Improving the Financial Stability of IT Companies through Social Media Marketing

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Abstract: In the context of the COVID19 pandemic, many companies face the problem of declining financial stability. IT companies are unique in this aspect, because their field of activity is entirely based on digital platforms and does not require direct contact with customers. Besides, social media marketing is becoming increasingly popular. The study of the impact of social media marketing on improving the financial stability of IT companies becomes urgent under the conditions of fierce competition, when it is necessary to ensure high rates of financial stability. The aim of the study is to determine the impact of social media marketing on improving the financial stability of IT companies. The data sample for this study includes the 20 largest IT outsourcing companies in Ukraine in 2020. The study was conducted using linear regression models, which were tested by the least squares method. The impact of social media marketing was introduced into the model through the use of a dummy variable. The results of the study showed that social media marketing has a positive statistically significant impact on Profitability of Cash, Profitability of Cash Outflow, Profitability of Cash Inflow, Profitability of Net Cash Flow. The obtained results can be used to assess the impact of social media marketing on cash flow indicators and financial stability of IT companies. The study opens up new areas for further research, in particular the impact of the established brand of the IT company in social media on its financial stability.

Key-Words: - Cash Flow; Financial Stability; IT Companies; Marketing Effect; Social Media Marketing (SMM).

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1 Introduction

The strengthening of the competitive environment necessitates the search for either new niches in the market or expanding market share. Social media marketing is of particular importance in this process, given the general digitalization against the background of pandemic restrictions [1]. On the one hand, social media marketing can provide a flow of new customers. On the other hand, companies need to ensure compliance with acceptable indicators of financial stability, as they are an indicator of their economic condition [2]. In view of the above, the impact of social media marketing on improving the financial stability of companies requires studying. Representation of companies in social media can be considered in two aspects: both to establish contact with customers and gain their loyalty to the company or brand, and to directly advertise their services.

Examining the impact of SMM on the activities of small businesses, the authors [3] note that the use of social media has a positive effect on the activities of small and medium-sized businesses. It is established that the additional costs of marketing campaigns in the future are offset by better performance. This trend is typical for both small and medium-sized businesses. Another group of authors [4] found that social media tools allow companies to increase the number of consumers and customers, increase customer satisfaction, and provide the necessary information for further promotion on the market. However, it is necessary to integrate social media into the company's development strategy and allocate appropriate resources for this in order to have an effect on financial stability. The one-time effect of the company's presentation on social media is not enough to improve financial stability [5].

In a study of the importance of social media marketing during the COVID19 pandemic, the authors [6] conclude that it has a positive role. In particular, the transition of companies to the digital environment, the use of SMM and e-business technologies significantly improves the financial situation during the pandemic. However, the authors also note that the transition to a digital environment alone cannot offset by the positive effect all the losses of companies caused by the reduction of aggregate demand.

Investigating the factors that affect the financial stability of small and medium enterprises, [7] distinguish economic and financial indicators. However, representation on social networks and advertising on such networks were not singled out by the authors as factors of financial stability.

It is suggested that the reason for this is that in the pre-pandemic period, the importance of these factors was underestimated, as companies conducted marketing campaigns mostly offline in direct contact with the consumer. The situation has changed dramatically, which makes it necessary and urgent to study the impact of social media marketing on the financial stability of companies [8].

Examining the impact of social media marketing on the relevance of the brand, which affects the demand for the company's products and its financial stability, the authors [9] argue that such advertising is very important. SMM allows maintaining quality communication with consumers, even in the conditions of social distancing. This ensures stable sales of products, and therefore has a positive effect on the company's financial stability. Besides, in the face of increased competition, social media marketing allows maintaining brand awareness, which is the key to financial stability in the long run.

Exploring the role of social media in business acquisitions, [10] found an important role for the media in this process. In particular, it was found that the previous announcement of the purchase and the cost of the contract on social networks reduces the negative reaction in the media after the company's acquisition. Such conclusions prove the importance of the company's communication in social media. Therefore, it is important to investigate other effects of companies' presence in social media, including financial stability.

In another study of the impact of marketing on social media, the authors [11] examine the impact on the company's position. The authors consider the position of the company through the prism of such indicators as time spent on the website, re-visits, likes on social networks, subscriptions. The authors consider these indicators as factors of long-term customer commitment that ensure the company's financial stability. It is established that a regular presence on social media provides the company with a long-term stable consumer commitment and has a positive effect on sales.

