FORMULATION AND IMPLEMENTATION OF SOCIAL MEDIA STRATEGY FRAMEWORK: A CASE STUDY OF JORDANIAN GOVERNMENT ORGANIZATION

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ABSTRACT

This study aims to formulate a social media strategy framework that appropriate in government organization that has a low interaction rate with public through their social media accounts. The research methods used was qualitative and quantitative on a government organization which has already use social media however the utilization was still low. The process of data collection was done by interview, observation and documents studies. The social media strategy was formulated using framework developed by Karl Werder combined with SWOT analysis, PEST analysis and 7s model. The strategy priority was determined by using AHP analysis. Three stages of social media framework formulation have been identified and the implementation results suggest that the organization need to prioritize the strategies that have the objective to improve the complaint handling and then followed by the strategies related to engagement and awareness.

Keywords: *Social Media Strategy, Social Media Framework, SWOT, AHP*

1. INTRODUCTION

Social media has become an important part of the daily lives of millions of people around the world (Sobaci, 2016). Social media has greatly affected the way people communicate with each other and affect their activity in daily basis. In fact, the number of social media users has reached a very large number. The number of Facebook users established in 2004 has now reached 1.86 billion monthly active users as of December 31, 2016 (Facebook, 2017) and Twitter which has been operating since 2007 has a monthly active users number reached 313 million as of June 30, 2016 (Twitter, 2017). Meanwhile, YouTube's largest video sharing site already has more than 1 billion users (YouTube, 2017).

Social media is also used by government institutions to increase their interaction with public. This is in line with Open Government Directive, initiated by the U.S. federal government, which has three pillar goals of transparency, participation, and collaboration (Nam, 2012). Governments adopted social media to: improve efficiency and productivity, improve public services, improve

policy making, strengthen democratic culture, and collaborate and share knowledge (Sobaci, 2016). Furthermore, various government services through social media can be achieved such as community services, disaster management, disaster resilience, transportation, policy and planning, government transformation, and government campaigns activity (Nepal, Paris, & Georgakopoulos, 2015). This suggests, social media can be an economical and powerful solution in increasing the range of services to the community.

Nonetheless, social media also has a negative side to the organization over the benefits it offers. Social media, negative opinions about a product or company can be shaped and disseminated through thousands or millions of people in just a few hours (Pfeffer, Zorbach, & Carley, 2014). In addition, the dynamics of negative opinions through online media is not just limited to business domains, but they also affect organizations and individuals. Meanwhile, McDonalds must experience the negative side of social media use, while stimulating customers to share positive experiences at McDonalds via Twitter by using hashtag #McDstories (Werder, Helms, & Slinger, 2014).

Instead of sharing positive experiences, customers begin to share their negative experiences and force McDonalds to act in order to prevent damage to their reputation. These risks may also arise when a company is not active in social media, so that even the consequences may get worse because the negative content or rumours may be unknown to the company. Thus, social media need to be managed to maximize its benefit and minimise the risk.

The high number of internet users in Jordan shows information has become a necessity for every citizen in supporting their activities. The government as a public servant has an obligation to provide quality public information. In relation to government, the internet has become an important instrument in the management of public services. According to Lamersdorf, Tschammer, & Amarger (2004), since the mid-1990s, governments from around the world have had the initiative to adopt the potential use of the internet to improve public services. The main objective of the initiative is to accommodate public opinion, namely reducing public spending and improving public services.

Currently, no framework has been developed specifically for the social media utilization in government sector. The Third Wave framework developed by Third Wave Consulting, 2013 is a common framework that can be used in various areas. This framework consists of people, platform, and content strategy. Meanwhile, Oliveira & Figueira (2015) developed a social media framework for educational institutions where the framework relies on communication strategies to support the activities of educational organizations. In harmony with that, Werder, Helms, & Slinger (2014) developed a more comprehensive framework. Organizational social media management deals not only with marketing strategies but must be aligned with the organization's own business strategy. This framework consists of three strategic components for social media: (1) Scope consists of decisions about actors, platforms and interactions, whereas (2) Capabilities refer to objectives and activity and (3) Governance is a need for value, resources and risk. However, this framework did not cover the assessment of current organization conditions.

This study aims to define the framework for social media implementation especially in government sector in their early phase of adopting the social media or has a low rate of public interaction through their social media accounts. The past studies of social media framework have not been comprehensively described the stages of framework implementation. We will use a case study from a government organization in Jordan where the utilization of its social media has not been effectively managed regardless its urgency.

2. THEORETICAL BACKGROUND

2.1 Social Media

Social media is a collection of applications that include blogs, social networking sites, multimedia sharing sites, collaborative project and others (Werder, Helms, & Slinger, 2014). Social media also defined as an internet platform used to disseminate information through social interaction that provides content with decentralized user levels, social interaction and general membership (Schniederjans, Cao, & Schniederjans, 2013). Social media as an online communication tool that enables people to create, share, interact, collaborate and exchange multimedia information with others in a virtual community (Nepal, Paris, & Georgakopoulos, 2015).

