Influence of Social Media on Project Communication

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Abstract

This research aims to ascertain the influence of social media characteristics on project communication, including technological, individual and group, project and task, and situational characteristics. This research adopted a quantitative study to determine which social media characteristics impact the project communication with descriptive and regression analyses. The research used a standardized questionnaire for data collection, both physical and online. There were 204 total responses gathered. The study finds that project communication is influenced by social media technology characteristics, individual and group characteristics, and Project and task characteristics, but not by situational characteristics. The limitations of this study were that only the Eastern Province NGOs were involved in the research, which only included four social media characteristics. Through this study, the researcher recommended to the NGOs and future researchers that when selecting the social media platforms to do the project activities, they should consider the characteristics' proved in this research and in the future, they want to determine rather than any other social media characteristics' are going to influence on the project communication. Finally, the NGOs need to adapt the technology improvement. This study completes the research on social media's influence on project communication. It Establishes the foundation for future study and could serve as a practical manual for using effective social media in project communication.

Keywords: *Social media, Project communication, Technological characteristics, Individual and group characteristics, project and task characteristics, and Situational characteristics*

1. Introduction

1.1. Background of the study

Social media is a valuable tool for collaboration and communication between individuals and groups inside and outside the project organization (Delerue 2017). Additionally, social media (SM) platforms typically provide facilities for recording and saving material for later retrieval. Therefore, some project management (PM)

practitioners see parallels between project communication (PC) and SM: emphasizing dedication and communication. (IPMA 2017) considers the SM as simultaneously bringing people closer together online and farther apart physically. As a result, it is causing a disruptive shift in how individuals connect and manage their relationships. Both project people and regular people quickly integrate it into their daily lives. Moreover, its varied and widespread applications improve organization operations and human life management. Most people think of Facebook, Twitter, or Snapchat when they think of SM. The options are slightly different when using it for PC, however.

The goal of utilizing SM in PC is to increase the project organization's capacity to finish the project successfully on schedule, within budget, and with the intended result rather than to be sociable. A project accomplishment in a way that encourages stakeholders to support, accept, and buy in is a crucial component of its success. (Dokkum 2016) describes that the usage of SM, in general, has increased quickly, but it has expanded more steadily in the corporate setting. Projects primarily utilize SM as a conduit for client communication to produce goods and services or as part of web care initiatives. Even though communication within a project organization is generally essential, it is especially crucial in the PM context.

(Malik, et al. 2021) have claimed that to solve communication problems, stakeholders may need an interactive platform. PC is the process of passing project-related information from one person to another. Since teams collaborate to complete projects, efficient communication is essential to manage the project. In addition, because the project industry is transient and fragmented, project teams need effective communication techniques.

The growth of information technology has dramatically altered how current projects operate in various ways and many work organizations, PMs, and areas of a business's operations like marketing, advertising, logistics, sales, or banking. SM and mobile technology have revolutionized how project team members communicate with one another and how they are led. Teams that operate remotely or are made up of members of the younger generation, for whom SM platforms have become a natural means of cooperation and communication (Beata, Hysa, & Spalek, 2019).

However, compared to the total growth of SM, the usage of SM in the PM field is limited. According to the Deloitte Shift Index, only 10% of respondents used SM for PC Researchers often report that PC does not use SM very often (Beata, Hysa, & Spalek, 2019). A few tools and methods are still explicitly made to be utilized in PM.

1.2. Research problem

Most of them use SM in the organization purposelessly. That will lead projects to fail. This behavior leads to a severe problem, so researchers use SM to figure out the best communication method for the project. According to (Thompson 2017), the researchers found out how SM influences the PM researchers on relating the SM to PM. However, the present researchers will research how SM influences project communication. In Sri Lanka, a few studies are available. To determine the amount to which SM influences PC in Sri Lankan NGOs, the researchers clarified the information about SM and PC. Furthermore, several nations conduct similar kinds of studies. As a result, the researchers decided to conduct a study regarding this topic.

1.3. Research question

RQ1. Is there any influence of social media characteristics that will lead to effective project communication?
RQ2. Is there any influence of social media technological characteristics on project communication?
RQ3. Is there any influence of social media individual and group characteristics on project communication?
RQ4. Is there any influence of social media tasks and project characteristics on project communication?
RQ5. Is there any influence of social media situational characteristics on project communication?