Another group of authors [12] also studied the strategic role of social media for doing business. They found that SMMs are mostly used by small and medium-sized companies which have managers with higher education. The use of social media marketing has resulted in an increase in the profitability of such companies. It was also found that large companies pay little attention to social media and are inactive in their advertising activities.

In a study of the role of media marketing for banks, the authors [13] note that the main obstacle to the implementation of marketing campaigns on social media is the lack of demand from consumers. This result of the study can be explained by the fact that banking services are risky for users, so the issue of trust is especially relevant. Clients of banking institutions prefer classic communication channels. Banks are actively increasing their presence on social media amid the pandemic and the growing level of security of electronic communication channels [14].

A similar study [15] on the example of developing economies showed that small banks had a positive effect from social media marketing. In particular, they have the effect of increasing interest income due to an increase in loans. It was social media marketing that helped increase the loan portfolio. These results confirm the importance of social media marketing and update further research on this topic.

The literature review has shown that the role of advertising, marketing and social media is a topical issue for research, but the impact of social media marketing on financial sustainability is completely ignored. In a pandemic and rapid transformation of the external economic environment, financial stability is one of the main priorities of strategic management of companies. With this in mind, the aim of the study is to determine the impact of social media marketing on the financial stability of IT companies. Achieving the aim involves the following objectives: determine the indicators of financial stability before social media marketing and after it and to determine the impact of advertising on changes in the values of financial stability on the basis of the data obtained.

The second chapter of the study will describe the research methodology, the third chapter presents the results of the research, the fourth chapter presents the comparison of the obtained results with the results of other studies, and the fifth chapter contains the conclusions of the conducted research.

2 Methodology

The financial aspect of formulating an effective strategy in terms of amalgamation of territorial communities consists of assessing certain indicators (factors) of the external and internal environment [4]. The importance of factors in this case is to analyse information on external and internal environments, directing them to strategic thinking, focused on the development and growth of ATC welfare, the availability of open innovation. Open innovations are those that outline the effectiveness of activities while minimizing costs. Open innovations allow creating progress using new and affordable tools [5].

Innovation is the basis of research and socio-economic development, and since the 2000's, there has been growth to stimulate new opportunities for growth through innovation strategies [6]. Innovation is not, however, widely used in many regions, but only in terms of entrepreneurial innovation [7].

Adaptation of ATC management to environmental conditions requires effective current methods and tools of support and protection, as the development of an effective model of innovative financial management strategy. Research in this area has almost not been conducted, so we should expect further development of the discussion around the creation of the importance of a particular factor in the internal or external environment [8]. In fact, such interaction should be achieved in the implementation of an innovative financial management strategy in terms of amalgamated territorial communities (ATC), where community and the state are stakeholders.

Let's note that we are talking about the fact that local self-government bodies independently develop, approve and implement the relevant local budgets in accordance with applicable laws, and interference of public authorities in these processes is not allowed. It is especially important that the state financially supports local self-government, participates in the formation of local budget revenues, monitors legal, appropriate, economical, efficient spending and proper accounting, so, there must be a sufficient revenue base to provide services at the level of minimum social needs [9].

The development of an effective strategy for ATC is to optimize the use of the potential of the region (territory) by applying development policies to individual socio-economic conditions, taking into account indicators of external and internal environments [10]. The implementation of the innovation strategy requires consideration of the subsidiarity principle, which is based on the intervention of public authorities within its competences [11].

2.1 Research Design

At the first — preparatory — stage, we conducted a study of relevant scientific articles that address the impact of social media marketing on the companies' economic performance. Based on a critical assessment of the results of previous research, we formulated the aim and objectives of our study. The next component of the preparatory stage is the development of research design and collection of source data for further processing and use.

The second stage of the study involves the construction and testing of regression in accordance with the built model, as well as the evaluation and interpretation of the results. The final stage of the study involves specifying the methodological and implementation limitations of the study and drawing the conclusions.

2.2 Objectives

The aim of the study involves solving the following objective:

- determine the indicators of financial stability of IT companies in the period preceding the social media marketing;
- assess the degree of influence of social media marketing on the financial stability of IT companies.

In particular, the study focuses on determining the direct impact of marketing campaigns of IT companies on their financial indicators.