From a public-sector perspective, social media as a group of internet-based technologies that, using the Web 2.0 philosophy, enable public institutions to engage with citizens and other stakeholders (Sobaci, 2016). In the field of public administration, social media differently from previous generations of e-government (Sobaci, 2016). The differences are:

1. Social media applications provided by third parties, so that technology features are hosted outside the direct control of public institutions.
2. Compared with e-government practices, such as static websites, social media is more interactive.
3. Content created by both parties, ie public institutions and citizens.
4. Social media applications cannot replace offline services and e-government services; this application is a communication mechanism that has been available.

2.2 Social Media Use in Jordanian Government

Social media has been widely used in the government sector and adopting this technology to support their activities as public servants. The use of social media in various activities in government, including: human services, disaster management, building disaster resilience, transport, policy and planning, government transformation, campaigning (Nepal, Paris, & Georgakopoulos, 2015). The benefits of using social media for local government. Social media benefits for the government include: improve efficiency and productivity, improve local

public services and policy making, strengthen local democracy, collaboration and knowledge management (Nepal, Paris, & Georgakopoulos, 2015). Risks and constraints that can occur in the management of social media in government include: resources, legal issues, security, information and content concerns, reputation management (Sobaci, 2016).

In Jordan the utilization of social media has been improved significantly in latest years. A survey conducted by Jordanian Department of Statistics in 2016, the number of internet user in Jordan has reached 132,7 million people and 97,4% of them access the social media and 91,6 of the internet user has accessed the information related to public services (Statistic Jordan, 2016). Government has seen this opportunity and utilised the social media to engage more to the public. Government initiatives in using the internet technology in their activities are monitored and evaluated by The Ministry of Communication and Informatics based on some criteria such as policy, organization, infrastructure and application. However, there are a diverse rate of performance in each government organization. Even if the government has already set up the account of various social media platform, the management of the account has not been properly done by some government organization.

2.3 Strategy Development

Social media management in government requires strategy planning to run it well and reduce the negative side that would arises. Strategy is the establishment of unique and valuable positions, and involves a set of different activities (Porter, 1996). One of the objectives of strategy formation is to improve operational effectiveness, which is how to conduct an activity better to provide greater value, greater efficiency, at lower cost (Porter, 1996). Strategy as an important mission statement of an organization, the objectives to be achieved, and the main way in which resources are available will be used (Werder, Helms, & Slinger, 2014). It also defines as a set of choices that determines the organization's chances of pursuing market potential and assessing those opportunities (Applegate, Austin, & Soule, 2009). From above description, it can be formulated that the strategy is a preparation of ways to achieve organizational goals based on the direction and scope of business organizations using the resources available to improve organizational performance.

SWOT analysis is one of the most commonly used methods of organization to

formulate strategies to take advantage of existing opportunities and reduce threats that may arise from the external side of the organization with reference to the strengths and weaknesses of the organization (Chaffey, 2009). SWOT analysis consists of Strengths (S) and Weaknesses (W) of the organization's internal conditions as well as Opportunities (O) and Threats (S) from external organizations (Ritson, 2011). The main purpose of the SWOT analysis is to identify strategies that are aligned or appropriate to the organization's resources and capabilities to respond to environmental demands that the organization competing against (Ritson, 2011). The external environment could be analysed using PEST (Political, Economy, Social and Technology) approach (Ward & Peppard, 2002). Cautious monitoring of these factors may lead the organization to significant business opportunities or identify potential threats in time to act to mitigate its impact.

One of the comprehensive approaches used to implement this strategy was developed by Peterson & Waterman at McKinsey & Company in the early 80s. This model is based on seven internal factors that must be harmonized together for the successful implementation of strategy in the company (Mišanková & Koèišová, 2013). The 7S model can be applied to assist with useful alignment for: improve organizational performance, analyse the possible impacts of future changes in an organization, aligning departments and processes existing during the merger or acquisition period, and determine how the best solution to implement the proposed strategy (Mišanková & Koèišová, 2013). 7S model consists of hard and soft factor. Hard elements are easier to determine, and leadership can directly affect these elements. The three hard elements of this 7S model are: strategy, structure, and system. Soft elements are difficult to define because they are not specific and influenced by organizational culture. However, soft elements are as important as hard elements for an organization to achieve success. Soft elements are: style, staff, skills, and shared values.

2.4 Social Media Strategy Framework

Currently, no framework has been developed specifically for the social media utilization in government sector. The Third Wave framework developed by Third Wave Consulting, 2013 is a common framework that can be used in various areas. This framework consists three steps namely, goals, strategy and setup. Defining the goals is needed as the purpose of the

implementation. The purpose of social media strategy can be derived from business goals which can be achieved through social media and finally contribute to accomplish organizational goals. Developing the strategy involves people, platform, and content strategy. The setup is the stage of implementation, evaluation and continuous improvement. Activities that can be done to achieve it such as: monitoring, analytics, and reporting. It also considered the internal side of organizations such as: the actor of each activities, the team formation, the needed processes and the service providers required.

Meanwhile, Oliveira & Figueira (2015) developed a social media framework for educational institutions where the framework relies on communication strategies to support the activities of educational organizations. The concept of social media strategy needs to be aligned and managed in organizational communication management. The communication strategy should provide a clear indication of the overall direction, objectives and desired outcomes. like all other functional strategies, social media strategies need to be aligned and support the organization's higher strategic management.

