The Impact of Social Media Usage on Performance of the Banking Sector in Middle East and North Africa Countries

R.M. Mahboub[1]

Abstract:

Most of the studies on social media usage (SMU) are based on the individual view while some are from the organizational viewpoint. Nevertheless, most of these studies were conducted in developed economies and concentrated on large organizations. However, not many studies have examined the actual impact of SMU on performance of banking sector.

This research, therefore, fills this gap by looking at the SMU -specifically Facebook usage- in the banking sector of twelve different countries in the Middle East and North Africa (MENA) region. The data is drawn from the annual reports of 102 banks as well as from Social-baker database during the period of 2012 – 2016.

Seven simple linear regression models are applied to find the impact of SMU on each facet of bank performance. The results of the research indicated a positive significant impact of SMU on financial and non-financial performance of banks in MENA countries in terms of profitability, growth and environmental performance.

Therefore, this research recommends that managers of the banking sector in MENA countries should be conscious that their banks' performance could be enhanced by developing capabilities and competences related to SMU and by having a strong intention to use these tools.

Keywords: *Social Media Usage, Performance, Banking Sector, MENA Countries.*

JEL Classification*: G0, M3.*

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[1]*Beirut Arab University, Beirut, Lebanon,* r.mahboub@bau.edu.lb

1. Introduction

Technological developments, increasing market competition, globalization, economic changes, dynamic consumer buying behaviour and changing environment have bring out substantial changes to the manner in which firms communicate with current and anticipated customers (Njeri, 2014; Siamagka *et al.*, 2015). Compelled organizations rapidly adapt and adjust in competent way to attain a competitive advantage over other competitors to improve organizational performance (Dodokh, 2017). Consequently, organizations are forced to seek to develop strategies for existence and progress (Franco *et al.*, 2016). One of these strategies is organizations' involvement in social media usage (SMU) (Akmese *et al.*, 2016).

SMU has lately gained quick notability among businesses as in several other sectors (Icha and Agwu, 2015) and have arisen as a revolutionary internet-related technology (Kaplan and Haenlein, 2010). Kaplan and Haenlein (2010) have clarified it as *"a group of internet based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content"*.

It is the gathering place for consumers, the depository of consumer information, and acts as a technique of dissemination information to build market presence (Hsu, 2012). Given this fact, firms are now building and sustaining SM public pages to enhance their social network eminence, improve interest in their firms, and build up connections with the online public (Parveen *et al.*, 2016).

It includes numerous online platforms such as social networking as Twitter, Facebook, and My-Space; Blogs; User-Sponsored; Multimedia Sites; Collaborative Websites; Company-Sponsored Websites; and Podcasts (Tajudeen, 2014). These innovative online tools have switched the emphasis of internet services from being "consumption-based" towards becoming some more "interactive and cooperative", creating new excellent opportunities for communication between firms and publics (Henderson and Bowley, 2010; Grima and Caruana, 2017).

Thus, SM usage have been thought out valuable. As it aids to increase customer base (Bhanot, 2009). It improves efficiency and effectiveness (Constantine, 2013). It reduces costs (Harris and Rea, 2009). It aids firms in partnership building with other firms (Braskov, 2011). It helps organizations to understand customer needs (Parveen *et al.*, 2016). It improves communication and cooperation among employees (Meske and Stieglitz, 2013). It motivates firms to respond to customer needs (Parveen *et al.*, 2016). It increases exposure and traffic (Stelzner, 2014). It creates business and consumer relationships (Icha and Agwu, 2015). It improves connectivity (Cachia, 2008). And it is a very powerful mobilization tool as firms utilizing it are keen to take risks and invest in new products to satisfy customers, to get better feedback, and enhance the brand image (ElTantawy and Wiest, 2011; Parveen *et al.*, 2016).

