The Impact of Social Media on the Efficiency of Online Business Performance

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Abstract

This study aimed to develop some criteria to assess the impact of social media on the online business activities of Vietnamese enterprises. As the country's e-commerce has been experiencing phenomenal growth, to assess the impact of social media on the same, we designed a questionnaire to assess five criteria based on relevant studies and collected data from 356 respondents in the positions of Head and Deputy of sales, marketing, and customer services departments of 80 typical and small and medium e-commerce enterprises. The results showed that Vietnamese enterprises did not know how to use the loyal customer community to influence potential customers on social networks and leverage the intelligence and creativity of customers for business operations. In addition, most Vietnamese enterprises spent a large sum of money on social networking activities but had low interaction because they often used too much text and very little visual content. To the best of our knowledge, this is the first study that attempted to identify the criteria for assessing the impact of social media on the online businesses of Vietnamese enterprises. Emphasizing that social networks have become an important channel for the business of Vietnamese enterprises, the study provides researchers and enterprises with a broader and deeper understanding of how social media can be better utilized to create a positive impact in promoting online business activity.

Keywords : **social media, online business performance, the efficiency of online business performance**

JEL Classification Codes : M10, M15, M31

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Social media has evolved as a dominant method for human activity in the 21st century. Social media programs, built on the Web 2.0 platform, have enabled an unprecedented increase in human interactions in modern times (Balakrishnan et al., 2014; Shimpi, 2018; Siji, 2021; Yadav, 2017). Besides, social media

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helps enterprises to connect and interact with online customers. As a result, social media has become a very effective means for businesses of all kinds to contact their clients. Besides, customers are already connecting with brands via social media such as Facebook, Twitter, Instagram, and Pinterest (Kaur & Zafar, 2014; Meesala et al., 2015; Thoumrungroje, 2014). Effective social media marketing may help businesses achieve fantastic success by cultivating committed brand supporters and even driving leads and revenues.

With the existence of various social media approaches and a desire to learn about the effects of social media, numerous studies have been conducted. According to Balakrishnan et al. (2014), electronic word of mouth (E-WOM), online communities, and online advertising are all effective at promoting brand loyalty and product purchase intent via company websites and social media platforms (Ebrahim, 2020). E-WOM is widely regarded as one of the most potent factors influencing consumer behavior (Daugherty & Hoffman, 2014). This extensive use of social media has changed how marketers construct their marketing efforts, particularly in terms of product promotion and distribution (Thoumrungroje, 2014). The intensity of social media use is associated with the consumer's dependence on E-WOM and the consumption of products. Social media and specifically E-WOM are effective tools to attract demand for products (Chu & Kim, 2011). Social media has a significant impact on brand attitudes. However, the effectiveness of traditional advertising is less than that of social media. Furthermore, a brand's attitude significantly affects purchase intent (Abzari et al., 2014).

Recent years have seen the emergence of social media platforms and accompanying consumer acceptance, resulting in a shift in business models and a drastic shift in how customers engage with businesses. Organizations understand the benefits of social media interactions, and practitioners aim to increase engagement through their social media content (Balakrishnan et al., 2014; Dolan et al., 2016).

Social media is an established channel that organizations can create and find ways to co-create value with consumers and other stakeholders, especially the customer community that engages influence (Abeza et al., 2020).Through a loyal consumer community on social media, enterprises can influence follower trust, influencers' branded posts, and then influence brand awareness and buying intent (Lou & Yuan, 2019).

Social media is also seen as a tool to increase the interaction between enterprises and customers. Pentina et al. (2018) showed that enterprises could maintain and increase engagement with consumers on social media by delivering top-quality visual content, reinforcing the desired branding links to drive positive behaviors, and generating high viral spread levels. Social media has also been known for its role in increasing customer–customer interactions (C2C) in the process of co-creating value (Zadeh et al., 2019).

In general, the studies mentioned above have shown specific generalized effects of social media on different aspects of user behavior and the business performance of enterprises. However, a more necessary issue with a higher generality is the need to establish a set of criteria to assess the impact of social media on business operations, especially online business activities in the context of a rapidly growing digital economy. Therefore, this study has proposed some evaluation criteria for social media's impact on the online business of Vietnamese enterprises. These criteria would help investigate and evaluate the social media usage of these enterprises and provide them with the opportunity to take advantage of the positive effects of social media to promote online businesses. At the same time, the study would provide researchers with more profound and more holistic insights to broaden the study of social media impact.

