

The effect of Facebook users' satisfaction and trust on stickiness: The role of perceived values**Mahmoud Maqableh^{a*}, Mohammad Abuhashesh^b, Laila Dahabiyeh^a, Mohammad K. Al Nawayseh^a and Ra'ed Masa'deh^a**^a*Department of Management Information Systems, School of Business, The University of Jordan, Amman, Jordan*^b*E-Marketing and Social Media Department, Princess Sumaya University for Technology (PSUT), Amman, Jordan***CHRONICLE****ABSTRACT***Article history:*

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This study aims to explore the impact of satisfaction and trust on stickiness to Facebook. Also, it proposed that hedonic value, emotional value, and social value act as critical antecedents to Facebook stickiness. A quantitative methodology is used to examine the research questions. The research model was tested with data from 511 university students and five academic professors using an online survey. The proposed hypotheses were tested using regression analysis. Furthermore, Data were collected from targeted participants with Facebook experience, among the 511 participants, 353 were females (69.1%), and 158 were males (30.9%). The SEM analysis showed that satisfaction positively and significantly did affect stickiness, where trust did not. Also, results showed while hedonic value affected satisfaction, it did not impact trust. Hence, the results confirmed that hedonic value served as important value concerns for Facebook users. Nevertheless, the study found that both emotional value and social value impacted satisfaction and trust. The current research has enriched the existing study in the fields of customers' satisfaction and trust on stickiness to Facebook. Moreover, this research is one of the earliest studies that proved that customer value creation serves as an important driving factor for customer satisfaction to generate stickiness to SNS. This study's results help policymakers and designers of SNS to understand what value factors affect users' stickiness to Facebook. Their marketing plans and decisions can be accordingly adjusted. This study suggests that marketers need to pay full attention to social value by adding more interactive features such as comments, likes, and shares in order to build social image and increase one's social influence.

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1. Introduction

The rise of social networking sites is fueled by web 2.0 technologies, allowing users to be both consumers and creators of the online content. Facebook is considered as the world's largest social networking site with more than 2 billion daily users worldwide. Facebook allows users to create content such as text and video, share information and make connections. Despite its positive aspects, Facebook has several negative implications such as information and social overload, it may also trigger negative emotions which may lead to decrease in life satisfaction. Recent statistics find that the usage of SNS in general has declined and users start switching from one platform to another (Lin et al., 2014). Thus, SNSs should work hard to attract users to stay longer and to increase the switching cost by enhancing usefulness and usability of their services (Shao et al., 2020). Moreover, since the Cambridge Analytica scandal, Facebook has been facing continuous criticism for its improper privacy policies from its users, legislators and the society as a whole. This matter has garnered considerable attention because the content on Facebook is co-constructed by the user and others (Jia & Xu, 2015). Accordingly, any privacy risk on an individual will spill over to other users in his/her circle. Ramifications from this scandal were felt as there was a 66% drop in

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users' trust in Facebook (Weisbaum, 2019), and a 20% decrease in the number of actions on Facebook (e.g. like, posts, share) (Alex, 2019). Facebook users realized that the giant social media platform business model relies mainly on collecting and selling their information. Recently, Facebook's new child WhatsApp announced that it will change its privacy policy, allowing Facebook to collect customer personal data. As a result, millions of users left WhatsApp and started looking for more secure platforms like telegram and signal (Duffy, n.d.).

Following this scandal, Facebook has started revising its privacy policies and taking stringent rules to regain users' trust. However, does trust really influence users' intention to keep using Facebook? If not, what Facebook should consider to make users more satisfied with its services. Moreover, in the face of continuous privacy concerns, what are the other motivational factors that affect users' stickiness to Facebook? Answering these questions and understanding the factors contributing to Facebook stickiness is critical for the long-term sustainability of social networking sites (SNS). Stickiness refers to the website's ability to attract and retain users, this includes users' frequency and duration of visits (Authors, 2016; Shao et al., 2020). Stickiness to Facebook has little attention in academic literature compared to other related concepts, it goes beyond usage intention or continuous intention of Facebook (Hsu & Lin, 2020; Shao et al., 2020). For SNSs, stickiness covers all the aspects of users' loyalty, commitment, engagement and usability for that SNS (Gong et al., 2018). Website stickiness depends on users perceived values, online trust, satisfaction and website quality (Gong et al., 2018; Thomas, 2020; Hsu & Lin, 2016). Accordingly, this research aims to investigate the factors that influence users' stickiness to Facebook through the impact of satisfaction and trust. Building on the IS success model (DeLone & McLean, 2003) and the value-based model (Yang & Lin, 2014), this research proposes an integrated model to explain the factors that affect users' stickiness to Facebook. This paper is organized as follows. Next, we draw on relevant literature to develop our research model and hypotheses. We then describe the research method and provide the results of the empirical tests. Finally, we discuss our findings and offer valuable theoretical and practical implications.