Hence, all kinds of firms- ranging from start-ups and small and medium enterprises (SMEs) to large firms (Lee *et al.*, 2008; Bell and Loane, 2010) - regardless of their size and activities have recognized the significance of adopting SM (Nah and Saxton, 2012). Accordingly, based on its importance; firms are progressively investing in SM (Williamson, 2011). Thus, lately SM usage in corporate context has been subject to substantial consideration as there are an increasing number of studies concentrating on the usage of SM by companies (Meske and Stieglitz, 2013). These studies have asserted the positive impact of SMU on firms in numerous dimensions such as improve customer relationship management (CRM) practices and enhance export-marketing performance (Lu and Julian, 2007).

Consequently, literature about the subject is expanding, but there is still little scholarly evidence that examines how the utilization of SM influences firm performance in the Middle East and North Africa (MENA) region especially in banking sector (Larson and Watson, 2011; Urquhart and Vaast, 2012).

Therefore, this research attempts to cover this gap by investigating the specific impact of SMU particularly Facebook- the leading in the world- on bank performance (BP) in selected MENA countries for the period from 2012 to 2016. Consequently, this research aims to answer the question, "How does Facebook usage impact the performance of MENA banks?"

The research starts with a review of existing literature that have examined the actual impact of *SM*U on organizational performance to identify the precise nature of this association and to develop a model. Following this, the methodology is discussed and results are presented. The research then discusses the key findings and concludes with research limitations and opportunities for future research.

2.   Literature Review and Hypotheses Development

As in the last few years, the effective ways of interacting and communicating between individuals speedily enlarged to substitute the traditional tools; among those, SM applications are considered to take up the substantial interest allowing the people, groups and businesses to share and exchange information, ideas and feedbacks (Daowd, 2016). It offers enormous prospective for firms to get closer to customers and, by doing so, enlarge income and reduce cost (Baird and Parasnis, 2011; Lapparova and Rupeika-Apoga, 2017; Novokreshchenova et al., 2016; Bojare and Romanova, 2017).

Thus, SM has become a research topic for numerous areas, the banking area being no exception (Dănăiață *et al.*, 2014). Despite the various benefits of using social networks, research at the organizational level and its impact on business performance have not grown as rapidly as would be desirable (Lovejoy and Saxton, 2012; Hassan *et al.*, 2012; Franco *et al.*, 2016). Prior studies have examined the use

of social networks in organizations, but only a few have investigated the impact on performance in banking industry (Chikandiwa *et al.*, 2013; Aluoch, 2017).

For instance, Nyambu (2013) aimed to establish the effect of SM marketing on performance of telecommunication organization in Kenya; a case of Safaricom Ltd based on a survey targeted to fourty-eight employees working at Safaricom Ltd head office in Westlands in customer relation and logistics department for the year 2013. The regression analysis found out that SM enhanced the performance of the firm as it offered a platform for marketing at a low-cost compared to other forms of marketing available.

Moreover, Smits and Mogos (2013) explored the impact of SM and analyzed to what extent SM have impact on organizational capabilities and business performance based on a survey sent to sixty technical employees and business employees of Sponsor Pay an online game advertising industry as well as five interviews with senior managers of the firm. The ANOVA results demonstrated that the use of SM improves both business capabilities and business performance.

Furthermore, Surin and Wahab (2013) investigated the impact of social network on business performance in the Malaysian established manufacturing SMEs based on a data collected through mail questionnaire sent to two hundred and twenty-six owner-manager in manufacturing industry around Malaysia. The outcomes of hierarchical multiple regression revealed that network centrality has significantly positively effect on business performance. However, family members networking and network density have positively but not significantly effect on business performance.

Along, Njeri (2013) sought to establish the effect of SM interactions on financial performance of forty-four commercial banks in Kenya for the period 2011-2013 based on primary data, collected using semi-structured questionnaires and secondary data from the banks' financial reports. Using multiple linear regression models, the results revealed that the commercial banks have witnessed a substantial increase in the average number of new customers. This has resulted to a growth in the average loan portfolio and revenue in terms of the interest earned. The result has been enhanced performance among the commercial banks in Kenya over the three years.

