sustainability

MDPI

Article

Social Overload and Discontinuance Intention on Facebook: A Comparative Study

Chaeyoung Lim [1] and Jongchang Ahn [2,*]

[1] Mobility Solutions—IT Program Management, Robert Bosch GmbH, 70442 Stuttgart, Germany; chaeyoung.lim@jp.bosch.com
[2] Department of Information Systems, Hanyang University, Seoul 04763, Korea
* Correspondence: ajchang@hanyang.ac.kr; Tel.: +82-2-2220-2387

Abstract: When users begin to feel uncomfortable about the influence of social network services (SNSs) on their lives, they react with various discontinuance behaviors. This comparative study intends to provide a comprehensive explanation of how the fatigue or regret phenomenon is related to users' diverse reactions against SNSs. This study attempts to answer two questions: (1) How do specific types of relationships influence social overload from SNS interactions on Facebook? and (2) How does social overload threaten the free usage of services and lead to users' dissatisfaction with SNSs, and how do these constructs influence users' intent to discontinue usage of SNSs? To this end, we test a reactance model with Facebook users (n = 433) using Partial Least Squares Structural Equation Modeling (PLS-SEM). This study found significant results of the reactance mechanism using samples from two countries, Korea and Japan, which support the generalizability of the reactance mechanism in SNS fatigue. The path of the psychological reactance mechanism in SNSs could differ by country. We also found that reactions toward persona non grata in SNSs differed by country. Our findings suggest that the specific cultural context should be considered when analyzing social overload in SNSs. In previous studies, insufficient attention has been paid to the social features or contexts of SNS. This study proposes a new categorization of relationships in the context of SNSs through the persona non grata concept. As SNSs are social platforms, emotions perceived from the social features of SNSs are an important construct that motivates people to continue using SNSs. Therefore, promoting free activities for users can be an important strategy for maintaining their motivation to use the service. It should be noted that the sample used in this study was slightly unbalanced by the inclusion of a greater proportion of young participants.

Keywords: social media; social network service; SNS fatigue; social overload; reactance theory; persona non grata

Citation: Lim, C.; Ahn, J. Social Overload and Discontinuance Intention on Facebook: A Comparative Study. *Sustainability* **2021**, *13*, 12556. https://doi.org/10.3390/su132212556

Academic Editor: Jan Kratzer

Received: 9 October 2021
Accepted: 10 November 2021
Published: 13 November 2021

1. Introduction

With the development of mobile technology, social network services (SNSs) such as Facebook, Twitter, Instagram, and QZone have been rapidly adopted [1,2] by a considerable number of users, as such services meet people's social needs and provide them with advanced information [3,4]. The use of SNSs has become a part of daily life, helping people to feel socially engaged [5,6] and thus creating positive emotions [7]. This emotional fulfilment then serves as further motivation for users to continuously enjoy SNSs. Nevertheless, there has been a recent decline in the usage of SNSs. Users who feel uncomfortable with the influence of services on their lives have begun to react with various discontinuance behaviors [8,9]. Some information systems (IS) researchers term this phenomenon "SNS fatigue" [3,10–12]. Their findings indicate that negative emotions [13] and discontinuous behaviors could occur if users are excessively exposed to some SNS features.

However, previous research on the phenomenon of SNS fatigue suffers from several problems. First, many of such studies identified "fatigue" as a psychological factor but

paid relatively less attention to other factors that could influence users' discontinuance behaviors [4,10,11], namely, the present view does not sufficiently explain how the fatigue phenomenon is related to users' diverse reactions against SNSs (e.g., decreasing usage, taking a break, stopping usage, or moving to close SNS platforms). Some studies have discussed the possible existence of other potential psychological factors that could affect users' intentions to use the services, such as the "regret" construct [14–16]. However, there is still a lack of research on other psychological factors related to this phenomenon.

Second, many studies have examined superficial user characteristics, such as frequency of usage and the number of online "friends". However, numerous articles [17–19] explain that users encounter most difficulties when they have to deal with other users with whom they have relationships in real life. For instance, users expressed feeling restricted when they have to deal with their parents, professors, superiors, boss, HR staff, and customers in their real life [17–19]. In other words, users experienced negative feelings when they used the services to communicate with people with whom they were socially connected in real life, but whom they did not want present in their SNSs (we call these other unwelcome users 'persona non grata'). However, few studies have examined social overload and threats to free behavior within the SNS context. A sole case was the preliminary study of Lim et al. [20], which displayed the possibility of psychological reactance with social relations. However, we argue that their study should be extended with a greater number of samples in different countries to strengthen the generalizability of the model and to deepen the manifestation of the model in different culture protocols. Although Korea and Japan are adjacent regions, users' behaviors on ISs including SNSs between two countries are quite different. In addition, comparative studies of Facebook users in two countries are rare, to the best of our knowledge. There could be great value in research addressing the significantly distinctive SNS phenomenon of two physically close countries, that could be representative samples of specific cultures (collective and feminine society vs. individual and masculine society). We also believe that this extension of the study by adding samples from Korean and Japanese users can overcome the limitations suggested by previous authors and other studies [9,16,20].

This study focused on the context of Facebook following previous researchers' use of the platform as a representative sample for studying SNS, since it has the largest number of users [1] and the highest impact among SNSs. In addition, the fatigue phenomenon is more noticeable in public SNSs like Twitter and Facebook. These platforms are more widely available compared to private SNS platforms such as Instagram and Line, which use user groups and have privacy protection policies and structure [9,21].

To fill the research gaps by analyzing the differences between Korean and Japanese users' behavior on Facebook as the selected SNS platform, this study raises two research questions on the basis of the problems and boundaries outlined above.

1. How do specific types of relationships influence users' experience of social overload from SNS interactions?
2. How does social overload threaten users' free usage of the service and affect their satisfaction with SNS use? How do these factors influence discontinuous usage intentions in the SNS context?

To answer the questions outlined above, this study introduces reactance theory [14,22,23], which explains people's diverse reaction behaviors when they face free or restricted situations. Based on the theory, this study developed a research model and conducted structural equation modeling (SEM) analysis to test and extend our understanding of the SNS fatigue phenomenon. This paper consists of seven sections, including the introduction. After reviewing the literature, hypotheses and research models are developed. A research method is then introduced, followed by an analysis of the results. After discussing the research findings, the paper concludes with implications in both theory and practice with limitations and suggestions for future research.

2. Literature Review

To examine previous research on the SNS fatigue phenomenon and reactance theory [14,22,23], a review of literature in psychology related to social conditions for reactance was conducted. Then, IS literature related to discontinuance behaviors and the social aspects of SNSs was reviewed.

2.1. Social Aspects of SNSs as a Tentative Construct for Reactance

People tend to consider their freedom to be important. When that freedom is threatened or removed by a particular person or situation, people are motivated to recover it. This recovering power is called psychological reactance, as discussed by Brehm [22]. As the outcome of reactance, people may express various negative behaviors, such as indicating opposition, reducing preferences, denigrating the threatening persons as an active reaction, or searching for alternative freedoms, abandoning the original freedom in a passive reaction [23]. The research [24] has also supported psychological reactance theory by showing that increased perceived control reduced perceived freedom threat and consequently alleviated consumers' psychological reactance toward advertising messages.

In previous studies, two possible types of reactance have been discussed during social interactions—the direct threat to freedom and the indirect threat to freedom. The former threat occurs when the opponent forces someone to accept their social request. There are historical examples of backlash against legal actions such as the prohibition of alcohol and strengthening the age limit of drinking [25], called socially disapproved behaviors [26], or employees' efforts to escape from overwork [27]. Further, the latter threat appears when a person feels unpleasant about the self-expectation associated with the existence of opponents which may lead them to be embarrassed or pressured, which is associated with social relations and norms.

