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Open Government Data for Tackling Corruption – A Perspective

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Abstract

The scourge of corruption slows the economic growth of any modern society, and especially that of developing and under-developed countries which need growth the most. In this paper, we argue that open government data can help in fighting corruption through novel applications that promote transparency in public services.

Introduction

Corruption ails most of the human delivered services especially public services. It undermines the fairness, stability and efficiency of these services, corrodes the image of the public agencies and projects the state as predatory and unfair.

There is no one comprehensive and universally accepted definition of corruption. It can be broadly defined as "the misuse of public office for personal gains" [1] or more specifically as an act of bribery involving a public servant and a transfer of tangible resources [2]. It has frequently been classified into petty or grand corruption and administrative or political corruption. Petty corruption covers the majority of cases reported, usually involves smaller sums of money and pervades the low level bureaucrats, whereas grand corruption involves substantial amounts of money and is indulged into by high level officials. Administrative corruption alters the implementation of policies whereas political corruption influences the formulation of the laws, regulations and policies. [22]

Corruption is generally considered bad although a contrary view tries to discount it based on intention [11]. The most practical reason why corruption should be avoided is that it blights development of a country by reducing the amount of public funds available for that purpose. In fact, a study records the direct relation between the competitiveness of a country with its corruption perception [12].

To address corruption, the United Nations created the UNCAC global framework of laws and practices that member countries could implement [13]. The central theme in it is to promote transparency and accountability in public services, and increase cooperation among countries against corruption.

In this paper, we argue that open government data can be an effective tool to fight corruption, through novel applications that promote transparency in public services and bring accountability. We also note steps different stakeholders must take to promote open data to make this potential a reality.

The Numerous Shades of Corruption

Corruption can manifest in various forms such as bribery, favoritism, fraud and embezzlement. Bribery is the payment made in money or kind and can be initiated either by the public servant or the beneficiary. It can be extortionary, collusive or anticipatory [3]. Extortion is invariably one sided where in the public servant extorts bribe from the beneficiary on the pretext of the threat of denial of service. Collusive is when the public servant and the beneficiary collude to give and take bribe in their respective personal interests. Anticipatory is when the beneficiary is willing to pay the bribe even when not asked for in order to ensure seamless and harassment free service.

Favoritism has been defined as a mechanism of power abuse implying privatization and highly biased distribution of state resources, no matter how these resources have been accumulated in the first place. Nepotism is a special form of favoritism where in the public servant prefers his or her kinfolks, friends and family members [2].

Embezzlement is theft of government property and resources by people who are entrusted upon to take care of it. It is not a proper form of corruption as it does not really involve the beneficiaries. Lastly fraud is cheating the government through trickery or deceit. It includes manipulation of information and distortion of facts by public servants to create inconvenience to the customers.

Factors Conducive for Corruption

There are many factors that provide a conducive environment which breeds different forms of corruption. Systemic deficiencies such as lack of awareness, lack of proper service level agreements, lax supervision and monitoring of staff performance, absence of appropriate grievance redressal and appeal mechanisms, obsolete policies, etc., are few of them. Klitgaard in his book "Controlling Corruption" specifies a stylized equation for corruption as "Monopoly + Discretion – Accountability" [4].

Monopoly ensures that the beneficiaries have no recourse to any other alternatives and hence lead to corruption through abuse of power by the government agencies providing the service. Discretionary powers can also be misused by the public servants to manipulate decisions in order to flip the outcome from favorable to unfavorable and vice-versa. And finally lack of accountability further accentuates the problem by helping those public servants involved to conceal their act and get away without a penalty.

Tackling Corruption

Lack of awareness amongst the citizens can be overcome by clearly specifying the guidelines and information about the services. A time bound service can be easily tracked by the citizens if the information is freely available hence empowering them to seek penalty when the Service Level Agreement is missed. Discretion can also be kept under check if these subjective decisions are well documented and hence available for review.

Moreover, accountability can be improved through institutional diagnostics such as periodic or social auditing which can be facilitated by well documented information at disposal. The availability of the information would help reduce corruption by increasing transparency. In India, for example, the Right to Information Act [17] has brought increased accountability and lead to detection of many cases of corruption [18], erstwhile hard to unearth. In US, applications have emerged to review and analyze legislative bills [20].