Literature Review

The impact of social media on business activities, in general, and online business, in particular, has drawn the attention of researchers in different aspects.

Interaction

Labrecque (2014) studied the impact of social media on corporate branding and showed that real-time social media tools triggered positive, common, and frequent interactions that could dramatically change the brand's approach. A thorough understanding of these effects is important to trigger brand effectiveness (Gensler et al., 2013). Hollebeek et al. (2014) argued that despite the huge impact of social media on brands, there is a lack of systematic identification of brand management challenges in the new contexts. Consumers are becoming key authors of brand stories, thanks to new ways of interacting through social media and brand experiences that can be easily shared online. Further studies by Achen (2017), Dolan et al. (2016), Ebrahim (2020), Vale and Fernandes (2018), and Zadeh et al. (2019) also shared the same perception that interaction is one of the most critical factors in social media changing consumer behavior and affecting business activities of enterprises. While Zadeh et al. (2019) and Ebrahim (2020) inherited and developed the research by Labrecque (2014), Hollebeek et al. (2014) stated that interaction is determined by three factors: the number of shares, the number of people commenting on the communication message, and the interaction time. Studies by Achen (2017), Dolan et al. (2016), and Vale and Fernandes (2018) were developed from the study of Gensler et al. (2013) and combined empirical research to determine that interaction is observed by three factors: the number of likes, the number of shares, and the number of people commenting on the communication message.

A summary of the above studies allows us to define the criterion that interoperability is measured by the following observed variables: the number of likes, the number of people commenting on the communication message, the number of shares, and the time of interaction.

Accessibility

The popularity of social media influences society because it is changing the way communication, collaboration, interactive actions, and information are produced and consumed (Trainor, 2012). However, potential customers are not always able to reach business messages on social networks for reasons such as the message is not compatible to display on mobile devices, there are barriers to the skills of potential customers, and the time of posting the message is not the time that the potential customer accesses the social network, the message content is inaccessible, for instance, a video is without subtitles (necessary for hearing impaired), and images are without alt text (description read aloud to the blind by a screen reader). Therefore, accessibility is one of the most important criteria to evaluate the impact of social media on any business.

This study is selectively inherited from the studies of Trainor (2012) and Ilavarasan et al. (2018) on the accessibility of the social media message. The observational factors of this criterion are the number of followers, the number of accesses, and the volume of access.

Share of Voice

Studies by Nam et al. (2010) and Rapp et al. (2013) suggested that the share of voice brought significant benefits in saving time, energy, and cost of people and became an important tool for enterprises to understand that the impact of social media could change the nature of business in marketing, recruitment, production, and so on. According to Qualman (2009), consumers could see what their friends and colleagues were interested in, purchased, and commented upon. The share of voice of the messages or brands of enterprises on social networks is measured by people who access or interact with the messages. Most people tend to believe their friends or family members in advertising messages. Therefore, if the acquaintance of an individual shares a message or information related to the communication messages of the enterprises on social networks, most of his/her acquaintances will see that

information. However, these people will not want to click on the message with the same content if it only appears as an advertisement. Many studies have highlighted the value of the share of voice effect of social networks through communication messages of enterprises that users share (Thoumrungroje, 2014; Zadeh et al., 2019); the number of people who post their feelings and thoughts about the messages and brands of enterprises (Chu & Kim, 2011); and the number of people who tag their friends when they access the messages (Abzari et al., 2014; Daugherty & Hoffman, 2014; Nam et al., 2010).

The indicator to measure the share of voice is reflected via three criteria: the number of messages of enterprises that users share, the number of people who post their feelings and thoughts about the messages or brands of enterprises, and the number of people who tag their friends when they access the message.

Level of Influence

Communication campaigns on social networks of an online enterprise aim to attract new customers and take care of previous ones (Pentina et al., 2018). The results of the empirical studies on the impact of social networks on sellers, retailers, and consumers by Andzulis et al. (2012), Aral and Walker (2011), and Rapp et al. (2013) provided new knowledge about the spillover effects of those influencing on improving sales performance.

