The Journal of ***Public Affairs and Development***
Volume 1, Number 1, January - June 2012, pp. 1 – 21
ISSN 2244-3983

Charting the Science of Public Affairs

ROGELIO N. TAGARINO

Abstract: The necessary body of knowledge and methodology for the comprehensive appreciation and understanding of public affairs for policy decision-making have remained elusive. This paper clarifies the concept of public affairs as an area for building a body of knowledge into a distinct academic science and a valuable discipline for governance. It includes brief reviews of relevant literature on public affairs; a theoretical model of public affairs as a community system; an analytical framework for the science of public affairs; and some concluding insights for building a body of knowledge of a public affairs system.

Keywords: *public affairs, community system, policy mosaic*

I. Introduction

The foundations of civic life and societal concerns are numerous, varied, interconnected, and dynamic. They include, among other things, food, shelter and utilities, clothing, health, literacy, transport and communication, recreation and sports, a safe environment, good governance, and security (peace and order). These concerns have become discrete agenda for the development of knowledge and know-how (i.e., for science and technology - S&T) for

Correspondence address: *Adjunct Professor, College of Public Affairs and Development, University of the Philippines Los Baños*
Phone: (+63 49) 536-3455/536-3637 Email: r_tagarino@yahoo.com.ph

societal subsistence. Thus, the development of S&T along with the higher educational system has emphasized the specialization of sciences and/or disciplines. For an analogy, we now know more and more about a tree but less and less about the forest.

However, the overall condition of societies today is influenced by complex, multifaceted, and dynamic challenges and opportunities. In our increasingly interconnected and interdependent world, these challenges and opportunities have profound implications for humanity's well-being and even its survival. Appreciating and understanding these challenges and opportunities in aggregate are necessary for human existence as in any individual science. However, the knowledge and methodology to pursue this need must be clarified. It is from this need that the concept of public affairs arose.

This paper recognizes the concept of public affairs as an important field for building a body of knowledge into a distinct academic science and a valuable discipline for governance. Specifically, this paper includes: 1) brief reviews of relevant literature, 2) a theoretical model of public affairs as a community system, 3) an analytical framework for the science of public affairs, and 4) some concluding insights for building a body of knowledge of a public affairs system.

II. Review of Public Affairs Literature

The Handbook of Public Affairs (Harris & Fleisher 2005) provides three broad historic definitions of "public affairs". It is a) the policy formulation process of public and corporate stakeholders' programs; b) the corporate consideration of the impact of environmental (in its broadest sense), political, and social development on a company and on the opinion-leader contact

programs, which follow; and (c) the totality of government affairs or relations.

The concept of public affairs is such a comprehensive and dynamic field that it often defies simple definition, but it both encompasses and integrates a wide range of disciplines that include political science, economics, sociology, communication, international relations, administration, organizational management, and many others (Steinberg 2007).

The concept of public affairs may have originated in the United States as early as the 1960s when societal events and trends prompted business organizations to establish public affairs efforts (Holcomb 2005). Such efforts were focused on the needs of business organizations for appropriate external relations and capabilities to effectively interact with public policy stakeholders and issues. The efforts or activities addressed the interface between business organizations and their non-market environment. This was to enhance or maintain the organizations' roles and position alongside government (public policy) and their non-market environments. Thus, the concept of public affairs was originally understood to be a business organizations' external (i.e., public) relations.

As an academic endeavor, the concept of public affairs is not a new field of study. Journals of public affairs have appeared during the past decades or so. A Handbook of Public Affairs that includes several articles written in the context of business organizations (Harris & Fleisher 2005) had been published. This comprehensive handbook is particularly useful to people in the corporate business world. It provides an array of information and knowledge on how to enhance the external (public) relations of business organizations to influence policy, primarily to serve business interests, which may not necessarily be public affairs in the real meaning of the word.

The concept of "public affairs" is different from the older and more common academic discipline of "public administration". Public administration is the art or practice of carrying out policy, while public affairs encompasses a broader scope, of which public administration is but one of many community concerns.

The need for more appropriate and responsive approaches to the critical needs and concerns of society has led to the development of a number of colleges of public affairs worldwide, particularly in the developed countries. Generally, the colleges were established in the context of numerous complex and critical public policy challenges. Those colleges represent various academic programs, depending on the priorities and concerns at the time when and place where they were created. This variety is reflected in the names of these institutions. Nevertheless, these colleges share one common concern – that is, they focus on overall societal conditions. Thus, they all endeavor to address specific public policy issues holistically.