Werder, Helms, & Slinger (2014) developed a more comprehensive framework. Organizational social media management deals not only with marketing strategies but must be aligned with the organization's own business strategy. This framework consists of three strategic components for social media: (1) Scope consists of decisions about actors, platforms and interactions, whereas (2) Capabilities refer to objectives and activity and (3) Governance is a need for value, resources and risk. The aspects covered by this framework are more structured and complete than the previous framework.

3   PROPOSED FRAMEWORK

The theoretical framework of this research is represented in Figure 1 which consists of three steps including assessment of current condition, social media strategy development and social media strategy prioritization.
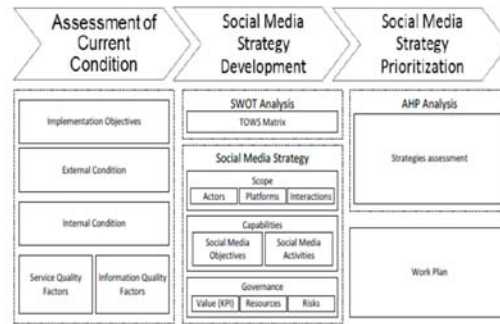

Figure 1: Proposed Social Media Strategy Framework in Government.

3.1 Assessment of Current Condition

Preparation of the concept of this research framework starts from analysing the internal and external conditions of the organization. Analysis of internal organizational conditions adopted the SWOT model and 7S McKinsey, while for external conditions analysis using the PEST model. The formulation of these internal social conditions also identifies the current state of information quality and service quality. Thus, the implementation objectives can be formulated based on organization's goals so that the implementations will align with business processes and business objectives of the organization.

Information services within the scope of the information system deal with several aspects that support the service. DeLone & McLean (2003) formulated that the quality of the system, the quality of information, and the quality of service had an influence on the desire to use information systems and user satisfaction. Utilization and user satisfaction are interrelated, a positive utilization experience will increase user satisfaction. Because of these two aspects, it will benefit the success of the information system. In social media, majority of systems have been provided and managed by social media corporations, so the quality of system is less important for the owner of social media accounts. Thus, quality of information and services will take the best part of the successful information services from social media utilization.

The service quality is the other dimension contributes to information services. The quality of the online services must be analyzed and considered with a view to strengthen and develop strategies that improve the offered services and increase the level of satisfaction amongst users (Sá, Rocha, Gonçalves, & Cota, 2016). A long with that, service strategies are recommended to managers to improve service quality and promote user satisfaction.

3.2 Social Media Strategy Development

This step elaborates the SWOT Analysis using TOWS Matrix and social media strategy define by Werder, Helms, & Slinger (2014). Organizational social media management deals not only with marketing strategies but has to be aligned with the organization's own business strategy. Three strategic components for social media: (1) Scope consists of decisions about actors, platforms and interactions, whereas (2) Capabilities refer to objectives and activity and (3) Governance is a need for value, resources and risk.

Scope dimension is the results of the analysis of the internal conditions determined the scope of social media organizations, namely: actors who play a role, platform, and interaction type (Werder, Helms, & Slinger, 2014) (Nepal, Paris, & Georgakopoulos, 2015). Social media capabilities should help organizations to gain organizational competitiveness (Werder, Helms, & Slinger, 2014). This dimension consists social media objectives, where social media goals should be defined by and support the organization's business objectives. The other component is social media activities, which connecting social media activities with each line of organization associated with the actor.

Governance dimension is conducted to formulate value or Key Performance Indicator (KPI) from social media management in organization. Key Performance Indicator (KPI) of social media consists of insights, exposure, reach, engagement (low), engagement (medium), and engagement (high) (Neiger, et al., 2012). In harmony with that, Thomas & Barlow (2011) proposed KPI of social media consists of exposure, influence, engagement, action/ conversion, and retention. Correspondingly, Lovett (2011) lists the social media matrix based on the type of social media used. Beside formulating the KPI, social media governance needs resources and risk management to utilised effectively. Subsequently resource planning and risk assessment of identified threats refers to the eight essential elements of policy-makers and social media guidelines proposed by Nepal, Paris, & Georgakopoulos (2015) which consists of employee access, account management, acceptable use, employee conduct, content, security, legal issues, and citizen conduct. In line with that, Bertot, Jaeger, & Hansen (2012) finds set of key policy and research questions related to social media and policy objectives, which are: social media policy; access and social inclusion; privacy, security, accuracy, and archiving; governing and governance; and new democratic models.

3.3 Social Media Strategy Prioritization

The design of a social media roadmap is conducted by assessing stakeholders and experts to determine strategic priorities using the AHP method (Saaty & Vargas, 2012).The results of the priority ranking resulted in a social media roadmap. The results will be discussed and validated by stakeholders to make sure the emerging strategies are aligned with organization's business.

Analytic Hierarchy Process (AHP) is the basic approach to decision making (Saaty & Vargas, 2012). It is designed to tackle between the rational and intuitive side to select the best of several alternatives evaluated in relation to several criteria. In this process, the decision maker performs a simple pair wise assessment that is then used to develop overall priorities for alternative rankings. AHP is useful in inconsistent assessments and provides the means to improve consistency. The basic scale of values to represent the intensity of the assessment as shown in Table 1. In terms of strategy formulation, AHP can be used with SWOT to determine priorities for established strategies. Göroner, Toker, & Uluçay (2012) in his research combined SWOT with AHP in formulating a strategy. In harmony with that, Şeker & Özgűrler (2012) also combine SWOT with AHP to determine the priority scale of the strategy that has been formulated.