The level of influence shows how many friends/followers the person talking about enterprise brands has and whether they can promote and influence other people. Building on the studies of Andzulis et al. (2012) and Aral and Walker (2011), researchers such as Trainor (2012), Rapp et al. (2013), Lou and Yuan (2019), Pentina et al. (2018), and Xie and Jia (2016) helped arrive at a consensus that a business is possible through social media that helps create a broader potential customer network. The studies above also allow us to determine the level of social media influence observed by the following three indicators: the number of loyal customers who can influence others, the number of people who create shares for communication messages of enterprises, and the number of stimulated users who have a positive impact on the business when influenced by the communication of the enterprise.

Customer Community

Abeza et al. (2020), Lou and Yuan (2019), Park and Kim (2014), and Xie and Jia (2016), following the study of Andzulis et al. (2012), identified that building and promoting a community on social networks like Facebook is one of the popular social media strategies that enterprises can use to build relationships between consumers. The Pareto theory states that 80% of revenue comes from 20% of loyal customers; so, loyal customers are an important source of any business. This is a critical criterion directly affecting the attraction of new customers and generating stable revenue for the business (Lou & Yuan, 2019; Xie & Jia, 2016). Enterprises that can build a large customer community show an excellent brand – customer connection. A broad brand presence and a strong influence on other customers can attract many customers through the herd mentality and curiosity of social network users (Park & Kim, 2014). According to these researchers, the identification of customer communities can be determined by the number of people who like a page and the number of subscribers or followers of the social networking sites of the enterprises. Meanwhile, Akar and Topçu (2011) and Chu and Kim (2011) shared the view that creating a brand community of a social network business is influenced by the number of people who like the page, the number of subscribers, and the number of comments on the page. Therefore, the observational factors of this criterion are the number of people who like a page, the number of subscribers, and the number of people who comment on the page.

Online Business Performance of Enterprises

In terms of theory and practice, the category of performance in production and commercial operations plays a significant role in economic assessment, comparison, and analysis in discovering the most effective solution to maximize profit. It shows how the cost of getting a specific result is linked to the result you get. Typically, the efficiency of production and business activities is expressed in terms of the relationship between three critical criteria: revenue, profit earned on revenue, and costs incurred by enterprises to implement their products, export business, or the growth rate of sales' market share relative to the business's business strategy goal (Drucker, 1963).

With the above approaches on the efficiency of production and business activities in general, for online businesses, the measurement of efficiency will also be mainly measured by three criteria: revenue, profit, and cost. The above research hypotheses allow establishing a model and scale to study the influence of social media on the efficiency of online business operations (see Figure 1 and Table 1).

Objectives of the Study

The objectives of this study are :

(1) To establish criteria to evaluate the impact of social media on the online business performance of enterprises.

(2) To evaluate the use of social media to affect the online business performance of Vietnamese enterprises.

Methodology

Research Model

Based on the criteria to evaluate the impact of social media on the efficiency of online business performance of enterprises, the research model is built up as follows:

$$Y = \beta + \beta 1 * TTT + \beta 2 * KNTC + \beta 3 * MDLT + \beta 4 * TAH + \beta 5 * CDKH \quad (1)$$

where,

Y is the dependent variable reflecting the efficiency of the online business performance of enterprises.

TTT is the criterion of interaction, measured by four observation variables: the number of people who like, the number of people who share, the number of people who comment, and the time of interaction.

KNTC is the criterion of reach, measured by three observation variables: the number of follows, the frequencies of access, and the volume of access.

MDLT is the criterion of share of voice, measured by three observation variables: the number of communication messages shared, the number of people who post feelings about communication messages, and the number of people who tag friends when interacting with communication messages.

TAH is the criterion of influence, measured by three observation variables: the number of loyal customers who can influence others, the number of people who create shares for communication messages, and the number of stimulated users who have a positive impact on the business when influenced by the communication of the business.

CDKH is the criterion of customer community of enterprises on social networks, measured by three observation variables: the number of people who like the pages, the number of people who register on the pages, and the number of people who evaluate the pages.

β1, β2, β3, β4, β5 are respective parameters to *TTT, KNTC, MDLT, TAH*, and *CDKH*.
β is the coefficient that evaluates the impact of external factors on the model on a dependent variable.
Y in case-independent variables is zero.

With this research model, the research hypotheses are assumed as follows:

↳ **H1 :** The interaction of social media impacts the efficiency of the online business performance of Vietnamese enterprises.

↳ **H2 :** The reach of social media impacts the efficiency of the online business performance of Vietnamese enterprises.

↳ **H3 :** The share of voice of social media impacts the efficiency of online business performance of Vietnamese enterprises.