2. Theoretical Framework and Hypotheses Development

Previous literature on stickiness has mainly adopted the value-based model to explain users' continuous use of SNS. This stream of research focuses on the multidimensional nature of values and examines how different types of values (e.g. information, social, hedonic, emotional) directly influence users' stickiness to SNS (Hong et al., 2017; Yang et al., 2018; Ibrahim & Borhan, 2020; Cocosila & Igonor, 2014). However, another stream of research provides evidence of the role of relationship quality constructs from the IS success model (trust and satisfaction) on stickiness (Wu et al., 2014; Amoroso & Chen, 2017; Tsai & Hung, 2019; Ye et al., 2019; Lee et al., 2017). In this paper, we integrate these two views and argue that stickiness is a matter of users' trust in and satisfaction towards Facebook and that social, hedonic and emotional values affect the levels of trust and satisfaction.

2.1. Satisfaction

The literature on SNS stickiness and continuous use emphasizes the important role of satisfaction and trust on retaining customers (Wu et al., 2014; Ye et al., 2019). Satisfaction is the comparison result between expected performance and actual performance (Odel, 2001). Before using SNS, users form an expectation of the level of services in SNS. This expectation acts as a baseline for evaluating the platform. If upon using the SNS users' expectation was confirmed, users are perceived to be satisfied with the SNS. Businesses struggle to improve their products and services in order to better satisfy their customers' demands (Wu et al., 2014). Researchers found that if users have positive experience with SNS they are more likely to stick to these sites and keep using their services. Moreover, Bhattacharjee (2001) showed that dissatisfaction (i.e. not meeting expectations) causes users to discontinue IS use even if they perceive the system to be useful. In social networks context it has been confirmed that satisfaction positively affects continuous intention and stickiness. Accordingly, satisfaction is critical for the stickiness of SNS. We suggest that satisfaction has a positive impact on stickiness to SNS.

H₁. *Satisfaction has a positive impact on stickiness to SNS.*

2.2. Trust

The lack of physical presence in SNS along with the absence of formal governance rules and the spread of privacy scandals make trust in SNS indispensable. We define trust as the belief that SNS will perform actions that are beneficial to its users or at least do not cause them any harm. Trust role lies in minimizing opportunistic behavior (Tsai & Hung, 2019) and forming an expectation that SNS will deliver its services as promised (Wu et al., 2014). Trust is a complex concept that comprises several constructs (Lita & Meuthia, 2018; Herzallah & Mukhtar, 2016). Lankton and McKnight (2011) divide trust in SNS into trust beliefs related to interpersonal characteristics such as integrity, benevolence, and caring about others welfare and refraining from being selfish, and trust beliefs related to technology characteristics such as functionality and helpfulness (Lankton & McKnight, 2011). While the former type relates more to the affection dimension of trust (Tsai & Hung, 2019), the latter perceive trust to be formed through rational calculations of costs and benefits (Kim et al., 2008); once the benefits of engaging in a SNS outweigh the benefits, then users confer trust to that site. The relationship between trust and continuous

use of SNS has been examined in the literature. When customers trust a website, they are more likely to keep using its services. In a similar vein, researchers found that uncertainty and lack of trust are one of the key factors for quitting SNS (Chang et al., 2017; Xing Zhang et al., 2018). Trust influences stickiness to SNS (Sun et al., 2014), users usually return to websites that they trust will satisfy their needs (Ye et al., 2019). We thus argue that trust has a positive impact on stickiness.

H₂. Trust has a positive impact on stickiness to SNS.

Trust's multidimensional nature indicates that it comprises a variety of values. The values one can derive from SNS are important sources of trust (Grabner-Kräuter & Bitter, 2014). Value is known as "the trade-off between total benefits received and total sacrifices" (Kim et al., 2008). When determining the value of SNS users assess the values received from using the platform by comparing what they have to offer and what they receive in return (Amoroso & Chen, 2017). Extant literature has approached value differently. For instance, the literature on economics has emphasized the economic (monetary) and information values, while the field of social psychology focused more on social and emotional values. Acknowledging the complexity and the multi-dimensionality of values is critical since users consider a variety of factors when making decisions (Kim et al., 2008). In subsequent sections, we focus on the impact of hedonic, social, and emotional values and explain their relationship with trust and satisfaction.