Table 1 : Comparison scale of AHP Method

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
2	Weak	-
3	Moderate importance	Experience and judgment slightly favor one activity over another
4	Moderate plus	-
5	Strong importance	Experience and judgment strongly favor one activity over another
6	Strong plus	-
7	Very strong or demonstrated importance	An activity is favored very strongly over

3.4 Case Study

The proposed model is implemented in a government institution located in Jordan which was Jordanian Department of Statistics (JDS). As one of

the public institution in Jordan providing information to the public, it has the responsibility to carry out the mandate of the law. In this case, the information managed by JDS is spatial based information thus it has to organise the dissemination of data and information related to it. Therefore, social media can be used by the organization to support the improvement of geospatial information services for the community.

Centre for Research, Promotion and Cooperation is one of the unit in JDS which has the responsibility to manage the publication of geospatial information products and services. As the publication of geospatial information, this unit has made several efforts to improve the utilization of geospatial information for the community. One of them is using information technology to support geospatial information service. Currently, it has utilized internet network to provide service to the public. In addition to the corporate web (https://jordan.gov.jo) used to provide information and news related to the organization, the unit also provides a portal for digital map service. To improve relationships with the community, social media accounts has been created such as: Facebook (www.facebook.com/jordan.gov.jo?_rdc=1&_rdr), Twitter (@jordanegov), YouTube and Instagram.

In JDS, social media management conditions are still not managed. Social media is only used for sharing news, but still less utilised for interaction with users. The number of follower @jordanegov has reached 7,199 per May 20, 2018. However, the number of follower is not followed by the number of interactions with the follower. Based on Twitter @jordanegov statistics retrieved in May 2, 2018, it appears that engagement rate is very small, below 5%. This indicates not many people are interested in the presence of content @jordanegov. The statistics also shows that the number of replies is small for 988 within a year. Not much different with the number of retweets and likes, each of which only amounted to 255 and 238. This shows less interactive @jordanegov twitter to its follower. From the above information, the management of social media in JDS still need to be improved. Therefore, it takes social media management measures to be used to improve services to users of geospatial information.

4   RESEARCH METHODOLOGY

In this study, the methods of data collection were interviews, document studies and field observations related to actual conditions in the organization. Interviews with respondents are processed by some instrument consist of statements indicating current conditions and expectations. The interviews were carried out to the internal stakeholders of the institution with links to the management of social media and services at JDS. The first respondent is the Head of Research, Promotion and Cooperation Centre to find out the complete internal condition of the geospatial information service at JDS. The second respondent is Head of Promotion and Cooperation to find out more about the current state of social media management in JDS. We also conducted interviews with two experts in the field of social media to get more comprehensive feedback on the conditions in the organization and to identify opportunities, threats from external organizations related to social media management. The method of collecting strategic priority assessment data is questionnaires dissemination and filled by the respondents. Then, AHP analysis was used to priorities the strategies. The tools used for data processing are Super Decision software and Microsoft Excel.

4.1 Respondents

Interviews were conducted with two interviewees from the organization and two interviewees from external organizations in March and April 2017. The selection of interviewee is based on the relevance of their work to the research. The profiles of the respondents are:

1. Interviewee 1, Head of Research, Promotion and Cooperation Centre. This centre has the role as a service provider of geospatial information products and services to the community. Interviewee 1 has served the last two years so that it is quite familiar with the internal condition of the organization related to geospatial information services.
2. Interviewee 2, Head of Promotion and Cooperation. This unit is under the Research, Promotion and Cooperation Centre. Interviewee 2 has served for the last five years in this work unit. So far, the agency's social media management is under this work unit so that interviewee 2 understands the internal conditions related to the management of JDS social media.
3. Interviewee 3, Social Media Practitioner. Interviewee 3 is an information technology practitioner who has experience in the world of internet and social media in Jordan. He is the founder of an online transaction service provider in Jordan. He often invited to be speakers in social media-related discussions at national TV stations as well as in government institutions.

4. Interviewee 4, Lecturer. Interviewee 4 is a lecturer at the Centre for Training and Employment of the Ministry of Communications and Informatics. He also serves as a lecturer in the Education and Functional Training of Public Relations Institutions with a material focus in the field of social media.

4.2 Methods

The methods used in every steps of this research are described as follow;

a. Identification of internal factors: This step collects data on the strengths and weaknesses of the organization and the factors that support the implementation plan of social media strategies. The main data obtained through interviews with stakeholders in JDS. Supporting data is obtained by conducting studies on relevant documents related to the management of social media. The result of this step is a list of strengths and weaknesses related to social media management at JDS.

b. Identification of external factors: This step collects data on opportunities and threats from outside the organization. The main data obtained through interviews with stakeholders in JDS. Supporting data were obtained by conducting literature studies from related references and PEST analysis (Political, Economic, Social, Technological) for external factors. The outcome of this step is a list of opportunities, threats and external environmental conditions related to social media management.

c. Identification social media implementation goals: the purpose of this step is to identify social media management implementation objectives. The analysis was conducted by asking expert opinion and stakeholders regarding social media management objectives in JDS with reference related to social media management goals. The result of this step is the implementation goal of social media strategy at JDS.