The science of public affairs is not simply multidisciplinary. It is transdisciplinary, which takes into consideration the numerous, varied, and dynamic concerns (i.e., needs or demands) of the community (or society). Transdisciplinary implies a collection of knowledge into one. The adjective or adverb form, 'transdisciplinarity', refers to the examination of issues among disciplines, across disciplines, and beyond all disciplines to develop an understanding of the world (Nicolescu 2001). Also, it is a specific form of interdisciplinarity in which boundaries between and beyond disciplines are transcended, and the knowledge and perspectives from different scientific disciplines as well as non-scientific sources are integrated (Flinterman et al. 2001; Klein et al. 2001). Through transdisciplinarity, a true decision-maker must be able to communicate with all disciplines at once (Nicolescu 1999).

In other words, the focus of the science of public affairs is the continuing development and re-development of an integrating theme that cuts across and informs all disciplines in their relation to society. Thus, the challenge of public affairs science is to obtain a solution that simultaneously processes a number of views around a central point while developing a hypothesis with cognitive claims useful to transform theory and extend application (Hayes & Lynne 2004).

It is worth recalling that Thomas Aquinas, in his Theology, wrote, "whoever promotes the common good of the community simultaneously promotes their own good. This is true; first, because individual well-being cannot exist without the well-being of the family, the community, or the realm… and second, because being part of the family or the community, it is right to consider personal well-being in the light of what is prudent with regards to the common good" (Haldane 2007). Also, Nobel Economist John Nash demonstrated that cooperation for the common good is also good for an individual's economy (Nash 1950).

III. Public Affairs as the Community System

Based on international dictionaries, the two words, "public affairs" would mean simply *"community concerns[1]"*. Since, the community *acts* on their concerns, a more complete definition of the concept would be *"community concerns and behaviors"*. In other

[1] *Interestingly, different definitions of community were described in the Wikipedia (http://en.wikipedia.org/wiki/Community#Special_nature_of_human_community). In biological terms, a community is a group of interacting organisms (or different species) sharing an environment. In human communities, intent, belief, resources, preferences, needs, risks, and a number of other conditions are present and common, affecting the identity of the participants and their degree of cohesiveness. "Community" is hereto defined as a group of interacting people living in a common location; it is organized around common values and social cohesion within a shared geographical location, generally in social units larger than a household. Similarly, Charles (2004) said that a community is a body of people having common organization and interests and living in the same place under the same laws.*

words, public affairs pertains to the *"interests and actions"* of people in the community, which could be in a village, a municipality, a city, a nation, or a group of nations. Thus, the science of public affairs encompasses the study of community concerns and behaviors, and such study must have intrinsic value or purpose. Therefore, the fuller definition of the science of public affairs should be *"the study of community concerns and behaviors (i.e., people's interests and actions) for purposes of policy decision-making and governance".*

Based on this fuller definition, a body of knowledge (i.e., the science) of public affairs can be developed through the careful observation of, and the deduction of laws or principles that explain and/or predict the changes and conditions of, community concerns and behaviors. Thus, the science of public affairs should not only explain what the community concerns are and how such concerns are being pursued, but it should also provide a holistic perspective of the nature and interrelationships of the various means, functions, and/or processes that are involved in pursuing community concerns. The comprehensive appreciation and understanding of the different community concerns (e.g., food, health, shelter, etc.) and the means or factors (e.g., resources, technology, etc), functions and/or processes (e.g., administration, management, exchange, transaction, etc.) to pursue community concerns would require the collective efforts of various disciplines (e.g., agriculturists, physicians, sociologists, engineers, economists, etc.). This makes public affairs a transdisciplinary field of study, which focuses on integrating sciences that cut across and explain the roles of the disciplines to the community (i.e., society) (Hayes & Lynne 2004).

Theoretically, public affairs depict the community system that encompasses the people's interests and the means, functions, and/or processes in pursuing such interests. Figure 1 is an abstraction of the community system. The model includes the basic pillars of the community, namely: natural resources, science-

technology, organizations-institutions, and people with their "constitution" and set of policies. More specifically, these pillars are characterized as:

- *Natural resources* are the renewable and non-renewable physical assets (land, water, air, minerals, etc.) and the biological (e.g., flora and fauna) assets that are available in the community;
- *Science-technology* refers to the body of knowledge and techniques, which include hardware and software that are available to the people to pursue their needs and demands;
- *Organizations-institutions* refer to the formal and non-formal groups, associations, bureaus, agencies, commissions, etc.

