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Push and mooring factors to explain the discontinuance of social networks

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Abstract

Facebook has emerged as the most popular online social network. However, recently, there has been a decline in usage time, and many users have abandoned it. The literature suggests that the exhaustion produced by users' excessive demands from their social network pushes them to discontinue their usage. On the other hand, the literature recognizes that an individual's social capital can keep them hooked on the social network to take advantage of the benefits of that capital. However, this last aspect has not been conceptually incorporated or empirically evaluated in the explanation of discontinuance. On that basis, this study aims to introduce and assess empirically the theory of social capital as a complementary approach to explain this phenomenon. The data -369 Facebook users- was analyzed using the partial least squares (PLS) technique. The results support the empirical model. This study integrates the Stressor-Stress-Outcome framework with two elements of Social Capital Theory to provide a complete perspective on the discontinuance phenomenon.

Keywords: discontinuance, SNS, social capital,

Introduction

While social networking sites (SNSs) have gained tremendous popularity in recent decades, there are also stories of SNSs that failed to endure over time, such as MySpace (Luqman et al., 2017). In the context of changing customer needs and expectations and high competition, SNSs face the challenge of discontinuance. Facebook is undoubtedly the most popular SNS, with more than 2.9 billion active users per month by January 2023 (DataReportal et al., 2023). However, its annual percentage increase in active users per month has declined. For example, while a 4% growth was observed in 2021, by 2022, this was reduced to 2% (Meta, 2022, 2023). Therefore, understanding the reason behind usage discontinuance is vital for those who want to endure and not disappear like their predecessors (Zhang et al., 2016).

The literature has explained chiefly SNS discontinuance under the Stressor-Stress-Outcome (SSO) perspective. Along these lines, authors have mainly focused on different stressors (i.e., overload or overuse) that generate strain (i.e., exhaustion, fatigue), thus causing discontinuance (Luqman et al., 2017; Maier, Laumer, Weinert, et al., 2015; Zhang et al., 2016). While prior research contributes to our understanding of the phenomenon, they focus on those forces that could induce quitting the platform. However, since their inception, SNSs have facilitated socialization and connectivity among their users, leading to their proliferation and continued use (Houghton et al., 2020). This network of digital relationships and its derived benefits are possibly a barrier to its abandonment (Tseng et al., 2015). Social Capital Theory captures the value individuals place on their social network, where they find relevant resources and benefits (Yoo &

Jeong, 2017). Specifically, several studies on this perspective find that trust and strength of ties - its core constructs - influence usage continuance (Lin & Lu, 2011a; Sun et al., 2014). Therefore, the present study aims to develop and empirically evaluate a model that explains Facebook discontinuance under the SSO framework, complemented by contributions from Social Capital Theory.

Research model and hypothesis

Figure 1 summarizes the research model developed in the following paragraphs.

