

PROCESS-BASED STAKEHOLDER MANAGEMENT SYSTEM

Suban Lertnawapan¹, Suchai Thanawastien² and Prayuth Swadriokul³

¹Graduate Student, School of Science and Technology, Shinawatra University

99 Moo 10, Bangtoey, Samkhok, Pathum Thani 12160, Thailand, savailable@yahoo.com

²Lecturer, School of Science and Technology, Shinawatra University

99 Moo 10, Bangtoey, Samkhok, Pathum Thani 12160, Thailand, suchai.th@gmail.com

³Lecturer, The Institute of Public Administration and Governance, Shinawatra University

99 Moo 10, Bangtoey, Samkhok, Pathum Thani 12160, Thailand, prayuth.s@siu.ac.th

ABSTRACT

The stakeholder management was essential for both government and non-government organization. There was stakeholder management process but it was hard to choose one with best practice. In this research, American Productivity and Quality Center (APQC) a global authority in benchmarking, best practices and process, its process framework was brought to support creating stakeholder management process. Expert opinion was performed on the proposed process. With a new process, the expert agreed that the process was included policy planning, stakeholder identifying, analysis and strategic formation, and building and monitoring stakeholder.

KEYWORDS: Stakeholder, Management, Stakeholder Management, Process

1. Introduction

Stakeholders are groups or individuals that may affect or be affected by achieving the objectives of the organization [1]. There are many stakeholder groups. Each group may contribute differently in an organization such as the executive committee who provides guidance, point out obstacles and corporate ethics. The committee will get compensation as meeting attendance fee and others. While the advisory group worked for an organization will be payback as consultant fee after achieving a major task. In general, the stakeholders can be Customers who purchase goods from companies, people who are directly affected by the policy and operations of government agency, legislatures, political groups, corporate Investors, shareholders, Board of Directors, NGO, Trade associations, and etc.

In stakeholder management process, the key step is to define stakeholder for a policy, to identify stakeholder and to analyze key stakeholders by classifying them in the order of importance. Since dividing stakeholders into groups is not straightforward, the results can be ambiguous. This was consistent with the opinion of Brad L. Rawlins, 2006. It was not simple to determine who was a key stakeholder or who was not [2]. Thus this research proposed stakeholder analysis approach, rated stakeholders into groups, and engaged important stakeholder by applying best practice American Productivity and Quality Center, APQC [3].

2. Previous Work

From previous research, a classification of stakeholder management had many criteria for example it could be classified as primary (formal relationship) and secondary (without formal relationship) stakeholder [4-6], consubstantial, contractual and contextual stakeholder [7], Internal and external stakeholder [5], market and nonmarket stakeholder [8], 7 groups of stakeholder classification—dormant, discretionary, demanding, dominant, dependent, danger, and definitive based on three factors--power, legitimacy, and urgency [9].

For stakeholder analysis, the Power Interest Matrix [10] was used in many research papers. In project management, the influence and importance parameters were found and applied instead [11].

3. Research Objectives

The research objective was defined as follows

- 1) Studied how to design a stakeholder processing methods in accordance with APQC process classification framework especially Manage External Relationship.
- 2) Studied how to setup stakeholder management process applying APQC best practice processes in order to classify and engage stakeholders with organization.

4. Research Methodology

An expert opinion was used to evaluate the proposed stakeholder management process. The purposive sampling was performed by selecting management-level expert who had an experience in policy making from various industries. The sample size was 17 experts. With these samples, it was reliable process as Dalkey [12] suggested an increase number

of group size will increase in reliability of group response. Specifically, when group size is more than 13, the reliability is satisfied with a correlation coefficient is greater than 0.8. The 5-level Likert scale questionnaire (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree) was used during gather expert responses for each of stakeholder management process. The introduction letter with questionnaire was sent to formally invite the panel and either phone or face to face interview was later performed depending on individual availability. The data gathering will be repeated until it reach consensus. Median and Interquartile range (IQR) were applied for middle value and data distribution in this research analysis. When IQR is no more than 1, meaning more than 50% of all opinions were at specific point on the scale [13], it achieved the consensus and no further data gathering from the panel.