However, previous studies have not given much attention to the behavioral effects of reactance in virtual space, especially in the context of SNS and their users' discontinuance behaviors. As described above, people are motivated to use SNS when they feel socially embedded and receive positive emotions as the result of social interactions. In addition, forms of social interactions could vary depending on the characteristics of the relationship [4,28].

People perceive their freedom in different ways based on their interpersonal relationships and real-life situations [29]. People in SNS also consider freedom differently depending on the features of their relationships or their styles of social interactions. If people feel that their freedom has been threatened due to social interactions on SNSs, they may feel resistant to act or even decrease their intention to use the service [14]. Therefore, in this study, psychological reactance is considered a latent factor in users' discontinuance of their usage of SNSs after feeling socially overloaded.

2.2. Deployment of SNSs and the SNS Fatigue Phenomenon

SNS have recently become leading online platforms that enable users to communicate, share information, and establish or maintain social relations with other users [30]. In the early 2000s, these services were established alongside advancements in information technology and social demands (e.g., sharing profiles, chatting, and sympathizing) [31]. The dramatic popularization of the Internet and mobile service devices in the late 2000s led these services to be consolidated with mobile features. As a result, SNSs have achieved notable success in the last few decades; for example, Facebook attained the registration of 360 million users five years after it launched [32]. Facebook has taken the leading position among SNSs with its 2.2 billion active users, including 214 million in the United States [33]. The service pervades every aspect of daily life and significantly influences its users' behaviors [34]. By using the service, users feel socially embedded and receive positive emotions. Those emotions further motivate them to use the SNS, and this circle continues [4].

Nevertheless, SNSs have faced recent declines in users and usage. Users have begun feeling uncomfortable about the influence of SNSs on their lives and have begun using negative metaphors to refer to SNS, such as addiction, jail, and waste [35]. Moreover, news media have focused on new phenomena in SNSs in which people stop using SNSs with diverse behaviors. For example, some people display varying levels of fatigue, incorporated with an inferiority complex. In Japan, a number of users have quit Facebook and moved to more private SNS platforms, such as Line or Instagram [36]. Among Facebook users, 61% stated that they wanted to take a break from the service for several weeks or more [8]. IS researchers have called this phenomenon "SNS fatigue" [4,10,11] and revealed that users show discontinuation behaviors of SNSs with negative emotions when they are excessively exposed to some SNS features. This has led to the stagnation of SNSs' growth after its height in 2012.

2.3. Perceived Overload as Factors for SNS Discontinuance

To understand the new phenomenon of SNS discontinuance, scholars have investigated users' quantitative features. For instance, the results revealed that excessive usage of SNS can decrease users' satisfaction with the service, which can be considered the first key to understand user's behavior of quitting the use of SNSs [37,38]. As a next step, scholars explored latent factors that make users discontinue their usage of SNSs. They found that "perceived overload" may be an antecedent of the phenomenon [9–11]. Perceived overload is caused when a user uses an excessive amount of SNS features beyond a degree that they can accept.

The concept of overload was initially used for evaluation and perception by individuals from a subjective aspect [39]. However, the concept was extended to more objective constructs that can explain the perception of things that exceed an individual's ability to handle them. Previous studies clarified four types of perceived overload as potential factors in the SNS fatigue context: system features overload [11,40], information overload [11,41,42], communication overload [11,43,44], and social overload [4,11,45].

In summary, four types of perceived overload could occur when SNS features affect users beyond their capacity to withstand them [11]. In addition, researchers found a positive association between system feature overload and information overload or between system feature overload and social overload [9].

2.4. Social Overload and Unwelcome Relationship in SNS

Previous research has revealed an empirical link between users' overload and discontinuance behaviors. In particular, they found that among the four overload types, social overload has a relatively stronger impact on discontinuance intentions [4,11,16]. In social overload, Maier et al. [4] presented the characteristics of usage (e.g., number of friends in SNSs, the extent of SNS usage) and characteristics of relationships (e.g., subjective social support norms, types of relationship) as the antecedents.

In fact, social overload in SNSs seems more complex than simply a sum of social requests. Some supportive pieces of evidence discussing the mechanics of relationships in various literature and sources were found. For example, Ljungberg and Sorensen [46] found that people get more socially overloaded feelings when they are involved in conversations in unwanted contexts with unwanted partners. Outside of the academic literature, we found some discussions in which people claim to "dislike" interacting with or even facing certain people with whom they have relationships in reality. The buzzword "obligatory Facebook friend" has appeared to describe this phenomenon. Similar cases have been discovered in other countries, for example, "Kihi-risto" in Japan and "SNS Kipi-daesang" in South Korea [10,47]. These terms describe people whom users do not want to meet, share information with, or interact with on SNSs. Users typically explained the feature of this unwelcome group of people as 'people who may restrict my free behavior in SNSs', although there are some differences on type of person and contexts including general context [48], family context [18], and organization context [17,19,49,50]. For instance, children wanted

to avoid their parents in SNSs, as did students toward professors, employees toward managers, business owners toward clients, or even between lovers in close relationships [51]. In this study, we compound these unwelcome people as "persona non grata", a term that has been used to mean "person not appreciated" in the international relations discipline and diplomatic areas [52]. This term can be considered to embody dynamic concepts.

3. Research Model Development

Figure 1 shows this study's research model, which comprises Facebook interactions with social overload, and social overload with discontinuous usage intention mediated by dissatisfaction. This was originally proposed in two previous studies on SNS fatigue [4,11] and extended with other potential constructs: the existence of persona non grata and threats to freedom of use.

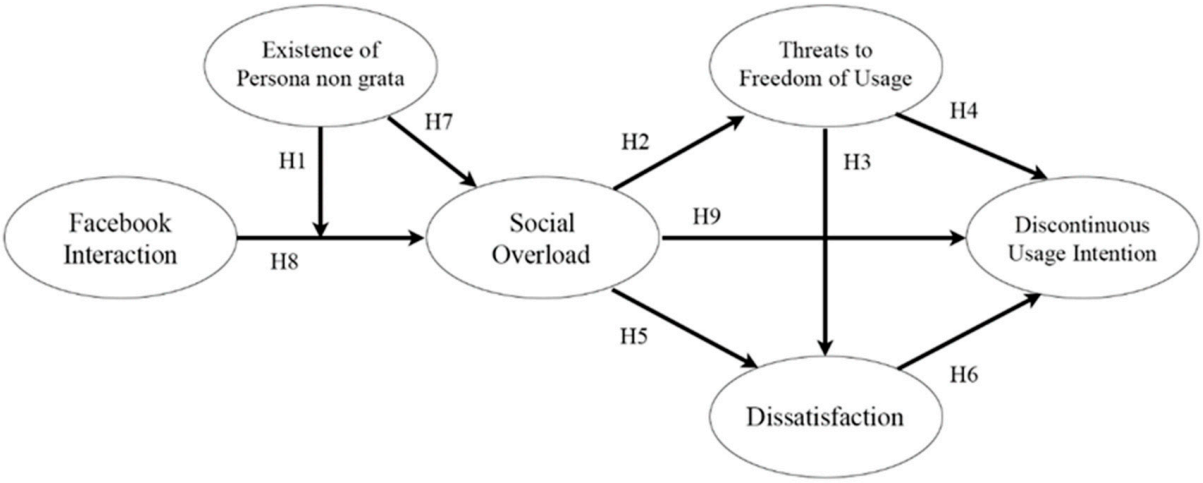

Figure 1. Research Model.

3.1. Effect of Persona Non Grata

Previous studies have explained that users may perceive more overload when overusing SNS, since they become exposed to the various features of SNSs that can affect their motivation [11]. The social features of SNSs can generate social overload, which can influence users' discontinuation behaviors [4,28].

In SNSs, people encounter various types of relationships, as they do in daily life. These relationships can make users perceive different social support norms [53], which differ according to the perception of users toward specific relationships.

