

# **Policy Networks and Industrial Revolution**

## **4.0: Paradigm Shift from Government to Governance**

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### **Abstract**

Since first enacted by the Indonesian government, industrial revolution 4.0. has been identical with technological revolution. This revolution is linked with several aspects of popular technological development such as internet of things, artificial intelligence, human–machine interface, robotic technology as well as 3D printing. However, the most important factor beyond technology is a paradigm change. This aspect is missing in current issue. A new form of governing is required for the government’ readiness to enter into a new industrial revolution. Thus, change is required and its characterized by a paradigm shift from government to governance, from single actors to multiple actors. The question is what form of governance, why and how it works? To fill in the gaps, policy networks is essential for building a new form of governance in the industrial revolution era. It is because in the reform era, there is no single and dominant actor who independently manage policy process. In fact, with very limited resources, actors and institutions are interdependent. Networking across divers actors either local, national or even international can improve the quality of public policy making process as well as implementation process.

### **Introduction**

Many people have discussed through social media, the internet, speeches, seminar stages with appeals and even criticism that tickles the government and its apparatus at both the central and regional levels must be responsive, adaptive, agile to the demands of global and national changes that are currently happening. Responsive, adaptive and agile attitudes are indeed needed to move forward together in the face of rapid technological change, but unfortunately very few people address the issue of paradigm shift from government to governance

The state apparatuses are often trapped into activities that consume large amounts of energy, time, to adopt technology to make sophisticated high technological applications but they forget that the ultimate goal is not technology. Technology is indeed very important but not the only one. Any sophisticated, technology is only a

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means or a tool while the ends or the ultimate goal is community satisfaction. This paper discusses the role of policy networks in accelerating more actors involve in the policy making process. In explaining change in the way the governments work, this paper is divided into four sections. Section one describe the method used in the paper. Section two explains the concept of policy networks. Sections three discusses the discussion in relation to the role of policy networks in expanding actors in policy making process. Finally, last section describes conclusion of the paper.

### **Method used**

This paper uses qualitative method by utilizing library studies. Secondary data and information were collected from publications such as government reports, NGO and international donor reports, scholarly books and articles, conference or working papers, and newspapers. Relevant literature in regard with policy networks, industrial revolution, and governance were examined through literature review.

### **Literature Review**

Conceptually, policy networks refer to ‘a set of informal and formal interaction between a variety of usually collective public (state) and private actors, who have different but interdependent interests’ (international Encyclopedia of Social and Behavioral Science, 2001). In similar vein, Parson (1995) said that ‘policy networks seek to focus on the pattern of formal and informal contacts and relationships which shape policy agenda and decision making as opposed to the interplay within and between the formal policy making organizations and institutions’. This understanding is based on his assumption that ‘a policy is framed within a context of relationships and dependencies’ (Parson, 1995). Another point of view of policy networks is linked with a shared interest among groups or institutions (Richardson, 2000). According to Borzel (1998), policy network is a close link between groups or institutions that are of non-hierarchical and independent nature in connection with a large number of actors who have common interests devoted to policy. Those actors have exchanged their resources and shared interests to assure the best cooperation in order to achieve common goals. Additionally, policy networks and policy community interchangeably indicate a close link between civil servants and favored interests group organizations (Dowding, 1995).

Policy networks are best understood as webs of continual connection, which serve as a solution to the problems. The reason is that they are not only able to mobilize and gather policy resources, but also to include a broad variety of different actors. Accordingly, Rhodes also pointed out that policy networks constituted the ‘interactions among various departments and branches of government and between the government and other organizations in society either in formulating or developing policy (Howlett and Ramesh, 1995). To produce a certain policy outcome, the actors or membership of the policy networks have to share ‘consensual knowledge and collective idea and values’ (Borzel, 1998).

There are two perspectives in policy networks theory. The first approach is understood as intermediation school of thought. This approach came from an understanding that ‘the structure of a network has a major influence on the logic of interaction between the members of the networks thus affecting both policy process and policy outcomes’. The typologies of policy networks according to this approach is different. Jordan and Schubert (1992 in Borzel 1998) used three types of networks: actors, function, structure, institutionalization, rules of conduct, power relations and actors’ strategies. Rhodes (1998, cited in Borzel 1998) identified five types of policy networks according to the degree to which their members integrated, the type of their members and the distribution of resources among them. According to Borzel (1998, citing Rhodes, 1998) ‘Rhodes placed his network types on a continuum ranging from highly integrated policy communities at the one end and loosely integrated issue networks lie between’.