Besides, Tajudeen (2014) investigated the factors that influence the SMU, the various purposes of using SM, and its subsequent impact on organizational performances among Malaysian firms for year 2012 based on a mixed method approach. That comprises web content analysis of Facebook pages for five hundred and sixty-seven firms. In-depth interviews among six organizations listed under the main board of the Kuala Lumpur Stock Exchange that were using SM effectively from five different industries. In addition, survey method that was administered to key organizational informants such as senior managers from the corporate communication or marketing department or the head of SM team of six hundred and sixty-four organizations. The results of the analysis showed that the usage of SM had

a stronger, positive impact on organizational performance in terms of customer service, information accessibility, cost reduction for marketing and customer service activities.

Karjaluotort *et al.* (2015) attempts to investigate the relationship between an organization's SM activity and two outcomes, namely, company reputation and organization financial performance based on a survey that was administered to 9,802 respondents from different age, gender, and regional groups of fifty-nine organizations that operate in Finland for year 2013. The results of the two-tailed Pearson's correlation indicated that an organization's SM activity is only partially linked with its financial performance and is not linked with corporate reputation.

Additionally, Parveen *et al.* (2015) investigated the numerous purposes of SMU and its impact on organizational performance based on a qualitative approach. The data for the study were collected from six organizations operating in Malaysia that use SM for their business activities through semi-structured in-depth interviews with senior managers. The results indicated that SM is used for several purposes in firms, such as advertising and promotion, branding, information search, building customer relations and many more. The results also show that SM has a greater impact on the performance of firms in terms of improvement in customer relations and customer service activities, enhancement in information accessibility and cost reduction in terms of marketing and customer service.

Smith *et al.* (2015) analyzed which SM platforms are being used by two hundred fifty firms chosen from CNN's list of largest American corporations and whether adoption varies by industry, firm size, and growth opportunity. Organization financial information is examined as well to determine if there is an association between higher use of SM and greater financial performance for the year 2013. The data were obtained from the Compustat North America Fundamental Annual database. The results of One-way ANOVAs indicated that increased adoption of SM platforms is not associated to differences in financial performance overall.

Vazifedoost and Farzin (2015) aimed at analyzing the impact of SM on organization performance as a new marketing strategy tool at High-Tech and Fragrance industry in Iran based on a case study of two SMEs Iranian firms' by analyzing the Facebook and Twitter accounts of randomly selected "high-tech retail chains" and "fragrance retail chains" SMEs from Iran. Based on the qualitative method for data analysis, the findings revealed to different performances and point of views of the firms' SMU in terms of new marketing strategy.

Akmese *et al.* (2016) analyzed and evaluated the association between financial performance (market value, net sales, net profits, price/earnings ratio etc.) and efficient usage of SM for eleven tourism enterprises being traded on BIST for the year 2014 based on a data obtained from public disclosure platform and official web site of BIST. The results of Mann-Whitney U test demonstrated that the use of SM

in tourism enterprises being traded on BIST has a positive effect on net profit, market value, market value to net sales ratio and price to earnings ratio of an enterprise.

Mwangi and Wagoki (2016) intend to determine how interactivity of SM affects performance of advertisement business in the leading media groups in Kenya based on a structured questionnaire administered to eighty-two employees working with the marketing departments of the five media houses. The inferential statistics employed revealed that interactivity of SM was positively associated to performance of advertisement business. It was concluded that interactivity was a very significant aspect of SM relative to performance of advertisement business.

Identically, Daowd (2016) aimed at investigating and clarifying the impact of SM on organisational performance (efficiency, financial sustainability, portfolio quality, and outreach) of microfinance industry (MFI) based on a web-based questionnaire that was distributed to three hundred and eighty-three MFIs employees for one thousands firms in developing countries such as Kenya, India and Jordan. Using structured equation modelling (SEM) technique, results revealed a significant influence of the SM over the MFIs performance, conforming that the adoption of SM as marketing, advertising and communication tools could significantly enhance the MFIs performance.

