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CRITICAL SUCCESS FACTORS FOR STAKEHOLDER ENGAGEMENT IN RENEWABLE ENERGY PROJECTS OF MALAYSIA

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Abstract

The development of renewable energy (RE) projects in Malaysia has gained attention in recent years and based on previous research, the implementation of effective stakeholder engagement (SE) brings positive outcomes to the RE projects. This paper carried out a systematic literature review covering all research published from 1999 to 2017, in the context of SE in the RE projects. Ten critical success factors were identified which were effective communication, continuous consultation, understanding the underlying intentions and behaviors, implementing strategy plans, building and sustaining good relationships, analyzing the changes, mitigating risks, compromising conflicts, understanding project success and good project governance. This study may aid both researchers and especially project managers in improving SE strategies and project outcomes in RE projects. However, an intervention framework is needed to indicate the effectiveness of SE in the whole project cycle and to validate if the level of critical success factors engaged is producing the desired results.

Keywords: Stakeholder engagement, Stakeholder management, Renewable energy projects, Project success.

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1. Introduction

In today's world, rapid development energy consumption is in some way evident for a country's economic growth. Energy is no longer seen as a fundamental need for a society, but it has become more of a basic right in many developed and developing countries. According to Oh, Hasanuzzaman, Selvaraj, Teo, and Chua (2018), in order to ensure continuous development, accessibility to reliable and affordable energy is an utmost imperative; therefore, the demand for energy will only continue to surge as long as the government is capable of providing it. For decades, many countries have depended on fossil fuel as a main source of energy specifically for electricity generation. However, excessive exploitation of these natural resources has caused not only contamination but has also contributed towards climate change and global warming through the Greenhouse Gases (GHG) emissions. With concerns about the shortage of energy and negative impacts, the development of renewable and sustainable energy resources plays a crucial role in a country's future.

Since 2001, the government of Malaysia introduced and recognized renewable energy (RE) as the fifth fuel same with oil, gas, coal and hydro-electric for grid connected electricity generation under the Eighth Malaysia Plan (8 MP), covering the period 2001- 2005 (Eighth Malaysia Plan 2001-2005, 2001). Since then, successive new energy policies and programs have been initiated in providing energy security and sustainability, efficient resource utilization and allocation, environmental safeguarding and high-quality services delivery to all of the stakeholders (Oh et al., 2018; Khor & Lalchand, 2014; Chua & Oh, 2010). There are many factors that will determine the successful implementation of RE projects, one of which is widely assumed to be stakeholder engagement (SE) (Ekins, 2004), given that in the previous research, there has been widespread local opposition towards renewable energy project developments (Upham, Shackley, & Waterman, 2007; Toke, 2005; Warren, Lumsden, O'Dowd, & Birnie, 2005). MacNicol (2014) identified the effective SE as a vital requirement for professional project management and stressed its importance as a crucial capability that needs to be undertake by project managers.

Previous studies have acknowledged that stakeholders have substantial influence on project outcomes (Oppong, Chan, & Dansoh, 2017; Olander & Landin 2008; Bourne & Walker, 2005). However, there has been little attention paid to SE (Wehn, Collins, Anema, Basco-Carrera, & Lerebours, 2017; Bourne, 2011, 2015; Baudry, Delrue, Legrand, Pruvost, & Vallée, 017). MacNicol (2014) further mentioned that, while project managers often repeat that stakeholders are critical to the success of a project, the average project management textbook, paperback or training course is far too little dedicated to SE. Survey results by RICS (2014) in 2013 highlighted the perception that SE is an under-developed discipline within the project management industry and warrants further research, greater investment in training and greater prominence within individual organizations.

2. Purpose of the Study

The purpose of this study is to review existing literature of SE in relation to RE projects as given in papers published from 1999 to 2017. This study begins with the issue of SE and RE projects, particularly in Malaysia as a case study, then follows with the research methodology. Then, discussion on 10 critical success factors (CSFs) to be applied by project managers are analyzed to ensure that stakeholders are effectively engaged in RE projects and have achieved the desired outcomes. Finally, conclusions are drawn

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on the results and future directions of the study is presented. In this article, the acronym/abbreviation SE and RE will be used.

3. Research Methods

3.1. Paper retrieval

This literature review was undertaken by an intensive comparison of peer-reviewed journals of the SE domain in RE. There were three stages applied for the paper retrieval and research framework of this study as shown in Figure 1.