5. APQC Stakeholder Process

In this research, we considered applying the APQC in process classification framework (PCF) Category 12.0, version 7.2.1, Manage External Relationships for defining process in managing external stakeholder. APQC organizes operating process and management and support services into 13 categories as Figure 1.

For stakeholder classification viewpoint, APQC PCF would help define external stakeholder groups and provided guideline activities for 5 different external stakeholder groups as shown in Figure 2.

The process was as following.

- 1) Build Investor relationships
- 2) Manage government and industry relationships
- 3) Manage relations with Board of directors
- 4) Manage legal and ethical issues
- 5) Manage public relations program

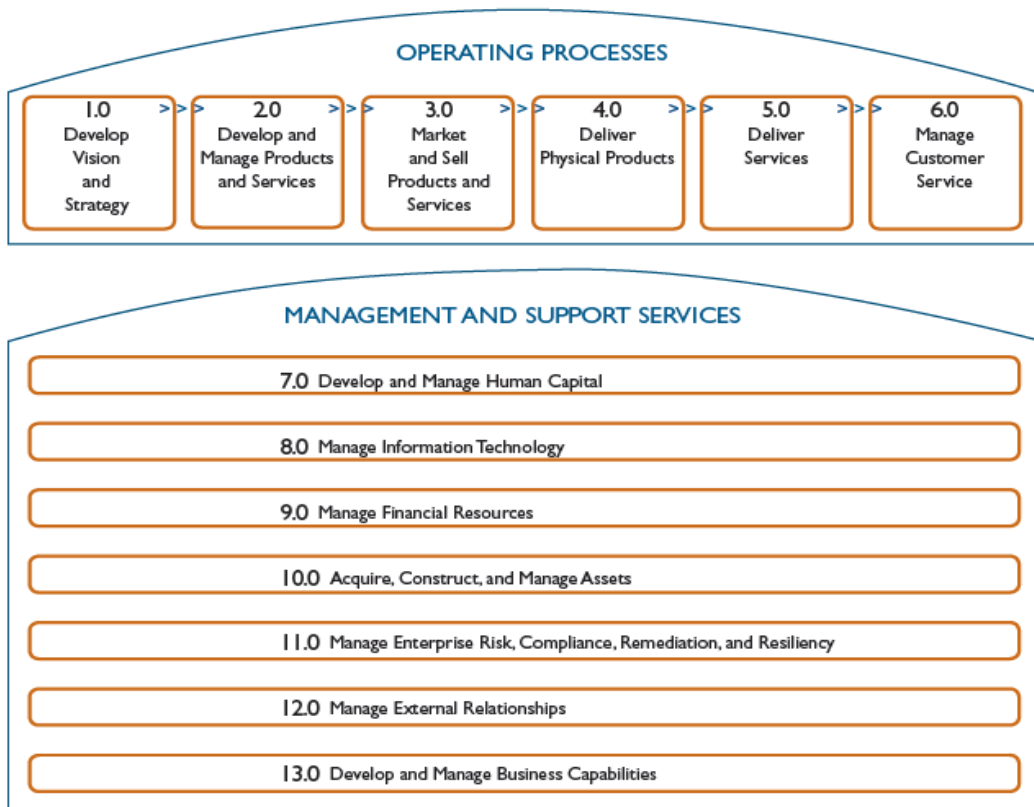


Figure 1 APQC Process Classification Framework

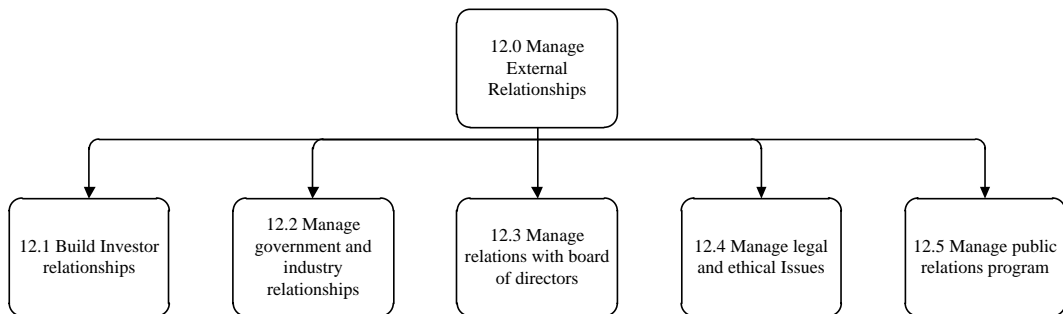


Figure 2 APQC Process Classification Framework

6. Stakeholder Management System Process

As per the plan, we studied and proposed a stakeholder management system to support all policy issue focusing on stakeholder management as Figure 3. The stakeholder management system composed of four main processes,