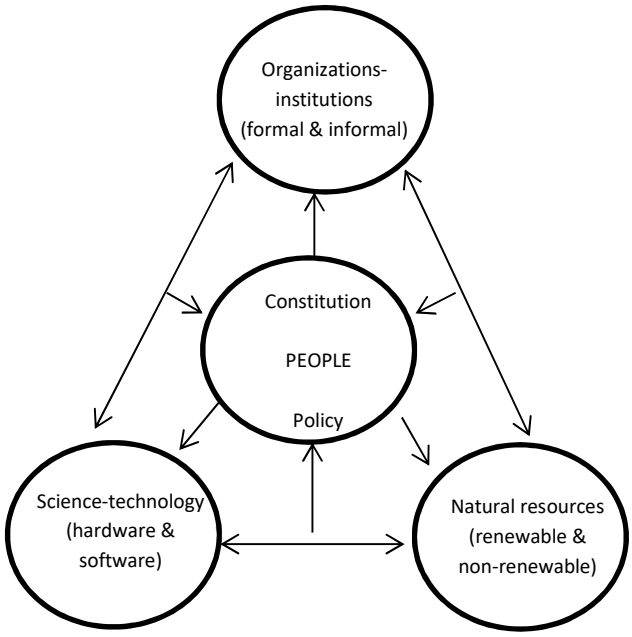

Figure 1. General paradigm of a public affairs system

that are (or might be) established by the people to serve themselves;

- *Constitution* refers to the established formal norms of the community, which is operationally translated in terms of policies;
- *Policy* refers to what people do and do not do; it is the set of rules for the game, or the blueprint of actions, and the outcomes of such actions; and
- *People* are the core of the system that include the rich, poor, and middle class with different histories, cultures, and/or values; and they are both producers and consumers of goods and services.

Note that the basic pillars in the system are presented in circles suggesting that these are dynamic, changing over time and conditions. Also these are interrelated and/or interconnected with one another as indicated by the arrows.

Generally, the community functions and operates in accordance with its established formal "norms" (i.e., its "constitution"). This constitution is translated via a *policy mosaic* (i.e., set of policies) that the people observe and pursue to maintain social harmony and to achieve answers to their needs. The model suggests an interconnected system of all the community activities (indeed, all human endeavors) involving, directly and/or indirectly, natural resources, science-technology, and organizations-institutions. Their use or application of societal activities is guided by a set of implicit, explicit, formal, and *ad hoc* policies. The manner as to how such policies are implemented depends upon the established mechanism-design, or form of governance, of the community. The term "mechanism-design" refers to the institutions and the rules of the game that govern socio-economic activities (The Economist 2007).

It is through the use and exploitation of natural resources (the available physical and biological assets and environment), within the limitations of science-technology, and the services and functions of organizations-institutions that the community concerns and/or objective of development can be pursued. Some of the key community concerns, means or factors, and policy that should be examined to explain the condition or status of the "community" are provided in Table 1.

The holistic understanding of societal concerns and behaviors (how the community functions in pursuit of its goals or needs) can provide the basis for building the science of public affairs. Generally, a society operates in accordance with its established "norms", for example, its constitution. A constitution is operationally translated via policies that people, individuals, and groups pursue to maintain social harmony and to achieve societal needs and demands.

Development should be understood as an increase in the availability of, and accessibility to, goods and services. It is often thought of as 'the pursuit of happiness'. It can also be humanely thought of as an increase in mankind's physical, mental, and spiritual assets along with an improvement in the ability to choose between those assets for the furtherance of individual and/or societal interest. Thus, "development" is the direction, if not the destination, when a society pursues its well-being, i.e., the "desired condition or state of affairs".

