while browsing SNS. Our results ($\beta=0.419$; T-value=13.840; $p<0.001$) pinpoint a strong and positive influence between the two constructs, so therefore, **H₄** is supported. **H₅** presumed that time distortion experienced by social media users has a positive influence on sharing fake news about companies while browsing SNS. The results ($\beta=0.169$; T-value=3.044; $p<0.001$) confirm the positive and quite strong relation, so, **H₅** can be also accepted. **H₆** supposed that online trust has a positive influence on sharing fake news. The results ($\beta=0.151$; T-value=4.436; $p<0.001$) show a moderate, but high significant relationship. That is why, **H₆** is to be validated. **H₇** presumed that sharing fake news about companies while browsing SNS has a positive influence on social media usage. The results ($\beta=0.100$; T-value=3.044; $p<0.02$) pinpoint a moderate influence of moderate significance, but **H₇** is supported.

SMU represents an important marketing construct due to its consequences, at an organization's internal and external level. The most important consequences of SMU at the internal level refer to developing internal communities and connections to foster collaboration, knowledge sharing, organizational learning, and innovation (Hanafizadeh et al., 2021). At an external level, SMU can enhance customer relations, service activities, improvement in information accessibility, cost reduction, business process performance, crowdfunding performance, and innovation performance (Scuotto et al., 2017). Therefore, understanding the antecedents of SMU is critical for marketing communication specialists to achieve these objectives. This research suggests that users' optimal experience (i.e., intrinsic interest, concentration, perceived control, enjoyment, and time distortion while browsing SNS), online trust and sharing fake news about companies on SNS are antecedents of social media usage.

Conclusions

From a theoretical perspective, our research expands the flow theory by providing new insights into the outcomes of optimal experience, particularly sharing of fake news about companies on SNS and social media usage. Additionally, our study's findings have significant theoretical input to the literature on fake news by indicating that social media users' optimal experience is a predictor of sharing behavior. Among the managerial contributions of our paper, we can highlight that marketing communication specialists could gain deeper insights into the process that leads to an optimal experience among social media users. This knowledge could be used by practitioners to facilitate social media flow among users and to better understand the possible negative outcomes, such as sharing fake news about companies, products and/or brands. This could allow them to detect problematic information that affects their visibility and/or image, and easy to adopt real-time reactive communication strategies to reduce potential negative consequences. Marketing communication specialists should consider online trust as a key factor in determining sharing fake news about their brands in SNS. Marketers should also consider that sharing fake news on social media sites enhances social media usage. This could lead to the quick spread of misleading content about companies on social networking sites and the occurrence of a possible communication crisis.

Among the limitations we can highlight the use of convenience sampling. Future studies could employ probability sampling. The research was conducted in Romania, thus from a cultural perspective, the results can hardly be generalized. Future studies could focus on assessing the proposed model in different countries and/or among different ethnical groups or among consumers from European versus other markets. Respondents were asked about companies in general, with no specification of certain sectors like retail, agriculture, construction, education, etc. Future studies could extend the model by gathering data between different industries and/or by considering sustainable/green versus unsustainable companies/brands but could also replicate the model among consumer generations of social media users, such as Zers or Millennials. Such comparisons could highlight important differences regarding optimal experience, online trust, sharing fake news about companies, and social media usage.

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