2.3 Sample

The 20 largest IT companies in Ukraine in 2020 were selected for the sample [16]. Outsourced IT companies were included in the sample, as the companies with such specialization are the most registered in Ukraine, and their services are focused on a wide range of consumers. Besides, outsourcing companies actively use social media marketing, as their market niche is one of the most competitive, and consumers of their services are a wide audience, which includes both the B2B and B2C business format. The list of companies included in the sample is given in Table 1.

Table 1. IT companies that make up a sample of research

Name	Revenue for 2020, UAH million	Net income for 2020, UAH million	Number of employees, persons
Genesis	18,648.2	11,323.9	1,536
Epam	10,449.5	943.5	10,300
GlobalLogic	5,502.5	277.7	5,700
Ciklum	3,420.5	49.6	2,725
Infopulse	2,374.8	420.7	2,000
SoftServe	2,189.2	215.5	7,900
Intellias	1,892.3	78.8	1,570
Lohika	1,560.3	98.5	1,200
EVO	1,117.8	25.1	1,264
Sigma Software	1,068.6	57.3	1,400
Netcracker	963.7	54.4	1,170
Ubisoft	773.1	59.3	1,100
Playrix	532.2	29.3	1,050
NIX	525.8	21.4	2,400
Ajax Systems	478.5	10.5	1,600
ELEKS	385.3	47.6	1,600
Luxoft	180.6	3.8	3,470
N-iX	139.8	7.9	1,230
EVOPLAY	4.7	3.7	2,200
DataArt	3.4	0.2	2,100

In this study, we build a model that reflects the impact of social media marketing on financial stability. Because the activities of IT companies are specific in view of the fact that such companies have tangible assets, mainly computer equipment and no inventories and other tangible assets.

Besides, the product created by IT companies has an intangible form. With this in mind, we chose a list of indicators based on cash flow when assessing financial stability. The study period includes two stages. The first stage covers the period of 2016-2018 and will be the reference period for comparison. The second stage covers the pandemic period of 2019-2021, during which the company used social media marketing and increased its presence on social media. Thus, the factor of social media marketing will be presented in the model as a fictitious variable and will have a value of 0, that is no impact for 2016-2018, and for 2019-2021 will have a value of 1, that is the impact. In this way, we will be able to establish the effect of social media marketing on financial stability.

2.4 Methods
The main research method is the linear regression calculated by the least squares method. A dummy variable will be introduced to indicate the effect of social media marketing. For the initial data, financial stability indicators are measured in hryvnias (Profitability of Cash, Profitability of Cash Outflow, Profitability of Cash Inflow, Profitability of Net Cash Flow). Since the values of all variables and the resulting indicator in the next period depend on their value in the previous period, all data for testing the model are considered as time series (Time Series Data).

2.5 Instruments
The table with the initial data for the study was made in Microsoft Excel. Gretl software was used for regression calculations.

3 Results
We consider the financial stability of IT companies through the value of cash flow assessment indicators. We consider the coefficient of financial stability as the arithmetic mean of the sum of Profitability of Cash, Profitability of Cash Outflow, Profitability of Cash Inflow, Profitability of Net Cash Flow. Figure 1 shows the dynamics of Financial Stability of IT companies for 2016-2021.

The data of Figure 1 show a steady upward trend in the values of financial stability of IT companies. The reliability of this trend is 99%. In general, such dynamics of the values of financial stability is typical both in the period before social media marketing and after it. For a more detailed analysis, we consider the dynamics of the values of the components of the coefficient of financial stability (Figures 1-5).