Table1. Community concerns, means/factors, and policy options to pursue community concerns

Community concerns (People's needs)	**Means/Factors to pursue community concerns, i.e., people's interests/needs (Community behaviors/People's actions)**			**Public policy options/ alternatives**
(Y_i)	*Science-technology (X_1)*	*Natural resources (X_2)*	*Organizations-institutions (X_3)*	*[$Y_i=f(X_1,X_2,X_3)$]*
Food & Nutrition	Appropriate technology availability	Land & water availability; Land use conversion	Organizations-institutional support systems	Food & nutrition security policy
Shelter & Utilities (Water & Power)	Improvement of technologies for shelter & utilities development	Availability of raw materials for shelter; Watershed protection for water & power supply	Public & private institutional support systems	Housing & human settlement policy; Energy policy; Water resources policy
Clothing	Appropriate technologies for fibers/ composite materials production & textile industry	Natural resources (fibers) as well as composite materials for clothing production	Public & private support systems	Policy support to fiber & textile industry
Health & Medical Services	Availability & accessibility of advance technology; Traditional & endogenous health practices	Natural resources condition influences health status (e.g., air & water quality)	Status of health service organizations/ institutions	Health & population policies
Economic base (livelihood & employment)	S&T capability for creation of economic opportunities (livelihood & employment)	Resources availability for creation of livelihood opportunities	Function/ programs of support institutions/ organizations	Labor & employment policies

Table 1 continued…

Community concerns (People's needs)	**Means/Factors to pursue community concerns, i.e., people's interests/needs (Community behaviors/People's actions)**			**Public policy options/ alternatives**
(Y_i)	*Science-technology (X_1)*	*Natural resources (X_2)*	*Organizations-institutions (X_3)*	*[$Y_i=f(X_1,X_2,X_3)$]*
Education (literacy) & Culture	State of S&T infrastructure	Nature is a better teacher & must be protected for S&T purposes	S&T support system, e.g., education, credit, subsidy/tax incentives; IPR; etc.	Education, science & technology policies; Programs/ policies for the promo-tion & preserva-tion of cultural heritage & values
Sports & Recreation		Status, protection & conservation of natural resources for sports & recreational purposes	Public & private institutions' functions & activities	Policies on sports & recreational programs
Mobility & Transport/ Communi-cation	Appropriate technology for transport/IT for communica-tion		Private & public support sectors	Transport & communica-tion policies
Ecological Balance	Appropriate technology development & application (e.g., green technologies)	Issues on the utilization & exploitation of natural resources and their influence on natural disaster & global warming	Public & private organiza-tions-institutions capabilities & roles (NDCC, LGUs, etc.); Enforcement of rules/ regulations	Environ-ment & natural resources policies; Disaster & natural hazards prepared-ness & manage-ment policy

Note: Based on the Ministry of Human Settlement's (MHS) 11 basic needs of human settlements

The model implies that it is the use and exploitation of natural resources (the available physical and biological assets and environment), within the limitations of science-technology, that goods and services can be produced. And these are distributed or shared among members of society through the workings of its established organizations-institutions. The system illustrated by the model is dynamic. The production of goods and services to meet societies' needs and demands involves not just varied and complex processes and activities but changing ones as well. In addition, the model is not a closed system; it is also capable of being positively and/or negatively influenced by external factors. The dynamism of the system and the external influences require that policies be continuously adjusted, adapted, or replaced to sustain the homeostatic progress towards society's well-being.

The model includes the many actors who are interdependently involved in the system. Each actor is guided by his/her own policies in the performance of his/her role and functions. And each actor's policies reflect in some way the policies of the other actors with whom he/she interacts with. Thus, the field of public affairs is guided - and constrained - by the policies of a constellation of actors. Those policies are often homogenized (combined altogether) in *ad hoc* and intuitive ways. Those policies may be complementary or conflicting depending upon institutional biases and functional specificities. Hence, it is important to have a holistic understanding of the policy mosaic of the public affairs system.

It is important to emphasize that this paradigm of a public affairs system is a simplified abstraction of a living community. A community is alive, in the sense that its membership continues to grow or simply change, which consequently: a) increases pressure on (through the use and exploitation of) natural resources; b) influences changes of science and technology capabilities; c) necessitates changes in the number and nature of organizations-

institutions; and d) affects the formulation and/or modification of policies – formal and informal. Because a public affairs system is alive, it operates and functions according to its "blueprints" or "mechanism-designs" that define the functions and interrelationships of the various elements of the community. Being alive, the community might be in the process of transition from purely rural-agricultural to agro-industrial and urbanizing even if that transition is happening at glacial speed.

Finally, efforts to build a body of knowledge of public affairs must include the careful observation and understanding of the nature and interrelationship of the various elements of the community. Through such efforts, theories or hypotheses relating to the community's concerns and behaviors can be postulated, which can then be verified (or not) and tested against existing laws and principles. From these, public affairs science will evolve and grow.