Franco *et al.* (2016) aimed to ascertain the motives for adhering to social networks and to understand if this type of network influences performance of SMEs in an inland region of Portugal. A quantitative research was adopted, based on application of a questionnaire, that was sent via e-mail to the owner-managers or CEOs of the eighty-six SMEs involved in social networks. Based on a multiple linear regression, the key findings demonstrated that the social network most commonly selected by the SMEs is Facebook. These SMEs use social networks to present their services to a larger number of prospective customers and to obtain low-cost marketing tools. Moreover, SMEs adoption of social network contribute to enhancing their financial and non-financial performance.

Parveen *et al.* (2016) investigated the impact of SMU on the performance and the entrepreneurial orientation of one hundred and seventy-four Malaysian firms based on an online survey of senior managers of all the firms who handle the SM division. Based on the structural model results, the study showed that SMU has a very strong positive impact on firms' performance, in terms of cost reduction, enhanced customer relations, and improved information accessibility.

Similarly, Dodokh (2017) aimed to investigate the impact of SMU in Dead Sea products firms in Jordan on organizational performance based on a survey that was administered to one hundred and sixty-nine managers and supervisors working at twenty Dead Sea products firms. The results indicated a positive significant impact

of SMU on organizational performance in Dead Sea products firms in Jordan in term of rapid adaptation, time to market, cost reduction, satisfaction, and innovation.

Likewise, Okari (2017) sought to establish the effect of SMU on financial performance of microfinance institutions in Kenya based on a census survey of all the thirteen licensed DTMFIs in Kenya from 2014 to 2016. The regression analysis shows that the SMU has a significant effect on financial performance among microfinance institutions in terms of revenue earning growth.

Kazungu *et al.* (2017) explored how SM influence the Micro Enterprises' (MEs) performance in Moshi, Tanzania in the context of customer's base, sales growth, profit maximization, and brand improvement. Data were collected with the use of interview and questionnaire among owner-managers of ninety MEs. The ANOVA findings indicated that these MEs have been using SM largely and this has contributed to superior business performance. It has been evident that SM has assisted these enterprises to reach out more customers and satisfy their needs, improve brand awareness, customer base, profit gain, sales volume and brand image.

In addition, Malhotra (2017) focused on establishing the impact of social networking sites particularly Facebook on financial performance of banks in India based on a survey of Facebook pages of forty-seven public and private (domestic) banks during the period 2012-2014. Multiple regression results revealed that the profitability and having Facebook presence does not have any significant relationship.

In the same vein, Tajvidi and Karami (2017) investigated the influence of SM on organization performance with mediating role of marketing capabilities in the United Kingdom (UK), hotel industry based on a mail survey data that has been collected from a sample of three hundred and eighty-four hotels in the UK. Results from SEM demonstrated the positive and significant association between SMU and firm performance. Dealing with SM for bookings and marketing activities has positive and significant effect on overall performance of studied organizations.

Ahmad *et al.* (2018) presented a quantitative survey to explore factors that influenced SM adoption by SMEs in the United Arab Emirates (UAE), and its impact on performance. Survey questionnaires targeted owner-managers or CEOs were used to collect data from a random sample of SMEs operating in the UAE. Using partial least squares and SEM techniques, one hundred and forty-four responses were analyzed. The findings indicated that SM adoption had no effect on SMEs' performance.