Social overload is generated when users perceive an excessive amount of social support caused by other users who also expect responsive support. In real life, there are certain sensitive relationships that people want to avoid [46], such as relationships containing the possibility of conflict of interest, relationships between subordinates and superiors, and relationships with different power balances. These kinds of relationships may generate pressure for users to respond and interact on SNSs. Therefore, this peculiar characteristic of relationships can positively affect the association between Facebook interactions and social overload. Thus, we suggest the following hypotheses:

Hypothesis 1 (H1). *The interaction effect of Facebook interaction and persona non grata leads to social overload.*

Hypothesis 2 (H2). *The existence of persona non grata positively leads to social overload.*

3.2. Effects of Psychological Reactance

Previous scholars (e.g., [4]) have suggested that social overload may occur due to excessive social demands for social interactions associated with two variables: the charac-

teristics of relationships and usage characteristics. In social interactions, the effect of these variables may vary. Namely, people accepting high social overload caused by high social demands and stronger social norms could be under heavy pressure. In this condition, users might feel that their freedom is restricted. For instance, they may feel restricted by having to use their free time to respond to requests (opportunity cost) or by altering their priorities to meet stronger demands from other users [14].

Reactance theory holds that reactance occurs when people feel that their freedom to decide or behave is threatened or eliminated. Therefore, we suggest the following hypothesis:

Hypothesis 3 (H3). *Social overload is positively related to threats to freedom of usage.*

Prior research has shown that threats to freedom can bring about user dissatisfaction in a service context. For instance, Fitzsimons and Lehmann [54] found that threatening the freedom of customers in the marketing sector can result in dissatisfaction; Chang [55] bolstered this finding by insisting that resistance and satisfaction may be covariant, and therefore, these variables must be carefully treated with some controls on Internet service platforms. In summary, threats to freedom when using SNSs might precipitate higher dissatisfaction. Therefore, we suggest the following hypothesis:

Hypothesis 4 (H4). *Threats to freedom of usage are positively related to dissatisfaction.*

Threats to freedom have a negative influence on the opinions and behavioral intentions toward the threatening persons according to reactance theory [23]. Previous studies have elucidated that lack of awareness of customers' or users' freedoms may bring about negative intentions of people in businesses. For example, Kivetz [56] proved that restricting the freedom of customers can harm their willingness to accept marketing approaches. In IS literature, previous research has found that any produced resistance in users' minds can negatively influence their intentions to use the service [14,57]. Threats to freedom of behavior in SNSs could lead to similar results. Therefore, the hypothesis below is proposed:

Hypothesis 5 (H5). *Threats to freedom of usage are positively related to discontinuous usage intention.*

Nawaz et al. [16] found that social overload had a significant impact on dissatisfaction followed by information overload and SNS exhaustion (fatigue). Therefore, the hypothesis below is proposed:

Hypothesis 6 (H6). *Social overload is positively related to dissatisfaction.*

In addition, the following hypotheses (H6, H8, and H9) are posited based on previous research (e.g., [4,9,11,16]).

As presented in the literature review section, the excessive usage of SNS can decrease users' satisfaction with the service, which has been considered the first key to understanding user's behavior of ending their use of SNSs [37,38]. Therefore, the following hypothesis is proposed.

Hypothesis 7 (H7). *Dissatisfaction is positively related to discontinuation of usage intention.*

Meier et al. [4] showed that users' extent of usage and number of friends on Facebook directly contribute to their social overload. In addition, fatigue experiences could result from social interactions among the members of social networks [58]. Therefore, we suggest the following hypothesis.

Hypothesis 8 (H8). *Facebook interaction is positively related to social overload.*

Laumer et al. [28] suggested a social interaction overload variable that had a direct effect on the two variables of satisfaction and continuous usage intention. Thus, we posit the following hypothesis:

Hypothesis 9 (H9). *Social overload is positively related to discontinuation of usage intention.*

4. Method

4.1. Measurement and Pretest

The research used a descriptive research design employing surveys. Measurement tools were derived from previous research, except the existence of persona non grata. Items for Facebook interaction were validated from Chen and Lee [43], social overload from Maier et al. [4], the threat to freedom of usage from Lee and Lee [14], dissatisfaction from Chang et al. [59], and discontinuation of usage intention from Ravindran et al. [58]. Since there was no scale contrived to measure the existence of persona non grata, we devised three items.

In the beginning, the questionnaire was developed in both Korean and English and then it was translated into Japanese. After that, items were refined twice via feedback from ten Japanese graduate students (step one) and four IS experts (step two) with two groups (two scholars in the Japanese-English speaking group, two scholars in the Korean-English speaking group) to verify the conceptual equality of the three versions. A pretest was conducted to evaluate ease of understanding, logical consistency, and contextual validity by four IS experts who had experience using Facebook. All measurement items used a seven-point Likert scale (from 1: strongly disagree to 7: strongly agree). The items are presented in the Appendix A.

A pilot test was conducted with 69 participants over two weeks to ensure the suitability of the measurement model; internal reliability, indicator reliability, convergent validity, and discriminant validity were evaluated.

4.2. Data Gathering

A purposive sampling method was used for data collection with consideration that the Korean and Japanese participants had experience using Facebook. Online surveys were conducted to collect the data from Facebook users in both Korea and Japan; the online questionnaire was shared with a number of Facebook users. The participants were guided to answer all questions based on their knowledge of using Facebook. To prevent duplicate samples, IP addresses were recorded and checked. Over four weeks, 450 responses were gathered. Finally, 433 (Korea = 222, Japan = 211) responses were analyzed after removing 17 insincere samples. According to statistical power analysis using G*Power 3.1 software [60], 77 samples were found to grant sufficient explanatory power in our model. In addition, the size of the sample in this study already exceeds the requirements.

To summarize the demographics, 54.5% of the participants were male and 45.5% were female. The majority (55.66%) were aged 20–29, followed by 30–40 (24.02%) and 40–50 (18.71%). Among the participants, 58.89% had used Facebook for more than five years, followed by those who had used Facebook between two to five years (29.33%). Table 1 presents the demographic characteristics of this study's sample.

Table 1. Demographic profiles.

Characteristics	Options	%	Characteristics	Options	%
Gender	Male	54.5	Education	High school or below	20.79
	Female	45.5		University or College	63.05
Age	<20	1.15		Graduate school or higher	16.17
	≥20 and <30	55.66	Length of use	<6 months	1.85
	≥30 and <40	24.02		≥6 months and <1 year	3.46
	≥40 and <50	18.71		≥1 year and <2 year	6.47
	≥50 and <60	0.46		≥2 year and <5 year	29.33
	≥60	0.0		≥5 year	58.89

5. Analysis of Results

The Partial Least Square (PLS) method is a widely accepted technique in SEM with strong competence for explorative analysis and theory development [61]. Furthermore, the PLS method has a significant advantage of minimal restrictions on measurement scales, sample size, and residual distribution [62–65], whereas Linear Structural Relationships (LISREL) and Analysis of Moment Structures (AMOS) are recommended for confirmatory analysis with their stricter adherence to distributional assumptions. Therefore, this study tested the model with the PLS method by using the software SmartPLS 2.0 [63–67]. The study followed a two-step approach [68] consisting of tests of the measurement and structural models.

5.1. Measurement Model

Criterion: The model can achieve good internal reliability if the Cronbach's alpha and composite reliability value of each item exceed 0.7 criteria [61]. In addition, sound indicator reliability can be acquired when outer loading values are greater than the 0.7 thresholds.

Prior research has proposed criteria for acceptable validity. AVE values of each factor that are more than 0.5 can give the model sound convergent validity [69]. In addition, discriminant validity can be evaluated via two methods: (1) Outer loading values on allocated latent variables should be more than the outer loading values on any other latent variables (item level); (2) Heterotrait-Monotrait (HTMT) ratio values should be significantly lower than the conservative threshold of 0.85 [70].