d. Formulation of social media strategy: this step contains the process of formulating a strategy that refers to the results of analysis of internal and external conditions, and implementation goals. The result of this step is the prototype of JDS 's social media strategy of TOWS matrix which contains strength-opportunity, weakness-opportunity, strength-threat,

weakness-threat strategies. The strategies formed are then grouped according to Karl Werder's social media framework, scope, capabilities, governance.

e. Prioritization of social media strategies: this step aims to provide guidelines for the implementation of social media strategies. Priorities are formulated by ranking by stakeholders by the AHP comparison method. In addition, this step also contains the determination of value or Key Performance Indicator (KPI) to measure the success of strategy implementation. The results of this step are the priorities of social media strategies and the list of KPIs on social media management. The stages are 1) Respondents did pair comparison between each of strategic goals. 2) Respondents did pair comparison between each strategy within each strategic goal groups. 3) Combine the data respondents answer by averaging each value of the answer pair of each strategy using the GEOMEAN function in Microsoft Excel. The output of this stage is the geometric mean value of the respondent's answers. 4) Enter the result data from stage 3 into the model in Super Decision software for AHP analysis.

f. Determine the roadmap of social media strategies: this step contains a process of defining the implementation of social media strategies based on a priority list of social media strategy implementations. The result of this step is the roadmap of social media strategy at JDS.

g. Review of the action: this step aims to validate the results of the previous steps. The review is done by re-verifying the results of social media strategy planning to stakeholders in JDS.

5   RESULTS AND DISCUSSION
5.1 SWOT and Strategic Goals

The first stage interviews with interviewee 1 and 2 was conducted to determine the internal condition of the organization and the implementation goals of organizational social media management. We also conducted the observations of the Geospatial Information Agency Strategic Plan 2016 - 2019 and the 2016 Product Satisfaction Assessment and Satisfaction Assessment Report. In addition, field observations were conducted to assess the social media conditions. The result of this stage is the draft internal organizational conditions related to strengths, weaknesses and implementation goals.

The second phase is an interview with interviewee 3 and 4 to define the external condition of the organization related to the management of social media. External conditions analysis is based on the PEST model to identify opportunities and threats from outside the organization. At this stage, the respondents also provide inputs to the weaknesses, strengths, and implementation targets identified in the previous stages. The results of this stage are the draft of opportunities, threats, and inputs related to implementation goals and internal organizational conditions. We also conduct a discussion with stakeholders to set implementation goals, strengths, weaknesses, opportunities and threats that will be used to formulate strategies. The result of this steps are the lists of strength, weakness, opportunity, threat that shows in Table 2 and the implementation goals of social media shows in Table 2.

Table 2: Strategic Goals Social Media Management

Code	Strategic Goals	Description
SG1	Awareness	Social media is used to socialize the existence, activities, work programs, products and services provided by the organization to the community.
SG2	Engagement	Social media can increase the interaction and desire of the community to find out more information related to geospatial.
SG3	Complaint Handling	Social media is used to handle complaints from the public regarding the organization products and services.

5.2 Social Media Strategy Development

Strategy formulation is done by using TOWS matrix tool based on analysis result of internal and external condition of organization in previous stage consist of strength (S), weakness (W), opportunity (O) and threat (T). This matrix contains a strategy formula derived from a combination quadrant between strength-opportunity factors (SO), strength-threat factors (ST), weaknesses-opportunity factors (WO), and weakness-threat factors (WT). The process of strategy formulation refers to the recommendations

of experts at the stage of interviews and discussions with stakeholders. The grouping of strengths and weaknesses based on the McKinsey 7S framework is used as a tool when coupling between strengths and weaknesses into a strategy. Grouping opportunities and threats based on PEST is used as a tool when pairing between opportunity or threat factors into one strategy. The McKinsey and PEST 7S grouping is also used when finding several similar strategy solutions from different combinations of quadrants. The strategy choice of which combination quadrant selected is done by considering the McKinsey 7S group and PEST which form the strategy. The results of the TOWS matrix strategy formulation are shown in Table 3.

Table 3: Results of formulation of TOWS Matrix of Strategy

	Opportunities (O) O1 Social media technology is widely used by the community O2 Geospatial information has its own audience segment O3 Availability of social media monitoring media O4 actual events related to geospatial information O5 The presence of social media agents (buzzers) O6 Existence of offline community	Threats (T) T1 Public critical in choosing T2 Not many people know JDS yet T3 Hacking T4 Counterfeit accounts T5 Negative voice from the public
Strengths (S) S1 JDS leader is very concerned with social media organizations S2 Has a variety of	SO1. S2, O1: Open new social media channels to increase outreach to the community SO2. S2, S4,	ST1. S2, T2: Increase social media activity by prioritizing social media platform with highest traffic ST2. S2, S4,