Figure 1 : The Marsh and Rhodes model of policy networks

Policy Community		Issue Networks
Membership: Number of participants	Very limited number, some groups consciously excluded economic and or professional interests dominant	Large Encompasses a range of affected interests groups
Integration: Frequency of interaction	Frequent, high quality interaction of all groups on all members related to policy issue	Contacts fluctuate in frequency and intensity

Continuity	Membership, values and outcomes persistent over time	Access fluctuates significantly
Consensus	All participants share basic values and accepts the legitimacy of the outcome	A measure of agreement exists, but conflict is ever present
Resources: Distribution of resources within networks	All participants have resources: basic relationship	Some participants may have resources, but they are limited, and basic relationship is consultative
Distribution of resources (within participating organizations)	Hierarchical: leaders can deliver members	Varied and variable distribution and capacity to regulate members
Power	There is balance of power among members. Although one group may dominate, it must be a positive-sum game if community is to persist	Unequal powers, reflecting unequal resources and unequal access. It is a zero-sum game

*Source:* Marsh and Rhodes (1992, cited in Hansen, 1997)

According to Grantham (2001), networks can further be used to describe and explain the implementation stage of policy. Implementation networks are a ‘pattern of social relation (action) between interdependent actors, which take shape around secondary policy problem and or policy programs. Actors in networks both exchange resources and negotiate or compete for control of (additional) resources towards generating and aggregated implementation output’ (Grantham 2001). Grantham further states that ‘the delivery of policy depended largely on activity located in a series of distinct implementation networks, each with their own objectives that eventually resulted in a highly successful implementation process’. Moreover, in a process of delivery, ‘certain actors may well seek ‘nodality’ by colonizing the implementation arena in order to secure a position as a controlling hub for receiving inputs and sanctioning (Rhodes 1998, Clegg, 1989 cited in Grantham, 2001). For Rhodes the distribution and

type of resources within a network explains the relative power of actors. The different patterns of resource dependence explain policy change, there is a need to characterize the difference between them (Marsh, 1998 cited in Grantham, 2001). According to Grantham (2001) there are three key implementation networks. The first is the crucial policy community representing closed networks which are highly stable and command predominantly legal-constitutional resources. The second is administrative networks that are populated by low discretion actor who operationalize the outputs of policy networks. The third is the opportunity networks that categorizes actors who participate in the policy process in order to secure for themselves additional resource.

The governance school conceives policy networks a form of governance or governing structure alternative to hierarchy and market. Under this conceptual framework of governance, according to Borzel (1998), 'the network concept draws attentions to the interaction of many separate but interdependent organizations which coordinate their actions through interdependencies of resources and interests'. Actors who take an interest in the making of a certain policy and who dispose of resources (material and immaterial) required for the formulation, decision or implementation of the policy, form linkages, which differ in their degree of intensity, normalization, standardization and frequency of interaction, and constitute the structure of a network. These governance structures of a network determine in turn the exchange of resources between the actors. 'The concept of networks as inter-organizational relationship focuses on the structure and processes through which joint policy making is organized on governance' (Borzel, 1998). This approach is based on an assumption that 'modern governance is characterized by a decision system in which territorial and functional differentiation disaggregates effective problem solving capacity into a collection of subsystems of actors with specialized tasks and limited competence and resources' (Hanf and O'Toole, 1992, cited in Borzel, 1998). "governments have become increasingly dependent upon the cooperation and joint resources mobilization of policy actors outside hierarchical control' (Borzel, 1998). These two schools of policy network provide either advantages or disadvantages. They can both improve and undermine the efficiency and legitimacy of policy making and implementation.

The strengths of policy networks according to Borzel (1998), can also be seen as solution to cope with problems, particularly in the modern world. Another benefit of policy networks in the capacity to study and analyze the linkage between various

Proceedings of **The 2<sup>nd</sup> International Conference on Strategic Mental Revolution (ICoSMR)**, Cikarang City, Indonesia January 20<sup>th</sup>, 2020. Theme: Corporate Social and Financial Responsibility governmental agencies. In line with this, Borzel (1998) explain that the policy networks are introduced to analyze intergovernmental relations. Moreover, the policy network model is used as an analytical tool for examining institutional change relations between the state and organizations of civil society. It analysis the sectoral and sub-sectoral differences, the role played by public and private sectors, and formal together with informal relationships between them (Borzel, 1998). Kenis and Schneider (1991, cited in Borzel 1998), also pointed out that “in an increasingly complex and dynamic environment, where hierarchical coordination is rendered difficult if not impossible and the potential for deregulation is limited because of the problems of market failure, increasingly governance becomes only feasible within policy networks, providing a framework for the efficient horizontal coordination of the interests and actions of public and private corporates actors, mutually dependent on their resources’.