2.3. Perceived Values

Perceived value in business research has been defined as the overall cost and benefit assessment of a product or service (Bagozzi & Yi, 1988). The dimensions of perceived value were categorized as extrinsic (utilitarian, hedonic) and intrinsic (economic, social) values (Holbrook et al., 2006). According to the value-based model and motivation theory (Hsu & Lin, 2020; Lin et al., 2011), this research classifies perceived values in the social networks' context as utilitarian, social and emotional values.

2.3.1. Hedonic value

A primary reason why users remain active in SNS is the high level of enjoyment they receive from these sites (Ha & Pan, 2018). Hedonic value is related to pleasurable experiences and a sense of happiness and fulfillment following the engagement in SNS, regardless of the functionalities and utilities offered. Hedonic value has been found to be a critical value users look for in SNS (Cocosila & Igonor, 2015) and can be more important than the social value (Sun et al., 2014). Hedonic value can be manifested in enjoyable content such as games, where users join Facebook and remain attracted to it because of the opportunity to participate in multiplayer online games supported by the platform (Yang & Lin, 2014). Hedonic value is not limited to games but also extends them to involve embedding playful and fun features in social commerce. Wongkitrungrueng and Assarut (2018) examined Facebook Live and its effect on hedonic value (Wongkitrungrueng & Assarut, 2020). They found that sellers' use of live streaming for products improved customers' shopping experience by making it more enjoyable and that hedonic value has a positive effect on customers' trust. Other researchers have found that the more enjoyable experiences SNS offer, the higher the user satisfaction (Gan & Wang, 2017) (C. L. Hsu & Lin, 2015) (Sweeney & Soutar, 2001).

Therefore, we argue that hedonic value has a positive impact on trust and satisfaction.

H₃. *Hedonic value has a positive impact on trust.*

H₄. *Hedonic value has a positive impact on satisfaction.*

2.3.2. Social value

SNS are primarily seen as platforms for social communication where users participate to gain a variety of social benefits such as improving one's self-esteem and social status (Cocosila & Igonor, 2015; Yoo et al., 2014; Noordin et al., 2018). Interactive features such as comments, like, and share help in building social image and increasing one's social influence (Yang et al., 2018). The critical mass of SNS, especially Facebook, make them attractive for users looking for social engagement and bonding opportunities with society. This drives users to associate SNS with some of the trust attributes such as cooperativeness (Grabner-Kräuter & Bitter, 2014). Another relevant and critical attribute of trust in SNS is group identification (Grabner-Kräuter & Bitter, 2014). By communicating with other users who share similar beliefs, knowledge, interests and values, users identify themselves with SNS where the latter help them become part of a larger collective identity (Grabner-Kräuter & Bitter, 2014; Tsai & Hung, 2019). Such social interactions not only enhance customers' trust (Ye et al., 2019) but also contribute to developing satisfaction towards SNS (Yu et al., 2013; Gan & Wang, 2017). Therefore, we argue that social value has a positive impact on trust and satisfaction.

H₅. *Social value has a positive impact on trust.*

H₆. *Social value has a positive impact on satisfaction.*

2.3.3 Emotional value

Emotional value is a form of intrinsic benefit users receive from SNS. People join SNS to gain emotional support from friends and people in their social circle regardless of the effectiveness or the efficiency of the outcomes (Lee et al., 2014). This support creates a safe environment for sharing a personal feeling with others (Sun et al., 2014). Emotional attachments conferred in SNS influence trust judgements. A study by Tsai and Hung (2018) revealed that the absence of psychological support and reassurances diminished users' trust in SNS (Tsai & Hung, 2019). Users perceive SNS as sources of empathy and caring feelings, and they experience satisfaction when such emotional needs are fulfilled through SNS. Accordingly, we suggest that emotional value has a positive impact on trust and satisfaction.

H₇. *Emotional value has a positive impact on trust.*

H₈. *Emotional value has a positive impact on satisfaction.*

3. Research Methodology

This section presents the research methodology. It consists of the research model of the study's independent, mediating, and dependent variables, research hypotheses, as well as data collection tool and research population and sample.

3.1 Research Model

Fig. 1 shows the study model that demonstrates the independent variable, the mediating variables, the dependent variables, and the proposed association between them.