Reliability: All Cronbach's alpha and composite reliability (CR) points of all factors exceeded the 0.7 threshold (internal reliability test) as shown in Tables 2 and 3. In addition, all items showed high factor loadings, with Korean data ranging from 0.825 to 0.932 and Japanese data ranging from 0.713 to 0.901. In summary, the measure model showed an adequate degree of reliability.

Table 2. The measurement model of Korean data.

Construct	Alpha	CR	AVE	HTMT Ratio Values					
				DI	DS	EP	FI	SO	TF
DI	0.763	0.894	0.808						
DS	0.851	0.91	0.77	0.631					
EP	0.708	0.872	0.774	0.223	0.571				
FI	0.879	0.917	0.734	0.12	0.124	0.44			
SO	0.882	0.927	0.809	0.076	0.283	0.516	0.501		
TF	0.889	0.931	0.818	0.176	0.683	0.721	0.379	0.65	

DI = Discontinuous Usage Intention; DS = Dissatisfaction; EP = Existence of Persona non grata; FI = Facebook Interaction; SO = Social Overload; TF = Threat to Freedom of usage.

Table 3. The measurement model of Japanese data.

Construct	Alpha	CR	AVE	HTMT Ratio Values					
				DI	DS	EP	FI	SO	TF
DI	0.765	0.895	0.81						
DS	0.835	0.901	0.753	0.608					
EP	0.712	0.874	0.776	0.152	0.481				
FI	0.775	0.854	0.596	0.12	0.218	0.333			
SO	0.738	0.852	0.657	0.241	0.434	0.428	0.378		
TF	0.79	0.876	0.702	0.365	0.699	0.759	0.305	0.58	

DI = Discontinuous Usage Intention; DS = Dissatisfaction; EP = Existence of Persona non grata; FI = Facebook Interaction; SO = Social Overload; TF = Threat to Freedom of usage.

Validity: All AVE values for each factor exceeded the criteria of 0.5 (convergent validity test). The loading values of each item on its corresponding latent variable were more than any other factors. Regarding the HTMT ratio value, we found that all HTMT values in both countries were below the threshold 0.85 [70], and the highest values were 0.721 (Korea) and 0.759 (Japan) as displayed in Tables 2 and 3. In summary, the model showed acceptable validity.

5.2. Structural Model

The structural model was evaluated based on three criteria: (1) R-square values, (2) t-statistics, and (3) structural paths. Nine structural paths (four hypotheses including one moderating hypothesis and an additional five relevant structural paths) were tested. As shown in Table 4, this study also tested predictive relevance by using the Q-square (Q^2) value, and the result presented that all values exceed the threshold value of 0 [71], indicating that the model exhibits adequate predictive relevance.

Table 4. Results of predictive relevance testing using Q-square (Q^2) values.

Criterion	Korean Data						Japanese Data					
	DI	DS	EP	FI	SO	TF	DI	DS	EP	FI	SO	TF
Q^2	0.231	0.274			0.21	0.27	0.183	0.246			0.096	0.129

A multicollinearity test was conducted based on the variance inflation factor (VIF). As shown in Tables 5 and 6, all VIF values in both countries were below the commonly acceptable thresholds of 3.3, except one item value 3.357 of Social Overload from the Korean sample. Overall, the study showed very weak evidence to suggest the presence of common method bias [72].

In the Japanese sample, the existence of persona non grata appeared to have a positive interactive moderating effect on the relationship between Facebook interaction and social overload, and H1 (t-value = 2.445, $p < 0.05$, $\mathbf{f}^2 = 0.033$) was supported. In hierarchical testing [40], a significant interactive moderation effect was found; the R-square (R^2) value of the interaction effect model ($R^2 = 0.179$) was higher than that of the main effect model ($R^2 = 0.158$). On applying Cohen's test [56], its moderating effect could be considered small as the value of the size effect ($f^2 = 0.033$) was in the range of the small effect ($0.02 < f^2 < 0.15$). However, in the Korean sample, H1 was not supported (t-value = 0.108, $p = 0.914$, $\mathbf{f}^2 = 0$).

In both samples, social overload on Facebook had a positive influence on threats to freedom of usage, therefore H2 (Korea: t-value = 10.929, $p < 0.001$, $\mathbf{f}^2 = 0.51$; Japan: t-value = 7.589, $p < 0.001$, $\mathbf{f}^2 = 0.243$) was supported. In both samples, threats to freedom of usage also appeared to have a positive effect on dissatisfaction, so H3 was supported (Korea: t-value = 11.37, $p < 0.001$, $\mathbf{f}^2 = 0.483$; Japan: t-value = 8.530, $p < 0.001$, $\mathbf{f}^2 = 0.347$). In the Japanese sample, threats to freedom of usage did not significantly influence discontinuous usage intention; therefore, H4 (t-value = 0.126, $p = 0.900$, $\mathbf{f}^2 = 0$) was not supported. However, in the Korean sample, H4 was supported (t = 2.34, $p < 0.05$, $\mathbf{f}^2 = 0.026$). Inter-

estingly, social overload on Facebook did not have a significant effect on dissatisfaction (t-value = 1.600, $p = 0.110$, $\mathbf{f}^2 = 0.014$) in the Japanese sample (H5 was not supported). In the Korean sample, H5 was supported (t = 2.182, $p < 0.05$, $\mathbf{f}^2 = 0.023$).

In both samples, dissatisfaction appeared to have a positive influence on discontinuation of usage intention; thus, H6 (Korea: t-value = 9.229, $p < 0.001$, $\mathbf{f}^2 = 0374$; Japan: t-value = 5.595, $p < 0.001$, $\mathbf{f}^2 = 0.197$) was supported. In both samples, the existence of persona non grata also appeared to have a positive effect on social overload on Facebook; thus, H7 was supported (Korea: t-value = 4.067, $p < 0.001$, $\mathbf{f}^2 = 0.102$; Japan: t-value = 3.917, $p < 0.001$, $\mathbf{f}^2 = 0.08$). In both samples, Facebook interaction was found to have a positive influence on social overload on Facebook; thus, H8 (Korea: t-value = 5.427, $p < 0.001$, $\mathbf{f}^2 = 0.131$; Japan: t-value = 3.283, $p < 0.001$, $\mathbf{f}^2 = 0.055$) was supported. In both samples, social overload did not have a significant effect on discontinuation of usage intention; thus, H9 was rejected (Korea: t-value = 0.817, $p = 0.414$, $\mathbf{f}^2 = 0.004$; Japan: t-value = 0.179, $p = 0.858$, $\mathbf{f}^2 = 0$). In summary, the results of testing H1, H4, and H5 were different between the Korean and Japanese samples. Figure 2, Tables 5 and 6 show the results of hypothesis testing based on each country's sample data.