- 1) PDP: Plan Development Process. This was to create policy plan.
- 2) KYP: Know Your Stakeholders Process. This process would collect all stakeholder data.
- 3) SAP: The Stakeholder Analysis and Strategy- formulation Process. This process would analyze stakeholder data and suggest strategy.
- 4) SRP: Stakeholder Relationships Process. This process would store the stakeholder activities engaged with the organization, and vice versa. The activities would be recorded and stored in system. The summary report was provided.

The stakeholder management process started from developing a plan for new policy, classifying stakeholder, identifying stakeholder characteristic, analyzing stakeholder with strategic recommendation, and recording stakeholder activity in storage which would be utilized as report regarding stakeholder information. The system processes are described as follow.

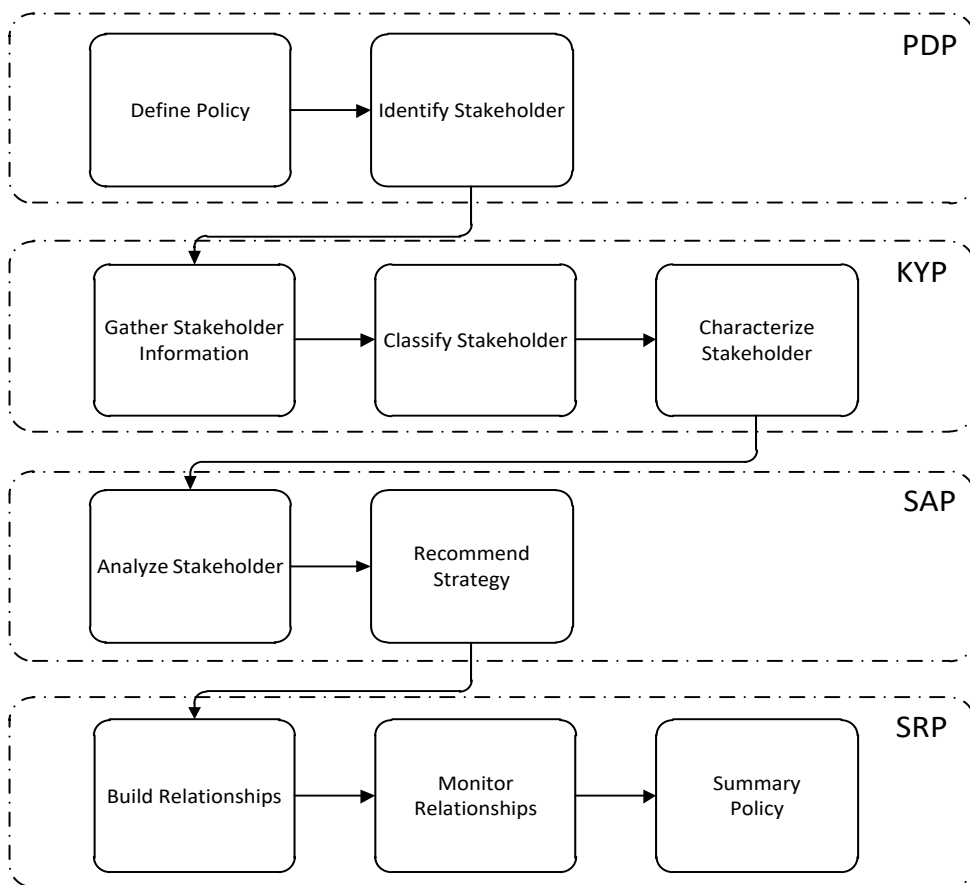


Figure 3 Stakeholder Management System Process

6.1 PDP: Plan Development Process

PDP was the first part in the process. The main function of PDP was to define policy strategy and policy information suitable to perform stakeholder analysis. The subject or policy could be specific and publically controversial. The analysis data would help build strategic plan, support a reform policy, or guide for consensus-building process [14]. The output from this process was policy information such as objective, policy description, start and end date, and responsible people. The stakeholder who was relevant in the policy was defined for name, title and organization.