1.4. Research objectives

To explore how social media characteristics will lead to effective project communication
To investigate how social media technological characteristics will influence project communication
To find out how social media individual and group characteristics will influence project communication
To analyse how social media project and task characteristics will influence project communication
To study how social media situational characteristics will influence project communication

1.5. Hypotheses

H1: There is a significant influence of social media characteristics on project communication.
H2: There is a significant influence of technological characteristics of social media on project communication.

H3: There is a significant influence of Individual and group characteristics of social media on project communication.

H4: There is a significant influence of project and task characteristics of social media on project communication.

H5: There is a significant influence of situational characteristics of social media on project communication.

1.6. Significance of the study

This study mainly focuses on the influence of SMC on PC. It is trying to discover the significant influence of SMC on PC That helped run the project with the support of an effective PC. The results of this research showed a significant influence of SMC on PC. SM aims to adopt the best PC that is more transparent, adaptable, and compassionate so that employees are encouraged, developed, and managed to communicate effectively with their best effort. SM is instrumental in helping achieve PC effectively, leading to the project's success. It provided helpful guidance to know the influence of SMC on PC, followers such as project managers, subject learners, and future researchers anticipating referring it.

2. Literature review

2.1. Social media

Modern technology, known as SM, which consists of hardware and software, makes it easier for online users to communicate with one another (Beata, Hysa, & Spalek, 2019). Social networks and business tools are assigned to enhance project management communication and collaboration. Microsoft Project, Yammer, Skype for Business, Twitter, TeamViewer, LinkedIn, and Instagram are examples of these tools. Government agencies and municipal governments have embraced SM platforms as a low-cost method of gathering and disseminating information (Muralihern & Kanagarajoo, 2019). Recently, businesses in the private sector have embraced SM with great speed. (Muralihern & Kanagarajoo, 2019) It discovered that

nearly all corporations studied in South Korea, Australia, and Malaysia raised brand recognition, increased information availability, and shared information. SM should be utilized to encourage communication between members of the same community and those from other communities. Different SM might be used, depending on the purpose of each communication. For instance, YouTube videos can offer project updates, education, and issue warnings. Facebook users can speak with one another and work together while also providing moral support.

2.2. Technological characteristics

There were three technological factors noted by (Thompson, 2017). Such are ease of use, immediacy, and security. The Degree to which a viewer knows the technology is referred to as **"ease of use"** (Kugler, Smolnik, & Raeth, 2013). SM gives individuals an easy way to communicate and connect with others without physically meeting them. **"Immediacy"** describes how rapidly a user can communicate with others using a collaborative tool (Brown, Dennis, & Venkatesh, 2010). We desire the ability to share, consume, and respond immediately. SM stands out from traditional media because it is so current; as a result, people now anticipate things to be more up-to-date. One issue raised is privacy, and it has been suggested that **"Security"** may play a role in people's social media (APM, 2014) . Social media users' different levels of technology competence make security management more difficult. An SM network must protect users whose personal security procedures might be basic as well as prevent hackers.

2.3. Individual and group characteristics

Various technology uptake and use models have included characteristics of individual technology users. (Thompson 2017) found variables under the category of IGC. Such are prior experience, reputation, and social influence. According to the ibid, many employees have **"prior experience"** with social software in the private realm, which implies that this knowledge may mediate the influence of social and technological elements (Thompson, 2017). Therefore, experience is a criterion that considers prior SM use in both work and non-work settings. The Degree to which behavior is "considered to improve an employee's **"image or reputation"** inside his or her social system" is referred to as reputation (Kugler, Smolnik, & Raeth, 2013). A **"social influence"** that affects the adoption and use of social media. Collaboration-related conceptions such as 'known others' and 'peer influence' have been recognized as characteristics of the Individual, the group, and the situation. Both constructs are related to social influence in this work. Identified community links are characterized as feelings of closeness to one another and strong social relationships with their coworkers (Venkatesh, 2003) and (Thompson, 2017).