3.2 Measurement development

Table 1 shows that six variables (hedonic value, emotional value, social value, and trust, satisfaction, and stickiness) were measured in this research. These variables were adopted from previously validated studies where standard measures were used (Yang & Lin, 2014; Xin Zhang et al., 2020; Zhang et al., 2017; Wang et al., 2020). A 5-point Likert scale ranging from "1 = strongly disagree" to "5 = strongly agree" is used to measure the questionnaire items for the six variables. The preliminary instrument was pre-tested in eight semi-structured interviews with Facebook users and five academic professors from the Department of Management Information Systems (MIS) at the University of Jordan to test its completeness, relevance, clarity, and length. This process led to numerous minor amendments to the survey questions.

Table 1

Constructs and measurement items

Construct	Measurement Items
Hedonic Value (HV)	HV1: Compared to other things I could have done, the time spent online at the Facebook site was truly enjoyable. HV2: I enjoyed being immersed in exciting new information on Facebook sites. HV3: During the navigating Facebook processes, I felt the excitement of the hunt.
Emotional Value (EV)	EV1: I receive adequate emotional concern from people using Facebook. EV2: I feel relieved by getting sympathy from online people using Facebook. EV3: I have been encouraged by friends on Facebook.
Social Value (SV)	SV1: Facebook use helps me feel accepted. SV2: Facebook use improves the way I am perceived. SV3: The fact I use Facebook makes a good impression on other people. SV4: Facebook use gives me social approval.
Trust (TR)	TR1: People on Facebook are trustworthy. TR2: I trust Facebook information to be true. TR3: I usually trust Facebook unless it gives me a reason not to trust it. TR4: Overall, Facebook is trustworthy.
Satisfaction (SA)	SA1: I was very content with Facebook. SA2: I was very pleased with Facebook. SA3: I felt delighted with Facebook. SA4: Overall, I was satisfied with Facebook.
Stickiness (ST)	ST1: If could, I would visit the Facebook website often as I can. ST2: I will recommend my friends and family members to use Facebook. ST3: I intend to link to Facebook every time I am online in the future. ST4: I intend to stay a longer time on Facebook rather than any alternative.

