

## The Effect of Facebook Community Factors on Social Capital Development and Moderating Role of Individual Differences of Univeristy Students in Libya

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**Abstract:** Online Social Networking sites (OSNs) including Facebook allow users to present themselves, navigate through a wide variety of social networks and build or preserve connections with others. Social capital provides opportunity for an individual to make use of resources from other individual participants of the networks in improving their personal and social lives. These resources may be in the form of beneficial information, personal relationships or the ability to put groups in order. In addition, scholars on social capital have noted that different kinds of social capital such as ties with friends and neighbors, emotionally closed relationship, support and companionship are associated with measures of psychological well-being, like satisfaction with life and self-esteem. Therefore, this study set out to investigate the effect of Facebook community factors on social capital development. Also, the study examines the moderating role of individual difference on the relationship between community factors and social capital development in Libya. The findings of this present study revealed that, community factors significantly influence social capital development on Facebook. Also, the findings show that individual difference did not moderate the relationship between community factor and social factor. The implication of these findings was discussed in this study.

**Key words:** Community factors, social capital development, Facebook, university students, Libya, examines

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### INTORUDCTION

Social capital development is generally believed to be a positive consequence of interactions taking place among the users of social network sites (Helliwell and Putnam, 2004). Social capital provides opportunity for an individual to make use of resources from other individual participants of the networks in improving their personal and social lives. These resources may be in the form of beneficial information, personal relationships or the ability to put groups in order (Paxton, 1999). In addition, scholars on social capital have noted that different kinds of social capital such as ties with friends and neighbors, emotionally closed relationship, support and companionship are associated with measures of psychological well-being, like satisfaction with life and self-esteem (Helliwell and Putnam, 2004; Burke *et al.*, 2011).

Online Social Networking sites (OSNs) including Facebook have been popularly significant in the exchange of different information and in communicating with various cultures worldwide. OSNs also allow users to present themselves, navigate through a wide variety of social networks and build or preserve connections to

others (Sheng *et al.*, 2011). The growth of OSNs reflects the enduring social need of humans to connect and communicate with one another. Thus, it is in human nature to be social. People always want to use whatever tools they have to communicate including using the internet.

This is a reality in Libya which is currently emerging from the dictatorial regime into a democratic and free society. This new found freedom is fueling dramatic growth of internet usage, especially, among university students. An important growing activity that has formed a significant aspect of Libyan university student's social (Gemmill and Peterson, 2006). These students are the largest proportion of the Libyan population on the internet (DeBell and Chapman, 2006; Raju, 2014).

The use of social networkingsite is associated with individual differences of social communication skills and self-esteem (Burke *et al.*, 2011; Valkenburg *et al.*, 2006). However, the advent of the internet-based new media have spurned two perspectives in relation to their impact on social life. One perspective known as optimist posits that the internet will lead to improved social interaction and improve academic performance (Hamat *et al.*, 2012; Alloway and Alloway, 2012; Vooren and Bess, 2013). On

the contrary, the pessimist argues that social networking sites adversely affect the student's social life (Ellison *et al.*, 2007; Gafni and Deri, 2012; Paul and Gelish, 2011).

Several empirical studies have been carried that either validates or disputes the positions, most of them from the Western perspectives. Few studies have focused on "emerging sites" of internet users like Libya. It is of oblivion on how these theoretical perspectives will perform in a country where the citizens were not free to use the internet for cultural and political reasons. More so, past studies, like Barak and Levenberg (2016) have investigated the individual trait as a moderating influence on the relationship between various internet activities like Facebook and social capital. There are cultural and personality factors that are likely to indirectly account for how students from Libya a highly conservative Arab country use the social networking sites. Burke *et al.* (2011) had found that personal trait moderates the relationship between the rate of Facebook use and social capital. In fact, Balloo *et al.* (2016) revealed that personal trait was a significant predictor of individual difference. Therefore, the study will also further investigate the effect of individual difference as a moderator in the relationship between Facebook community factor and social capital. Thus, it could bridge the gap of previous study and enhance the body of knowledge in academics-both in practical and theoretical. On the basis of these observations, the current study tends to address the following questions as it relates to the university students in Libya in order to provide better understanding of the foregoing issues.

What is the relationship between Facebook community factors (Interaction with peers, interaction with lecturers, student engagement) and social capital to what extent do individual differences moderates the relationship between Facebook community factors and social capital?