IV. Analytical Framework for the Science of Public Affairs

Holistic understanding of the numerous social concerns or issues is deemed necessary in public policy making. Of existing disciplines, economics is one that can integrate such numerous social issues because economics, i.e., the economy, affects or is affected by the outcomes of many other disciplines. The status of an economy is too often reflected through measures such as the gross domestic product (GDP) of a country. However, these measures cannot accurately reflect everything of value in a society. These are being considered in developing a methodology on Genuine Progress Indicators (GPI), which emphasizes that the quality of economic development is as important as the quantity of economic activities as measured by GDP (Cobb et al. 1999, Venetoulis & Cobb 2004).

The science of public affairs aims to understand and explain the foundations of civic life and the factors that come to play in shaping society. It focuses on integrating sciences that cut across and inform all disciplines of their roles to society (Hayes & Lynne 2004). It can theoretically demonstrate that the concept of public affairs can indeed be an integrating science, using the following conditions and assumptions:

a) the attainment of societal well-being –"desirable condition or state of affairs" (not only economic growth *per se*) is the vision for the science of public affairs;
b) development – the increased availability and accessibility of goods and services is the mission of public affairs, and thus the precursor of societal well-being;
c) the public affairs system is organized to constitute many sectors such as agriculture, health, energy, construction, manufacturing, trade and industries, and services sectors;
d) the purposes or functions of these sectors, with their respective institutions and operational policies, are the production of goods and services that involve the application of various sciences; and
e) the concept of public affairs adheres to the important message of GPI, earlier indicated.

First, the societal well-being (the vision of public affairs science) can be defined and mathematically expressed as:

$$\mathbf{W_t = g_t\ (\ Y\ )} \qquad \text{eq. (1)}$$

$$\mathbf{W_t = g_t\ (\ Y_1\ ,\ Y_2\ ,\ Y_3\ ,\ .\ .\ .\ .\ Y_{m\ +\ n}\ )} \qquad \text{eq. (1a)}$$

Where, $\mathbf{W_t}$ is the indicator of societal well-being. It is dependent upon the provision of goods and services, represented by vector **Y** (eq. 1). This vector **Y** includes the economic (marketed, $\mathbf{Y_m}$), and non-economic (non-marketed, $\mathbf{Y_n}$), goods and services needed by the community (eq. 1a); i.e., these are the collective needs for goods and

services by individual members of the community. The parameter **g** represents the coefficient of technical interactions, and/or relative shares, of the various determining variables of societal well-being (**Y**), and the subscript **t** represents the time (date) of an assessment.

Second, the production of societal well-being variables (**Y**), the goods and services, can be expressed as:

$$\mathbf{Y = f_t\ (\ X\ )} \qquad \text{eq. (2)}$$

$$\mathbf{Y = f_t\ (\ X_1\ ,\ X_2\ ,\ X_3\ ,\ X_4\ ,\ .\ .\ .\ .\ .\ .\ X_j\ )} \qquad \text{eq. (2a)}$$

Where, **X** represents a vector or set of inputs or factors of production (and distribution) of goods and services (eq. 2); such inputs ($\mathbf{X_1}$ to $\mathbf{X_j}$) include the natural resources, technologies, and services of organizations/institutions (eq. 2a). The parameter $\mathbf{f_t}$ is the coefficient of technical transformation of factors or inputs (**X**) into outputs or products - goods and services (**Y**) that are needed (whether demanded or not) in society. The above equation illustrates how the various sectors with their institutions and policies operate and perform in the pursuit of their mandates or purposes, i.e., the production of goods and services that obviously involves the use and application of technical and social disciplines or sciences.

Third, the societal well-being ($\mathbf{W_t}$) expression (eq. 1) when combined with **Y** production functions (eq. 2) will result to the following expressions:

$$\mathbf{W_t = q_t\ [\ f_t\ (\ X\ )\ ]} \qquad \text{eq. (3)}$$

Where, $\mathbf{q_t}$ is the coefficient of simultaneous productions of the societal well-being variables **Y**. Thus, **Wt** expression (eq. 3) can be written in detail as equation 3a. This is the mathematical expression of the simultaneous operations of the various sectors in the performance of their respective roles in the system. In other words, it is a mathematical representation of the operations or activities

of a public affairs system (a community) illustrated in Figure 1.