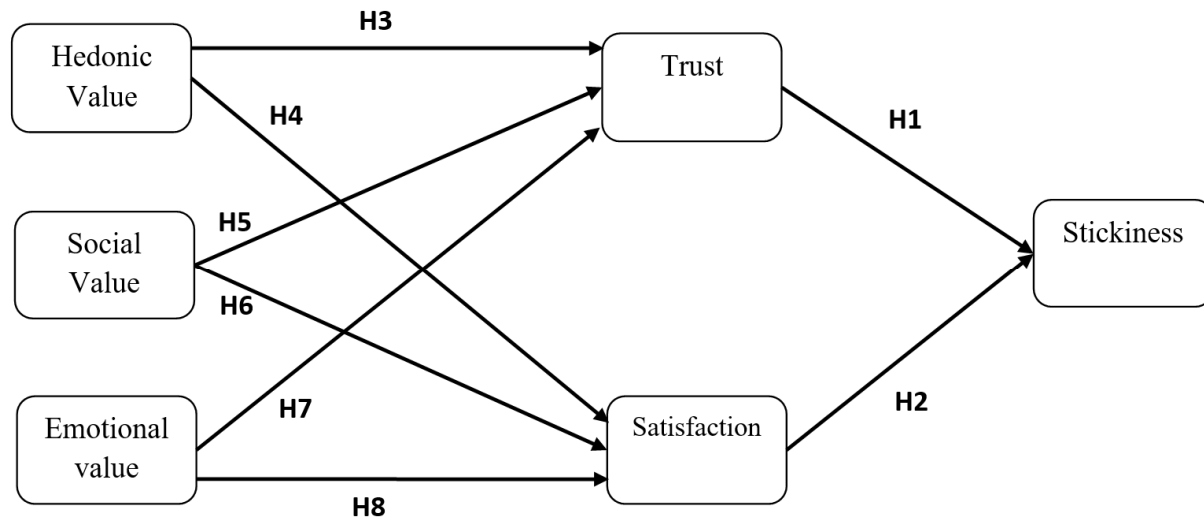


Fig. 1. Research model

3.3 Sample and data collection

Data were collected from targeted participants with Facebook experience using an online survey. According to the University of Jordan registration unit, the study population consisted of 4,000 bachelor students from the School of Business. Participants were selected opportunistically from the school. However, what constitutes an adequate sample size for regression analysis is uncertain among researchers. Some researchers (O'Rourke & Hatcher, 2013) recommend that the sample size of a study that applies multiple linear regression should be 100 participants or more than five times the number of items measured. The questionnaire was made up of 22 items, so the sample size should be over 160 students. Also, Hair et al. (2014) recommended between 100 and 200 while (Krejcie & Morgan, 1970) required 351 from a population of 4,000. Therefore, the number of returned surveys is 511 that meet the requirement of sample size for a structural equation model and show adequate representation with the highest probability assessment. In Table 2, the respondents' characteristics of this study are summarized. As shown in Table 2, among the 511 participants, 353 were females (69.1%), and 158 were males (30.9%). Many of participants were between 20–22 years old (379, 74.2%), followed by the 17–19 years old (92, 18%), and then 23 years old and above (40, 7.8%).

Table 2

Description of the respondents' demographic profiles

Category	Category	Frequency	Percentage%
Gender	Male	158	30.9
	Female	353	69.1
	Total	511	100
Age (Years)	17-19	92	18.0
	20-22	379	74.2
	23 and above	40	7.8
	Total	511	100
Academic level	Year 1	18	3.5
	Year 2	151	29.5
	Year 3	165	32.3
	Year 4	146	28.6
	Year 5 and above	31	6.1
Total	511	100	
Students spend on Social Networking activities daily (Hour)	Less than 1	47	9.2
	1-3	221	43.2
	4-6	173	33.9
	More than 6	70	13.7
	Total	511	100
Using Facebook Sites (Weekly)	Less than 10	50	9.8
	10-29	176	34.4
	30-50	140	27.4
	More than 50	145	28.4
	Total	511	100

Furthermore, most respondents were at the second, third and fourth years of education (462, 90.4%), and the First and fifth year and above students (49, 9.6%). Regarding the number of hours spent on social networking every day, most participants used Facebook between 1–3 hours daily (221, 43.2%), and 4–6 hours per day (173, 33.9%), and more than 6 hours (70, 13.7%). As for the number of Times using Facebook weekly, participants used Facebook for 10–29 times (176, 34.4%), and more than 50 times (145, 28.4%), followed 30–50 times by (140, 27.4%), and less than ten times (50, 9.8%) respectively. Table 2 indicates that 69.1% of the respondents were females, and most of them ranged from 20 to 22 years (74.2%), and in Year 3. In addition, 43.2% spend 1-3 hours daily on Social Networking activities. Also, most of them used Facebook sites 10-29 weekly.

4. Data Analysis and Results

To examine the relations among the research variables, reliability and validity analyses were performed, descriptive analysis and SEM analysis was used to examine the research hypotheses.

4.1 Descriptive analysis

To describe the responses and therefore, the attitude of the respondents toward each question they were raised in the survey, the mean and the standard deviation were estimated (Pallant, 2005). The level of each item was determined by the following formula (Sekaran and Bougie, 2013): (highest point in Likert scale - lowest point in Likert scale) / the number of the levels used = $(5-1) / 5 = 0.80$, where 1-1.80 reflected by “very low”, 1.81-2.60 reflected by “low”, 2.61-3.40 reflected by “moderate”, 3.41-4.20 reflected by “high”, and 4.21-5 reflected by “very high”. Then the items were being ordered based on their means. Tables 3 demonstrates the results.

Table 3

Overall mean and standard deviation of the study’s variables

Type of Variable	Variables	Mean	Standard Deviation	Level	Order
Independent Variables	Hedonic Value	3.4866	0.75910	High	1
	Emotional Value	2.9159	0.78221	Moderate	3
	Social Value	3.1703	0.73373	Moderate	2
Mediating Variables	Trust	2.3249	0.74731	Low	2
	Satisfaction	3.3552	0.71594	Moderate	1
Dependent Variable	Stickiness	3.3992	0.75885	Moderate	-

4.2 Measurement model

AMOS software version 22 was used to examine the research hypotheses. The analysis was performed by employing a Confirmatory Factor Analysis (CFA) to study if the data fits the hypothesized measurement model. Then Structural Equation Modelling (SEM) is used for examining the structural model, by which the latter is tested by path analysis using latent variables (Bagozzi & Yi, 1988; Hair, 2007; Kline, 2011). To achieve the model fit, a robust statistics test such as χ^2 /degrees of freedom (df), the Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), and the Root Mean Square Error of Approximation (RMSEA) were selected (see Table 5). However, while the preliminary CFA model did not demonstrate an adequate fit, two items (EV2 and SV2) were removed to acquire an improved fit for the measurement model as the chi-square (χ^2 /df) value of the model was 2.733; threshold must be between 2 and 5), IFI = 0.91, TLI = 0.91, CFI = 0.92, GFI = 0.91, AGFI = 0.93, and RMSEA = 0.076. Consequently, the measurement form indicated an acceptable fit to the data (Hair, 2007)(Rex B. Kline, 2011)(Newkirk & Lederer, 2006).