↳ **H4 :** The influence of social media impacts the efficiency of the online business performance of Vietnamese enterprises.

↳ **H5 :** The customer community of social media impacts the efficiency of the online business performance of Vietnamese enterprises.

Research Design

Upon systematizing the evaluation criteria of the impacts of social media on online business performance of

Figure 1. ***Research Model of the Criteria to Evaluate the Impact of Social Media on the Efficiency of Online Business Performance of Enterprises***

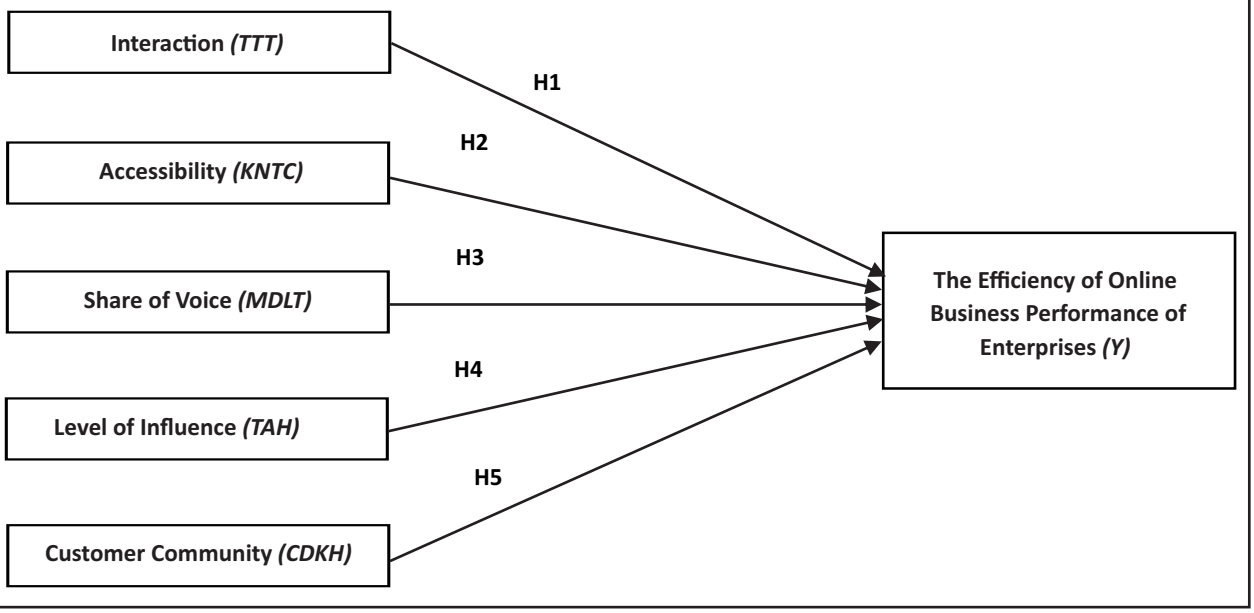

Table 1. ***The Scales in the Proposed Research Model***

Criteria	The Scales
TTT	**Interaction**
TTT1	The number of people who like the business's social media messages.
TTT2	The number of people who like the business's social media messages.
TTT3	The number of people commenting on corporate social media messages.
TTT4	Time to interact with the business's social media messages.
KNTC	**Accessibility**
KNTC1	The number of customers or users who track your business's social media activity.
KNTC2	The number of visits by an online user to a social networking site that contains messaging content of enterprises.
KNTC3	The number of users that businesses attract by many different social media accounts.
MDLT	**Share of Voice**
MDLT1	The number of shared enterprise communication messages.
MDLT2	The number of people who post feelings of thought about enterprise communication messages.
MDLT3	The number of people tagging friends when accessing business communications.
TAH	**Level of Influence**
TAH1	The number of loyal customers who influence the enterprises.
TAH2	The number of users who create new shares for business communications.
TAH3	The number of stimulated users who create a positive impact on the business when influenced by the communication of the enterprises.
CDKH	**Customer Community**
CDKH1	The number of people who like the social networking site of an enterprise.
CDKH2	The number of people subscribed to the business's social media site.
CDKH3	The number of people who rate the business's social media page.
Y	**The Efficiency of Online Business Performance of Enterprises**
Y1	The growth in online sales revenue of the enterprises.
Y2	The growth in profit from the online business of the enterprises.
Y3	Average cost performance per unit of revenue for an online business using corporate social media usage.