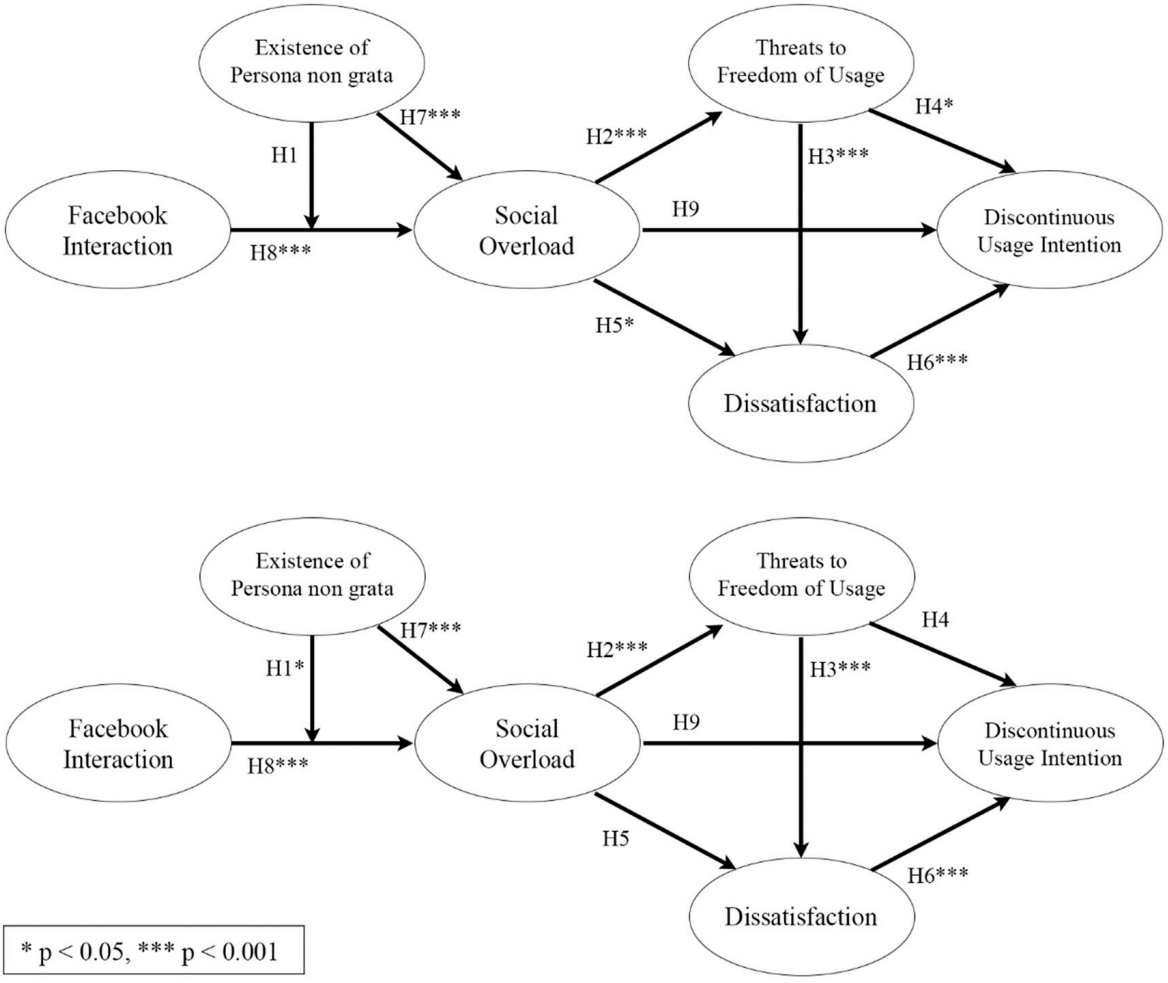

Figure 2. Hypotheses testing result of Korean data (**top**) and Japanese data (**bottom**).

Table 5. Structural model results of Korean data.

Path	Beta	Mean	(STDEV)	T-Statistics	*p* Values	f^2	Inner VIF	Hypothesis	Result
DS -> DI	0.643	0.643	0.07	9.229	0.000 ***	0.374	1.579	H6	Supported
EP -> SO	0.292	0.294	0.072	4.067	0.000 ***	0.102	1.149	H7	Supported
FI -> SO	0.34	0.342	0.063	5.427	0.000 ***	0.131	1.21	H8	Supported
Moderation	0.006	0.004	0.058	0.108	0.914	0	1.063	H1	Rejected
SO -> DI	−0.062	−0.064	0.076	0.817	0.414	0.004	1.545	H9	Rejected
SO -> DS	−0.148	−0.149	0.068	2.182	0.029 *	0.023	1.51	H5	Supported
SO -> TF	0.581	0.583	0.053	10.929	0.000 ***	0.51	1	H2	Supported
TF -> DI	−0.2	−0.2	0.086	2.34	0.019 *	0.026	2.238	H4	Supported
TF -> DS	0.679	0.68	0.06	11.37	0.000 ***	0.483	1.51	H3	Supported

* $p < 0.05$, *** $p < 0.001$; SRMR = 0.06.

Table 6. Structural model results of Japanese data.

Path	Beta	Mean	(STDEV)	T-Statistics	*p* Values	f^2	Inner VIF	Hypothesis	Result
DS -> DI	0.478	0.479	0.085	5.595	0.000 ***	0.197	1.524	H6	Supported
EP -> SO	0.265	0.268	0.068	3.917	0.000 ***	0.08	1.067	H7	Supported
FI -> SO	0.219	0.228	0.067	3.283	0.000 ***	0.055	1.065	H8	Supported
Moderation	0.156	0.155	0.064	2.445	0.021 *	0.033	1.003	H1	Supported
SO -> DI	0.013	0.016	0.075	0.179	0.858	0	1.26	H9	Rejected
SO -> DS	0.106	0.105	0.066	1.600	0.110	0.014	1.243	H5	Rejected
SO -> TF	0.442	0.447	0.058	7.589	0.000 ***	0.243	1	H2	Supported
TF -> DI	0.011	0.009	0.087	0.126	0.900	0	1.674	H4	Rejected
TF -> DS	0.532	0.532	0.062	8.530	0.000 ***	0.347	1.243	H3	Supported

* $p < 0.05$, *** $p < 0.001$; SRMR = 0.08.

6. Discussion

The results of this study suggest that the relationships among variables related to SNS usage and discontinuance of usage intentions vary between the two countries we surveyed. First, we found that the existence of persona non grata affected social overload in both samples, but different paths were identified between the Korean and Japanese samples. The path of "Social overload to Discontinuation of usage intention" was not significant in the sample from either country. Social overload did not directly influence the discontinuance of usage intentions toward SNSs, as in previous research (e.g., [9,16]). The significant path mechanism is more complex, and other factors need to be considered.

Second, we observed the direct role and linear path of psychological reactance in the Korean sample (Threats to freedom of usage to Discontinuance of usage intention and Threats to freedom of usage to Dissatisfaction paths), but the "Threats to freedom of usage to Discontinuance of usage intention" path in the Japanese sample was not significant. However, the "Threats to freedom of usage to Dissatisfaction" path was significant. A possible explanation for this result is that Korean users tend to make the immediate decision to discontinue their use of the service due to the influence of their culture, which prefers quick and direct actions to solve the problems. In contrast, the characteristics of Japanese society prioritize silence, low social network integration in SNS connections, comparatively rare exposure to persona non grata, and masculism, which reduces concern for others in SNS. Therefore, Japanese users may not have a direct intention to discontinue usage when their freedom of usage is threatened. In addition, there is a consistent result of positive paths from threats to freedom of usage to discontinuous usage intention mediated by dissatisfaction from two countries, which solidifies the empirical grounding of previous studies that addressed users' intentions to discontinue their usage of social networking services through satisfaction factors in the context of psychological reactance.

In addition, the path of "Social overload to Dissatisfaction" in the Japanese sample was not significant, which differed from the findings of prior research (e.g., [16]). A plausible

explanation for this is that the characteristics of Japanese society express more preference for individualism, connecting with a small number of friends, comparatively low social overload, and masculism, which could reduce concerns about other people in SNSs. The above findings present the importance of joint roles with other factors through multiple paths. Although we did not initially posit distinctive hypotheses by culture, the results seem to suggest some potential influence according to cultural context. In general, cultural differences between the two countries could be considered and observed as the comparison in Table 7 suggests.

Table 7. A comparison of social characteristics between Korean and Japanese cultures.