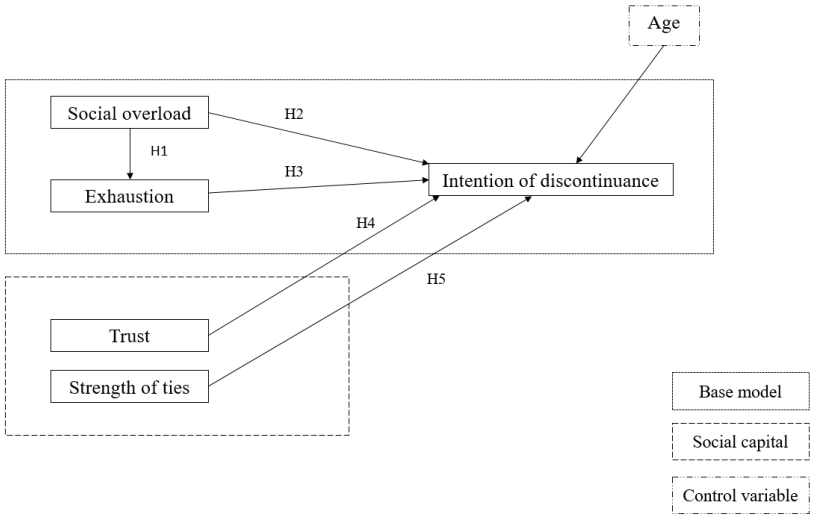

Figure 1: Research Model

Stressor-Stress-Outcome and discontinuance

Social overload is defined as the perception of saturation in an online space reflected, for example, in the perception that social demands are too excessive to process (Maier, Laumer, et al., 2015a; Zhang et al., 2016). Exhaustion from an SNS is understood as the feeling of being tired due to activities related to SNS use (Luqman et al., 2017; Maier, Laumer, et al., 2015a), where social demands exceed the individual's capacity (Zhang et al., 2019). Previous literature posits that exhaustion and social overload could lead to SNS discontinuance. Firstly, this behavior helps the individual reduce the exhaustion caused by the social overload the individual receives (Maier, Laumer, et al., 2015b; Zhang et al., 2016). Secondly, social overload would also lead to discontinuance to avoid the high social demand generated in the SNS (Zhang et al., 2016). Empirical results support these relationships (Fu et al., 2020; Luqman et al., 2017; Maier et al., 2012; Zhang et al., 2016). Therefore,

H1: *Social overload affects exhaustion positively.*
H2: *Social overload positively affects discontinuance intention.*
H3: *Exhaustion positively impacts discontinuance intention.*

Social capital and discontinuance

Social capital arises from social interactions (Yoo & Jeong, 2017) and is defined as the sum of existing and potential resources embedded in, available to, and derived from an individual's social network (Nahapiet &

Ghoshal, 1998). These tangible and intangible resources include trust, norms, and ties (Putnam et al., 1993). These aspects comprise the three dimensions of social capital: relational, cognitive, and structural, respectively (He et al., 2009; Nahapiet & Ghoshal, 1998; Putnam et al., 1993). According to Lin and Lu (2011a), SNSs have grown significantly because they can digitally facilitate human interactions. Moreover, this ability provides a favorable environment for social capital to be developed and maintained (Sun et al., 2014). This study focuses on two dimensions: relational, reflected in trust, and structural dimension, based on the strength of ties.

Trust in the context of SNSs is the expectation that the social network will act predictably, fulfilling its obligations and acting appropriately (Kourouthanassis et al., 2015). The process of informing each other starts with open and spontaneous user interactions. This continuous interaction fosters trust and strengthens friendships, leading to satisfying experiences (Bouman et al., 2007).

Furthermore, when users' experience with the technology matches their expectations of trust, they may express high satisfaction and intention of continuance. In contrast, unmet expectations may have a negative impact, leading to technology abandonment (Lankton et al., 2014). For example, Facebook users are more likely to disclose and provide the platform with personal information when they trust this network (Chang & Heo, 2014). High levels of trust in Facebook have been shown to impact intentions to continue on the platform positively (Malik et al., 2016). Therefore:

H4: *Trust negatively impacts discontinuance intention.*

The strength of ties is the representation of the frequency and degree of intimacy in interactions between users and other social network members (Wang & Chen, 2012). These ties fall within a range of weak ties at one extreme and strong ties at the other (Sun et al., 2014). Weak ties are characterized by distant and infrequent relationships, whereas strong ties reflect closeness between the user and other social network members (Levin & Cross, 2004; Sun et al., 2014). Maintaining strong ties requires communication and interaction between members on a more frequent basis, which implies higher SNS usage (Sun et al., 2014).

Online social relationships empower individuals by connecting people in a way that could not traditionally (Zhang et al., 2017). This is because SNSs provide users different communication tools to interact better and communicate with others, thus maintaining and expanding their interpersonal social networks (Lin & Lu, 2011a). Several authors point out that the primary motive for using platforms such as Facebook is that they are means to preserve and strengthen social ties (Boyd & Ellison, 2007; Lee et al., 2016; Lin & Lu, 2011b; Sinclair & Grieve, 2017). Users develop strategic routines and behaviors such as content sharing or friend feedback that strengthen their relationships (Gong et al., 2015; McEwan et al., 2014). Therefore, one would expect that:

H5: *The strength of ties negatively influences the intention to discontinue.*

Methodology

The questionnaire was used as the data collection technique, and the structural equation modeling (partial least squares) technique was used for the analysis. The questionnaire was constructed based on previous scales adapted to the study context. Social overload and exhaustion were assessed using measures from Maier, Laumer, Weinert, et al. (2015) and Maier, Laumer, et al. (2015a). Trust was measured using the questions by Chang and Heo (2014). The strength of ties was measured using the scale by Ma et al. (2014) and Gong et al. (2015). The discontinuance intention was assessed with a scale adapted from Bhattacherjee (2001) and Zhang et al. (2016). Seven-point Likert scales were used to answer the items.