Vietnamese enterprises, to collect information about the real impact on enterprises on a broad scale, we designed questionnaires with questions formulated using a 5-degree Likert measurement and sent the same to Internet-based enterprises in Vietnam. The five degrees include 1 – *Weak* ; 2 – *Poor* ; 3 – *Average* ; 4 – *Fair* ; and 5 – *Good*.

The survey was conducted through the following steps :

The questionnaire was based on the study model depicted in Figure 1 as well as the findings of preliminary interviews with 80 experts consisting of CEOs of 80 typical internet enterprises in Vietnam. The sample size consisted of 450 managers from the heads of marketing, sales, and communication departments. Hair et al. (2006) stated that the predicted correlation and regression analysis sample should be at least five times the total number of observed variables. According to Tabachnick and Fidell (2007), the formula's minimal sample size is (50 + 8* number of independent variables). According to Bove (2006), the minimum sample size for quantitative investigations should be between 100 and 150.

With the number of independent variables being 5 and observation variables being 19, we expected to take a

Table 2. ***Sample Descriptions***

Criteria	Frequencies	Proportion	Accumulated
Gender			
Male	221	62.1	62.1
Female	135	37.9	100
Age Groups			
25 – 35 years	184	51.68	51.68
35 – 45 years	109	30.62	82.3
More than 45 years	63	17.7	100
Working Experience			
Under 5 years	98	27.53	27.53
5 – 10 years	195	54.77	82.3
More than 10 years	63	17.7	100
Qualification			
Postgraduates	72	20.22	20.22
Graduates	255	71.63	91.85
Colleges	29	8.15	100
Others	0	0	100

sample size between 100 and 150. However, to avoid the fact that some questionnaires might be invalid and the rate of responses via email might be low, we decided to take a sample of 450 enterprises.

The survey was conducted from May – October 2020. Emails or direct delivery was made to 450 respondents. Out of the 450 questionnaires, 379 were collected (accounting for 84.22% response rate). However, out of 379, 23 questionnaires were found to be invalid due to a lack of important information. Thus, the study used the results of only 356 valid questionnaires.

The information collected from the questionnaires was classified and filtered for analysis. Excel and SPSS software were used to summarize the information and the data and count the necessary criteria. The information was analyzed to find solutions to the research questions. These tasks were completed in the period from May – October 2020. The data from the 356 collected questionnaires were processed through the SPSS software. The sample details are summarized in Table 2.

Analysis and Results

Testing Reliability of Variables in the Research Model

The measurement testing of indicators using Cronbach's Alpha shows that "Interactions," "Reach," "Share of Voice," "Influence," and "Customer community" have Cronbach's alpha from 0.655 to 0.849, higher than 0.6. The corrected item-total correlation of observation variables in one criterion is higher than 0.3. So, it is concluded that all the criteria in the group are reliable and appropriate, as depicted in Table 3.

Exploratory Factor Analysis

After meeting the reliability test requirements, 16 observation variables of five factors were entered for

Table 3. ***Reliability Testing Results***

No.	Criteria or Independent Variables	Cronbach's Alpha	Corrected Item-Total Correlation
1	**Interactions – *TTT***	**0.849**	
	TTT1		0.814
	TTT2		0.790
	TTT3		0.786
	TTT4		0.835
2	**Accessibility – *KNTC***	**0.715**	
	KNTC1		0.780
	KNTC2		0.529
	KNTC3		0.551
3	**Share of Voice – *MDLT***	**0.839**	
	MDLT1		0.778
	MDLT2		0.799
	MDLT3		0.751
4	**Level of Influence – *TAH***	**0.746**	
	TAH1		0.625
	TAH2		0.708
	TAH3		0.647
5	**Customer Community – *CDKH***	**0.655**	
	CDKH1		0.510
	CDKH2		0.550
	CDKH3		0.609
6	**The Efficiency of Online Business Operations of Enterprises – *Y***	**0.726**	
	Y1		0.618
	Y2		0.589
	Y3		0.700

exploratory factor analysis. Analysis results from the research data reveal that KMO is quite high (0.734 > 0.5), Bartlett has Sig. = 0.000 < 0.05, and total variance explained is 67.901% > 50%; hence requirements for exploratory factor analysis are satisfied. All factors' loadings are higher than 0.5, Eigenvalue representing variations explained is > 1. As such, the analysis results of affecting factors of social media on online business performance of Vietnamese enterprises can extract five factors with 16 observation variables, as shown in Table 4.