### Literature review

**Community factors and social capital:** The concept of social capital has various definitions in different contexts across different disciplines but it is widely understood as the resources available in social networks that gives benefits to the parties within those networks. In higher education, community factors such as peer interaction, teacher interaction and student engagement can be important resources to acquire social capital. According to Pascarella (2006), the accumulation of social capital can ensure success in institutions of higher learning as it helps students to cope with unfamiliar college environments while pursuing their educational goals. In

this way, peer networks provide resources for students to negotiate the social, physical and academic environments of the universities. These peer interactions can significantly enhance motivation, degree plans, intellectual development and personal growth. Furthermore, Tierney and Venegas (2006) also found that peers can create social networks that provide a culture of school success in order for students to smoothly negotiate through the organizational structure of the institution. This can also include the formation of peer mentorship programs to capitalize on their influence for students to acquire information and support as well as benefit them from a socio-economic standpoint that ultimately contribute to their success in school.

In the same vein, Prado opined that, social networks improve college student's community lives. In specific, the result shows that, peer relationships contribute towards the acquisition of social capital. In any educational institution, teachers play a major role in the student's life. Pil and Leana (2009) investigated how teacher human and social capital influences student performance and found that teacher human capital can have a positive effect on student performance. Similarly, Smyth (2004) argued that students who come from disadvantaged socioeconomic background are especially, dependent on teacher and school support to ensure their success. This study, however, cautioned that teachers are not completely free agents and can be held back by the institution's academic aims that are not necessarily consistent with their own educational aims.

Ream and Rumberger (2008) investigated the relationship between student engagement and peer social capital and its effects on the dropout rate due to low academic performance of students. Results showed that student engagement can positively benefit social capital and creates a competing friendship network that helps in school completion. However, white students among the considered students were found to be more engaged in unorganized academic endeavors and formally sponsored extracurricular activities compared to Mexican American students due to their high sense of social capital. Therefore, it seems that no studies conducted to examine the effect of Facebook community factors on social capital development, especially, their self-esteem and communication skills. Therefore, it is important to look at how the community factor is related to social capital as shown by the second hypothesis as:

- H<sub>1a</sub>: community factors (interaction with peers) are significantly related to social capital development
- H<sub>1b</sub>: community factors (interaction with teachers) are significantly related to social capital development

- $H_{1b}$ : community factors (student engagement) are significantly related to social capital development

**Moderating influence of individual differences:** Literature on media studies have indicated the relationship between individual differences and media usage (Burke *et al.*, 2011) observed that, few studies working in the area of social network sites account for the impact of individual differences. While use of Facebook and community factors may have both positive and negative outcomes of social capital development. People with low self-esteem and social communication skills contribute to how effective is Facebook use on social capital development. Hence, Facebook users have been found to reduce social boundaries and improve social communication skills (Steinfeld *et al.*, 2009).

Social communication skills are needed for a sustainable relationship in both online and offline relationship situation. Burke *et al.* (2011) assert that social communication skill requires the individual to be sensitive to the clues coming from the other parties involved in the communication. This means the communicator is able to recognize nonverbal signals that tell you the disposition of the receiver. For example, knowing when the person is getting bored. Social networking mimics the offline communication situation thus, exacting similar condition for interaction among those engaged in relationships. The implication of the reality is that, it is not enough to engage in Facebook intensity or participation in online chat forum or groups with the hope of using them to build social capital and improved academic performance, the level of the social communication skills exhibit will moderate the relationship.

Online communication is multimedia where video, text and audio can be combined but they offered little amount of social cues. Similarly, online communication lacks richness and can be ambiguous in meaning. People scoring high on different personality traits may exhibit unique preferences for online expression. It has been proposed that those who score high on introversion and Neuroticism can better express their “true self” through internet communication while those who score high on extraversion find an expression of self-more in face-to-face interaction (Amichai-Hamburger *et al.*, 2002). However, since, the evidence has not fully supported this: extraversion was shown to positively correlate and relate to using the internet to maintain both remote and face-to-face friendships (Tosun and Lajunen, 2010).