This trend can be accelerated with open data as discussed later. But first, we consider a case study.

Case Study: NREGA in India

National Rural Employment Guarantee Act (NREGA) is the key flagship scheme of the Indian government, covering the largest number of people. It aims at enhancing the livelihood security of rural households of India by providing at least hundred days of guaranteed wage employment in every financial year for unskilled manual labor. NREGA displays a glaring example of corruption due to lack of awareness and transparency [25].

The supply side of the service has been strengthened considerably as is evident from the infrastructure created for efficient service delivery. Information and Communication Technology (ICT) has been widely used, including biometric smart cards for authentication of beneficiaries and stream lining the payment process, mobile phones with embedded software to measure completed work, digitization of data at various levels, etc. However while strengthening the supply side; the demand side has been greatly ignored. The intended beneficiaries suffer due to lack of knowledge and awareness further aggravated by low education levels and poor economic status.

NREGA mandates that panchayats, the village-level elected governing body at the district, intermediate and village levels, will be the principal authorities for planning and implementation of the schemes. This in turn lends considerable amount of power to the functionaries at the very end of the delivery channel.

A government-sponsored study on the efficacy of NREGA found corruption in program implementation where workers worked for one day and were paid wages for one day; however, records showed them as having worked for 33 days, with the wages for the remaining 32 days being misappropriated [26]. The job cards are often in the possession of the local panchayat members who rent out the cards or misuse it to extract payments against fake entries.

In a survey conducted at a village in Andhra Pradesh, India [27], it was found that the beneficiaries were not aware of even of their basic entitlements at the work site such as crèche, clean drinking water and shade. Each beneficiary had been assigned a biometric smart card which is also linked to their bank accounts. A bank agent swipes the card on a machine and carries the transaction, yet most of them were unaware that they held bank accounts. They frequently received prorated payments of their work and it was not clear how their work was measured. They were also not aware of the helpline number that they could dial in order to report grievances. This lack of information leads to potential deviations and corruption in the system.

Institutional audit and review mechanisms are extremely necessary in this regard to strengthen the service delivery. Proactive disclosure of government data and records containing information on various procedures such as issuance of job cards, sanction of projects, payments processes, and muster rolls etc. available for scrutiny by the citizens can help conduct successful social audits. This would ensure cross-verification of government records with realities on the ground hence complete the feedback loop in the accountability chain. NREGA also stipulates that all related information requests must be made available to the appli-

cant within 7 days [28], as opposed to the 30 days in the RTI Act. Adherence to such policies would highly empower the citizens and increase transparency.

Benefits of Open Government Data

Open data [6] is a well entrenched idea that data should be available to everyone. The scientific community asserts that open data leads to increased pace of discovery [7].

In the government space, the idea of opening up data is picking up for economic growth [14]. For example, a study has noted that EU Open Government Data policies can boost direct business activity by up to €40 billion per year (0.3% of EU's GDP), and the overall benefit, including direct and indirect effects, could be up to €200 billion per year (1.7% of GDP). Some prominent examples of regions opening data are Chicago [8], Dublin [15] and Kenya [10].

Open Data can also be used to promote transparency and drive accountability, thereby reducing the economic loss due to corruption. In a report [12], it is shown that competitiveness of countries is co-related with the perception of cleanness (lack of corruption). There are case-studies documenting how open data helped detect misuse of public funds, example [9].

As more open data is becoming available, new classes of city-independent applications are emerging based on common programming frameworks. One example is Geo Report [21] which enables applications like finding uncollected garbage. In due course, we hypothesize that novel corruption-detecting applications will be built like a contractor trying to charge for garbage collection when it was not collected, and supervisors who approve such payments. Our case study of NREGA would also benefit from applications that can correlate payments released with progress of tasks completed in undertaken projects.

Promoting Open Data in Government

Governments and public agencies have traditionally guarded their data citing concerns like national security, citizen privacy and public interests. However, the specific cases where such concerns actually hold are a minority compared to all the data that gets accumulated. Government can help by clearly articulating the data sharing policy so that their agencies can open up data efficiently. An example is [24] for United States where controlled unclassified information is required to be defined and shared.