6.2 KYP: Know Your Stakeholder Process

In KYP, stakeholder information was gathered before sending it to stakeholder classification. KYP processed the classification based on APQC PCF 12.0, and the stakeholder characteristics data was collected systematically. Therefore, KYP was the process to identify and characterize a stakeholder and will provide all basic information to SAP. The stakeholder is required to be registered either directly or indirectly in the system before characterization process could be executed. KYP has 3 sub-processes as follow.

6.2.1 Gather stakeholder information

Stakeholder information was gathered from stakeholder via questionnaire or interview. In case no stakeholder information was obtained, the indirect method could be applied by obtaining data from secondary source such as organization structure, magazine, newspaper, or friend. The general stakeholder information was: First Name, Last Name, Title, Organization, Address, ID Number, E-mail, Telephone Number, Characteristics for a policy.

6.2.2 Classify Stakeholder

For stakeholder classification, we created standard classification into 6 groups, from APQC PCF 5 groups which were all external stakeholder, and a Target stakeholder group who was direct target stakeholder of the policy such as employee or people as shown in Table 1.

Table 1 Stakeholder classification

ID	Group	Stakeholder
1	Investor	Bank and finance, Analyst, Bond manager, Ministry of Finance (secretary, Lobbyist, Venture Capital)
2	Government and industry	Related top-level government officers, State enterprise (director general), Trade association (president), Chambers of commerce (president), Charity organization (director), Electricity, Waterworks, ISP, Investor, NGO, Vendor, Supplier
3	Board of directors	Board of director, Board/council
4	Legal	top-ranking government officers, top-ranking budget bureau officers, Audit officers, Consultant, Legal department officers, lawyers, attorney general, people, companies, agencies, general accounting officers
5	Public relations	Community influencers, community leaders, community activists, press, major newspapers, digital channels executives, News reporters, News agency executives
6	Target Stakeholder	Employee, Supervisor, Manager, Officer, Citizen or people targeted for the policy

6.2.3 Characterize Stakeholder

Stakeholder characteristic was another part of KYP. It identified all stakeholder characteristics from 4 variables--Power, Interest, Knowledge and Position. All stakeholders were required to be characterized into all of above characteristics and were assigned only one value.

6.3 SAP Stakeholder Analysis and Strategy-formulation Process

After gathering and knowing all stakeholder information, SAP would analyze the data and suggest relevant recommendation to manage those stakeholders. The output from SAP

was used in performing activities and managing stakeholder relationships. It has 2 sub-processes as below.

6.3.1 Analyze Stakeholder

The analysis was based ranking criteria so that the most important stakeholder was identified and the impact could be analyzed. The analysis helped answer the following questions [14].

- Who is the key stakeholder of the policy?
- What is the stakeholders' power of the policy?
- What is the stakeholders' interest of the policy?
- What is the stakeholders' knowledge of the policy?
- What are the stakeholders' positions on the policy?

By cross-referring to other characteristics, stakeholder position analysis could give information such as Total number of supporters, Power of supporters, Interest of supporters, Knowledge of supporters, Total number of opponents, Power of opponents, Interest of opponents, Knowledge of opponents, Total number of neutral, Power of neutral, Interest of neutral, and Knowledge of neutral.

6.3.2 Recommend Strategy

After defining the stakeholder characteristic, we setup the strategy concept for each stakeholder position as follow.

- For Supportive Stakeholder, we suggested to maintain the current characteristic.
- For non-supportive stakeholder (neutral and opposition), we suggested to convert to supportive stakeholder by increasing the characteristic, to weaken by incubating the characteristic, or to ignore any activities.

Therefore, we analyzed all the possibilities for all stakeholder characteristics and the result was shown for each stakeholder position—support, neutral, opposition---as in Figures 4, 5 and 6.

