

A Review of Social Media Roles in E-Government

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Abstract. The fact showed that social media is a potential and profitable platform to increase public interest in adopting e-government by conducting open interactions with societies. However, despite the many benefits of social media, the risk of using social media still exists if the government cannot control it properly, such as misuse of information by irresponsible people. So, an effective strategy is needed to maximize the advantages and minimize the disadvantages/risks of using social media in e-government. In addition, the success factors of social media in e-government for success in implementation. By taking a systematic review technically in journals published in 2017-2021. The study looks for positive and negative impacts, strategies, and success factors of social media in e-government. The results are obtained from the role, positive and negative impacts, strategies, and success factors of using social media in e-government. Next, it is necessary to carry out the same research based on country/region segmentation by considering economic, political, social, security, and cultural conditions so that the results are even more specific.

Keywords: E-Government, social media, TOWS Analysis, 7S model Introduction

1 Introduction

Social media is widely used to communicate, interact, and connect as a digital platform, making it easy for users to connect through online communication and sharing information [1]. Digital survey data until last December 2021 shows that active social media users worldwide are 4.2 billion, or 53.6% of the world's population. The number has increased by 13.6% from the data obtained in December 2020 [2]. It shows that social media has the potential to create interaction between the government and the community with a website platform integrated with social networking applications as a service [3].

The roles of social media by the public, the business world, and social organizations make the government look for the benefits that can be taken from social media in building interaction with the people, increasing public enthusiasm, and increasing community participation and involvement. The government is trying to take advantage of social media in implementing e-government so that people can use the services[4]. A Study by[5] explains that the researchers concluded that social media is a technology that plays a significant role in disaster response because the nature of social media removes communication barriers between communities and the government as well as between communities. Social media also provides facilities for the rapid and effective dissemination of information during an emergency.

With all the limitations and challenges in using social media, the government must know the initial steps taken to implement e-government on social media platforms successfully. Therefore, this study discusses the roles, impact, strategy, and success factors in implementing social media in e-government using the Systematic Review (SR) by Kitchenham [6]. The research was conducted by reviewing the literature on social media and e-government published from 2018 to 2021. After carrying out the SR stages, 32 pieces of literature were obtained and used as references in this study. The study's results were obtained by conducting analysis using the TOWS. The TOWS tables are mapped into the 7S McKinsey model to obtain categorization in strategy formulation. Meanwhile, to get an answer by collecting each critical success factor discussed in 32 primary studies and grouped into several success factor points.

2 Theory

2.1 E-Government and social media

There are many definitions of e-government. Based on[1], [7], e-government is a communication technology that the government uses to interact and improve community relations to improve services and provide effective, efficient, and transparent access to public services. It focuses on how the government uses information technology efficiently, such as websites or web portals, to serve the community, industry, and the

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public sector, as well as improving the quality of public services to provide opportunities for the public to participate in decision-making.

Social media is a platform that builds communities and networks so that social interactions can occur virtually and in real-time[8]. In recent times, social media is overgrowing because it can support several social needs that help to provide communication needs[9] and is also able to create a very interactive platform for the formation of corporate identity, having conversations, sharing content, presence, build relationships, build reputation, and creating groups or communities[8], [10]. In particular, e-government deepens and redefines government interactions with citizens, businesses, workers, civilians, other government agencies, and non-governmental organizations [8], [11].

2.2 TOWS Analysis

Jackson in[12], SWOT analysis is a systematic way to identify factors and strategies that describe the best fit between them. In the context of this SR research, we used a TOWS analysis carried out on each paper with the following details:

- Threat: Barriers or challenges when using social media in e-government implementation.
- Opportunity: The opportunity that the government gets when it succeeds in using social media correctly.
- Weakness: Risks that can occur in using social media in e-government.
- Strength: The role given by social media to the implementation of e-government.

2.3 The 7S McKinsey Model

This conceptual model is used to classify organizational strengths and weaknesses for easy analysis. It consists of seven elements starting with the letter "S", namely structure, strategy, system, skills, style/culture, staff, and shared values[13]. The explanation of the seven elements is as follows:

- Strategy: organizational formula used to maintain and build a sustainable competitive advantage.
- Structure: an organizational structure that regulates the work system, communication, authority and responsibility, and the delegation of tasks to work units or specific people to achieve organizational goals.
- Systems: organizational processes and procedures that contain day-to-day operations and decision-making within the organization.
- Skills: capabilities and competencies of human resources needed by the organization to perform as expected and assist the organization in achieving its goals.
- Staff: HR needed by the company relates to how the HR is selected, recruited, trained, motivated, and rewarded.