Korea (Collective Society, Feminine Society)		Japan (Individual Society, Masculine Society)	
Characteristics	**Reference**	**Characteristics**	**Reference**
(1) Tendency to express service dissatisfaction directly (2) Preference for groups -> A large number of friends (3) Comparatively high social overload and becoming discontent with this (4) Group-oriented society -> High social network integration in SNSs (Comparatively high exposure to persona non grata) (5) Feminine -> More concern for other persons on SNSs	Hofstede [73], Hofstede [74], House et al. [75]	(1) Satisfaction with silence. Tendency to show high tolerance for service dissatisfaction and not expressing discontent well (2) Preference for individualism -> A small number of friends (3) Comparatively low social overload and maybe not being discontent with this (4) Individualistic society -> Low social network integration in SNSs (Comparatively rare exposure to persona non grata) (5) Masculism -> Little concern for other persons on SNSs	Hofstede [73], Hofstede [74], House et al. [75]

The findings of this study provide several noteworthy implications for research on SNS fatigue. First, psychological reactance is a general mechanism that makes people stop using SNSs. Some studies on SNS fatigue have found significant paths for the reactance mechanism in SNS usage, but test samples have been limited to a specific country (e.g., [20]). For instance, prior research argued that fatigue and users' characteristics are primary factors in SNS fatigue phenomena [4,10,11], and Maier et al. [4] extended this view by including the social aspect of SNSs. However, these studies considered fatigue to be the sole manifesting variable. Therefore, they only covered a restricted part of the explanation for various discontinuous behaviors within a variety of social dynamics in SNSs. The current study found significant results of the reactance mechanism using samples from two countries, Korea and Japan, which support the generalizability of the reactance mechanism in SNS fatigue.

Second, the path of the psychological reactance mechanism in SNSs could differ by country. This study proposed social overload as a potential predecessor of threat to freedom (a starting point of reactance status) to Facebook users, which can finally harm users' continuous service usage intentions. Broadly, the study's results support the work of the reactance model.

Third, this study also found that reactions toward persona non grata in SNSs differed by country: the presence of persona non grata has an effect on social overload but displayed different paths according to the country surveyed. Only the result from the Japanese sample empirically showed a positive moderating effect for the path "Facebook interaction to social overload". Facebook users often deal with unwelcome people when using the service. Of these, personae non gratae potentially threaten users' freedom both in reality and on Facebook. Therefore, when interacting with them, users may experience higher pressure, which ultimately intensifies their social overload. South Korean society is characteristically more group-focused, showing high social network integration on SNSs (and thus presenting comparatively high exposure to persona non grata), and more feminine, resulting in higher levels of concern for other people on SNSs. In view of these characteristics, the Korean

sample had a high presence of persona non grata, Facebook interaction, and social overload but did not show a moderating effect.

Facebook is a social platform that contributes to users' social activities; thus, motivation to use the service primarily comes from the emotions created by those social activities, such as feelings of social embeddedness [4]. Therefore, this study argues that discontinuous behaviors and the SNS fatigue phenomenon need to be considered based on a more varied view of social relations and interactions, and the results of this research regarding reactance can deepen the perception of the phenomena.

The findings of this study have theoretical implications. First, they extend the previous research on social overload in the SNS fatigue phenomenon from a new perspective that takes the characteristics of association and reactance into account. The IS literature has maintained that there are few negative aspects of SNSs and has identified SNS usage characteristics as the primary cause of fatigue. However, the results of the current study indicate that the characteristics of relationships (e.g., persona non grata) incorporated with rising reactance could be a reason for discontinuing the usage of SNSs. Second, this study explored the role of the characteristics of relationships in the social overload framework. It proposed a new categorization of relationships in the context of SNSs (persona non grata). This study could trace a moderation effect of personae non gratae on the relationship between Facebook interaction and social overload. Discontinuation of usage intention of SNS users was complex between the two nationalities' users. Significant paths, including psychological factors, were different between the cultural protocols.

7. Conclusions

This study has important managerial implications. The results revealed that promoting free activities for users can be an important strategy for maintaining their motivation to use the service. Thus, SNS suppliers should consider how they can provide a greater number of free activities for users in the enlarged networks of their service. Significant paths were different between the cultural protocols. Therefore, differing cultural backgrounds must be considered by organizational managers who use SNS platforms to reach present and potential customers.

This study also has several limitations that may present avenues for further research. First, since the users of a single social media platform (Facebook) were examined, caution should be exercised when extending the findings to users of other platforms. Second, a snowball sampling method was used for the Japanese sample. Although this is one of the few methods to conduct research on SNSs [3], it limits the expandability of our results to all SNS users. Third, the composition of the sample was slightly unbalanced toward younger participants. As Internet usage differs by person, age, and culture, the findings of this study cannot be generalized to all users of every type of SNS types around the globe. Future studies should consider simple random sampling with a more diverse sample to obtain greater generalizability.

Author Contributions: Conceptualization, C.L. and J.A.; methodology, C.L. and J.A.; software, C.L.; validation, C.L. and J.A.; formal analysis, C.L. and J.A.; investigation, C.L.; resources, J.A.; data curation, C.L.; writing—original draft preparation, C.L.; writing—review and editing, J.A.; visualization, C.L. and J.A.; supervision, J.A.; project administration, J.A. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethical review and approval were waived for this study. We even used questionnaires for social media users but the research involves anonymized records and data sets that exist in the public domain. We cannot trace a responder individually.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Please refer to details regarding the data supporting the reported results, including links to publicly archived datasets analyzed or generated during the study at: https://www.mdpi.com; accessed on 1 November 2021.

Conflicts of Interest: The authors declare no conflict of interest, and there were no funders for this research.

Appendix A

Table A1. Measurement items.

Construct		Items	Sources
Facebook interaction	FI1	How often do you post and share photos on Facebook?	[43]
	FI2	How often do you share news stories, blog posts and notes, web links, and news stories on Facebook?	
	FI3	How often do you click "like" or comment on a friend's status, links, wall, or photos on Facebook?	
	FI4	How often do you click "like" or comment on Facebook pages of groups, events, companies, or organizations on Facebook?	
Existence of persona non grata	EP1	I feel the presence of some people would hamper my Facebook usage.	[20]
	EP2	I have some unwelcome friends from real (offline) life on Facebook.	
Social overload	SO1	I take too much care of my Facebook friends' well-being.	[4,11,28]
	SO2	I deal too much with my Facebook friends' problems.	
	SO3	I pay too much attention to the posts of my Facebook friends.	
Threat to freedom of usage	TF1	I feel some restrictions on my usage of Facebook.	[14]
	TF2	I feel something is bothering me when using Facebook.	
	TF3	I feel something is interfering with my use of Facebook.	
Dissatisfaction	DS1	I am sometimes not pleased with using Facebook.	[11,59]
	DS2	I am sometimes not delighted with my use of Facebook.	
	DS3	I sometimes don't like using Facebook.	
Discontinuous usage intention	DI1	In the future, I will use Facebook far less than I do today.	[6,28,58]
	DI2	If I could, I would halt my use of Facebook.	