The sample was English-speaking adult Facebook users. The platform for collecting the data was Amazon Mechanical Turk. This platform is effective for data collection, and previous studies have reported that samples obtained by this site produce similar results to those based on students or consumer panels (Aguinis et al., 2021; Steelman et al., 2014). After discarding incomplete questionnaires, a total of 369 valid questionnaires were obtained.

Results

Table 2 shows the demographic information of the participants. Most of them are in the middle age range (26 to 45 years old) and use Facebook for 10-60 minutes a day.

Table 1: Sample Characteristics

Respondents		Frequency	Percentage
Age	**21 - 25**	20	5.4
	26 - 30	60	16.3
	31 - 35	83	22.5
	36 - 40	58	15.7
	41 - 45	45	12.2
	46 - 50	33	8.9
	51 - 55	18	4.9
	56 - 60	23	6.2
	More than 60 years old	29	7.9
Gender	**Female**	178	48.2
	Male	191	51.8
Number of friends on Facebook	**50 or less**	53	14.4
	51-100	55	14.9
	101-150	45	12.2
	151-200	53	14.4
	201-300	44	11.9
	301-400	39	10.6
	401-600	34	9.2
	More than 600	46	12.5
Usage time in a day	**Less than 10min**	79	21.4
	10-30min	134	36.3
	31-60min	105	28.5
	2 hours	29	7.9
	3 hours	13	3.5
	4 hours	2	.5
	More than 4 hours	7	1.9
Time of membership	**1 year or less**	1	.3
	2 years	8	2.2
	3 years	11	3.0
	4 years	9	2.4
	5 years	17	4.6
	6 years or more	323	87.5

Table 2: Composite Reliability (Cr), Cronbach's α, Average Variance Extracted (Ave), Range Of Factor Loading

Variable	CR	Cronbach's α	AVE	Range of factor loading
Social overload (SO)	0.896	0.85	0.588	0.739-0.812
Exhaustion (EXH)	0.976	0.968	0.879	0.899-0.977
Trust (TRU)	0.955	0.938	0.842	0.895-0.931
Ties (TIE)	0.924	0.877	0.801	0.881-0.911
Intention of discontinuance (INTD)	0.951	0.931	0.828	0.824-0.936

Table 3: Correlations and Square Root of AVE

Variable	SO	EXH	TIE	TRU	INTD
SO	**0.827**				
EXH	0.452	**0.955**			
TIE	0.236	-0.047	**0.895**		
TRU	0.245	-0.112	0.355	**0.918**	
INTD	0.011	0.344	-0.316	-0.47365	**0.910**

Note (*): Numbers on the diagonal are the square root of AVE for each construct, and the rest are the correlations between constructs. INTD: Intention of discontinuance, SO: Social overload, EXH: Exhaustion, TIE: Ties, TRU: Trust

The measurement model was assessed by reliability, convergent validity, and discriminant validity according to the recommended values (Götz et al., 2010; Hair et al., 2011). To assess item reliability, we observed that all item loadings toward their respective constructs are greater than the suggested value of 0.7. The composite reliability (CR) scores for internal consistency exceeded the recommended value of 0.7 for all variables. Likewise, Cronbach's alpha values were greater than 0.7. In the case of convergent validity, the mean-variance extracted (AVE) values were greater than the recommended value of 0.5 (Table III). To determine the discriminant validity, Table IV shows fair values since, in all cases, the square root of the AVE is greater than the correlations between variables (Chin, 1998).

Regarding the structural model, Figure 2 shows the standardized coefficients (β), the significance level of the relationships, and the explained variance of the latent variables. The connections are significant at the 0.01 and 0.05 levels. The explained variance of exhaustion and intention of discontinuance is 21% and 37%, respectively.