Fig. 1: The dynamics of Financial Stability.
Source: Authors

Fig. 2: The dynamics of Profitability of Cash.
Source: Authors

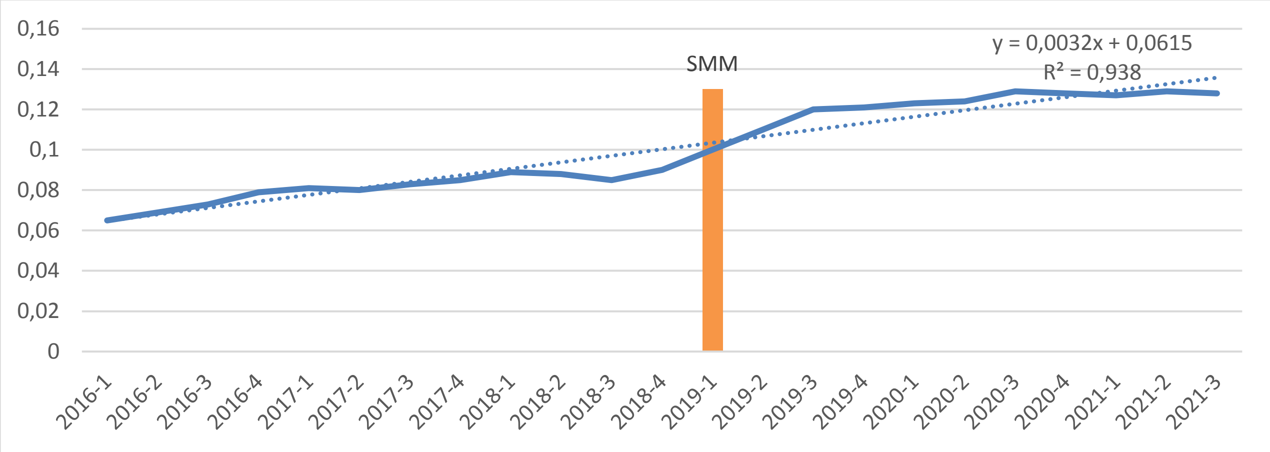

Fig. 3: The dynamics of Profitability of Cash Outflow.
Source: Authors

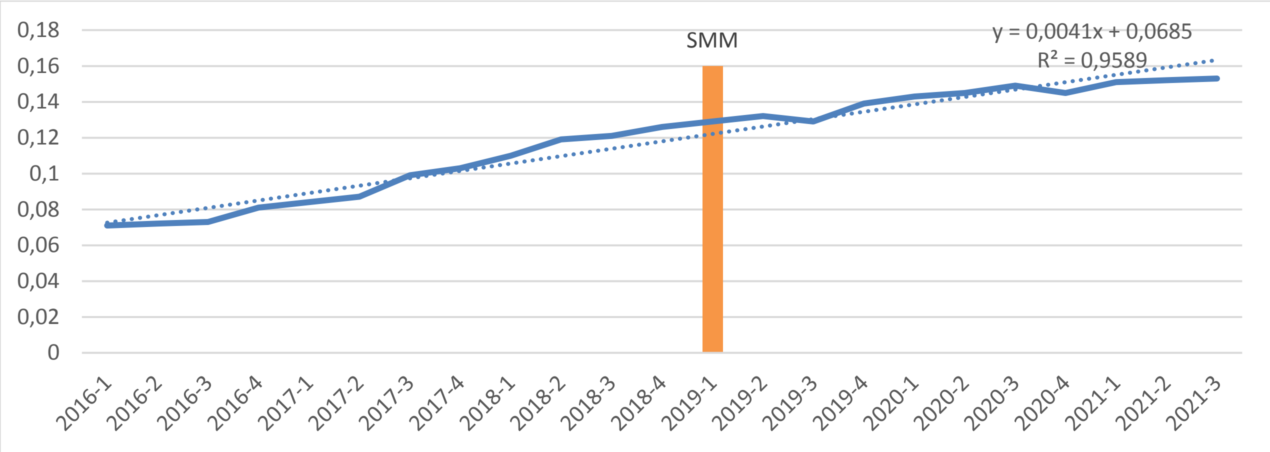

Fig. 4: The dynamics of Profitability of Cash Inflow.
Source: Authors

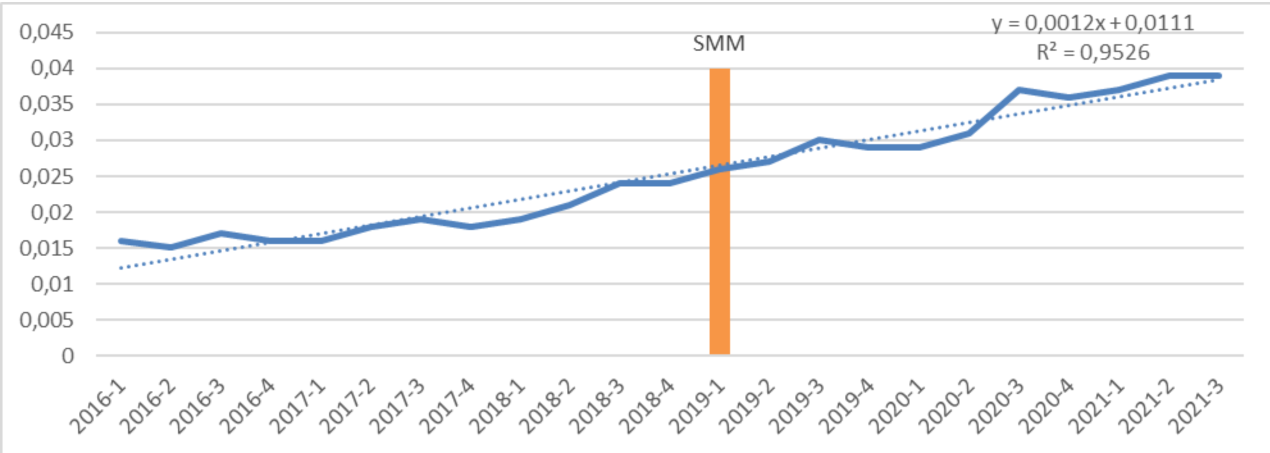

Fig. 5: The dynamics of Profitability of Net Cash Flow.
Source: Authors

The data of Figure 3 show that in general the dynamics of return on cash tends to increase, but there are deviations from this trend. In particular, a significant deviation is typical for the whole of 2018 and Q1-Q2 2020. In general, after the start of the marketing campaign on social networks, the absolute value of this indicator has increased, which is in line with the trend. However, the reliability of the trend line is 69%, which indicates the heterogeneity of the dynamics of growth in Profitability of Cash. The data of Figure 3 show that the dynamics of the value of Profitability of Cash Outflow has a more pronounced upward trend than the trend of the dynamics of Profitability of Cash. In general, this indicates a high efficiency of spending money by an IT company.

The reliability of the trend is 93%, which is quite a high figure. Besides, we see a rapid increase in the values of this indicator during the period of social media marketing campaigns in the first three quarters after their launch. Starting from 2020, the dynamics of growth of Profitability of Cash Outflow decreased, although it remained stable at the level of positive values. The dynamics of Profitability of Cash Inflow shows an even more rapid growth throughout the analysed period (Figure 4). In this case, the reliability of the trend is 95%, and we observe a constant upward trend in the values of Profitability of Cash Inflow. In contrast to the decrease in Profitability of Cash Outflow in 2018, such an effect is absent for Profitability of Cash Inflow. We assume that this may be due to additional costs in the IT company in 2018. As a result, it was decided that it is necessary to improve the financial performance through social media marketing.

