

# **The Value of Public Sector Information as a Strategic Resource to Civil Society Organizations' in South Africa: Evidence from the Fight to Eradicate Poverty**

## **Background and Rationale**

The public sector in most countries is the biggest single producer and owner of a large variety of information. Governments create, collect, manage, and store vast quantities of data and information and increasingly try to disseminate much of it online (see Steinberg & Mayo, 2007). The data and information that are produced by and for public sector bodies include, for example, health and education data, geographic data, financial reports, social and economic statistics, legislation and judicial proceedings, food and water resources data, and many other kinds of data and information, collectively referred to as Public Sector Information (PSI). Given the special characteristics of the PSI (e.g., comprehensiveness, reliability, timeliness, and accuracy), this information is considered by different stakeholders to have economic, social, and political values (Uhlir, 2004; Abd Hadi & McBride, 2000; Sheriff, 2000; Young, 1992).

These information resources are used broadly by public-sector organizations themselves, through intra- and inter-governmental exchange of information (see Sheriff, 2000; Abd Hadi & McBride, 2000); by private-sector companies in general and by information industry firms in particular as re-users, to use it in their operations or to produce value-added information products and services (Abd Hadi & McBride, 2000; Young, 1992); by scientific communities (e.g., employment information is now used extensively in the social sciences and in policy making; and data from public health organizations play a growing role in the advancement of life sciences) (see Arzberger et al., 2004) ; by individual users (e.g., for health and educational purposes and for making social and economic decisions); and by civil society organizations (e.g., the use of

geospatial data, economic statistics, health and education information for poverty mapping and other related activities) (see CIESIN, 2006).

## **Problem Statement**

In the last two decades or so, the countries in the Organization for Economic Co-operation and Development (OECD) have engaged in serious policy discussions about access to and use of PSI, and its potential impact on societies' socioeconomic development. But little scientific research has been done to produce empirical evidence about access to and utilization of the PSI and its socioeconomic value and benefits to the communities using it. Furthermore, most of these discussions and activities were primarily focused on the commercial use of PSI by industry or in some cases by governments. None of these efforts and studies has ever examined the non-commercial use of PSI, especially its utilization by Civil Society Organizations (CSOs), and its impact on their effectiveness and innovativeness. Moreover, with only a few exceptions, discussions of the importance of PSI and efforts to take advantage of this strategic resource are almost absent in the developing world and the PSI-related literatures. This is very ironic given that PSI can be of special importance to these countries, especially in their fight against poverty, in the public health and in other socioeconomic problems.

South Africa is one of the exceptions, where a number of strategic steps have been taken after the historic transformation of the country to a democratic state in 1994 to make more PSI available to the public and to encourage different groups of the South African society to use and maximize the value of this information. This makes South Africa a

unique case for the study of the importance and value of PSI in the developing world, given that very few developing countries have taken similar steps to make their information more openly available to the public. Furthermore, almost all of the pressing socioeconomic problems in the developing world are present in South Africa, which makes any empirical evidence about the value of PSI to socioeconomic development in this country applicable to other developing nations.

### **Research Purpose and Questions**

The main purpose of this dissertation research is to investigate whether, and if so how, PSI is utilized by the South African CSOs to add value to their efforts to eradicate poverty. Employing a mixed-method, multiple case study approach (Yin, 2003), I draw upon literature from the fields of economics of information and organizational studies. The concepts of value of information (Parker and Houghton, 1994), management of external knowledge (Sammons, 2005), absorptive capacity (Cohen & Levinthal, 1990; Zahra & George, 2002), organizational learning (Argyris and Schön, 1978), and organizational innovation (March & Simons, 1958) will be used to guide my inquiry to demonstrate the value of PSI to South African CSOs through describing and explaining the CSOs processes to identify, acquire (including factors that can facilitate or hinder access and acquisition of the PSI; e.g., technical, legal, economic and institutional barriers.), assimilate, transform and exploit this strategic resource. The organizational conditions for successful utilization of the PSI will be identified as well. More specifically, the study has three objectives:

- Identifying and documenting successful approaches and mechanisms: the research will develop more systematic knowledge about the successful approaches and mechanisms that CSOs follow to utilize PSI and add value to their work in the poverty reduction area.
- Building a knowledge base of the successful utilization processes: the research will identify and document the variables, relationships, problems, patterns, opportunities and conditions involved in the processes of successful utilization of the PSI to gain better understanding of what works and what doesn't work in these processes.
- Sharing approaches that work: to provide a series of "tried and tested" transferable approaches and mechanisms of successful utilization of PSI as a means of helping and educating similar CSOs in the poverty reduction area and other similar areas.

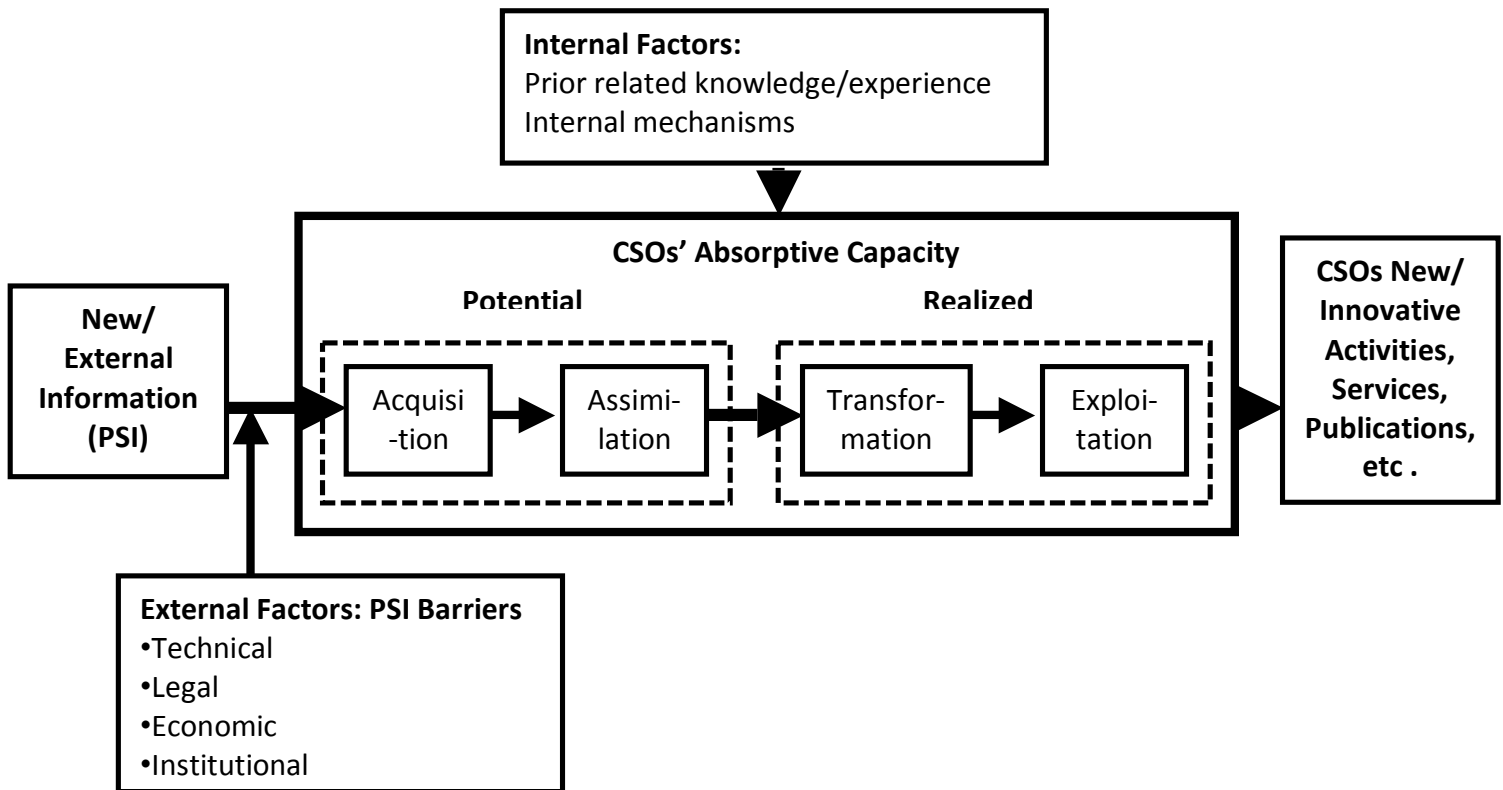
To that end, the main research question of my dissertation is:

***To what extent and in what ways is PSI utilized to add value to South African CSOs efforts to eradicate poverty?***

The study will begin by identifying what types of PSI are being used by the relevant population of South African CSOs, and for what purposes. It will then answer the following questions:

- 1- What characteristics and conditions of the PSI facilitate or hinder its acquisition and assimilation?
- 2- What organizational conditions enable successful exploitation of PSI by the CSOs?

Figure 1: Study Conceptual Framework



As shown in figure 1, the study adopts Zahara & George (2002) reconceptualized version of the absorptive capacity construct, which is defined as the organization's ability to recognize the value of new external knowledge, assimilate it and apply it to commercial ends (Cohen & Levinthal, 1990). In their reconceptualization, Zahra & George (2002) introduced a "transformation" stage to the construct and distinguished between an organization's "potential capacity", defined as the ability to acquire and assimilate external knowledge; and the its "realized capacity", defined as the ability to transform and exploit external knowledge. I argue that the absorptive capacity construct and its links to organizational learning and organizational innovation literatures provides a comprehensive framework to describe and explain the processes of PSI utilization by the CSOs (i.e., acquire, assimilate, transform, and

exploit the PSI) and will help in identifying the organizational conditions for successful exploitation of this strategic resource.

### Methodology

I am interested in understanding the processes by which the South African CSOs utilize PSI to add value to their efforts to eradicate poverty. Thus, I need to develop a close, empirical understanding of the conditions, variables, and relationships involved in these processes. I need to understand why and how the PSI is recognized to have value for CSOs' work, what are the characteristics and conditions of the PSI that can facilitate or hinder these processes, and finally, what are the organizational conditions for successful utilization of such a strategic resource. In order to shed a light on these issues, I will use a mixed-method, multi-phase study of several cases. I will collect both quantitative and qualitative data through

document review, surveys and fieldwork in the form of in-depth semi-structured interviews. This will allow me to acquire a richer understanding of these processes within the CSOs context. Also, the use of multiple methods will allow me to get various types of data to answer my research questions (Tashakkori & Teddlie, 1998).

The case study approach (Yin, 1984) is considered to be one of the powerful and frequently used research methods in social science, sociology, and social work (Gilgun, 1994). The use of case study method is well-recognized for studies where the context is important (Yin, 2003). This method “seeks to understand the problem being investigated ... and provides an opportunity to delve into issues for richness; to understand the nature and complexity of a given phenomenon that is contemporary and not yet thoroughly researched” (Yin, 1984, p. 13). The advantage of following the case study approach for this study is that I can capture and understand the distinctive variables and relationships involved in the processes of utilizing the PSI by the South African CSOs. If I don't use these multiple methods under the case study umbrella, I might not be able to be a full picture of these processes and I might be missing some important aspects of it.

### **Significance and Expected Contributions**

It is expected that the discussions and findings of this study will have practical and theoretical contributions, and will greatly contribute to bridging some of the gaps in the related literatures.