Table 4. ***Exploratory Factor Analysis Results for Independent Variables***

Observation Variables	Factors				
	1	**2**	**3**	**4**	**5**
TTT3	0.857				
TTT2	0.855				

TTT1	0.817					
TTT4	0.785					
MDLT3		0.860				
MDLT1		0.837				
MDLT2		0.814				
TAH3			0.809			
TAH1			0.794			
TAH2			0.788			
KNTC2				0.856		
KNTC3				0.848		
KNTC1				0.689		
CDKH1					0.793	
CDKH2					0.759	
CDKH3					0.660	
KMO	**0.734**					
Sig.	**0.000**					
Total Variance Explained (%)	**67.901**					

Research Hypothesis Testing

After exploratory factor analysis, the hypotheses are tested by correlation test and multiple regression. Before testing the research model by multiple regression analysis, the correlations between the variables in the model are considered by using Pearson's Correlation to quantify the close relationships between independent variables and dependent variables. The results indicate that the Sig. value of observed variables *TTT, KNTC, MDLT, TAH, CDKH* is less than 0.05, which means that the independent variable correlates with the dependent variable. The results of building a single linear regression model are presented in Table 5.

In the data analysis, the testing results show that these factors were entered for regression analysis to evaluate the appropriateness of the multiple regression model by the Enter method. The value of each factor used for regression is the mean value of observation variables of that factor. The regression results indicate the appropriateness of the model with research data with adjusted $R^2 = 0.599$ at the significance level of 0.05. This

Table 5. *Correlations*

		Y	*TTT*	*KNTC*	*MDLT*	*TAH*	*CDKH*
Y	Pearson Correlation	1	0.185**	0.248**	0.680**	0.366**	0.379**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	356	356	356	356	356	356
TTT	Pearson Correlation	0.185**	1	0.036	–0.019	–0.039	0.047
	Sig. (2-tailed)	0.000		0.494	0.725	0.465	0.376
	N	356	356	356	356	356	356

KNTC	Pearson Correlation	0.248**	0.036	1	0.002	–0.052	0.013
	Sig. (2-tailed)	0.000	0.494		0.964	0.332	0.812
	N	356	356	356	356	356	356
MDLT	Pearson Correlation	0.680**	–0.019	0.002	1	0.268**	0.442**
	Sig. (2-tailed)	0.000	0.725	0.964		0.000	0.000
	N	356	356	356	356	356	356
TAH	Pearson Correlation	0.366**	–0.039	–0.052	0.268**	1	0.300**
	Sig. (2-tailed)	0.000	0.465	0.332	0.000		0.000
	N	356	356	356	356	356	356
CDKH	Pearson Correlation	0.379**	0.047	0.013	0.442**	0.300**	1
	Sig. (2-tailed)	0.000	0.376	0.812	0.000	0.000	
	N	356	356	356	356	356	356

Note. **. Correlation is significant at the 0.01 level (2-tailed).

Table 6. ***Testing the Appropriateness of the Research Model***

Model	*R*	R^2	Adjusted R^2	Std. Error	Durbin–Watson
1	0.778[a]	0.605	0.599	0.39533	1.748

Note.

[a.] Predictors : (Constant), *CDKH, KNTC, TTT, TAH, MDLT.*

[b.] Dependent variable : *Y.*

Table 7. ***ANOVA Variance Analysis Results***

Model		Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	83.690	5	16.738	107.099	0.000[b]
	Residual	54.700	350	0.156		
	Total	138.390	355			

Note.

[a.] Dependent variable : *Y.*

[b.] Predictors : (Constant), *CDKH, KNTC, TTT, TAH, MDLT.*

illustrates that five independent variables can explain 59.9% of variations of dependent variables (Table 6). The Durbin – Watson value of 1.748 has a value of approximately 2 ; so there is no first-order correlation. The Sig. value of the *F*-test is 0.000 < 0.05, as shown in Table 7. Thus, the linear regression model is consistent.

Regression Analysis

The results of regression analysis of the five criteria of social media on the efficiency of online business performance of Vietnamese enterprises are as follows. For *t*-tests of each independent variable, a sig. value less than 0.05 means that the variable has a meaning in the model; whereas, a sig. value greater than 0.05 means that the independent variable should be removed.