2.4. Project and task characteristics

It appears that task type will likely impact how people utilize SM. Make a distinction between decision-making and idea-generating, and you will find that the three activity categories are affected by technology differently. However, task type, complexity, and urgency of the task characteristics affected media choice. (Brown, Dennis, & Venkatesh, 2010) as a result, **"task type"** appears to be a factor that affects how people use SM. Make a distinction between decision-making and idea generation, and you'll find that the three different work kinds have different consequences on technology. There are tasks with fixed work, fixed durations, and fixed units. In the (Task management guide, n.d.) **"Task complexity"** is a crucial component of the job definition process because it shows what knowledge and abilities a candidate for a role has to have to be able to accomplish all of the tasks related to that function. A more complex task requires a staff and software that is more knowledgeable and skillful.

Therefore, before choosing and allocating personnel and social media platforms, managers should clearly define responsibilities and duties for roles (Bok, Kankanhalli, Raman, & Sambamurthy, 2012). A crucial tool for increasing the effectiveness of your work is task **"urgency"**. Task urgency is essential if you want to do more with less effort and if you want to focus more on results than output. Tasks urgency is a common management strategy, but managers, engineers, and technicians can benefit from using it since it makes it easier to organize your activities, makes your work more efficient, has a greater impact, and aids in your growth (Bok, Kankanhalli, Raman, & Sambamurthy, 2012).

2.5. Situational characteristics

"The degree to which the individual perceives the organization and technological infrastructure facilities use of the system" is the definition of a **"resource facilitating condition"**. To find resource-facilitating and technology-facilitating situations, broaden the idea of facilitating conditions by incorporating collaboration-related constructs (Venkatesh, 2003).

Peer influence and superior influence are examples of **"management influence,"** according to (Brown, Dennis, & Venkatesh, 2010). Since management support is frequently cited as a project success element, even if their research did not cover evaluating superior influence, management influence is included here as a situational characteristic. **"Technology facilitation conditions"** are crucial to managing an eLearning project since they ensure that session participants collaborate successfully. The project manager is responsible for acting as the

meeting's facilitator, encouraging ideas, and prompting recommendations, among other things.

The ultimate objective of the technology facilitation requirement is to choose the optimal approach for the project that will guarantee success (Brown, Dennis, & Venkatesh, 2010). Technology facilitation condition has the potential to transform project management if used correctly. The project manager doesn't participate in a technological facilitation session but manages the other participants' contributions and establishes the session's goals (Elearning industry , 2018).

2.6. Social media in project communication

An expanding number of organizations are implementing their business operations as projects due to creating complex goods, services, and processes with concise time-to-market requirements and needs for cross-functional knowledge. Projects have been characterized as temporary organizations that are very agile and focused on a specific purpose. Relationships must be established and maintained between project team members and other stakeholders for project management to succeed.

Therefore, ensuring effective team communication and the ability to gather, store, and index project-related knowledge is essential. The most fundamental part of the project team is communication, which has long been regarded as one of the crucial process skills for a project's success.

A project's communication ability is crucial, and SM supports this. The SM was introduced to enhance PC SM can be used to organize meetings, create chat groups where everyone can send a message once and have it received by everyone, and make a video chat with outside people (Qusef & Ismail, 2016). The organization team's communication will improve due to SM. These systems enable users to communicate with another team member immediately to provide crucial information or get a status update, which enhances team communication and thus increases project efficiency.
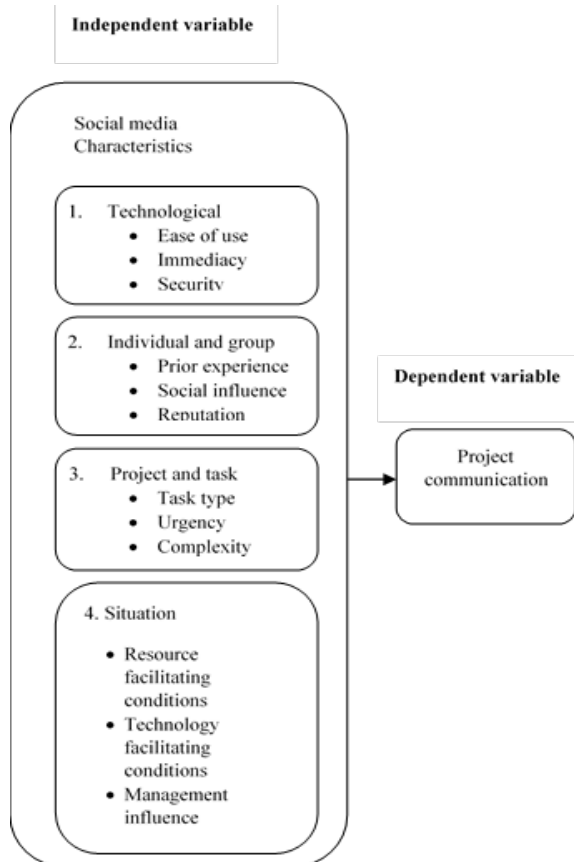
3.   Methods