information delivery media S3 Has a validation mechanism for website news S4 Has a means of handling complaints by phone and email. S5 JDS has accurate and accountable geospatial data and information S6 JDS has an interesting work program S7 JDS has connections with the academic community S8 Quality service in term of empathy is good S9 Quality service in terms of customer support and complaint is good S10 Information quality in terms of ease of understanding, and accuracy is good	O3: build an integrated social media monitoring tool with phone & email complaint handling SO3. S7, O6: Increase the number of offline communities related to geospatial information as an organization's extension SO4. S6, O5: Utilize agents (buzzers) to accelerate the dissemination of work program information SO5. S2, S5, O4: Publish information quickly regarding actual events related to geospatial information SO6. S1, O5: Use leaders and employees as agents (buzzers) to speed up information dissemination	T5: Create a listening mechanism of social media content from the community ST3. S5, T2: Provide continuous dissemination of the benefits of JDS products ST4. S3, T1, T5: Integrate of news validation mechanisms on websites with social media ST5. S6, T1, T2: Share information about interesting events in the implementation of the work program ST6. S8, S9, S10, T1, T2, T5: Provide empathetic, supportive, and easy-to-understand services in interaction with the community through social media	management W3 There is no monitoring and reporting mechanism related to social media management W4 The delivery of information through JDS social media is less controlled W5 Technical resources of website system is less W6 Social media management is not integrated with other centres W7 There is no complaints handling through social media W8 Limitations of the number of human resources in managing social media W9 The ability of JDS human resources in social media management is uneven W10 Information dissemination is based solely on activities, not much related to product and service W11 Technical language in JDS activities is difficult to understand	content WO3. W9, W15, O1, O3, O4: Improve human resource competencies for service and interaction to the community through social media WO4. W3, O3: Implement monitoring and reporting mechanisms with the use of monitoring tools WO5. W6, W8, W10, O1, O4, O5: Synergize main account with other central accounts in social media management WO6. W7, W14, O1: Create a mechanism for handling complaints through social media to improve responsiveness WO7. W4, W6, W10, O2: Create specific contents for different segments of society WO8. W11, O1, O2, O4: Use popular scientific language in social media content	media management guidelines WT3. W9, T3, T4: Increase the awareness of IT security for social media administrators WT4. W16, T4: Verifies the account of any official social media account of the organization WT5. W1, W3, W7, T5: Establish a team for handling negative voice from public WT6. W3, W5, W8, T3, T4: Increase the number of technical personnel for managing website and social media security WT7. W9, T1: Improve the ability of popular scientific writing in social media content WT8. W10, W12, T1, T2: Increase the amount of content that has value and relevance to the needs of the community WT9. W15, T1, T5: Prioritize the public's desire
Weaknesses (W) W1 Do not have a dedicated unit that manages social media W2 There are no related rules for social media	WO1. W1, W5, W6, W8, O3: Establish a dedicated social media management unit WO2. W4, O4: Establish a team to validate	WT1. W1, W3, T3: Create a password management mechanism for social media manager administrators WT2. W2, W3, W5, T3, T4: Create social			

W12 Information quality of product/ service in completeness and relevancy are less	WO9. W10, O3: Utilize monitoring tools to calculate various categorization of content	in provide service and respond to negative voice through social media
W13 Service quality in term of customization is less	WO10. W10, O6: Leverage offline community as a contributor to JDS service / product reviews	
W14 Service quality in terms of responsiveness, deadline compliance, processing speed is less		
W15 Service quality in term of assurance is less		
W16 JDS social media accounts have not been verified		

5.3 Social Media Strategy Framework

The strategy formulation that has been formed in the TOWS matrix is then grouped according to the scope, capability, and governance framework. The process of grouping strategies is conducted through discussions with stakeholders. Furthermore, initiatives are established to implement these strategies. The capability dimension is a key component of the framework that contains the objectives of social media management. The formulation of social media strategy related to social media activity is shown in Table 4.

Table 4: Strategy in Capability Dimension

Strategy	TOWS Items	Description
S1	WO7	Create specific contents for different segments of society
S2	ST5	Share information about interesting events in the implementation of the

		work program
S3	WO8	Use popular scientific language in social media content
S4	WT8	Increase the amount of content that has value and relevance to the needs of the community
S5	SO5	Publish information quickly regarding actual events related to geospatial information
S6	ST3	Provide continuous dissemination of the benefits of JDS products

The scope dimension is a component that contains the scope of social media management. This dimension consists of actor, platform, and interaction and the strategies are shown in Table 5.

Table 5: Strategy in Scope Dimension

Strategy	TOWS Items	Dimension	Description
S7	WO1	Actor	Establish a dedicated social media management unit
S8	WO2	Actor	Establish team to validate content
S9	WT5	Actor	Establish a team for handling negative voice from public
S10	SO4	Actor	Utilize agents (buzzers) to accelerate the dissemination of work program information
S11	SO6	Actor	Use leaders and employees as agents (buzzers) to speed up information dissemination

S12	SO1	Platform	Open new social media channels to increase outreach to the community
S13	ST1	Platform	Increase social media activity by prioritizing social media platform with highest traffic
S14	SO3	Interaction	Increase the number of offline communities related to geospatial information as an organization's extension
S15	WO10	Interaction	Leverage offline community as a contributor to organization service / product reviews
S16	WT2	Interaction	Create a listening mechanism of social media content from the community
S17	WO6	Interaction	Create a mechanism for handling complaints through social media to improve responsiveness
S18	ST6	Interaction	Provide empathetic, supportive, and easy-to-understand services in interaction with the community

| | | | through social media |
| S19 | WT6 | Interaction | Prioritize the public's desire in provide service and respond to negative voice through social media |

The governance dimension is a component that contains governance of social media management. This dimension consists of resource management, risk management, and value. The strategies are shown in Table 6.