The data results in Table 8 show that all the four factors of social media have a sig. value less than 0.05,

Table 8. ***Coefficient Results***

Model		Unstandardized Coefficients		Standardized Coefficient	*t*	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	–1.175	0.289		–4.071	0.000		
	TTT	0.211	0.037	0.194	5.766	0.000	0.992	1.008
	KNTC	0.226	0.031	0.250	7.420	0.000	0.995	1.005
	MDLT	0.592	0.037	0.612	16.121	0.000	0.783	1.277
	TAH	0.238	0.040	0.213	5.964	0.000	0.883	1.133
	CDKH	0.047	0.056	0.032	0.834	0.405	0.765	1.307

Note.

[a] Dependent variable : *Y*.

including TTT, KNTC, MDLT, TAH ; so all of them have statistical significance. Therefore, all the research hypotheses (H1, H2, H3, H4) are accepted with a reliability of 95%. Variance inflation factors (VIF) of TTT, KNTC, MDLT, TAH are less than 5; so it can be concluded that no multicollinearity exists between these four criteria. For the independent variable of CDKH, since the sig. value of the *t*-statistics is 0.405, which is greater than 0.05, this variable is excluded from the model.

The multiple regression equation showing the criteria to measure the influence of social media on the efficiency of online business performance of Vietnamese enterprises is built up as follows :

$$Y = 0.194*TTT + 0.250*KNTC + 0.612*MDLT + 0.213*TAH \quad (2)$$

The research indicates that there are four criteria to measure the influence of social media on the efficiency of online business performance of Vietnamese enterprises. All these factors have a sig. value less than 0.05, and so they have statistical significance. Thus, the hypotheses from H1 to H4 are accepted. All these four criteria, including TTT, KNTC, MDLT, TAH, have coefficients greater than 0, indicating that they have positive correlations with the online business performance of Vietnamese enterprises.

Discussion and Policy Implications

The research model explains only 59.9% of the influence of social media on the efficiency of online business activities of Vietnamese enterprises because there are many factors outside the model; for example, prices or costs of advertisements on social media are increasing; supervisions and controls are becoming stricter on the competitiveness contents of social networks; the buying habits of Vietnamese consumers are changing; and so on. All these factors have relations to the efficiency of online business performance of Vietnamese enterprises. In the research model, MDLT ($\beta 3 = 0.612$) has the greatest impact, and TTT ($\beta 1 = 0.194$) has the least impact on the efficiency of online business performance of Vietnamese enterprises.

As the results show the lowest impact for TTT ($\beta 1 = 0.194$), this confirms the research results of Gensler et al. (2013), Hollebeek et al. (2014), and Labrecque (2014). It also shows the difference between Vietnamese enterprises in using social networks to do business online compared to enterprises in the world. Most Vietnamese businesses spend a large sum of money on social networking activities to create a channel to interact with potential customers and attract comments, share, and acquire more information. This leads customers to purchase

decisions. However, the social media messages of Vietnamese enterprises still have many problems; for instance, they are not much attractive to online customers; they have not created confidence in potential customers; they have not yet exploited the difference and created outstanding value of the social network for the enterprises' products and services; there are not many easy to access social networks, and these are not yet compatible on different devices used by the target customers. It can be seen that most of the message content on social networks of Vietnamese businesses today consists of too many articles in text form but little visual content such as videos and images. This leads to the lowest coefficient β1 of the TTT criterion in the model studied. Meanwhile, the research results of Gensler et al. (2013), Hollebeek et al. (2014), Labrecque (2014), Achen (2017), Dolan et al. (2016), Ebrahim (2020), Vale and Fernandes (2018), and Zadeh et al. (2019) showed that TTT as a factor mostly influenced the brand development and online businesses in corporate social networks.

In addition, Vietnamese enterprises have focused on developing experiences and promoting positive actions of customers on social networks. Customer experiences, when shared on social networks, can spread extremely quickly. Similarly, positive reviews on social networks can create customers' trust and enhance the brand reputation of Vietnamese enterprises. Therefore, MDLT ($\beta 3 = 0.612$) has been found to have a great influence on the efficiency of online business activities of Vietnamese enterprises, having the strongest impact on indicators such as sales, profits, and costs of advertising.