Table 4

Measurement model fit indices

Model	χ^2 /df	IFI	TLI	CFI	GFI	AGFI	RMSEA
Initial Model	3.104	0.86	0.87	0.88	0.87	0.89	0.081
Final Model	2.733	0.91	0.91	0.92	0.91	0.93	0.076
Threshold Values	χ^2 /df<3	IFI>0.9	TLI>0.9	CFI>0.9	GFI>0.9	AGFI>0.9	RMSEA<0.8

In addition, the current research examined the internal consistency of multi-item constructs by evaluating Cronbach’s alpha which should be more than 0.6, as recommended by (Hair et al., 2014); and to the research items having a factor loading above 0.6, as suggested by scholars (Creswell, 2009). The composite reliabilities for all constructs should surpass the threshold

of 0.6 (Bagozzi & Yi, 1988); and The Average Variance Extracted (AVE) from a set of measurements of a latent variable ought to be over 0.5, as recommended by Bagozzi and Yi (1988) and Creswell (2009). The findings of Cronbach's alpha, factor loadings, composite reliability, and AVE for the research variables are presented in Table 5. Cronbach's alpha for the entire constructs surpassed 0.7, and the entire indicators of the factor loadings were above 0.50, as a consequence representing confirmation of convergent validity (see (Bagozzi & Yi, 1988; Creswell, 2009; Larcker et al., 1981). Also, convergent validity was proved since every value of AVE surpassed 0.50 (Bagozzi & Yi, 1988; Hair et al., 2014). The means, standard deviations, AVEs, and the square of correlations along with constructs are revealed in Table 5. Indeed, all of the associations involving pairs of constructs were less than the square root of the AVE estimates of the two constructs, verifying discriminant validity (see (Hair et al., 2014)).

Table 5
Properties of the final measurement model

Constructs and Indicators	Factor Loadings	Std. Error	Square Multiple Correlation	Error Variance	Cronbach Alpha	Composite Reliability*	AVE**
Hedonic Value					0.612	0.77	0.53
HV1	0.562	***	0.214	0.334			
HV2	0.723	0.195	0.523	0.338			
HV3	0.607	0.178	0.368	0.386			
Emotional Value					0.669	0.67	0.51
EV1	0.666	***	0.443	0.469			
EV2	0.749	0.121	0.561	0.505			
Social Value					0.639	0.74	0.53
SV1	0.631	***	0.398	0.400			
SV3	0.500	0.085	0.240	0.359			
SV4	0.751	0.101	0.564	0.331			
Trust					0.750	0.81	0.52
TR1	0.599	***	0.359	0.414			
TR2	0.715	0.110	0.511	0.376			
TR3	0.675	0.111	0.455	0.373			
TR4	0.633	0.101	0.401	0.451			
Satisfaction					0.806	0.84	0.58
SA1	0.589	***	0.347	0.572			
SA2	0.782	0.097	0.612	0.296			
SA3	0.790	0.099	0.624	0.292			
SA4	0.723	0.098	0.523	0.393			
Stickiness					0.789	0.81	0.51
ST1	0.809	***	0.655	0.314			
ST2	0.695	0.060	0.483	0.538			
ST3	0.750	0.056	0.563	0.386			
ST4	0.545	0.058	0.297	0.650			

* Employing (Larcker et al., 1981) formula, the composite reliability calculation is expressed by the following equation:

$$\text{Composite Reliability} = (\sum Li)^2 / ((\sum Li)^2 + \sum \text{Var} (Ei))$$

where Li is the standardised factor loadings for each indicator, and $\text{Var} (Ei)$ is the error variance associated with the individual indicator variables.

** The formula for the variance extracted is:

$$\text{Average Variance Extracted} = \sum Li^2 / (\sum Li^2 + \sum \text{Var} (Ei))$$

where Li is the standardised factor loadings for each indicator, and $\text{Var} (Ei)$ is the error variance associated with the individual indicator variables.