References

1. Statista. Most Popular Social Networks Worldwide as of July 2021, Ranked by Number of Active Users. Available online: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ (accessed on 29 October 2021).
2. Facebook, Inc. Form 10-K for the Fiscal Year Ended December 31, 2019. Filed with the Securities and Exchange Commission. 2020. Available online: https://www.sec.gov/Archives/edgar/data/1717556/000149315220010175/form10-k.htm (accessed on 30 October 2021).
3. Ahn, Y.Y.; Han, S.; Kwak, H.; Moon, S.; Jeong, H. Analysis of Topological Characteristics of Huge Online Social Networking Services. In Proceedings of the 16th International Conference on World Wide Web, Banff, Canada, 8–12 May 2007; pp. 835–844. Available online: https://dl.acm.org/doi/abs/10.1145/1242572.1242685 (accessed on 1 November 2021).
4. Maier, C.; Laumer, S.; Eckhardt, A.; Weitzel, T. Giving too much social support: Social overload on social networking sites. *Eur. J. Inf. Syst.* **2015**, *24*, 447–464. [CrossRef]
5. comScore, Inc. Top 50 Multi-Platform Properties (Desktop and Mobile) December 2019. Available online: https://seattleorganicseo.com/comscore-march-2019-top-50-multi-platform-website-properties-desktop-and-mobile/ (accessed on 28 October 2021).
6. Statista Research Department. United States: Social Network Penetration 2017–2026. 2021. Available online: https://www.statista.com/statistics/304737/social-network-penetration-in-usa/ (accessed on 30 October 2021).
7. Chu, S.K. Are You A Victim of Facebook Fatigue? CurrentWare, August 2021. Available online: https://www.currentware.com/are-you-a-victim-of-facebook-fatigue/ (accessed on 29 October 2021).
8. Kelly, H. Survey: Most Americans Take Breaks from Facebook.cnn.com, 6 February, 2013. Available online: https://edition.cnn.com/2013/02/05/tech/social-media/facebook-breaks-pew/index.html (accessed on 30 December 2020).
9. Fu, S.X.; Li, H.X.; Liu, Y.; Pirkkalainen, H.; Salo, M. Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. *Inf. Process. Manag.* **2020**, *57*, 1–15. [CrossRef]
10. Kim, K.; Kim, H.; Bae, Y. Exploring the Concept and Determinants of SNS (Social Network Service) Fatigue. *Inf. Soc.* **2013**, *26*, 102–129.
11. Zhang, S.; Zhao, L.; Lu, Y.; Yang, J. Do you get tired of socializing? An empirical explanation of discontinuous usage behavior in social network services. *Inf. Manag.* **2016**, *53*, 904–914. [CrossRef]

12. Japan News, Investigate Cases Related to SNS Fatigue. What Causes Stress in Modern People? 2021. Available online: https://re-how.net/all/1197340/ (accessed on 29 October 2021).
13. Park, J.Y.; Kim, B.S.; Park, S.H. Understanding the behavioral consequences of upward social comparison on social networking sites: The mediating role of emotions. *Sustainability* **2021**, *13*, 5781. [CrossRef]
14. Lee, G.; Lee, W.J. Psychological reactance to online recommendation services. *Inf. Manag.* **2009**, *46*, 448–452. [CrossRef]
15. Venkatesh, V.; Morris, M.G.; Davis, G.B.; Davis, F.D. User acceptance of information technology: Toward a unified view. *Mis. Quart.* **2003**, *27*, 425–478. [CrossRef]
16. Nawaz, M.A.; Shah, Z.; Nawaz, A.; Asmi, F.; Hassan, Z.; Raza, J. Overload and exhaustion: Classifying SNS discontinuance intentions. *Cogent. Psychol.* **2018**, *5*, 1515584. [CrossRef]
17. Baldas, T. Lawyers Warn: Bosses Who 'Friend' are Begging to Be Sued. 2009. Available online: https://www.law.com/nationallawjournal/almID/1202434882706&Lawyers (accessed on 27 December 2019).
18. Brandtzæg, P.B.; Lüders, M.; Skjetne, J.H. Too many Facebook "friends"? Content sharing and sociability versus the need for privacy in social network sites. *Int. J. Hum.-Comput. Int.* **2010**, *26*, 1006–1030. [CrossRef]
19. MyJobGroup. Social Media in the Workplace. My Job Group, 2010. Available online: http://chapters.cupahr.org/lonestar/files/2010/10/Social_Media_-_Harry_Jones.pdf (accessed on 20 October 2019).
20. Lim, C.Y.; Park, J.H.; Iijima, J.; Ahn, J.C. A Study on Social Overload in SNS: A Perspective of Reactance Theory. Pacific Asia Conference on Information Systems (PACIS), 2017 Proceedings, 100. Available online: http://aisel.aisnet.org/pacis2017 (accessed on 1 November 2021).
21. Richter, A.; Koch, M. Functions of Social Networking Services. In Proceedings of the International Conference on the Design of Cooperative Systems, Carry-le-Rouet, France, 20–23 May 2008; pp. 87–98. Available online: https://dl.eusset.eu/handle/20.500.12015/2802 (accessed on 1 November 2021).
22. Brehm, J.W. *A Theory of Psychological Reactance*; Academic Press: Cambridge, MA, USA, 1966. Available online: https://psycnet.apa.org/record/1967-08061-000 (accessed on 1 November 2021).
23. Brehm, S.S.; Brehm, J.W. *Psychological Reactance: A Theory of Freedom and Control*; Academic Press: New York, NY, USA, 2013.
24. Hu, X.; Wise, K. How playable ads influence consumer attitude: Exploring the mediation effects of perceived control and freedom threat. *J. Res. Interact. Mark.* **2021**, *15*, 295–315. [CrossRef]
25. Bensley, L.S.; Wu, R. The role of psychological reactance in drinking following alcohol prevention messages. *J. Appl. Soc. Psychol.* **1991**, *21*, 1111–1124. [CrossRef]
26. Melnyk, V.; Carrillat, F.A.; Melnyk, V. The influence of social norms on consumer behavior: A meta-analysis. *J. Mark.* **2021**. [CrossRef]
27. Sibanda, P.; Mavenga, E.; Maunganidze, L.; Ncube, F. Employees' reactance and survival strategies in an underperforming Zimbabwean parastatal. *Afr. J. Bus. Manag.* **2014**, *8*, 1043. [CrossRef]
28. Laumer, S.; Maier, C.; Weinert, C. The Negative Side of ICT-Enabled Communication: The Case of Social Interaction Overload in Online Social Networks. In Proceedings of the 21st European Conference on Information Systems, Utrecht, The Netherlands, 6–8 June 2013; pp. 1–13. Available online: http://aisel.aisnet.org/ecis2013_cr/86 (accessed on 1 November 2021).
29. Heilman, M.E.; Toffler, B.L. Reacting to reactance: An interpersonal interpretation of the need for freedom. *J. Exp. Soc. Psychol.* **1976**, *12*, 519–529. [CrossRef]
30. Boyd, D.M.; Ellison, N.B. Social network sites: Definition, history, and scholarship. *J. Comput.-Mediat. Comm.* **2007**, *13*, 210–230. [CrossRef]
31. Kent, J. Social networking sites: Will they survive? *Nebula* **2008**, *5*, 44–50.
32. Piro, C. Chat Reaches 1 Billion Messages Sent Per Day. Facebook Engineering. 2009. Available online: https://engineering.fb.com/2009/06/15/web/chat-reaches-1-billion-messages-sent-per-day/ (accessed on 18 September 2019).
33. Facebook. Facebook Statistics. 2018. Available online: http://newsroom.fb.com/company-info/ (accessed on 24 December 2019).
34. Ellison, N.B.; Steinfield, C.; Lampe, C. The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *J. Comput.-Mediat. Comm.* **2007**, *12*, 1143–1168. [CrossRef]
35. Robinson, B. Facebook: The World's Biggest Waste of Time? Huffpost.com, 2 October, 2014. Available online: https://www.huffpost.com/entry/facebook-the-worlds-bigge_b_4585457 (accessed on 30 December 2020).
36. Dixon, S.R. "Inferiority Complex" Driving Japanese Facebook Users to Quit. Japantoday. 11 November 2013, p. 1. Available online: https://japantoday.com/category/features/lifestyle/inferiority-complex-driving-japanese-facebook-users-to-quit (accessed on 1 November 2021).
37. Kross, E.; Verduyn, P.; Demiralp, E.; Park, J.; Lee, D.S.; Lin, N.; Shablack, H.; Jonides, J.; Ybarra, O. Facebook use predicts declines in subjective well-being in young adults. *PLoS ONE* **2013**, *8*, e69841. [CrossRef]
38. Yamakami, T. Towards Understanding SNS Fatigue: Exploration of Social Experience in the Virtual World. In Proceedings of the 2012 7th International Conference on Computing and Convergence Technology (ICCCT), Seoul, Korea, 3–5 December 2012; pp. 203–207. Available online: https://ieeexplore.ieee.org/document/6530327 (accessed on 1 November 2021).
39. Saegert, S. Crowding: Cognitive overload and behavioral constraint. *Environ. Res.* **1973**, *2*, 254–260.
40. Karr-Wisniewski, P.; Lu, Y. When more is too much: Operationalizing technology overload and exploring its impact on knowledge worker productivity. *Comput. Hum. Behav.* **2010**, *26*, 1061–1072. [CrossRef]