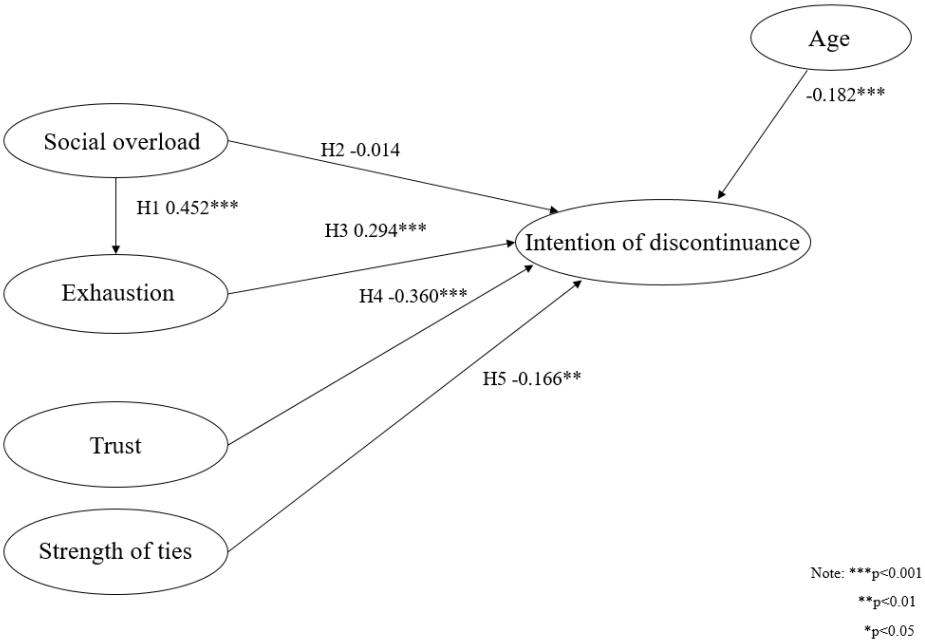

Figure 2: Research Model Results

Discussion

The objective of the present study was to develop and empirically evaluate a model that explains the intention to discontinue the usage of Facebook. In addition to using a well-studied perspective: Stressor-Stress-Outcome, we introduced the Social Capital Theory through the concepts of trust and ties, emphasizing the user's relationships with his network and the platform. In this sense, the main finding of this research is that the model has empirical support to explain discontinuance according to the Social Capital Theory.

As expected and supporting previous literature, social overload (H1) is a predictor of the feeling of exhaustion, and exhaustion (H3) has a direct and positive influence on the intention of discontinuance. However, as demonstrated in previous studies, social overload (H1) does not seem to directly predict such intention (Maier, Laumer, et al., 2015a). This may be because exhaustion plays a complete mediating role between these two variables, eliminating the direct effect that social overload may have on the intention of discontinuance (Cheung & Lau, 2008).

Regarding Social Capital Theory, no empirical evaluations have been found in the discontinuance field; however, our results are consistent with what the theory proposes. Trust (H4) and strength of ties (H5) have a negative effect on Facebook discontinuance. On the one hand, trust in an SNS is reflected in users' met expectations through the proper functioning of the system (platform) (Kourouthanassis et al., 2015; Lankton et al., 2014); thus, as experiences match user expectations, users would tend to stay in their SNS. On the other hand, the SNS allows users to continue strengthening their interpersonal relationships through their communication tools (Lin & Lu, 2011a). Therefore, it is understood that variables such as trust and strength of ties within the social capital influence decreasing the intention of discontinuance of the SNS.

This study contributes to the literature by integrating the SSO perspective with Social Capital Theory. Previous research highlights exhaustion as the central factor (Fu et al., 2020; Maier et al., 2012); our study

shows that in addition to this factor, although important, other factors are also influential, such as trust and strength of ties. Also, the study enriched the understanding of SNS discontinuance beyond the traditional perspectives that mostly focus on negative factors. The positive aspects, such as social capital gained through the platform, were highlighted as crucial in explaining user behavior. Finally, the research model developed can be employed for studying the discontinuance phenomena in other social networking platforms. Thus, it can assist in identifying specific strategies to mitigate user abandonment in different contexts.

Practical implications can also be mentioned. Social network providers should design functions that effectively strengthen trust and relationships in the network. This would help the SNS to be maintained over time as a necessary platform that contributes to the social capital of each individual. Also, providers can remind its users of the invaluable social capital they have cultivated and warn of its loss when deactivating an account. Also, the findings could influence policy making in the digital communication realm, aiding in the creation of healthier online spaces. It could guide discussions around the implications of social overload and the value of fostering trust and strong social ties on these platforms.

Regarding limitations, the data collected responds to a North American context with a predominantly adult sample. There might be effects due to age. For example, usage patterns may vary between adolescent and adult users since the maintenance of interpersonal interactions is more intense in adolescents (Espinoza & Juvonen, 2011). Future studies could explore our model in different age and cultural groups.

In conclusion, the intention to discontinue Facebook is encouraged by the feeling of exhaustion produced by excessive interactions on social networks. However, the benefits of sustaining social capital within the network may be forces that prevent SNS abandonment.

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