As can be seen from the above studies, previous researches have investigated the effect of SMU on organizational performance of companies from various industries as telecommunication (Nyambu, 2013), advertising (Smits and Mogos, 2013; Mwangi and Wagoki, 2016) manufacturing (Surin and Wahab, 2013), tourism (Akmese *et al.*, 2016), microfinance (Daowd, 2016; Okari, 2017) and hotel (Tajvidi

and Karami, 2017). In various countries such as Kenya (Nyambu, 2013; Njeri, 2013; Mwangi and Wagoki, 2016; Okari, 2017), Malaysia (Surin and Wahab, 2013; Tajudeen, 2014; Parveen *et al.*, 2015, 2016), Finland (Karjaluotort *et al.*, 2015), Iran (Vazifedoost and Farzin, 2015) and Portugal (Franco *et al.*, 2016). However only few studies have examined the impact of SM on organizational performance of banking sector (Njeri, 2013) in MENA countries (Dodokh, 2017). In the same vein, most of the prior studies agreed that when firms use SM, there is probable to be a positive impact in terms of both financial and non-financial performance. Therefore, and based on the theoretical suppositions presented, the following research hypotheses are formulated:

H₁: SMU will have positive impact on financial performance of banks in MENA countries.

H₁ₐ: SMU will have positive impact on profitability of banks in MENA countries.

H₁ᵦ: SMU will have positive impact on growth of banks in MENA countries.

H₁𝒸: SMU will have positive impact on market value of banks in MENA countries.

H₂: SMU will have positive impact on non-financial performance of banks in MENA countries.

H₂ₐ: SMU will have positive impact on customers' satisfaction of banks in MENA countries.

H₂ᵦ: SMU will have positive impact on employees' satisfaction of banks in MENA countries.

H₂𝒸: SMU will have positive impact on environmental performance of banks in MENA countries.

H₂𝒹: SMU will have positive impact on social performance of banks in MENA countries.

3. Research Methodology

3.1 Research Sample

The sample of this research consists of 102 banks from 14 separate countries in MENA region for a period of five consecutive years from 2012 to 2016 (Table 1). The sample banks are selected based on stratified sampling. However, the sample banks meet the following criteria: the banks have websites; the banks had produced annual reports in their websites for a period of five consecutive years (2012-2016) in the English language; and the banks have Facebook pages. These MENA countries were chosen for the practical reason that the researcher was able to obtain the annual reports of banks residing therein from corporate websites and get their Facebook pages from Social bakers SM marketing platform.

Table 1. *Sample Size*

Country	Number of Banks
1. Lebanon	13
2. Qatar	8
3. Kuwait	7
4. Yemen	3
5. Oman	7
6. Bahrain	5
7. Jordan	11
8. Saudi Arabia	10
9. Egypt	11
10. United Arab of Emirates	14
11. Palestine	5
12. Iraq	3
13. Malta	3
14. Syria	2
Total	**102**

Source: *Developed by the Researcher.*

3.2 Research Model

Based on the insights gained from discussion and assessment of the literature, the following research model showing the association between independent variable and dependent variable was generated (Figure:1).

Figure 1. *Research Model*
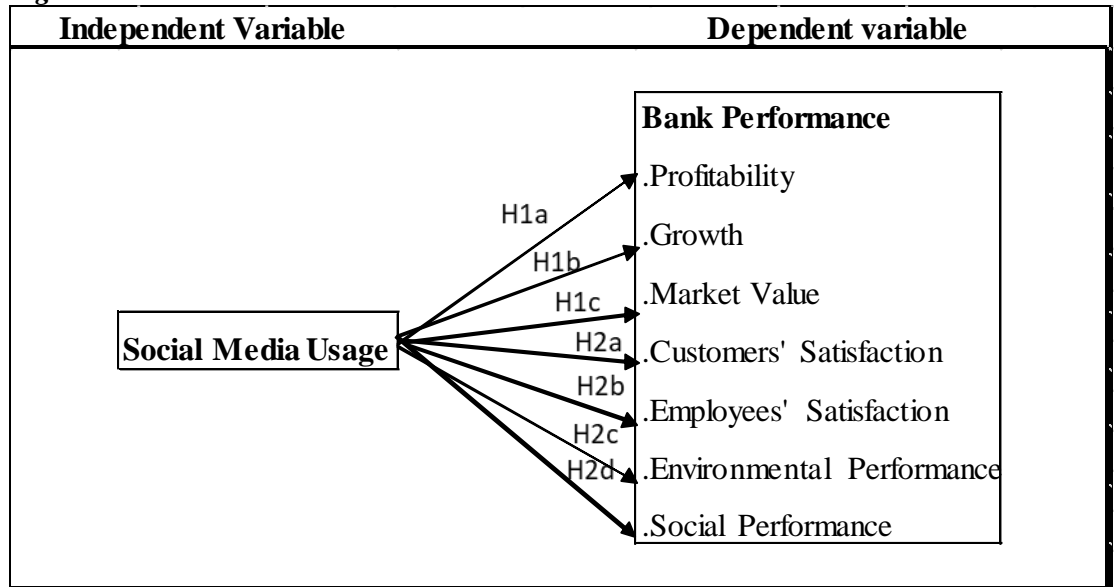
Source: *Developed by the Researcher.*