41. Yang, C.C.; Chen, H.; Hong, K. Visualization of large category map for internet browsing. *Decis. Support Syst.* **2003**, *35*, 89–102. [CrossRef]
42. Chen, Y.C.; Shang, R.A.; Kao, C.Y. The effects of information overload on consumers' subjective state towards buying decision in the internet shopping environment. *Electron. Commer. Res. Appl.* **2009**, *8*, 48–58. [CrossRef]
43. Chen, W.; Lee, K.H. Sharing, liking, commenting, and distressed? The pathway between Facebook interaction and psychological distress. *Cyberpsych. Behav. Soc. Netw.* **2013**, *16*, 728–734. [CrossRef]
44. Lee, A.R.; Son, S.M.; Kim, K.K. Information and communication technology overload and social networking service fatigue: A stress perspective. *Comput. Hum. Behav.* **2016**, *55*, 51–61. [CrossRef]
45. McCarthy, D.; Saegert, S. Residential density, social overload, and social withdrawal. *Hum. Ecol.* **1978**, *6*, 253–272. [CrossRef]
46. Ljungberg, F.; Sorensen, C. Are you "Pulling the Plug" or "Pushing up the Daisies"? [Communication Patterns]. In Proceedings of the Thirty-First Hawaii International Conference, Kohala Coast, HI, USA, 9 January 1998; pp. 370–379. Available online: https://ieeexplore.ieee.org/document/653121 (accessed on 1 November 2021).
47. Ishikawa, H. A Sense of Emptying Out an Awkward Friend's Seat. Use of 'Repellent Lists' in Facebook! 2015. Available online: http://denhon-charisma.com/dc/repellent-list/ (accessed on 21 October 2019).
48. Hargittai, E. Whose space? Differences among users and non-users of social network sites. *J. Comput.-Mediat. Commun.* **2007**, *13*, 276–297. [CrossRef]
49. Rodewig, C. Social Media Misuse Punishable under UCMJ. Uniform Code of Military Justice. 2012. Available online: https://www.army.mil/article/73367/social_media_misuse_punishable_under_ucmj, (accessed on 30 December 2020).
50. Broughton, A.; Higgins, T.; Hicks, B.; Cox, A. *Workplaces and Social Networking-the Implications for Employment Relations*; Institute for Employment Studies: Brighton, UK, 2009; p. 22.
51. Boogaard, K. 7 Places You Don't Want to Run into Your Boss (Plus: What to Do When the Worst Happens). 2015. Available online: https://www.themuse.com/advice/7-places-you-dont-want-to-run-into-your-boss-plus-what-to-do-when-the-worst-happens (accessed on 20 December 2019).
52. Considine, J. The Origin of the Phrases Persona Grata and Persona Non Grata. *Neophilologus* **2007**, *91*, 525–537. [CrossRef]
53. Brass, D.J.; Butterfield, K.D.; Skaggs, B.C. Relationships and unethical behavior: A social network perspective. *Acad. Manag. Rev.* **1998**, *23*, 14–31. [CrossRef]
54. Fitzsimons, G.J.; Lehmann, D.R. Reactance to recommendations: When unsolicited advice yields contrary responses. *Mark. Sci.* **2004**, *23*, 82–94. [CrossRef]
55. Chang, C.C. Choice, perceived control, and customer satisfaction: The psychology of online service recovery. *Cyberpsychol. Behav.* **2008**, *11*, 321–328. [CrossRef]
56. Kivetz, R. Promotion reactance: The role of effort-reward congruity. *J. Consum. Res.* **2005**, *31*, 725–736. [CrossRef]
57. Kim, H.W.; Kankanhalli, A. Investigating user resistance to information systems implementation: A status quo bias perspective. *MIS Quart.* **2009**, *39*, 567–582. [CrossRef]
58. Ravindran, T.; Kuan, Y.; Chua, A.; Hoe Lian, D.G. Antecedents and effects of social network fatigue. *J. Assoc. Inf. Sci. Tech.* **2014**, *65*, 2306–2320. [CrossRef]
59. Chang, I.; Liu, C.C.; Chen, K. The push, pull and mooring effects in virtual migration for social networking sites. *Inform. Syst. J.* **2014**, *24*, 323–346. [CrossRef]
60. Faul, F.; Erdfelder, E.; Buchner, A.; Lang, A.G. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behav. Res. Methods* **2009**, *241*, 1149–1160. [CrossRef]
61. Hair, J.F., Jr.; Hult, G.T.M.; Ringle, C.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*; Sage Publications: Thousand Oaks, CA, USA, 2016; pp. 133–134.
62. Chin, W.W.; Marcolin, B.L.; Newsted, P.R. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic mail emotion/adoption study. *Inform. Syst. Res.* **2003**, *214*, 189–217. [CrossRef]
63. Cepeda-Carri´on, G.; Henseler, J.; Ringle, C.M.; Rold´an, J.L. Prediction-oriented modeling in business research by means of PLS path modeling. *J. Bus. Res.* **2016**, *69*, 4545–4551. [CrossRef]
64. Cepeda-Carri´on, G.; Nitzl, C.; Rold´an, J.L. Mediation analyses in partial least squares structural equation modeling: Guidelines and empirical examples. In *Partial Least Squares Path Modeling*; Latan, H., Noonan, R., Eds.; Springer: Cham, Switzerland, 2017; pp. 173–195. Available online: https://link.springer.com/chapter/10.1007/978-3-319-64069-3_8 (accessed on 1 November 2021).
65. Shiva, A.; Narula, S.; Shahi, S.K. What drives retail investors' investment decisions? Evidence from no mobile phone phobia (nomophobia) and investor fear of missing out (I–FOMO). *J. Content Community Commun.* **2020**, *10*, 2–20.
66. Ringle, C.M.; Wende, S.; Becker, J.M. Smartpls 3. Boenningstedt: Smartpls Gmbh. Technical Report 2015. Available online: https://www.researchgate.net/publication/270883448_SmartPLS_3 (accessed on 20 September 2019).
67. Hair, J.F.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 3rd ed.; Sage: Thousand Oaks, CA, USA, 2022; (Forthcoming).
68. Anderson, J.C.; Gerbing, D.W. Assumptions and comparative strengths of the two-step approach comment on Fornell and Yi. *Sociol. Method Res.* **1992**, *20*, 321–333. [CrossRef]
69. Bagozzi, R.P.; Yi, Y. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [CrossRef]

70. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *311*, 2–24. [CrossRef]
71. Saari, U.A.; Damberg, S.; Frömbling, L.; Ringle, C.M. Sustainable consumption behavior of Europeans: The influence of environmental knowledge and risk perception on environmental concern and behavioral intention. *Ecol. Econ.* **2021**, *189*, 107155. [CrossRef]
72. Kock, N. Common method bias in PLS-SEM: A full collinearity assessment approach. *Int. J. e-Collab.* **2015**, *11*, 1–10. [CrossRef]
73. Hofstede, G. Motivation, leadership, and organization: Do American theories apply abroad? *Organ. Dyn.* **1980**, *9*, 42–63. [CrossRef]
74. Hofstede, G. *Culture's Consequences*, 2nd ed.; Sage: Thousand Oaks, CA, USA, 2001; pp. 79–414.
75. House, R.J.; Hanges, P.J.; Javidan, M.; Dorfman, P.W.; Gupta, V. *Culture, Leadership, and Organizations: The Globe Study of 62 Societies*; Sage: Thousand Oaks, CA, USA, 2004; pp. 235–720.