However, policy networks are only an analytical model, a framework of interpretation, in which different actors are located and linked in their interaction in a policy sector and in which the results of this interaction are analyzed (Borzel 1998). The importance of policy networks is that they have selected which issues to be included and excluded from the policy field (Richardson, 2000). Richardson also elaborated Marsh and Smith point of view that policy networks focus on the agenda setting role. Generally, they have been characterized by a large level of consensus on the policy area (2000). Policy networks cannot deploy any explanatory power (Borzel, 1998). Policy networks can have the opposite effect. They can inhibit policy change, exclude certain actors from the policy making process and are far from being democratically accountable (Borzel, 1998). Policy making is often much more fluid and unpredictable and less controllable outcomes (Richardson, 2000). There is a misapprehension about the nature of state theorizing within policy networks (Dowding, 1995). The results from policy networks are how fragmented and separated groups are able to act concertedly to use more power than the sum of each member. Similarly, breaking up governance structure into differentiated quasi-governmental organization within newly created policy communities can cause overall power loss. In respect to the limitations of policy networks, institutional, rational choice has link together individuals within a decision-making process and properties of the structure under which decision-making takes place (Dowding, 1995).

## **Discussion**

For the past few years, the industrial revolution 4.0. brings great consequences to the changing order of life. In fact, technology has eroded our lives starting from the way we buy goods, transacting with virtual money, to how people communicate with each other. We feel this huge change so quickly, especially in the aspect of new technological developments marked by five main technologies that support the development of industrial 4.0 systems, namely the internet of things, artificial intelligence, human-machine interface, robotics and sensor technology, and 3D printing technology. The great impact of the development of this high technological change has been experienced in the field of on-line transportation where conventional domestic companies such as Blue Bird, Express are being eroded by start-up companies that rely on technology such as Gojek and Grab. Recent developments in technological change have penetrated into the world of retail businesses such as the emergence of companies such as *Toko Pedia*, *Shopy*, *BeliBli* which market products while offering online transactions through e-banking or e-commerce. Major changes have also penetrated our bureaucratic world where public service types have been digitalized with on-line methods such as online-single services, various financial administration applications and public services initiated by various ministries and institutions and local government in Indonesia

In the era of industrial revolution 4.0 we often hear the terms disruption is one of the words that is quite popular and favored by many parties along with the presence of the industrial era 4.0. this. Disruption is interpreted as a positive meaning for extraordinary change (revolution). In fact, since the industrial revolution 4.0 rolled, there have been two parties who felt very disturbed. First, the retail and transportation giant businessmen. Second, routine workers (laborers) or high-risk workers whose work can be done by robots or equipment controlled by artificial intelligence.

Respond to disruptions to retail giants about fears of a wave of unemployment by online sales schemes, such as taxi company disruption by sharing schemes such as *Grab* and *Gojek*. Related to this disruption, Minister of National Development Planning, Bambang P.S. Brodjonegoro, trusts McKinsey & Co.'s research According to him, entering the industrial revolution 4.0 Indonesia will lose 50 million job opportunities. While Industry Minister Airlangga Hartarto, said that the industrial

Proceedings of **The 2<sup>nd</sup> International Conference on Strategic Mental Revolution (ICoSMR)**, Cikarang City, Indonesia January 20<sup>th</sup>, 2020. Theme: Corporate Social and Financial Responsibility revolution 4.0 provided an opportunity for Indonesia to innovate. A revolution focused on developing the digital economy is seen as beneficial for Indonesia. This should be seen as a normal event in every social change

On the other hand, the industrial era 4.0 has given birth to optimism, population growth, food needs, the development of market tastes that drive market passion and production innovation. Thus, human welfare is expected to increase. Technology in the industrial revolution era 1.0, 2.0, and 3.0 is still free of ethical values, now the choice of technology such as the block chain is an ethical choice. Where once ethics was seen as a choice, now ethics has become part of technology, and vice versa. Honesty, justice, truth and the good of others get the opportunity to present imperatively through block chain technology in, but without good intentions and collective effort, the wonderful future dreamed of together is not necessarily present.

### **Conclusion**

One thing that the jargon of 4.0. industrial revolution missed is the paradigm shift from government to governance. This issue is not covered completely as the government currently more focus on the technological change. Policy networks is one of the new pattern of how government can challenge the new Industrial Revolution by opening more actors and networks both in the policy making and implementation process.

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