If we analyse Profitability of Net Cash Flow, we see that the dynamics of the values of this indicator is also upward, which generally positively describes the financial stability of companies. However, there are deviations from the trend value of this indicator. In particular, deviations in the direction of lagging behind the trend in 2017-2018 and the first half of 2020 dominate. However, if we compare the period before and during the social media marketing campaigns, the lag behind the trend in terms of marketing campaigns is much smaller over time. Besides, there is an excess of trend indicators immediately after this period. We assume that this effect may be due to the social media marketing, which provided an increase in the number of orders for IT companies. In order to test this assumption, we will build and test appropriate models. In order to determine whether advertising on social media has had an impact on the company's financial stability, we consider financial stability as a function of cash flow indicators:

$$FS = f(PC, PCO, PCI, PNCF, SMM) \quad (1)$$

or in the form of linear regression

$$FS = \beta_0 const + \beta_1 PC + \beta_2 PCO + \beta_3 PCI + \beta_4 PNCF + \beta_5 SMM + \varepsilon_t \quad (2)$$

where:
FS –Financial Stability Index;
PC –Profitability of Cash;
PCO –Profitability of Cash Outflow;
PCI – Profitability of Cash Inflow;
PNCF –Profitability of Net Cash Flow.
SMM – social media marketing (starting from 2019)

The results of regression are shown in Table 2.

Table 2. The results of linear regression of the dependence of Financial Stability Index

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.000832	0.0007137	1.166	0.2597	
PC	0.248089	0.0145889	17.01	<0.0001	***
PCO	0.230120	0.0136425	16.87	<0.0001	***
PCI	0.251783	0.0066858	37.66	<0.0001	***
PNCF	0.298234	0.0259606	11.49	<0.0001	***
SMM	8.69736e-05	0.0003390	0.2565	0.8006	
Mean dependent var	0.076522		S.D. dependent var	0.016076	
Sum squared resid	1.15e-06		S.E. of regression	0.000260	
R-squared	0.999797		Adjusted R-squared	0.999738	
F(5, 17)	16776.64		P-value(F)	9.25e-31	
Log-likelihood	160.6732		Akaike criterion	−309.3464	
Schwarz criterion	−302.5334		Hannan-Quinn	−307.6329	
rho	−0.271483		Durbin-Watson	2.499944	