- Style: the style element relates to the management leadership style used to achieve its organizational goals.
- Shared Values: standards or norms that guide the behavior of all employees and management of the organization.

3 Research Method

This research was conducted using the Systematic Review method to identify, analyze, and interpret the results of studies on the latest literature on the use of social media roles in e-government.

3.1 Search Strategy

The search steps are carried out through several processes: selecting a digital database, defining a search string query, and reviewing a list of literature matching the query. The following is a list of the digital databases used to search in this study:

1. IEEE Xplore
2. ACM
3. Scopus
4. ScienceDirec
5. Proquest

The search string query is selected according to the following steps:

1. Identify the search terms based on the research question
2. Identify search terms from within the title, abstract and relevant strings
3. Identify synonyms and alternative spellings of search terms, and
4. Search string query using the AND and OR Booleans

3.2 Study Selection

The identification process has found 294 papers based on searches with queries and keywords carried out in the previous process. Furthermore, the screening process is carried out by making inclusion and exclusion to obtain primary studies that follow the research topic.

After conducting the full-text selection, a quality test checklist was conducted to obtain primary studies from selected quality reference papers indexed by Scopus, which have been checked on the Scimago web. At this stage, 32 reference papers were obtained from digital libraries with details: 2 papers from IEEE Xplore, 12 papers from Scopus, 12 papers from ScienceDirect, and six papers from Proquest.

The next step is to extract the selected preliminary study to collect data that can contribute to answering the research question of this study. The primary studies that have been screened will proceed to the data synthesis process. The data analysis of the influence and role of social media in e-government was carried out using the TOWS method. The last steps are then grouped using McKinsey's 7S model.

4 Result and Discussion

implementing e-government. The following are the results of the analysis of TOWS which can be seen in Table 1.

4.1 Analysis of Result Systematic Review

TOWS analysis and Success Factors are carried out to obtain the factors and influences of social media in

Table 1. Success Factors from SR Result

Id	Factors	Description	References
SF1	Citizen engagement	The success of social media in e-government is based on citizens' participation or engagement.	[8], [14]
SF2	Trust	Trust is one of the important factors in the adoption of e-government services.	[15]
SF3	Infrastructure	The important condition for the success of social media usage in e-government is the availability of infrastructure facilities.	[16]
SF4	Environment	Government policies should provide a supportive environment to enhance citizens' input in decision-making	[17],[18]
SF5	Confidence	The decision-maker has reached the conviction that the adoption of this project is to benefit the government as well as the citizen	[19], [20]

4.2 Strategies in Social Media Effectiveness in E-Government

The strategies that have been formulated are then grouped into 7 McKinsey categories which are presented in Table 2.

Table 2. Summary of Formulated 7 McKinsey Strategy

Id	Description	Category
SO1	Social media is managed as an official government channel to receive input and ideas from citizens for decision-making and feedback on policy proposals.	Structure
SO2	Institutions can adopt IT innovations (big data, cloud computing, machine learning, open data, and data analytics).	Systems
SO3	Spread awareness among the community before implementing a new policy so that people passively start discussing it on social media platforms.	Shared Values
WO1	Ensure privacy and data protection.	Systems
WO2	Invest in education and skills training to understand how social media maximizes impact from an organizational point of view.	Skills
WO3	Design and implement smart strategies through technology. In this way, the public value will increase.	Strategy
ST1	Organizations adopt a networking strategy by interacting with citizens more often, systematically, responsively, and transparent to generate trust.	Strategy
ST2	Improve the quality of communication and responsiveness (responsiveness) that can contribute to the usability of e-government services.	Shared Values
WT1	Monitoring, control and sanctions against political opportunism to ensure that official social media is used exclusively for institutional purposes and not for the promotion of incumbents.	Shared Values
WT2	Changes to the internal structure must be made to eliminate traditions that hinder technological adaptation.	Structure
WT3	Perform content management by producing interesting and quality content and keeping government sites up to date by maximizing social media tools.	Systems

5 Conclusion

This study uses a systematic review to determine the influence, roles, and strategy of using social media to achieve successful e-government implementation. It can be concluded that social media significantly impacts the success of e-government implementation. The government must be able to maximize strengths, take advantage of opportunities, minimize weaknesses, and avoid threats while utilizing social media. The primary study subjects in this research are not limited by the type of developed or developing countries because this affects the level of government readiness, both internally and externally. In the future, a more in-depth

study of the role of social media in e-government can be carried out based on country/region segmentation, taking into account political, economic, social, technological, and cultural conditions.

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