$$\mathbf{W_t} = \mathbf{q_t} \begin{bmatrix} Y_{m1} = f_t(X_1 . X_2 . . X_j) \\ Y_{m2} = f_t(X_1 . X_2 . . X_j) \\ . . . . . \\ . . . . . \\ Y_{mm} = f_t(X_1 . X_2 . . X_j) \\ \\ Y_{n1} = f_t(X_1 . X_2 . . X_j) \\ Y_{n2} = f_t(X_1 . X_2 . . X_j) \\ . . . . . \\ . . . . . \\ Y_{nn} = f_t(X_1 . X_2 . . X_j) \end{bmatrix} \quad \text{eq. (3a)}$$

Finally, it is recognized that societal well-being is the result of all of a society's (i.e., community member's) actions and reactions, thus the concept of public affairs is an integrating science, as mathematically demonstrated above. The *production* of well-being's determining variables (**Y**) such as food, shelter, and health, results from the roles and outputs of various sectors and/or the application of technical disciplines (e.g., agricultural sciences, engineering, medical sciences, etc.) and *how* these **Y** are produced, managed, and distributed among members of the society. These processes are generally within the realm of social sciences.

Further, the formulated public affairs algorithm, the societal well-being algebraic expressions, equations 3 and 3a, can describe or depict the "mechanism-design" of the community. The **Y's** are the products of various sectors (or institutions) in the performances of their respective policies. These sectors (or institutions) with their

policies (**IPs**) are simultaneously operating in the community. Hence, these institutions and their policies constitute the community mechanism. The nature of relationships between and among the institutions in the performances of their respective mandates define the prevailing mechanism-design of the public affairs system.

The interrelationships between and among the institutions with their respective policies can be theoretically illustrated by a mechanism-design matrix (Table 2). This matrix provides a holistic view of the public affairs system; of how the relationships and interactions of different institutions relate with one another in the performance of their mandates; and of the contribution to the people's collective interest - the overall societal well-being - the "desirable state-of-affairs".

Table 2. Hypothetical mechanism-design matrix of a public affairs system

	IP_{m1}	IP_{m2}	.	.	.	IP_{mm}	IP_{n1}	IP_{n2}	.	.	.	IP_{nn}
IP_{m1}	1											
IP_{m2}	+/-	1										
.	.	.	.									
.	.	.	.	.								
.	.	.	.	.	.							
IP_{mm}	+/-	+/-	.	0	.	1						
IP_{n1}	+/-	+/-	.	.	.	+/-	1					
IP_{n2}	+/-	+/-	.	.	.	0	+/-	1				
.	.	.	.	.	.	.	.	.	.			
.	.	.	.	.	.	.	.	.	.	.		
.	.	.	.	.	.	.	.	.	.	.	.	
IP_{nn}	+/-	+/-	.	.	.	+/-	0	+/-	.	.	.	1

This theoretical mechanism-design matrix can be used as guide in the actual assessment (i.e., analysis and evaluation) of the public affairs system. This will only be possible as long as the necessary data and information are available. Such an assessment should be undertaken through transdisciplinary methods as indicated earlier. This method enables the estimations of more realistic parameters-coefficients of the interrelationships or interdependencies between and among the various sectors or actors in the system. The numerical values of the coefficients may be positive or negative, indicating that the relationships can be complementary or competitive, respectively. If the values of coefficients are either nil or zero, the relationships are insignificant or do not at all exist. The established technical parameters or coefficients are obviously important in decision-making for public affairs policy.

Finally, the above theoretical analytical framework would be useful in understanding and explaining the public affairs system - the community concerns and behaviors. Hence, this is particularly vital in analyzing the multifaceted and complex social challenges and opportunities to evolve appropriate public policy decisions toward achieving harmony of the public affairs system – the community. The agenda of public policy decision-making is generally within the realm of political economics, which is one of the many relevant disciplines being integrated in the science of public affairs, which is an integrating discipline. Political economics is an important aspect in managing public affairs; this management deserves a separate scientific, theoretical, and practical elucidation.

V. Concluding Insights

There is a need for comprehensive and objective information on the public affairs system. The asymmetry of information, however, makes it hard to achieve effective policy decision-making.

Nevertheless, just as the Aristotelian physics was changed by Newton and others, this decision-making will improve because of science.

While the science of public affairs emphasizes the importance of holistic understanding of overall societal activities in public policy, it does not espouse or recommend centralized policy decision-making. Instead, it elucidates the importance of the different sectors or actors being fully aware of their respective roles and functions in the system to achieve harmonious collective actions.