Note: Model 1: OLS, using observations2016:1-2021:3 (T = 23); Dependent variable: FS

The results of regression testing 1 indicate the statistical significance of all regressors of the Financial Stability Index of the IT company, except for Social Media Marketing. In general, this result is expected because the Financial Stability Index is calculated on the basis of these regressors and includes them. However, it is interesting to note that social media marketing is not a statistically significant regression of financial stability. We assume that this result may be due to the fact that direct social media marketing should be converted into an increased cash flow due to increased revenue. At the same time, the Financial Stability Index is calculated on the basis of indicators of Profitability of Cash Flow, as a result of which the effect of social media marketing on the resulting indicator becomes blurred. For a more detailed analysis of the impact of social media marketing, we consider models where the resulting indicators are the regressors of financial stability.

To determine the impact of social media marketing on the indicators of cash flow, we build and test appropriate models that are functions of the dependence of the resulting indicator on social media marketing:

$$(PC, PCO, PCI, PNCF) = f(SMM) \quad (3)$$

Or in the form of linear regression

PC=β_0 const+β_1 SMM+ε_t

$$PCO=\beta\_0\ const+\beta\_1\ SMM+\varepsilon\_t$$
$$PCI=\beta\_0\ const+\beta\_1\ SMM+\varepsilon\_t$$
$$PNCF=\beta\_0\ const+\beta\_1\ SMM+\varepsilon\_t \quad (4)$$

where:
PC –Profitability of Cash
PCO –Profitability of Cash Outflow;
PCI –Profitability of Cash Inflow;
PNCF –Profitability of Net Cash Flow.
SMM – social media marketing (starting from 2019)

The results of regressions are shown in Tables 3-6.

Table 3. The results of the linear regression of the dependence of Profitability of Cash on social media marketing

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.0572500	0.0016460	34.78	<0.0001	***
SMM	0.0093863	0.0023802	3.944	0.0007	***
Mean dependent var	0.061739		S.D. dependent var	0.007350	
Sum squared resid	0.000683		S.E. of regression	0.005702	
R-squared	0.425467		Adjusted R-squared	0.398108	
F(1, 21)	15.55140		P-value(F)	0.000744	
Log-likelihood	87.24972		Akaike criterion	−170.4994	
Schwarz criterion	−168.2285		Hannan-Quinn	−169.9283	
rho	0.795217		Durbin-Watson	0.505761	

Note: Model 2: OLS, using observations 2016:1-2021:3 (T = 23); Dependent variable: PC

Table 4. Results of linear regression of dependence of Profitability of Cash Outflow on social media marketing

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.0805833	0.0024633	32.71	<0.0001	***
SMM	0.0411439	0.0035619	11.55	<0.0001	***
Mean dependent var	0.100261		S.D. dependent var	0.022608	
Sum squared resid	0.001529		S.E. of regression	0.008533	
R-squared	0.864013		Adjusted R-squared	0.857537	
F(1, 21)	133.4264		P-value(F)	1.47e-10	
Log-likelihood	77.97798		Akaike criterion	−151.9560	
Schwarz criterion	−149.6850		Hannan-Quinn	−151.3848	
rho	0.480303		Durbin-Watson	0.879567	

Note: Model 3: OLS, using observations 2016:1-2021:3 (T = 23); Dependent variable: PCO

Table 5. The results of the linear regression of the dependence of Profitability of Cash Inflow on social media marketing

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.0955000	0.0045859	20.82	<0.0001	***
SMM	0.0469545	0.0066312	7.081	<0.0001	***
Mean dependent var	0.117957		S.D. dependent var	0.028566	
Sum squared resid	0.005300		S.E. of regression	0.015886	
R-squared	0.704799		Adjusted R-squared	0.690742	
F(1, 21)	50.13802		P-value(F)	5.50e-07	
Log-likelihood	63.68375		Akaike criterion	−123.3675	
Schwarz criterion	−121.0965		Hannan-Quinn	−122.7963	
rho	0.707812		Durbin-Watson	0.479836	

Note: Model 4: OLS, using observations 2016:1-2021:3 (T = 23); Dependent variable: PCI

Table 6. The results of the linear regression of the dependence of Profitability of Net Cash Flow on social media marketing