In addition, personal trait such as self-esteem which can either be an introvert or extrovert which contribute to what and how ones uses the internet. The personal trait

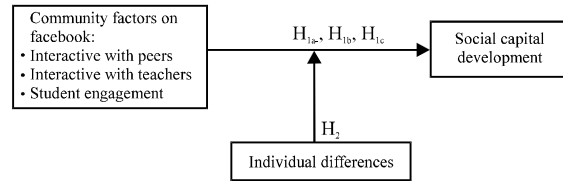


Fig. 1: Conceptual frame work

has been found to moderate community factors on Facebook (Burke *et al.*, 2011). Findings of previous studies on the role of personal trait have indicated that students with introvert traits tend to spend more time online when compared to their extroverted counterparts. In addition to being less agreeable and less conscientious personality, the introvert maintains fewer social obligations thus freeing up more time to spend online. In contrast, the extravert is socially conscious, engage in face-to-face interactions and spend more of their discretionary time chatting and networking both offline and online. These social activities tend to reduce the time the extrovert spends on the social network. For students in an environment like a university campus, this two personal trait will manifest differently when go online. The result will likely be a deferring academic performance and building social capital. The impact of personality trait on online activities can also be seen in the sense of safety individuals exhibits in relation to online activities. For example, Caplan (2006) study reveals that persons with feelings of anxiety shows concern for self-preservation and thereby feel more comfortable interacting online. Subsequently, the two measures of individual differences which are self-esteem and social communication skills are used to moderate the relationship between Facebook community factors among university students and social capital development. Hence, the following hypotheses are formulated:

- $H_2$ : individual differences moderates the relationship between Facebook community factor and social capital development (Fig. 1)

## MATERIALS AND METHODS

This study employs a quantitative approach as the appropriate research design to test the variables and in the aims of achieving the study highlighted objectives. The target population of this study is the undergraduate students of Libyan who are studying in the three selected colleges at university of Sirte, Libya. The study’s population is fairly homogenous, that is, there is little variability in the characteristics of the population. The

total number of these three colleges are 13.446. According to Krejcie and Morgan (1970), the minimum required sample size of this population is 438 sample size. Furthermore, this study adopts a proportionate-stratified random sampling techniques to select participants from the colleges in all the sampled universities. Each of the sampled universities were stratified to colleges (Sciences, Economy and Arts) and participants were proportionately selected according to the population of students in various colleges. The measurements for measuring the understudied variables were adopted from previous studies. All responses for all the items in the questionnaire were also tailored on a five-point Likert scale ranging from strongly disagree to strongly agree and were validated by Ahmed and Mustaffa.

## RESULTS AND DISCUSSION

**Profile of respondents:** This study discusses the respondent's and organization general information and provides detailed updates on information about the respondents. Out of 438 respondents, 60% of them were male, compared to 40% female. The majority of the respondents were aged 18-20 years old (60.0%) and the rest were 20-22 years old (40.0%). About 45.4% of them were also fourth year students, first year (13.0%), second year (19.6%) and third year (21.9%). The 13.0% of the respondents were also from the Faculty of Science/Engineering/Agriculture, Business/Economy (12.8%), Arts and Law (20.5%), Human Medicine/Medical Technology (19.4%) and other faculties (34.2%). 87.0 percent of the respondents have the Facebook account and all of the them accessed the account at their home. The majority of them have <50 Facebook friends (92.5%) and most of the friends were their acquaintances (49.5%).

**Effect of community factors and Facebook intensity on social capital:** This study also attempted to examine the effect of community factors on social capital development. This study also attempts to the  $H_{1a}$ - $H_{1c}$ . The results of multiple regression presented in Table 1 found that overall community factors, 37.1% of variance in social capital development ( $R^2 = 0.371$ ,  $F = 33.273$ ,  $p < 0.01$ ). The three dimensions of community factors were found to have a significant effect on social capital. Thus, these findings can be explained by the following equations, interactive with peers ( $B = 0.200$ ,  $t = 4.301$ ,  $p < 0.01$ ), interactive with teachers ( $B = 0.124$ ,  $t = 2.641$ ,  $p < 0.01$ ) and engagement ( $B = 0.155$ ,  $t = 3.031 < 0.01$ ) and emotional connection ( $B = 0.260$ ,  $t = 4.927$ ,  $p < 0.01$ ). These findings demonstrate that,  $H_{1a}$ ,  $H_{1c}$  are supported.