3.3 Data Collection

For the purpose of this research, the data about the dependent variable (BP) are extracted from the published annual reports of a sample of banks from 14 separate countries in MENA region from their official website for a period of five consecutive years 2012-2016. On the other had, the data about the independent variable (SMU) are collected from the Facebook pages of those MENA banks from social bakers' website.

3.4 Measurement of Variables

Many different approaches have been utilized in the literature to measure organization performance. For instance, some studies measure organization performance with a single indicator (Miller, 2013), while others measure it as unidimensional where researchers select the dimensions most applicable to their research (Richard *et al.*, 2009). Although this fact, however this research conceptualizes BP, based on satisfying the stakeholders, as having seven facets: profitability (PROF), growth (GRTH), market value (MV), customer satisfaction (CS), employee satisfaction (ES), environmental performance (EP) and social performance (SP) (Santos and Brito, 2012). On the other hand, a close look at the literature of SMU demonstrates that questionnaire measures have been adopted by numerous researchers to measure SMU (Kazungu *et al.*, 2017; Dodokh, 2017; Ahmad *et al.*, 2018). Although questionnaire measures are frequently utilized in the prior studies, however this research have used total fans of Facebook pages as a proxy for SMU of banking sector in MENA region. The measurement of each variable is shown in Table 2.

Table 2. *Variables Definition and Measurement*

Variable	Definition	Measurement	Reference
Independent Variable			
SMU	Fan of Facebook	Total fans of Facebook pages	Socialbakers
Dependent Variables			
Financial Performance			
PROF	Return on Assets	Net Income / Total Assets * 100	Amankwaah, 2016
GRTH	Asset Growth	New assets – old assets / old assets	Florido *et al.*, 2015
MV	Earnings per Share	Net income - dividends on preferred stock / average outstanding shares	Richard *et al.*, 2009
Non- Financial Performance			
CS	Revenue Growth	New revenues – old revenues / old revenues	Okari, 2016
ES	Staff Expenses	Total employees' costs	Bakotić, 2016

	Environmental Activities	Number of words included in the annual report on the bank's environmental activities	Kabir & Akinnusi, 2012
EP			
SP	Employment Practices	Number of words included in the annual report devoted to employment practices	Kabir & Akinnusi, 2012

Source: *Developed by the Researcher.*

4.   Research Findings and Discussion

4.1 Descriptive Statistics and Correlation Analysis

The following Table 3 presents the descriptive statistics and the correlation matrix of the variables considered in the research.

Table 3. *Descriptive Statistics and Correlation Analysis*

	Mean	SD	SMU	PROF	GRTH	MV	CS	ES	EP	*SP*
SMU	247,143.10	459,064.80	1							
PROF	0.0129	0.01055	0.122**	1						
GRTH	0.0918	0.14238	0.284**	-0.016	1					
MV	1.6275	3.18844	-0.034	0.049	-0.026	1				
CS	0.0985	0.61799	0.002	-0.03	0.052	-0.142**	1			
ES	660255.572	6552345.91	-0.034	0.067	-0.017	0.018	0.009	1		
EP	199.1353	344.69893	0.102*	-0.013	-0.005	0.075	-0.075	0.670**	1	
SP	241.7275	301.09253	-0.079	-0.023	0.014	0.104*	-0.036	0.440**	0.502**	1
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

Source: *SPSS (20) Outputs.*

Table 3 shows that the average and SD of SMU are 247,143.1 and 459,064.8. This demonstrates that, the average number of fans of bank Facebook pages in MENA region is around 247,143 fans. Then it seems that SM networks and especially Facebook is used widely by banks of MENA countries clients. This indicates that banks in MENA region tend to be strongly concerned with using SM networks for advertising, building customer relationships, and promoting their brand.