Societal well-being and development are the vision and mission, respectively, of the science of public affairs. Holistic appreciation and understanding of the community concerns and behaviors, its mechanism-design, and the resources and know-how that are needed to pursue such vision and mission, are deemed vital in developing this science. Some of the relevant questions or insights in building such a body of knowledge would be:

a) *Public interest and societal well-being:* What really are the social goals and values? What is *desired* and what is *needed*? What constitutes societal well-being: is it the desirable state of affairs? What are the variables or factors that determine societal well-being? How is it measured?
b) *Public affairs governance*: What is the type or nature of governance (control, direct, and indirect)? Is it democratic or dictatorial? What is the context of governance: is it for people's collective interest or the interest of a selected few? How do the existing informal social norms (e.g., buddy system) and differences in culture (and possibly values) influence governance? What and how are public policies being developed and implemented?
c) *Mechanism-design of the public affairs system*: What are the existing government and non-government institutions, their respective policies, roles, and functions in the community?

How do they achieve their respective mandates? What are the nature and behavior of institutional relationships: are they competitive or complementary or duplicative in policies and functions? and

d) *Natural resources and science-technology*: What are the existing natural resources in the community (types, ownership, status of utilization or exploitation, etc.)? What are the carrying-capacities of these resources? What is the status of science-technology capability of the community: is it natural resource-based or higher-end capabilities such as manufacturing and processing?

Through careful observations and exploration of the above insights or key questions with appropriate empirical studies, the technical relationships between and among the various elements of the public affairs system can then be put forward or established. The relationships that may prevail in the system may be verified, confirmed, or validated by existing laws or principles, or by statistical tests. Thus, a more revealing body of knowledge can be organized, and perhaps, the science or a "theory of public affairs" can then be systematically formulated and established. Finally, the science of public affairs must be nurtured.

References:

Cobb, C.W., Goodman, G.S. & Wackernagel, M. (1999). 'Why bigger isn't better: The genuine progress indicator - 1999 update', *Redefining Progress for People*, San Francisco: Nature and the Economy.

Flinterman, J.F., Teclemariam-Mesbah, R., Broerse, J.E.W. & en Bunders, J.F.G. (2001). 'Transdisciplinarity: The new challenge for biomedical research", *Bulletin of Science, Technology & Society*, 21:4, pp. 253-266.

Haldane, J. (2007). *Philosophy and Public Affairs*, Aberdeen, Scotland: University of St. Andrew.

Harris, P. & Fleisher, C.S. (eds.) (2005). *The Handbook of Public Affairs*, London: Sage Publication Ltd.

Hayes, E.M. & Lynne, G.D. (2004). 'Towards a centerpiece for ecological economics', *Ecological Economics*, 49, pp. 287-301.

Holcomb, J.M. (2005). 'Public affairs in North America, US origins and development' in Harris, P. & Fleisher, C.S. (eds.) *The Handbook of Public Affairs*, London: Sage Publication Ltd.

Klein, J.T, Grossenbacher-Mansuy, W., Haberli, R., Bill, A., Scholz, R.W. & Welti, M. (eds.) (2001). *Transdisciplinarity: Joint Problem-Solving Among Science, Technology and Society, An Effective Way of Managing Complexity*, Basel: Birkhauser Verlag.

Nash, J.F. (1950). 'Equilibrium points in n-person games', *Proceedings of the National Academy of Sciences,* 36:1, pp. 48-49.

Nicolescu, B. (1999). 'A new vision of the world transdisciplinarity. International Center for Transdisciplinarity Studies and Research', http://nicol.club.fr/ciret/english/visionen.htm.

Nicolescu, B. (2001). *Manifesto of Transdisciplinarity*. Translated from French by Kare-Claire Voss, New York: State of New York Press.

Steinberg, J.B. (2007). *Achieving Excellence in Leadership and Ideas for the 21st Century: Strategic Plan for the LBJ School 2007,* Austin, Texas: Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin.

The Economist (2007). 'Economic Focus: Intelligent Design, Synopsis of Hurwicz, L., Maskin, E., & Myerson, R., A Theory of an Intelligently Guided Invisible Hand', October 20, 2007.

Venetoulis, J. & Cobb, C. (2004). *The genuine progress indicator (1950-2002): Measuring the real state of the economy*. San Francisco: Sustainability Indicators Program of Redefining Progress for People, Nature, and the Economy.