The results also show that the effect of CDKH, a very important criterion, on the efficiency of online business activities of Vietnamese enterprises does not appear in the regression model. This result is contrary to the assessment of CDKH in the studies of Abeza et al. (2020), Akar and Topçu (2011), Andzulis et al. (2012), Aral and Walker (2011), Chu and Kim (2011), Lou and Yuan (2019), Park and Kim (2014), Rapp et al. (2013), and Xie and Jia (2016). These studies suggested that to deal with the social and technological changes that shape customer – business relationships, it is necessary to change the businesses' approach to customer relationship management and develop new capabilities that create co-financing for the customer community. This activity will change the results related to the business performance of enterprises on social networks, especially sales. However, most Vietnamese enterprises have neither focused on building a community of loyal customers on social networks by creating the link between brands and customers, nor have they tried for the brand to be widely represented. Vietnamese enterprises also do not know how to use the loyal customer community to attract potential customers on social networks and thus promote their intelligence and creativity.

On the one hand, this fact creates low credibility of the target audience for enterprise messages on social media. This also creates low credibility for the business messages on social media, leading to a low reach of target customers. On the other hand, the Vietnamese enterprises will find it expensive to regularly post messages on social networks, and that will lead to an expensive affair of customer care and support as well as partnership development through social networking sites.

Conclusion

This research aims to evaluate the impact of social media on the online business activities of Vietnamese enterprises and tries to analyze the criteria through which they can ensure the effective use of social media to positively impact their online businesses. The regression results show that when other criteria are kept unchanged, the increase in the factors TTT, KNTC, MDLT, and TAH by 1 unit will result in the increase of Y (efficiency of online business performance) by 0.194, 0.250, 0.612, 0.213, respectively. As such, the regression results suggest that a very obvious method for Vietnamese enterprises to gain good online business performance is to create an impact by emphasizing the appropriate factors discussed in the research model.

Social networks continue to grow and influence the habits of the majority of online users, thereby inflicting behavioral changes on consumers. This, in turn, will influence online businesses in terms of spreading and

developing brands, creating a direct communication channel between businesses and users, providing customer service, navigating online purchases, and so on. As the cost implications of online business activity are low when compared with that of the performance of the business, Vietnamese enterprises need to have an accurate orientation to take advantage of the effectiveness and positive aspects of social media, and avoid the high-cost and unscrupulous use of social media. This research provides researchers (e.g., marketing, online business, social media) and enterprises with a broader and deeper understanding of the impact of social media and guides as to how to make the best use of social media to create a positive impact on one's online business.

Limitations of the Study and Scope for Future Research

Although a great deal of effort has been made in this research to cover the various aspects of social media's impact on an enterprise's online business, it indeed has some limitations. First, it has not covered the factors of social media that adversely affect the performance of online businesses; for example, the rapidly increasing cost of advertising activities on social networks, or the closely controlled mechanism of creating the media content of social networks, or the general habits of Vietnamese users, and so on. These factors have negative effects on the efficiency of online businesses. Second, the research is based on a survey of 80 typical online enterprises of Vietnam, which is albeit a small number. In addition, most of the surveyed enterprises are small and medium-sized enterprises, as no large enterprise participated in the survey. Information, perceptions, and methods of using social media to influence the online business of large enterprises may differ from small and medium-sized enterprises. Third, the TTT factor has the lowest positive impact on the online business activities of enterprises. However, as the number of Vietnamese enterprises with a sense of good interaction with customers grows, the interest of businesses will also become much higher than other criteria such as MDLT, KNTC, and TAH. Besides, with the development of corporate awareness and social media methods to take advantage of customers' creativity or provide customer services, the CDKH factor is likely to receive much attention from Vietnamese enterprises in the coming years. Therefore, future research may include in their surveys a larger number of online businesses with diverse participation of large, small, and medium enterprises. At the same time, future research can include factors that have both negative and positive impacts on the online business of enterprises.

Authors' Contribution

Dr. Tran Hung Nguyen conceived the idea and wrote the paper's theoretical framework. Dr. Hoang Anh Le developed the quantitative methodology to undertake the empirical study. Dr. Vu Thi Thuy Hang collected the data. The numerical computations were also done by Dr. Vu Thi Thuy Hang using STATA 16.0. The research results were written by Dr. Tran Hung Nguyen and Dr. Le Xuan Cu. Dr. Le and Dr. Cu wrote the conclusion and limitations and future work sections.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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