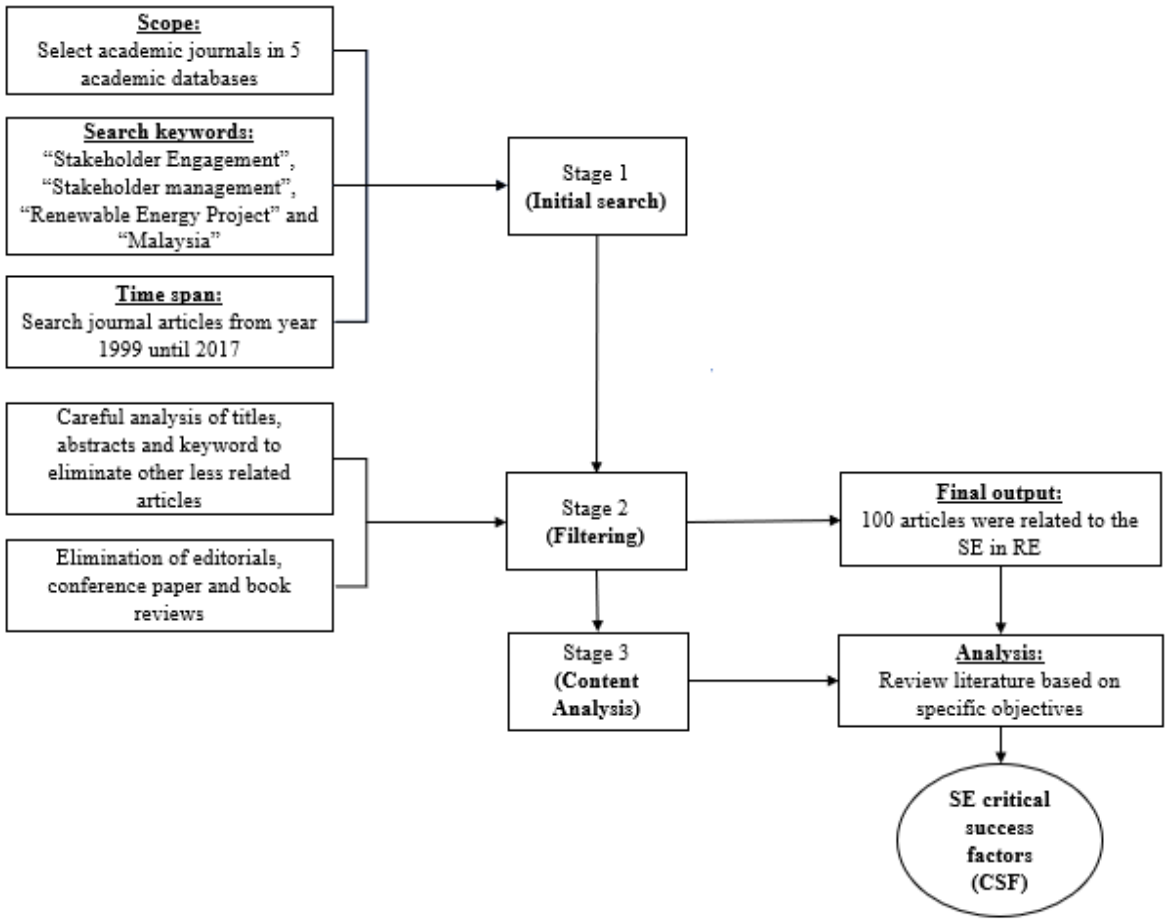

Figure 01. Research framework

4. Results and Analysis

In this study, 10 success factors have been identified in literature and are expected to create effective SE strategies when applied appropriately in RE projects. These success factors are adapted from RICS (2014) and explained as below.

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4.1. Effective Communication

Effective communication as explained by Zhao (2002), can be measured through counting the amount of data exchange between the stakeholders. Ng, Skitmore, Tam, & Li (2014), Mok, Shen, & Yang and Shen (2015) and Sadhukhan et al., (2018) also emphasized that effective communication channels are required to ensure efficient information transfer between project managers and stakeholders. During the SE process, the project managers may face challenges in handling stakeholders with extreme power and excessive conflicts, which will, therefore, require clear and formal communication. Bakens, Foliente, and Jasuja (2005) also point out that the effective communication in SE is significant in delivering the concept of 'effective' which are consist of delivering the right and precise messages to the suitable stakeholders, using appropriates means of communication and lastly by clearly clarifying the project value and benefit.

4.2. Continuous consultation

Stakeholders consultation is usually an effective method for gaining project stakeholders support. This is because, this method is not only providing useful information and ideas but also the act of asking people for their advice and how they feel (El-Sawalhi & Hammad, 2015; Senaratne & Ruwanpura, 2016). RICS (2014) further explained that consultation session with stakeholders should always be on going throughout the life cycle of project. Continuous consultation between project team and stakeholders will provide a clear and consistent stakeholder analysis, and therefore, will also contributing to the successful performance of project.