3.1. Conceptual framework

Figure 1. Conceptual framework

Source: (Bok, Kankanhalli, Raman, & Sambamurthy, 2012)**,** (Kugler, Smolnik, & Raeth, 2013)**,** (Venkatesh, 2003)**,** (APM, 2014)**,** (Brown, Dennis, & Venkatesh, 2010) and (Thompson, 2017)

03.1 Sampling method

In this research study was used the probability sampling technique was. Because each case being selected from the population is known. An especially proportionate stratified sampling technique was used to collect the data. The data was collected from the higher-level manager (Director), project manager, program manager, administrative staff, project team member, external consultant, and others. Nearly

204 samples were collected online and directly from the selected NGOs.

Table 1 Sampling framework

District	Active NGOs	Proportionate sampling(40% of the active NGOs)	Sample	Pre-planned respondents	Actual respondents
Batticaloa	43	17.2	17	85	93
Trincomalee	41	16.4	16	80	50
Ampara	43	17.2	17	85	61
Total	**127**	**50.8**	**50**	**250**	**204**

1.2. Data collection instruments

A structured questionnaire was used to gather primary data. The researcher handed out each questionnaire physically and mode of online. Each completed survey was reviewed right away before being entered for data analysis. The secondary data, primarily the list of active NGOs, was gathered from the divisional security office and the provincial council.

1.3. Data collection procedure

Using probability-stratified random sampling techniques, the researcher chose three Districts to represent the population in this quantitative study. Additionally, the researcher used the questionnaire to gather 204 responses from chosen NGOs in three Districts. Responses were gathered from the project team, the director, the project manager, the program manager, the administrative staff, the external consultant, and others. A random selection process was used to identify the respondents.

4. Result and discussion

According to the model summary table, the IV is (technological, project and task, individual and group, and situational characteristics of SM) influence on the PC (time, cost, quality, and scope) 73%, based on the adjusted R square value (0.728).

Table 2 Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	.856ᵃ	.733	.728	.490	1.997

a. Predictors: (Constant), SC, PTC, IGC, TC
b. Dependent Variable: PC

The study determined whether TC, IGC, and PC influenced the PC. This was demonstrated in this study. It affects. TC has 39%, IGC has 29%, and PC has 25% influence on PC. The study also determined whether the SC impacts the PC. This was demonstrated in this study. It does not have any impact. Due to the low influence percentage of 3% and the significant value above 0.05 (0.656). In light of this, the study's main finding is that SMC impacts PCs.

Table 3 Regression testing value

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.096	.178		.541	.589		
	TC	.412	.067	.393	6.182	.000	.332	3.010
	IGC	.297	.059	.285	4.998	.000	.411	2.430
	PTC	.280	.065	.254	4.314	.000	.385	2.595
	SC	.027	.061	.029	.447	.656	.313	3.195
a. Dependent Variable: PC								

5. Conclusion and recommendation

This research study significantly advances knowledge about SMC for PC. It first identifies all variables that are predicted to influence PC. The answer is no because the SC does not influence the PC. However, the other three characteristics are technological, individual and group, project, and task.

The influence/ effect between the two constructs, SMC and PC, were relatively good represented in Adjusted R with about 73%, and R was 0.728. However, it indicated a positive

relationship between the two constructs. Organizations that continuously adopted the new SM tools. According to this research finding, organizations need to train their staff on the content and application of SM for successful PC. With technological advancement, projects use various flat forms of SM for communication. SM plays a big part in the PC, especially in NGOs. Therefore, having the knowledge and training on the SMC is essential. Various flat forms of SM should be suitable for projects based on the project categories. Therefore, the organization's management must consider the SMC and project purpose when selecting the SM. So the organization should have the knowledge and understanding regarding the SM.

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