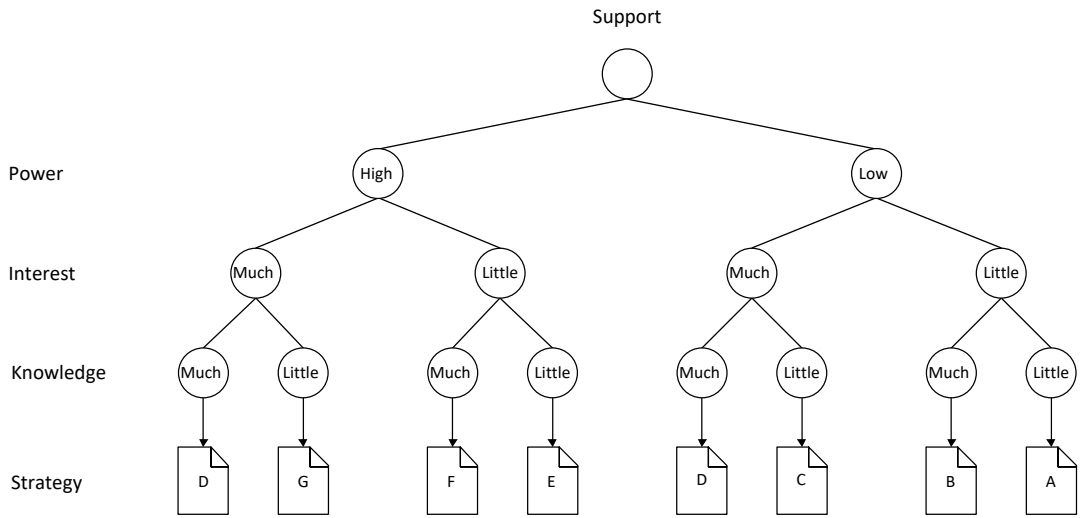


Figure 4 Stakeholder strategy for Supportive stakeholder

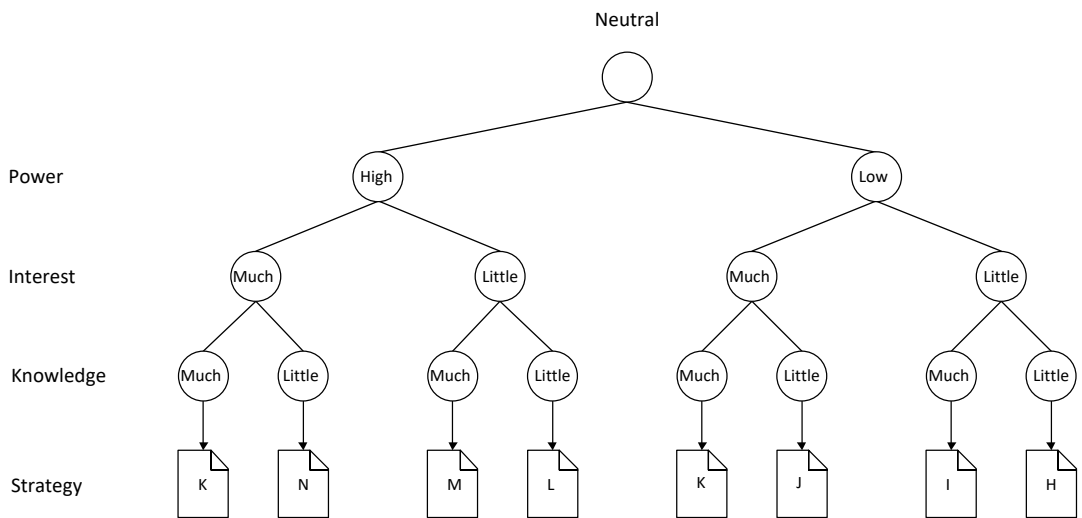


Figure 5 Stakeholder strategy for Neutral stakeholder

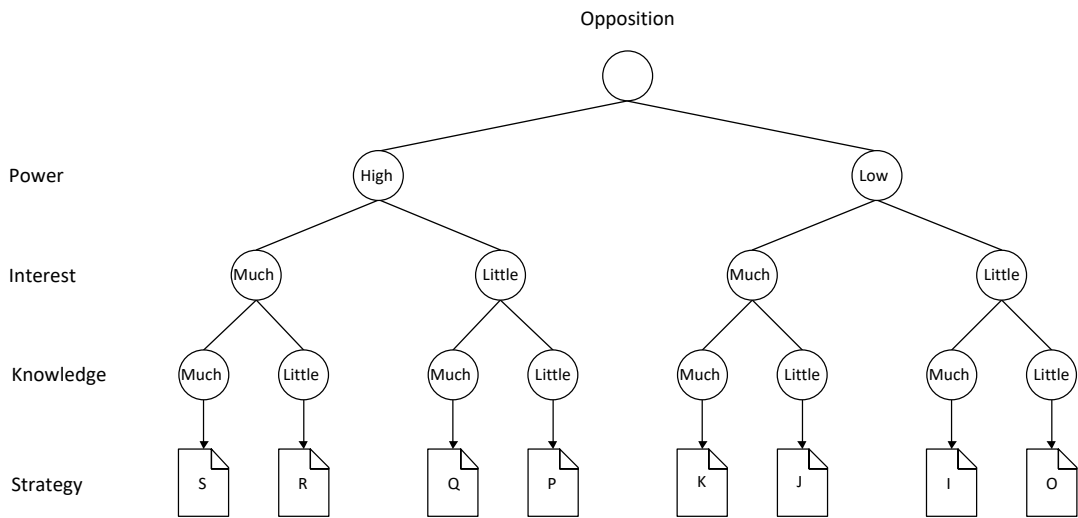


Figure 6 Stakeholder strategy for Opposition stakeholder

The recommendation strategy [15] was shown as following.

A = Maintain the support by increasing Interest and Knowledge

B = Maintain the support by increasing Interest

C = Maintain the support by increasing Knowledge

D = Maintain the support by keeping relation

E = Maintain the support by increasing Interest and Knowledge

F = Maintain the support by increasing Interest

G = Maintain the support by increasing Knowledge

H = Convert to supporter by increasing Interest and Knowledge

I = Convert to supporter by increasing Interest

J = Convert to supporter by increasing Knowledge

K = Convert to supporter by lobbying

L = Convert to supporter by increasing Interest and Knowledge

M = Convert to supporter by increasing Interest

N = Convert the support by increasing Knowledge

O = Ignore

P = Weaken the opposition by incubating Interest and Knowledge

Q = Weaken the opposition by incubating Interest

R = Weaken the opposition by incubating Knowledge

S = Weaken the opposition by decreasing Power

The system provided recommendation of stakeholders and kept all stakeholder information including profiles, analysis result and strategies in stakeholder management database.

6.4 SRP: Stakeholder Relationships Process

The SRP managed and stored the activities that the stakeholder engaged with an organization, and vice versa. It provided records of all strategic activities and tasks performing to target stakeholder whose data was collected and stored progressively. The output from SAP process will go to SRP. The SRP had process for each stakeholder class. There are 3 sub-processes:

6.4.1 Building Relationships Process

The building relationships process has 6 internal processes to manage stakeholder for each stakeholder class. We applied APQC External Relations to our Building Relationship Process. It provided guideline of activity to be done based on stakeholder classification and strategy recommendation.

- For Investor Class, there are 3 processes.
 - Plan, build, and manage lender relationships
 - Plan, build, and manage analyst relationships
 - Communicate with shareholders
- For government and industry Class, there are 4 processes.
 - Manage government relations
 - Manage relations with quasi-government bodies
 - Manage relations with trade or industry groups
 - Manage lobby activities
- For board of directors Class, there are 2 processes.
 - Report financial results
 - Report audit findings
- For legal Class, there are 9 processes.
 - Create ethics polices

- Manage corporate government policies
- Develop and perform preventive law programs
- Ensure compliance
- Manage outside counsel
- Protect intellectual property
- Resolve disputes and litigations
- Provide legal advice/counseling
- Negotiate and document agreements/contracts
- For public relations Class, there are 5 processes.
 - Manage community relations
 - Manage media relations
 - Promote political stability
 - Create press releases
 - Issue press releases
- For Target Class, there are 3 processes.
 - Manage management relations
 - Manage operation relations
 - Manage service relations

6.4.2 Monitor Relationships Process

After the build relationships process was completed, the monitor relationships process would track and feedback the stakeholder activity to build relationships process. Both processes worked together until the activity engaging to stakeholder was completed. The data from both processes is sent to the last process, summary, to conclude the policy and stakeholder result.