4.3. Understanding the underlying intentions and behaviors

Understanding the underlaying intentions and behaviors among different types of stakeholders involved in project is very important strategies. Bourne (2008) has highlighted in order to determine how project stakeholders wish to be engaged, project managers should take consideration to understand the underlying motives and intentions of different stakeholders involved. Consequently, it is pivotal for project organizations to clarify the project mission and objectives early on so that stakeholders' concerns and intentions could be aligned appropriately (Elias, Cavana, & Jackson, 2002; Karlsen, Græe, Massaoud, 2008; Yang & Shen, 2015).

4.4. Implement strategy plans

In many projects, the strategy plans for SE does not exist in any form. The plans are usually being set apart from the intuitive approach in the heads of the project leaders (RICS, 2014). In consequence, SE strategies cannot be implemented accordingly, and may affect the performance of project. Yang and Shen (2015) further mentioned that at the action stage, the project managers should implement the planned strategies accordingly to keep the project moving forward. Therefore, instead of a 'make it up as we go along' approach, the SE strategies needs to be planned and should be deliberately and wisely resourced (Ng et al., 2014).

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4.5. Building and sustaining good relationships

In achieving successful project delivery and fulfilment of stakeholder expectations, promoting and sustaining a good relationship with and among stakeholders is very important strategies (Jergeas, Williamson, Skulmoski, & Thomas 2000). Bal, Bryde, Fearon, & Ochieng (2013) also admitted that building and sustaining good relationships involving project stakeholders is an effective engagement that creates positive project outcomes.

4.6. Analyzing the changes

Changes are inevitable during the project's life cycle. Therefore, analyzing the changes in the stakeholder environment, i.e., information, influence, relationships and behaviors, are necessary (Loosemore, 2006; Walker, Bourne, & Rowlinson 2008; Nguyen, Skitmore, & Wong 2009; Aaltonen & Kujala, 2016). Mok et al (2015) emphasized stakeholders and the level of their influence, relationships and behaviors are temporal in real time and subject to the strategic issues under consideration. As such, management processes, methods and activities should be contrasted with historic records to reveal changes so that necessary adjustments can be made (Aarseth, Ahola, Aaltonen, Økland, & Andersen 2017; Aragonés-Beltrán, García-Melón, & Montesinos-Valera,2017).

4.7. Mitigating risks

SE is an important element of risk management since stakeholder behavior and attitude is always regarded as project risks. The mitigation of project risks and uncertainties provides solution on how well stakeholders can been managed and engaged (Manowong & Ogunlana, 2008; Mojtahedi & Oo, 2017). Giving the required attention to the stakeholders especially at the planning stage by understanding and restraining potential uncertainty-related risks will help project teams mitigating the risks (Bal et al., 2013).

4.8. Compromising conflicts

Conflicts or resistance from the public can poorly affect or even kill the project, since the public is part of an external stakeholder who always lacks with any formal project authority (Walker et al., 2008; Aaltonen & Kujala, 2016). Senaratne and Ruwanpura (2016) highlighted that conflicts are reflected in the number and magnitude of disputes and litigations. Thus, compromising conflicts of interest and objectives through effective consensus building is indicative of SE performance.

4.9. Understanding project success

Project success is often measured by considering the final cost, time and quality outcomes. However, project success can also be measured by examining the value the project contributed to the organizations that invested in it which usually against the planned figures (Davis, 2017). Yu and Shen (2015) mentioned the value of the project stakeholders should be reviewed by continually evaluating the associated stakeholder satisfaction. Such evaluations will reveal the present performance of the project, which will inform the concerned parties as to whether sustenance or improvement is required.

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4.10. Good project governance

Good project governance is now seen as main key on any project. This is because it provides clarity of responsibility, accountability, lines of communication and decision making among project stakeholders involved (Yang et al., 2015). Additionally, organizations that fulfilling corporate social responsibilities which includes economic, legal, environmental, ethical and cultural is very crucial to SE success (Leung et al., 2004; Bourne 2008; and Aragonés-Beltrán et al., 2017).

5. Conclusion

In this study, a systematic review of the literature was undertaken, covering publications between 1999 and 2017. Through a content analysis of the articles, 10 critical success factors of effective SE have been determined in relation to RE projects. The factors were as follows: 1) Effective communication, 2) Continuous consultation, 3) Understanding the underlying intentions and behaviors, 4) Implementing strategy plans, 5) Building and sustaining good relationships 6) Analyzing the changes, 7) Mitigating risks, 8) Compromising conflicts, 9) Understanding project success and lastly, 10) Good project governance. This study has contributed to the literature by integrating knowledge from studies on the critical success factors of SE. As this topic is gaining interest, this study will help researchers and especially project managers to find material more quickly and summarize high-quality papers available on relevant databases that can be drawn for their research. This study also may aid researchers in improving SE strategies and project outcomes in RE projects. However, an intervention framework is needed to indicate the effectiveness of SE strategies in the whole project cycle and to validate if the level of critical success factors engaged is producing the desired results.

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