4.3 Structural model

The SEM analysis showed that satisfaction directly, positively, and significantly did affect stickiness ($\beta = 0.645$, $t = 17.096$, $p = 0.000$); whereas trust did not ($\beta = 0.020$, $t = 0.551$, $p = 0.581$); thus, while H1 was supported, H2 was not.

Table 6
Summary of proposed results for the theoretical model

Research Proposed Paths	Coefficient Value	t-value	p-value	Empirical Evidence
H1: SA → ST	0.645	17.096	0.000	Supported
H2: TR → ST	0.020	0.551	0.581	Not Supported
H3: HV → SA	0.293	7.631	0.000	Supported
H4: HV → TR	0.009	0.228	0.819	Not Supported
H5: SV → SA	0.109	3.376	0.000	Supported
H6: SV → TR	0.238	7.089	0.000	Supported
H7: EV → SA	0.100	2.817	0.005	Supported
H8: EV → TR	0.186	5.025	0.000	Supported

SA: Satisfaction; ST: Stickiness; TR: Trust; HV: Hedonic Value; EV: Emotional Value; and SV: Social Value.

Furthermore, the results showed that while hedonic value affected satisfaction, it did not impact trust; thus, H3 was supported, whereas H4 was not. However, we found that emotional and social values impacted both satisfaction and trust. Consequently, H5, H6, H7, and H8 were supported. Moreover, the coefficient of determination R^2 for the endogenous research variables for Trust, Satisfaction, and Stickiness were 0.129, 0.132, and 0.367 respectively, which indicates that the model does account for the variation of the proposed model.

5 Discussion

This study explored the impact of satisfaction and trust on stickiness to Facebook. Also, it proposed that hedonic value, emotional value, and social value act as critical antecedents to Facebook stickiness. As well, social, hedonic and emotional values affect the levels of trust and satisfaction. Satisfaction is critical for the stickiness to SNS; therefore, businesses strive to improve their products and services to satisfy their customers' demands better. Thus, this study suggested that satisfaction has a positive impact on stickiness to SNS. The study analysis showed that H1 was supported. So, satisfaction has a significant positive effect on stickiness. Our finding aligns with the results in the study conducted by (Bataneh et al., 2015) and (Wu et al., 2014) which found that customers' positive past experience with SNS will influence them to stick to the same company's sites. In addition, customers stick to sites that do not cause them any harm. Therefore, customers will have more trust in a site, when the site performs the service, it promised.

The second hypothesis suggested that trust has a positive impact on stickiness to SNS. However, the study analysis did not support H2. Therefore, trust did not produce any impact on stickiness. In previous research trust was found significant for mature and experienced users toward continuance intention to use specific pages on Facebook not the whole platform as well as in the privacy-risk context (Lin et al., 2011; Zong et al., 2019; Warner-Söderholm et al., 2018).

Accordingly, the results show that satisfaction is the most significant factor affecting users' stickiness to SNS when comparing it to trust. A possible explanation for these results may be that users assess the values perceived from a site more than how much they trust it. Thus, users with different degrees of trust indeed have different value models. Furthermore, the study argues that hedonic value has a positive impact on trust and satisfaction through H3 and H4. Hedonic value can be manifested in enjoyable content such as games. The model test for all respondents indicates that hedonic value (H3) produced a positive impact on satisfaction. This finding aligns with the results in the study conducted by (Sweeney & Soutar, 2001). Probably, Facebook's active effort in popularizing applications and the widely played embedded games have contributed to this outcome. The study results agree with (Yang & Lin, 2014), where they indicate that hedonic value can be manifested in enjoyable content such as games and increase users' satisfaction. Meanwhile, hedonic value (H4) did not have a positive impact on trust and this can be explained as enjoyment or entertainment are considered as the most significant antecedents to satisfaction (Basak & Calisir, 2015). However, the study analysis showed that social value impacted both satisfaction and trust. Thus, the study accepted both hypotheses H5 and H6. The study results of H5 and H6 agree with the previous findings of (Ye et al., 2019; Gan & Wang, 2017; Yu et al., 2013) where they indicated that social interactions not only enhance customers' trust but also contribute in developing satisfaction towards SNS. As discussed by (Beldad & Hegner, 2017), the success of an online service depends not only on the perceived benefits it brings but also on the level of trust users have on the service, the technology used for service delivery, and the party behind the service. Although Facebook has been naturally deemed as a social interaction tool, such perception would not exist for low-trust people. Without trust as the basis, social interaction would be fragile and cannot last for the long term, which explains the result for accepting H5 and H6. Furthermore, the study analysis found that emotional value impacted both satisfaction and trust. Hence, the study accepted H7 and H8. The study results for H7 and H8 agree with the outcome of (M. R. Lee et al., 2014) and (Sun et al., 2014) where they indicated that people join SNS to gain emotional support from friends and people in their social circle regardless of the effectiveness or the efficiency of the outcomes. It creates a safe environment for sharing a personal feeling with others.