6.4.3 Summary Process

For summary process, the report provided in terms of policy, stakeholders, characteristic and etc. It gathered data from stakeholder database system and made table output as sample in Figure 7. It described stakeholder name, classification, power level, interest level, knowledge level, and position level for specific policy.

Policy Name	Stakeholder Name	Organization	Class	Power Level	Interest Level	Knowledge Level	Position Level

Figure 7 Policy and Stakeholder Report

7. Result and Discussion

For this study, 17 experts were chosen from the following: 3 academic teachers, 2 government officers, 2 retail managers, 2 military officers, 1 construction manager, 1 healthcare physician, 1 manufacturing director, 1 mining executive, 1 software consultant, 1 technical service officer, 1 transportation manager, and 1 utility industry manager. From our panel, 9 experts were between 41-50 years old, 7 experts were between 51-60 years old, none were between 61-70 years old, and one was more than 70 years old. Male to female ratio was 12 to 5.

From Table 2, the questionnaires were given an expert opinion to rank his or her opinion on each process of stakeholder management. The expert would rank only one opinion which could be either agree or disagree in a 5-level Likert scale. The result from expert opinion were either strongly agree or agree, this indicated that majority of experts agreed the proposed stakeholder management process. As were ranked strongly agree, knowing profile, power-level and position of stakeholder were the most essential information. Additionally the process of knowing stakeholder interest and knowledge in the policy were important. This indicated that process in knowing stakeholder characteristics would be the first priority information in managing stakeholder.

Other processes were ranked as agree such as defining, classification, analysis, strategy, engagement and report of stakeholder for the policy. The defining stakeholder was step to list stakeholder to who policy will be aimed. This was to limit scope of number and type of stakeholder. The classification, as applied APQC, was grouped stakeholder in best practices process. In addition, the analysis process would provide the information such as who is the key stakeholder in the policy, what is the power, interest, or knowledge level of the target stakeholders, or the support or opponent position of the stakeholder toward the policy. The strategy process would give the policy owner an approach to handle specific

stakeholder. Furthermore, the stakeholder engagement would build, monitor and track all activities that policy maker act to target stakeholder, as provided the plan in APQC building relationships. After all processes were completed, the report process summarized the information of the policy and stakeholder such as number of support or opponent stakeholder in the policy; power, interest or knowledge level of support or opponent stakeholder.

Table 2 Statistical result of respondents

To what degree do you agree or disagree with the following stakeholder management process?	Median	IQR	Range
Defining stakeholder: Identify stakeholders who policy will be targeted.	4	4-5	4-5
Classifying stakeholder into groups: Investor, Government/industry, Board of director, Legal, Public relation, Internal staff	4	4-4	4-5
Knowing stakeholder information related to the policy as follow:			
Profile: name, title, organization, contact no.	5	4-5	4-5
Power: ability to execute the policy	5	4-5	4-5
Interest: interest level for the policy	4	4-4	4-5
Knowledge: understand the context of the policy	4	4-4	3-5
Position: whether stakeholder support, neutral or opposition for the policy.	5	4-5	4-5
Analyzing stakeholder profile and characteristic toward the policy	4	4-5	4-5
Recommending strategy to manage stakeholder whether to encourage or convince those stakeholders.	4	4-5	4-5
Performing related activity with those stakeholders, track and monitor the result.	4	4-5	4-5
Summarizing stakeholder profile and position regarding to the policy	4	4-5	4-5

Note: Value in table is Likert scale where 5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree; IQR=Interquartile Range (quartile 1 and quartile 3 value); Range=minimal and maximum value

We applied APQC process as of its best practice, process and performance improvement framework. The APQC PCF Manage External Relationships was brought in the research because it solved a policy owner issue in grouping stakeholders among many stakeholder types. In addition, it provided standard activity to engage with each stakeholder group in order to effectively manage stakeholder. However APQC did not provide tasks to gather stakeholder information, to identify stakeholder characteristic, to analysis the data, and to report all the result of the policy. We had to apply those processes [14] in the research.