Although there appears to be broad recognition by different stakeholders of the key role that PSI can play in the socioeconomic development of societies, yet there are significant gaps in our understanding of how PSI is actually utilized by different communities, especially for non-commercial purposes by

CSOs. There is also little systematic analysis of PSI's socioeconomic value and impact on societies. The lack of comprehensive, detailed empirical data and systematic research applies especially to PSI disseminated online in both the developed and the less economically developed regions.

However, the need to conduct such studies in the developing countries, in my opinion, is much more critical and needed because, in addition to its expected value to the creation of innovative products and services, increasing employment and generating considerable revenues (similar to the situation in some OECD countries), PSI has a great potential to address fundamental development problems in the developing world such as poverty, public health and environmental issues.

It is expected that the findings of this study will provide policy makers in South Africa, as well as in other developing countries, with evidence about the value of making more PSI easily and freely available, especially online. It will also shed some light on the problems resulting from putting barriers to this resource, hoping that this will help improve or rationalize their policies. It is also expected that this evidence will motivate other CSOs working in the poverty reduction and other development areas to take full advantage of the available PSI. Moreover, the findings of this research could have some implications for funding agencies and international organizations working in the poverty reduction area, especially by encouraging them to explore the ways by which they can build CSOs internal capacities, so these organizations become better prepared to take full advantage of the available PSI.

Also, answers to the study questions will contribute to filling some theoretical and methodological gaps in the related literatures. In the PSI area, the main theoretical and methodological contribution

of this study will be the application of organizational studies theories and concepts (i.e., absorptive capacity, organizational learning and innovation) to the study and understanding of PSI value and contribution to societies. Among the main observations of the OECD-US National Academies workshop on “Measuring the Social and Economic Cost and Benefits of Access to and Use of Public Sector Information” (2008) were: (1) the lack of strong theoretical foundation and robust data collection approaches in the study of the social and economic value of PSI; and (2) the insufficient multidisciplinary or multidimensional studies in this area. To that end, the workshop emphasized the need to promote and facilitate more academically-focused research that is informed by well-established theories and methodologies (OECD-US National Academies, 2008). Furthermore, in their article titled “Access to Public Sector Information in Europe: Policy, Rights and Obligations”, Blakemore & Craglia (2006) discussed some explanatory perspectives that could be adopted for the analysis of PSI policy, rights and obligations. These approaches were: organizational theory, actor-network theory, the postmodernist work of Foucault focusing on power relations, and the economic approach. The authors concluded that “at the end of discussion, we are still grappling with the theoretical models applicable to digital information that link rights to citizen obligations and to the responsibilities of government” (p.21). Also, this study focuses on the user rather than the producer perspective on access to and use of the PSI. This is consistent with Blakemore and Craglia (2006) proposal that “the focus of the PSI debate needs, first and foremost, to move away from an agenda articulated primarily through the power of the PSI producers, and more toward an agenda that is clearly based on the citizen/consumer

needs, but also where the agenda is mediated by the need to identify resources that will maintain the quality of PSI”(p.20) (see also summary of the OECD-US National Academies workshop, 2008).

The study is also expected to fill some gaps in the field of organizational studies, especially in the area of absorptive capacity. Fosfuri et al. (2008) argue that while much research has been conducted about the absorptive capacity of organizations; the link between external knowledge and organizational performance hasn't been studied enough. Also, Lane et al. (2002), who reviewed about 180 papers that cited Cohen & Levinthal (1990), emphasize that not only that the lack of a direct empirical measure of absorptive capacity caused some problems with the comparability of research results, it has also led to little research “on the process by which absorptive capacity is developed” (p.5). Furthermore, Veugelers (1997) called for more work “to identify specific firm characteristics generating this absorptive capacity” (p.314).