The average and SD of profitability are 0.0129 and 0.01055. This suggests that profitability has a mean value of 1.29 percent. This implies that the management of banks in MENA region have generated on average 1.29% return for each asset employed.

The average and SD of growth are 0.0918 and 0.14238. This point out that growth has a mean value of 9.18 percent. This shows that the growth rate in total banking-sector assets in MENA region is 9.18%.

The average and SD of market value are 1.6275 and 3.18844, indicating that the average earnings by the sampled banks in MENA countries is 1.63. The average and

SD of CS are 0.0985 and 0.61799, revealing that there is a growth in net revenue for the banking sector of MENA countries by 9%.

The average and SD of ES are 660255.5718 and 6552345.91290, demonstrating that the banks in MENA countries are spending an average of $660,255 per year as employees' costs.

The average and SD of EP are 199.1353 and 344.69893, representing that on an average, the number of words disclosed in the annual reports of MENA countries banks about environmental activities is about 199 words.

Finally, the average and SD of SP are 241.7275 and 301.09253, showing that on an average, the number of words disclosed in the annual reports of MENA countries banks about employment practices along with health and safety is about 241 words.

On the other hand, based on this correlation matrix, it also stands out that the variables show an only moderate level of correlation to each other, none of them exceeding the cutoff value of 0.6 (Franco *et al.*, 2016). Moreover, the VIF values are equal to one, which according to O'Brien (2007) indicates no multi-collinearity problems.

4.2 Regression Analysis

Aiming to test the research hypotheses, a single linear regression was performed to determine associations of SMU (independent variable) with each of PROF-GRWTH-MV-CS-ES-EP and SP (dependent variables). Analysis of those regressions is found in Table 4.

Table 4. Regression Analysis

IV	DVs						
	PROF	GRWTH	MV	CS	ES	EP	SP
SMU	0.122	0.284	-0.034	0.002	-0.034	0.102	-0.079
F-Value	7.714	44.525	0.590	0.002	0.599	5.370	3.192
P-Value	0.006	0.000	0.443	0.960	0.439	0.021	0.000
R	0. 122	0.284	0.034	0.002	0.034	0.102	0.079
R2square	0.015	0.081	0.001	0.000	0.001	0.010	0.006
Adjusted R2	0.013	0.079	-0.001	-0.002	-0.001	0.009	0.004

Source: *SPSS (20) Outputs.*

Table 4 shows that the coefficient of SMU *(model 1)* is positive 0.122 and significant 0.006. This indicates that there exists a positive significant relationship between SMU and PROF of banks in MENA countries. Therefore, H_{1a} is accepted. Consistent with the existing literature, this seems that SMU has brought a positive rise in PROF of banking sector in MENA region, as SMU has become the basic strategy to gain competitive advantages among the competitors (Murimi, 2016).

The coefficient of SMU *(model 2)* is positive 0.284 and significant 0.000. This reveals that there exists a positive significant relationship between SMU and GRWTH of banking sector in MENA countries. Consequently, H_{1b} is accepted. This finding points out that banks in MENA region have embraced use of SM; gives them a good opportunity to market themselves and pass information to their customers, which improved their GRWTH enormously (Aluoch, 2017).

The coefficient of SMU *(model 3)* is negative -0.034 and insignificant 0.443. This demonstrates that there exists a negative influence of SMU on MV of banks in MENA countries, but it is not statistically significant. This finding suggests that SMU does not influence MV of banks in MENA region. Accordingly, H_{1c} is rejected. Unfortunately, little research has investigated this issue.