Table 6: Strategy in Governance Dimension

Strategy	TOWS Items	Dimension	Description
S20	WT2	Resource management	Create social media management guidelines
S21	WO5	Resource management	Synergize main account with other central accounts in social media management
S22	WO3	Resource management	Improve human resource competencies for service and interaction to the community through social media
S23	WT7	Resource management	Improve the ability of popular scientific writing in social media content
S24	ST4	Resource management	Integrate of news validation mechanisms on websites with social

S25	SO2	Resource management	Build an integrated social media monitoring tool with phone & email complaint handling
S26	WO9	Resource management	Utilize monitoring tools to calculate various categorization of content
S27	WO4	Resource management	Implement monitoring and reporting mechanisms with the use of monitoring tools
S28	WT4	Risk management	Verifies the account of any official social media account of the organization
S29	WT6	Risk management	Increase the number of technical personnel for managing website and social media security
S30	WT1	Risk management	Create a password management mechanism for social media manager administrators
S31	WT3	Risk management	Increase the awareness of IT security for social media administrators

The last aspect of the governance dimension is the value. This aspect consists of the Key Performance Indicator (KPI) of social media

management based on the matrices derived from the literature study. KPI serves to measure the success of the implementation of social media management for a certain period. The process of determining KPIs is conducted through discussions with stakeholders. The performance indicators that have been formulated are shown in Table 7.

Table 7: Key Performance Indicators of Social Media Management

No.	Strategic Goals	Description
1	Exposure	- The number of website visits increased by 7% per month - Average number of Facebook content reads, Twitter content impression, Youtube content view, Instagram content view increased 13% per month
2	Reach	The growing number of Twitter followers, Facebook fans, Youtube subscribers, Instagram followers increased by 5% per month
3	Engagement	Number of likes, share, comment of Facebook content; like, retweet, reply of Twitter content; like, comment of Youtube content; love, comment of Instagram content increases 5% per month
4	Insight	- Percentage of number of complaints handled 80% - Speed of complaint handling <5 hours - Satisfaction of the public on information services through social media organizations minimum 3.5 (Likert Scale 1-5)

5.4 Social Media Strategy Prioritization and Road Map

This stage aims to determine the roadmap of the implementation of the strategies that have been formulated. Road map determination is based on the priority value of each strategic objective, and each strategy within a strategic target group. In order to determine implementation priorities based on strategic objectives, the strategic formulation that has been established within the framework is mapped according to their strategic objectives.

The strategic priority assessment analyses the importance of the strategies which divided into 3 strategic objectives that have been formulated, namely: awareness, engagement, and complaint handling. Priority assessment uses the intensity scale of interest from Saaty & Vargas (2012). Figure 2 shows the structure of the AHP hierarchy and grouping of strategies according to the strategic objectives applied in data processing to obtain the priority value of the strategy.
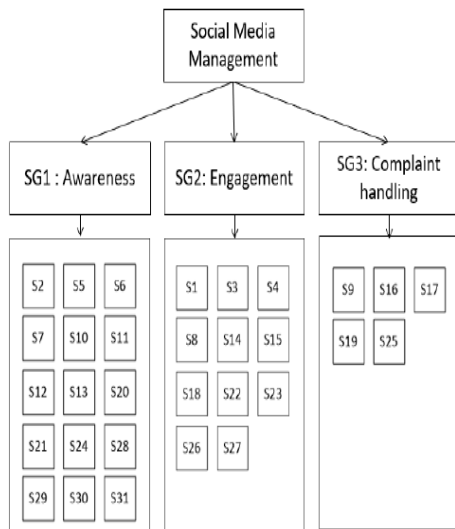

Figure 2: Hierarchical Structure of Social Media Strategies Priority

Table 8 shows the priority level of the strategy presented in several columns. The greater value of the analysis results, mean that the element has a high priority level. The value of inconsistency below 0.1 means there is no need for improvement in the assessment of pair comparison. The strategic goal group hierarchy has an inconsistency value of 0.00477. In the next hierarchy, SG1 Group: Awareness have inconsistency: 0.05008, SG2 Group: Engagement has inconsistency: 0.03527, and SG3: Complaint Handling has inconsistency: 0.07579. Overall and groups hierarchies showing an inconsistency value below 0.1 which means it can be said the assessment results are valid.

Table 8: Results of Strategies Prioritization

Strategic Goal Group	Group Priority	Strategy	Strategy Priority Within the Group	Overall Strategy Priority
SG1: Awareness	0.238376	S2	0.085664	0.02042
		S5	0.073544	0.017532
		S6	0.052434	0.0125
		S7	0.070914	0.016904
		S10	0.133603	0.031848
		S11	0.110755	0.026402
		S12	0.016683	0.003976
		S13	0.073482	0.017516
		S20	0.101228	0.02413
		S21	0.054263	0.012936
		S24	0.065217	0.015546
		S28	0.036857	0.008786
		S29	0.043698	0.010416
		S30	0.037938	0.009044
		S31	0.04372	0.010422
Inconsistency: 0.05008				
SG2: Engagement	0.312924	S1	0.129255	0.040446
		S3	0.067117	0.021002
		S4	0.14115	0.04417
		S08	0.096981	0.030348
		S14	0.061366	0.019202