The study of PSI as a source of external knowledge to South African CSOs offers a unique opportunity to investigate this theme of research. Given the special characteristics (e.g., diversity in types, volumes, sources, formats, accuracy, timeliness, etc) and conditions (e.g., technical, economic, legal and institutional barriers) of the PSI; and given the assumed potential value of the PSI to the work of these organizations, I argue that the absorptive capacity construct and its links to organizational learning and organizational innovation literatures provides a comprehensive framework to describe and explain the processes of PSI utilization by the CSOs and will help in identifying the organizational condition for successful exploitation of this strategic resource.

**Keywords:** public sector information, civil society organizations, poverty reduction, socioeconomic development, absorptive capacity.

## References

- Abd Hadi, Z., and McBride, N. (2000). The commercialization of public sector information within UK government departments. *The Journal of Public Sector Management*, 13 (7), p. 552-70.
- Argyris, C. and Schon, D. (1978). *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
- Arzberger, et al. (2004). Promoting Access to Public Research Data for Science, Economic, and Social Development. *Data Science Journal, CODATA*, p.135-152.
- Blakemore, M. and Cragila, C. (2006). Access to Public Sector Information in Europe: Policy, Rights and Obligations. *The Information Society*, 22:13-24.
- CIESIN (Center for International Earth Science Information Network), Columbia University. 2006. *Where the Poor Are: An Atlas of Poverty*. Palisades, NY: Columbia University. Available at: <http://www.ciesin.columbia.edu/povmap/>.
- Cohen, W. M., and Levinthal, D. A., (1990). Absorptive Capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152
- Gilgun, J. F. (1994). Hand into glove: The grounded theory approach and social work practice research. In E. Sherman & W. J. Reid (Eds.), *Qualitative research in social work* (pp. 115–125). New York: Columbia University Press.
- Fosfuri, A. and Tibo, J. A. (2008). Exploring the antecedents of potential absorptive capacity and its impact on innovation performance. *Omega*, (36) 173-187.
- Lane, P. J., Koka, B., and Pathak, S. (2002). A thematic analysis and critical assessment of absorptive capacity research. *Academy of Management Proceedings*.
- March, J. G. and Simon, H. A. (1958). *Organizations*. John Wiley & Sons
- OECD- U.S. National Academies Summary Report (Forthcoming). Workshop on Measuring the Social and Economic Cost and Benefits of Access to and Use of Public Sector Information (PSI). Paris, France. Feb. 4-5, 2008.
- Parker, J. and Houghton, J. (1994). The value of information: paradigms and Perspectives. Paper presented at 57th Annual Meeting of the American Society for Information Science, Alexandria, VA, Learned Information, Inc.
- Sammons, P. A. (2005). *Buying Knowledge: Effective Acquisition of External Knowledge*. Gower Publishing, Ltd.,
- Sheriff, M. (2000). *The value of information in organizations: a study of information use situations as context of value*. Unpublished Ph.D. Thesis, London School of Economics.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches* (vol.46). Thousand Oaks, California: Sage Publications.
- Uhlir, P. (2004). *Policy Guidelines for the Development and Promotion of Governmental Public Domain Information*. UNESCO, Paris. Accessed Sept. 10, 2008 at [http://portal.unesco.org/ci/en/ev.phpURL\\_ID=15863&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html/](http://portal.unesco.org/ci/en/ev.phpURL_ID=15863&URL_DO=DO_TOPIC&URL_SECTION=201.html/).
- Veugelers, R. (1997). Internal R&D expenditures and external technology sourcing. *Research Policy* (26) 303-315.
- Young, R. H. (1992). The tradable information initiative. In Heywood, I. & Hudson, J.K. (Eds), *Geographical Information 1993-Year Book of the Association of Geographic Information*, Taylor and Francis, London, pp.231-238.
- Zahra, S. A., and George, G. (2002). Absorptive Capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27 (2), 185-203.
- Yin, R. (2003). *Case Study Research*, 3rd ed. Sage Publications, Thousand Oaks, CA.
- Yin, R. (2003). *Case Study Research*, 3rd ed. Sage Publications, Thousand Oaks, CA.