6. Implications

6.1 Theoretical implications

The current research has enriched the existing study in the fields of customers' satisfaction and trust on stickiness to Facebook. This study has verified the previous theoretical argument of (Hong et al., 2017; Yang et al., 2018) where they adopted the value-based model to explain how SNS users continue to stick to Facebook. Also, the stream of this study focuses on different types of values, such as social value, hedonic value, and emotional value and how they influence users' stickiness to SNS. Furthermore, this study suggested that satisfaction has a positive impact on stickiness to SNS. Also, this research is one of the earliest studies that proved that customer value creation serves as an important driving factor for customer satisfaction to generate stickiness to SNS. Besides, the study findings have enriched the existing studies by exploring deeper into the relationship between customer values and stickiness to SNS which have provided a preliminary explanation for the different degrees of influence by the different types of values. The study analysis indicated that the effects of satisfaction, hedonic value, and emotional value have the greatest impact on stickiness. Satisfaction positively and significantly affected stickiness. Also, the results showed that hedonic, social, and emotional values affected satisfaction. The study added to the existing

literature that trust did not have a significant effect on stickiness to Facebook as the ultimate goal after SNS continuance intention (Zong et al., 2019). Also, hedonic value did not have a positive effect on trust. The research findings can enrich our understanding regarding the impact of satisfaction and trust on stickiness to Facebook through the roles of hedonic, emotional, and social values.

6.2 Practical implications

This study findings can provide guidelines for policymakers and designers of SNS. Therefore, marketers and administrators of SNS need to understand the factors that affect users' stickiness to SNS such as Facebook. Hence, understanding the factors contributing to SNS stickiness is critical for the long-term sustainability of SNS. This study analysis was able to explain the relationship between perceived values, trust, and satisfaction to provide better tools for decision-makers to understand SNS stickiness motivational factors. Hence, users' expectations act as a baseline for evaluating social media platforms. Businesses strive to improve their products and services to better satisfy their customers' demands. Consequently, SNS managers should evaluate users' experience with SNS to develop the right strategy for customers to stick to these sites and keep using their services. For that purpose, SNS providers can improve users' satisfaction by increasing the added values from using their services. This study focuses on hedonic value; accordingly, social media decision-makers need to make shopping more enjoyable and fun to improve the customers shopping experience and to increase satisfaction. Moreover, marketers need to pay full attention to social value by adding more interactive features such as comments, likes, and shares to build social image and increase one's social influence. This study discovered that social value has a positive impact on trust and satisfaction. Users perceive SNS as sources of empathy and caring feelings, and they experience satisfaction when such emotional needs are fulfilled through SNS. Accordingly, this research suggests that emotional value has a positive impact on trust and satisfaction. Therefore, understanding users' different reactions to technology affordances, SNSs administrators can take efficient measures and develop new applications to increase the switching cost and retain users for a longer time.

7. Research limitations and future research

This study was conducted on undergraduate students at one university in Jordan, which would limit the generalizability to other contexts. Also, testing this model in new settings and countries can provide valuable insights regarding the antecedents and outcomes of Facebook stickiness in different national and international cultures. Thus, future research can test this study by collecting data from other age categories, universities, as well as from other contexts to develop more generalizable results and increase the credibility of the results. Another limitation is related to the nature of the data collection as a questionnaire method was used that may have created a common method variance/bias. Thus, future research could employ different data collection methods (i.e. qualitative) to improve the reduction of common method variance/bias. To ensure users stickiness and continuing using a specific social networking platform, users should realize that they are spending their time on valuable and useful contents. Thus, examining the proposed model based on data collected from different social network sites users would be very useful for managers to maintain enhancing the provided services and values to the users. Consequently, the research findings are very critical for SNS management as they can guarantee that users are sticking to the specific platform without switching to another platform. Finally, the findings of this research are highly significant to the literature on this research area, and it is hoped to be followed by further crucial research to shed more light on their importance.

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