		S15	0.0403 51	0.0126 26
		S18	0.1260 03	0.0394 3
		S22	0.1580 66	0.0494 62
		S23	0.0600 21	0.0187 82
		S26	0.0763 25	0.0238 84
		S27	0.0433 64	0.0135 7
Inconsistency: 0.03527				
SG3: Complaint Handling	0.4487	S9	0.1725 63	0.0774 3
		S16	0.2017 46	0.0905 24
		S17	0.1687 05	0.0756 98
		S19	0.2891 82	0.1297 56
		S25	0.1678 04	0.0752 94
Inconsistency: 0.07579				

From the column of Strategic Goal Group shows that the strategic objectives of complaint handling get the highest priority of importance, followed by engagement in the second rank and the awareness in the last rank. This result can be interpreted that complaint handling has the higher priority to be implemented. Since social media management in the organization has not yet accommodated complaint handling from customer services it should be improved first. On the other hand, engagement has a higher rank than awareness. The utilization of the social media has only the one way information mechanism thus the interaction with public is considerably low.

In the Awareness Group, strategies S10, S11, and S20 are the three highest priorities within the group. S10 and S11 strategies relate to buzzer utilization to help disseminate information. This shows that JDS requires more coverage in voicing its existence because so far JDS has not been widely known by the wider community. The S20 strategy deals with creating social media management guidelines. This suggests making the guidance an important thing to improve the quality of social media management.

In the Engagement Group, the S22, S4, and S1 strategies have the three highest ratings in the group. Strategy S22 contains about improving

human resource competence for service through social media. It can be interpreted that the competence of human resources in JDS needs to be improved again. The S4 strategy relates to content that has value and relevance to the community. This suggests that content that is directly related to the needs of the community is important to improve community engagement with JDS. The S1 strategy deals with the creation of content specific to different segments of society. This shows that JDS has its own audience segment and the segment of the community should be a priority in order to have a stronger attachment with JDS.

In the Complaint Handling Group, the S19, S16 and S9 strategies have the three highest ratings. Strategy S19 contains about giving priority to society's desire in response to negative voice from society. This suggests that society should be a top priority in responding to complaints coming through social media. S16 is a strategy related to listening what people are talking about JDS and geospatial information. The listening mechanism is considered important because by knowing the opinions and wishes of the community, JDS can make improvements to the quality of service and products and determine the steps to be done in the future. The S9 Strategy contains the formation of a negative community handling team. This can be interpreted to handle a negative vote required by one voice from the agency, to reduce the likelihood of issuing false statements to the public.

The Overall Strategy Priority column shows the strategy priority level against the rest of the strategies. The priority value of this strategy is the result of an AHP analysis that considers the importance of the strategic goal group and the priority value of the strategy within the group. From the values of the analysis results, can be determined what strategies will be prioritized to be applied first.

The stages of preparing a social media strategy plan map the existing strategy into a time sequence based on the order of overall strategy priorities gained in the strategy priority assessment stage. Strategies that have high priority values will be implemented first. Table 9 shows the results of discussions with stakeholders to define the social media strategy work plan is divided into 3 stages of implementation. The first stage contains the implementation of the strategies that have overall priority ranking of 1 to 11. The second stage is to implement strategies that have overall priority ranking of 12 to 21. The third stage contains implementation strategies that are ranked 22 to 31.

Table 9: Social Media Strategy Work Plan

Strategy	Time of Implementation (Semester)		
	I	II	
S19, S16, S9, S17, S25, S22, S4, S1, S18, S10, S8	▓		
S11, S20, S26, S3, S2, S14, S23, S5, S13, S7		▓	
S24, S27, S21, S15, S6, S31, S29, S30, S28, S12			▓

6   CONCLUSION

This study aims to formulate a social media strategy framework that appropriate with the conditions in government sector which already use the social media, but the interaction rate is still low. There are three stages to define the prioritise the strategies. The first stage is the assessment of current condition which evaluate the implementation objectives, external condition, service quality and information quality. The objective defined was engagement, awareness and complaint handling. The second stage is the development of social media strategy which utilise the SWOT analysis and the social media strategy. This stage defined the strategies from various dimension such as scope, capability and governance. The last stages defined the prioritization of strategies implementation.

Complaint handling is the most important objective that need to be addressed in the organization that already use the social media with low rate if interaction. This result is aligned with the condition of social media utilization in the organization which have a low rate of interaction with the public. Firstly, organization need to respond to the public especially respond to their complaint or question through social media. This practice would help to achieve the other objective such as awareness and engagement level. Public will aware of the organization existence if the organization actively respond to them and eventually increase the engagement level.

7   FUTURE WORK

Based on the process by the researcher and the limitations faced in completing this research, the suggestions that can be submitted in this research are:

1. Further research may involve more respondents from different scientific and diverse backgrounds of experience to gain a broader view of the management of social media.

2. Further research can involve users of the organization's social media services directly to get deeper information about the user's wishes of the service.

3. Implementation of this social media strategy requires many steps of change and adjustment within the organization. The full commitment and support of the leadership and all relevant employees is needed to make this social media strategy work.

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