The coefficient of SMU *(model 4)* is positive 0.002 and insignificant 0.960. This implies that there exists a positive influence of SMU on CS of banks in MENA region, but it is not statistically significant. This result pinpoints that SMU does not influence CS of banks in MENA countries. Hence, H_{2a} is rejected. This result can be explained by the fact that customer's confidences would be based on security and confidentiality of their information (Njoroge and Koloseni, 2015). Thus, customers felt not contented with using SM, as they are terrified that their identities might be stolen or misused, and thus the customers do not find SM as an appealing tool for marketing (Khan *et al.*, 2017).

The coefficient of SMU *(model 5)* has the negative unexpected sign -0.034 and insignificant 0.439. This signifies that SMU is not significantly influencing ES of banks in MENA countries. Thus, H_{2b} is rejected. This seems that employees devote most of their time on SM improving personal networks instead of utilizing SM for looking for and viewing general information (Nyaribo and Munene, 2013).

The coefficient of SMU *(model 6)* is positive 0.102 and significant 0.021. This points out that there exists a positive significant association between SMU and EP of banks in MENA region. Subsequently, H_{2c} is accepted. This result indicates that the widespread usage of SM tends to coincide with high EP index values, showing the capability of SM to impact and measure certain facets of environmental sustainability (Dao *et al*., 2011).

The coefficient of SMU *(model 7)* has the negative unexpected sign -0.079 but it is significant 0.439. This signifies that SMU is significantly negatively influencing SP of banks in MENA countries. Thus, H_{2d} is rejected. One explanation for this could be that banks in MENA countries use SM uniquely as a marketing and advertising channel, while disregarding the amount of information about SP (Cortado and Chalmeta, 2016). This may be due to banks use at least one channel to communicate SP activity, with greater significance placed on annual reports (Matuszak and Rózanska, 2017).

5. Conclusions, Limitations and Future Research

This research sheds light on the impact of SMU- specifically Facebook usage on financial and non-financial performance, which has so far received little research attention, of 102 banks operating in twelve different countries in MENA region for the period from 2012 to 2016. The data of the research were obtained from 510 bank's annual reports as well as from Social-baker database. The results revealed that Facebook usage has a positive impact on BP both financial and non-financial. The research found that Facebook usage has a positive impact on financial performance of the banks in MENA region in terms of PROF and GRTH. Facebook usage also has a positive impact on non-financial performance of those banks regarding EP. The result is consistent with previous findings that found positive relationships between SMU and organizations' performance (Shuai and Wu, 2011; Stone *et al.*, 2007). Thus, SMU has helped banks in MENA countries to rise their profitability, market themselves, pass information to their customers, improve their growth, and affect environmental sustainability.

This research is not beyond limitations. This research is dedicated to a single industry (banking industry) in some MENA countries, so it is advisable to study the SMU on other industries and countries. The importance of SM might vary in other contexts, other industries, and other countries. The current research was considering one type of SM platform (Facebook). Further studies could consider another SM platform such as Twitter. Each type of SM could be another path of research. The current research uses only some selected performance indicators to represent the seven performance constructs, the selected indicators may not comprehensive and sufficient to evaluate the bank's financial and non- financial performance. Therefore, future researcher is recommended to consider additional performance indicators for each performance construct.

Despite these limitations, this research be a contribution to filling present gaps and to future research on banks' reasons for utilizing social networks, therefore specifying new paths toward future viability and developments, perhaps a comparative analysis of these and in other sectors of activity. This research also contributes to enriching the literature on study of the reasons for utilizing social networks in banking sector as well as their relationship with banks' financial and non-financial performance. Therefore, this research recommends that managers of banking sector in MENA countries should be conscious that their BP could be enhanced by developing capabilities and competences related to SM and by having a strong intention to utilize these tools.

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