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.0185833	0.0011668	15.93	<0.0001	***
SMM	0.0141439	0.0016872	8.383	<0.0001	***
Mean dependent var	0.025348		S.D. dependent var	0.008233	
Sum squared resid	0.000343		S.E. of regression	0.004042	
R-squared	0.769921		Adjusted R-squared	0.758964	
F(1, 21)	70.27282		P-value(F)	3.86e-08	
Log-likelihood	95.16377		Akaike criterion	−186.3275	
Schwarz criterion	−184.0565		Hannan-Quinn	−185.7564	
rho	0.674402		Durbin-Watson	0.671747	

Note: Model 5: OLS, using observations 2016:1-2021:3 (T = 23); Dependent variable: PNCF

The data of Table 3 indicate that social media marketing is a statistically significant regressor of Profitability of Cash. Statistical significance is confirmed by p-value 0.0007. The reliability of this model is 40%, which is due to the fact that Profitability of Cash is influenced by other factors that are not the subject of our study. Social media marketing is also a statistically significant regressor of Profitability of Cash Outflow (Table 4). This is confirmed by a p-value less than 0.0001 at a 95% confidence interval and a model reliability of 86%. In this case, the reliability of the model of impact of social media marketing on Profitability of Cash Outflow is higher due to the fact that the cost of advertising was converted into an increased revenue of the IT company because of the increased number of orders. The same applies to the impact of advertising on social media on Profitability of Cash Inflow (Table 5). Advertising on social media is a statistically significant regressor of Profitability of Cash Inflow, which is confirmed by a p-value less than 0.0001 and the model reliability of 69%. Analysis of the impact of social media marketing on Profitability of Net Cash Flow also confirms the statistical significance of this regressor (Table 6).
Social media marketing is a statistically significant regressor of profitability of the company's net cash flow (a p-value less than 0.0001, and the model reliability of 76%). Besides, the data obtained allow saying that social media marketing has a positive effect on the value of Profitability of Net cash Flow:
- increased Profitability of Cash by 0.009 (p-value = 0.0007; Adjusted R-squared = 0.40);
- increased Profitability of Cash Outflow by 0.041 (p-value <0.0001; Adjusted R-squared = 0.86);
- increased Profitability of Cash Inflow by 0.047 (p-value <0.0001; Adjusted R-squared = 0.69);
- increased Profitability of Net Cash Flow by 0.014 (p-value <0.0001; Adjusted R-squared = 0.76).

The obtained data allow us to conclude that social media marketing has a statistically significant positive impact on Profitability of Net Cash Flow of the IT company. In particular, this also proves the effectiveness of marketing in terms of increasing the volume and efficiency of cash flow and improving the company's liquidity.

3.1 Limitations and Implications for the Research

This study has methodological and implementation limitations. A methodological limitation is that 20 IT companies are the subject of the study. If the research is conducted on a larger number of companies, the results may differ from those that we obtained. The implementation limitation is that depending on the specifics of the IT company and the quality of advertising on social media, the impact of advertising on Profitability of Cash Flow may vary. The surveyed IT companies are outsourcing companies and provide a wide range of services, so social media marketing was designed for a large number of target audiences, both individuals and businesses. If another company is engaged in more narrowly specialized activities, social media marketing may not give the results forecasted by our models.

4 Discussions

The results show the positive impact of social media marketing of the IT company in the Ukrainian business environment. It is interesting to compare this effect of social media marketing with companies from other countries, because such a positive effect can be caused by the peculiarities of the internal business environment of Ukraine and the role of social media in society and business. In order to get an answer to this question, we will compare our results with the results of other studies. Let us note that we will use not only IT companies for comparison, because all companies have access to social media marketing at the same level, so the effect of social media marketing for them is comparable. In particular, this is noted in a number of studies [17-20].

Researchers in [21], examining whether social media marketing can significantly increase profits, concluded that such an effect is not observed for shareholders. However, effective advertising on social media can increase the company's profits. Rapid changes in stock prices can be affected by random events. The results of our study show that as a result of social media marketing campaigns, the financial stability of the company's IT is improving. The results of our study also show that advertising on social media increases the profits of IT companies.

In a study of the impact of social media marketing on the performance of microfinance institutions, the team of authors [22] argues that there is a strong positive correlation. Our study also demonstrates a statistically significant correlation between social media marketing campaigns and different Profitability of Net Cash Flow rates of IT companies.