For summary, an expert panel agreed the process of the stakeholder management will include defining, classifying, knowing stakeholder characteristic (power, interest, knowledge, and position), analyzing stakeholder, recommending strategy, monitoring and tracking stakeholder activity, and summarizing the stakeholder for the policy.

8. Conclusion

In this research, we developed new stakeholder management process applying APQC process framework on manage external relationship together with stakeholder management process [14] from the literature review for process completeness. The process, therefore, included planning, identifying, analyzing, and engaging the stakeholder for a specific policy. Based upon expert respondents, they agreed on our proposed stakeholder management process and an advice to further develop the information system based on the above process and deploy in relevant organization.

References

- [1] Freeman RE. Strategic management: a stakeholder approach. Boston: Pitman Publishing; 1984.
- [2] Rawlins B. Prioritizing stakeholders for public relations [Internet]. 2006 [cited 2018 Aug 23]. Available from: https://www.instituteforpr.org/wp-content/uploads/2006_Stakeholders_1.pdf
- [3] American Productivity & Quality Center. Cross industry process classification framework, version 7.2.1 [Internet]. 2018 [cited 2019 May 31]. Available from: <http://www.apqc.org/>
- [4] Clarkson MBE. A stakeholder framework for analyzing and evaluating, corporate social performance. *Academy of management review* 1995;20:65-91.

- [5] Savage GT, Nix TW, Whitehead CJ, Blair JD. Strategies for assessing and managing organizational stakeholders. *Academy of Management Executive* 1991;5:61–75.
- [6] Hillman AJ, Keim GD. Shareholder value, stakeholder management, and social Issues: what's the bottom line?. *Strategic management journal* 2001;22:125-39.
- [7] Rodriguez MA, Ricart JE, Sanchez P. Sustain development and the sustainability of competitive advantage: a dynamic and sustain view of the firm. *Creativity and innovation management* 2002;11:135-46.
- [8] Rizal ARA, Nordin SM, Saad, MS, Ismail K. Engagement strategies for stakeholder management in new technology development in the fertilizer industry – a conceptual framework. *International journal of social, behavioral, educational, economic, business and industrial engineering* 2012;6:516-22.
- [9] Mitchell RK, Agle BR, Wood DJ. Toward a theory of stakeholder identification and salience: defining the principle of who or what really counts. *The academy of management review* 1997;22:853-86.
- [10] Olander S, Landin A. Evaluation of stakeholder influence in the implementation of construction project. *International journal of project management* 2005;23:321-28.
- [11] Kennon N, Howden P, Hartley M. Who really matters? A stakeholder analysis tool. Department of primary industries, Extension Farming Systems Journal-EFS Journal; 2009;5(2):9-17.
- [12] Dalkey NC. The delphi method: an experimental study of group opinion [Internet]. 1969 [cited 2018 Dec 15]. Available from: https://www.rand.org/pubs/research_memoranda/RM5888.html
- [13] Ramos D, Arezes P, Afonso,P. Application of the delphi method for the inclusion of externalities in occupational safety and health analysis. *Dyna*; 2016;83(196):14-20.
- [14] Schmeer K. Guidelines for conducting a stakeholder analysis [Internet]. 1999 [cited 2018 Aug 23]. Available from: <https://targeting.alnap.org/system/files/content/resource/files/main/hts3.pdf>
- [15] Lertnawapan S, Tanawastein S. Process-based stakeholder management system [dissertation]. Pathum Thani: Shinawatra University; 2020.

Author's Profile



Suban Lertnawapan is graduate student of Ph.D IT at school of Science and Technology, Shinawatra University. His research interests are stakeholder management process and stakeholder management system implementation.



Suchai Thanawastien is an associate professor in computer engineering and information systems. He has published in the IEEE Transactions on Computers, IEE Transactions on Computer Aided Design. He has conducted research in the areas of robotic automation, advanced digital twin system, and virtual learning technology.



Prayuth Swadriokul worked as a government officer at the Bureau of The, Budget, Prime Minister Office. He has taught at several universities. His research was in the areas of strategic planning for government budget at the provincial level (Area Approach). He also authored several instructional books for courses in Public Policy, Government System, and Economy and Social.

Article History:

Received: April 13, 2020

Revised: June 16, 2020

Accepted: July 29, 2020