Table 1: Effect of community factors on social capital

Factors	B	t-values	Sig.
Interactive with peers	0.200	40.301	0.000
Interactive with teachers	0.124	20.641	0.009
Engagement	0.155	30.031	0.003

$R^2 = 0.371$ ;  $F = 330.273$ ;  $Sig = 0.00$

Table 2: Effect of Individual differences in the relationship between community factors and social capital

Models	Standardised beta					
	Model 1		Model 2		Model 3	
	B	Sig.	B	Sig.	B	Sig.
<b>Independent variable</b>						
Community factors	0.225	0.000	0.225	0.000	0.228	0.000
<b>Moderating variable</b>						
Individual differences	-0.001	0.981	0.001	0.972		
<b>Interaction term</b>						
Community X individual					-0.056	0.326

$R^2 = 0.531, 0.531, 0.533$ ;  $F = 85.246, 56.700, 34.228$ ;  $Sig. = 0.000, 0.000, 0.000$ ;  $R^2$  change = 0.282, 0.0000, 0.002;  $F$  change = 85.246, 0.001, 0.655;  $Sig. F$  change = 0.000, 0.9810, 0.520

**Moderating role of individual differences on the relationship between community factors and Facebook intensity and social capital:** Hierarchical multiple regression test was utilized to examine the effect of individual differences in the relationship between Community factors and social capital development. The analysis also attempted to test  $H_2$ . The following study discusses the obtained findings in detail. The result is summarized in Table 2. Model 1 represents the effect of Community Factors and on social capital. The model contributes 53.1% of variance in social capital ( $R^2 = 0.531$ ,  $F = 85.246$ ,  $p < 0.01$ ). The model shows the significant effect of community factors on social capital. Model 2 represents the effect of community factors on social capital with the interaction of individual differences. The results indicate that the presence of individual differences in Model 2 has failed to increase the variance ( $R^2 = 0.531$ ,  $F = 56.700$ ,  $p < 0.01$ ). Individual differences were also found to have no significant association with social capital in Model 2 ( $B = -0.001$ ,  $p > 0.05$ ). The last model, Model 3 as shown in Table 2 revealed the effect of independent variables and moderating variable on social capital with the presence of interaction between independent variable and moderating variable. Model 3 also shows the effect on the variance ( $R^2 = 0.533$ ,  $F = 34.228$ ,  $p < 0.01$ ). Evidently, the findings of this study demonstrate that,  $H_2$  is not supported.

## CONCLUSION

The findings of this study revealed that, there is a significant relationship between Facebook community

factors and social capital development among the samples surveyed. Recalling the dimensions of community factors explored in this research which is interacting with peers, interact with teachers and engagement were all found to be predicting factors of social capital building. Considering these dimensions, it can be argued that they are factors that contributes more to informal communication as evidence from the study of Ungar (2011) argues that an environment that promotes more of informal relationship has an edge in social capital building. In a similar view, Kwon and Wen (2010) posited that social capital is developed in any context that allow motivation and where encouragement is perceived. Thus, the result implies that among the samples, the interaction between peers as well as interaction with teachers allows informal engagement and thus, mutual relationship is perceived by the samples surveyed. As discussed by Diep interaction among peers bring a sense of belongings and thus, contributes to social capital development. This relation can be attributed to the significant result observed in the resulting analysis. Similarly as discussed by Valenzuela *et al.* (2009), the role of peers cannot be underestimated as individual members in a group to express their mind freely, formal barriers are broken thus ideas flow freely causing strong mutual relationship. Similarly, to the direct relationship result observed on academic performance by individual differences, the result of the direct interaction of individual differences in social capital was as well presented to be insignificant having ( $p = 0.972$ ,  $\alpha > 0.05$ ). The presented results of the analysis show that, the differences among the individual samples does not have an effect on their social capital development (Bargh *et al.*, 2002; Kross *et al.*, 2013). This present findings are consistent to previous result presented by previous studies based on the definition provided by individual differences provided by Jonassen and Grabowski (2012). Based on the explanation given by Jonassen and Grabowski (2012), it's the variances among people that distinguish them from one another and these differences make an individual to be a unique human. In addition, the argument by Bargh *et al.* (2002) supports the report of this research in the sense that instead of individual differences to have significant differences in different human or sample surveyed, computer-mediated communication as to minimize the social boundaries, therefore, they have more access to technology that have influenced them and make them more socially connected with peers. Impliedly, this research suggests that Libyan university students have ample opportunities of developing social capital through their engagements and interactions on Facebook and by extension on other social networking sites. In light of this,

this present research recommends a future longitudinal study to examine the contribution of Facebook to student's social capital, so that, general verdicts can be made in Libyan context. Additionally, it is hoped that future study can increase the sample size used for result generalization.

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