Examining the advantages and disadvantages of social media marketing, the authors [23] note that such marketing is publicly available. So, it can be used by different companies. Social media marketing can be both paid and free, but still allow getting a positive effect for the company. Our study shows that paid advertising can significantly improve the financial performance of an IT company, which in turn translates into improved financial stability through a positive impact on Profitability of Cash Outflow and Inflow.

Another study [24] notes that the use of media marketing can significantly improve the performance of small and medium-sized businesses. Even if there are initial costs for content creation and publication, there is an effect of exceeding the benefits over the initial investment for small and medium-sized businesses.

Besides, for small and medium-sized businesses that do not have large resources for large-scale advertising campaigns, social media marketing is an affordable and effective way to increase the number of its customers [25]. Such conclusions are completely correlated with the results of our study. An IT company that invests in social media marketing has a positive effect on Profitability of Net Cash Flow.

In a study of social media and value of the company's shares [26], the authors found that companies are increasingly using the media to improve their performance. It is established that the company's presence on social networks affects the value of the company's shares. It follows that social media marketing affects not only the indicators of financial stability, as evidenced by the results of our study, but also the value of the company's shares. We assume that if Ukrainian IT companies were public companies whose shares are traded on stock exchanges, the growth of financial stability would also increase the value of its shares [27].

In a study of the impact of social media on economic growth [28], the author notes that companies' and users' access to online networks can improve communication and provide a positive impact on economic growth. This effect can be explained by a reduction in transaction costs. The same effect applies to individual companies, which reduced the costs of finding customers through advertising on social media. Our results confirm this.

A study of the impact of social media on the companies' performance [29] showed a strong positive impact of the company's use of social media on the results of its activities. In particular, such a positive effect is achieved through innovation and brand building, resulting in growing demand for the company's products. The results of this and our study open a new section of the impact of social media on the company's financial stability, in particular the impact of the existing company's brand in social media on its financial stability.

A similar study [30] found that the company's sales increase when social media is used not so much for direct advertising as for communications with customers. In this context, it should be noted that the presence of companies on social media involves not only direct advertising publications, but also publications aimed at building user loyalty to the company and its products. Similar findings were obtained in another studies [30, 31] which showed that the reactions of users of social networks in the form of likes and subscriptions have a positive effect on the company's performance. This confirms the fact that loyalty to the company is converted into improving its performance.

A study by [32] showed that there is a 51% elasticity between sales and marketing campaigns. Besides, content also has a significant impact on increasing sales. This confirms the very idea of social media marketing, which implies a connection between the information that the company conveys to the customer and the customer's decision to buy a product or service.

A comparison of the results with research on the example of foreign companies showed that advertising on social media undoubtedly has a positive impact on companies. However, the nature of this impact is different and can be manifested both in increasing market capitalization and in increasing the profitability of companies. In general, we can say that the positive impact of social media advertising on the performance of companies is typical for both Ukrainian and foreign companies.

5 Conclusion

Social media marketing is becoming an increasingly popular means of increasing customer base and sales. However, in times of pandemic constraints, when markets are shrinking, the issue of financial stability becomes relevant. In this context, the question of how much social media marketing, which is becoming increasingly popular, can improve financial performance is relevant. The activities of IT companies are specific in the sense that they have virtually no material base for their activities. Therefore, the most suitable indicators for assessing their financial stability are indicators based on cash flows.

The study showed that social media marketing has a positive statistically significant effect on such indicators as Profitability of Cash, Profitability of Cash Outflow, Profitability of Cash Inflow, Profitability of Net Cash Flow. These consolidated indicators represent the Financial Stability rate based on cash flow. Comparison of the results of the study with the results of other studies indicate that foreign companies are also characterized by the positive impact of social media marketing on the economic performance of companies.

The obtained results can be used to assess the impact of social media marketing on cash flow and financial stability of IT companies. The conducted research and the obtained results can be used to justify the need for marketing campaigns in the field of IT. The obtained results confirm that marketing campaigns positively influence the economic performance of IT companies. The methodological limitation of the study is that the object of the study is only one IT company. The research conducted on a larger number of companies may give different results. The implementation limitation is that depending on the specifics of the activities of IT companies and the quality of social media marketing, the impact of advertising on the profitability of cash flow may differ. The studied IT company provides a wide range of services, so social media marketing was designed for a large number of target audiences, both individuals and businesses. If another company is more specialized, social media marketing may not give the results forecasted by our models.

The obtained results open perspectives for future research, particularly the impact of marketing campaigns on increasing the number of clients of IT companies and the number of implemented projects.

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