Industry and standardization bodies can help such efforts by documenting best practices, building necessary tools using open standards, and reporting case studies. Some of this has already started, like [19] by a standards body, and [16], [23], by industry, respectively.

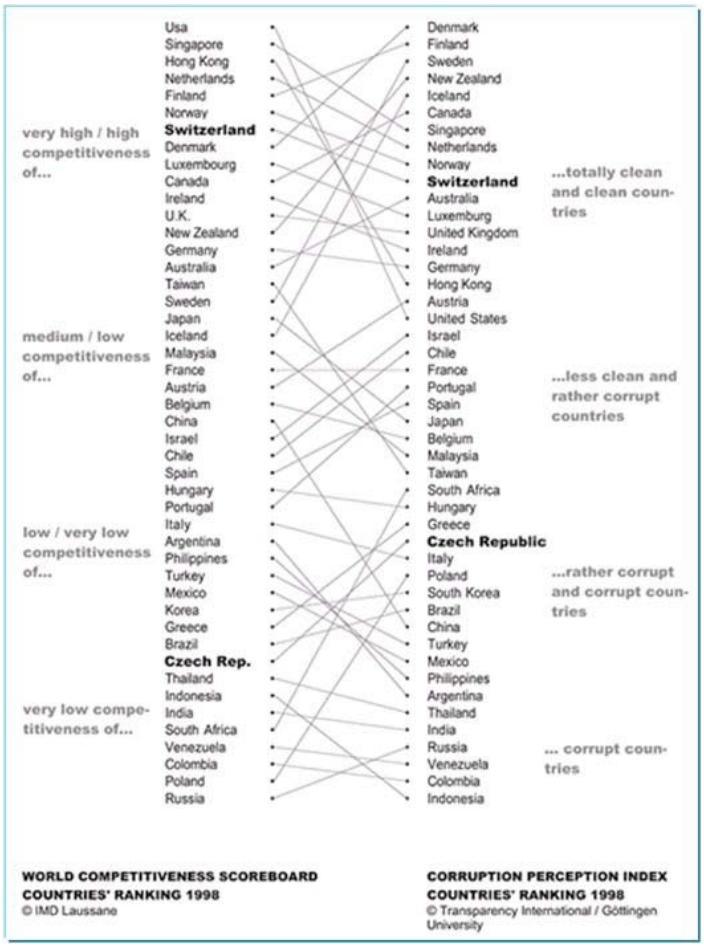

Figure 1: Relation between Competition and Corruption (from [12])

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References

[1] Introduction to Corruption, Youth for Governance, Distance Learning Program, Module 3, World Bank Publication. Accessed on June 15th 2011

http://info.worldbank.org/etools/docs/library/35970/mod03.pdf

[2] Andvig, J, Fjeldstad Odd-Helge, Corruption: A Review of Contemporary Research, CMI, Bergen & NUPI, Oslo, Norway, 2001

[3]Paul, S., Holding the State to Account: Lessons of Bangalore's Citizen Report Cards. Bangalore: Public Affairs Centre, 2006

[4] Klitgaard, Robert E. Controlling corruption. Berkeley: U. of California Press, 1988

[5] Sampford, Charles, Arthur S., Carmel C. and Fredrik G. (eds.) Measuring Corruption (Aldershot, England; Burlington, VT: Ashgate), 2006

[6] Wikipedia, Open Data, At http://en.wikipedia.org/wiki/Open_data, 2012, Accessed 2 Apr, 2012

[7] Ray P. Norris, How to Make the Dream Come True:

The Astronomers' Data Manifesto, At http://www.jstage.jst.go.jp/article/dsj/6/0/6_S116/_article, Accessed 2 Apr, 2012

[8] Open Data in Chicago, http://www.ascentstage.com/archives/2012/01/open-data-in-chicago/, Accessed 5 Apr, 2012

[9] David Eaves, Case Study: How Open data saved Canada $3.2 Billion, At http://eaves.ca/2010/04/14/case-study-open-data-and-the-public-purse/, Accessed 5 Apr, 2012

[10] Open data in Kenya, https://www.opendata.go.ke/, Accessed 5 Apr, 2012

[11] Corruption, Stanford Encyclopedia of Philosphy,

http://plato.stanford.edu/entries/corruption/ Accessed 8 Apr, 2012

[12] Workshop report on Corruption, How, and why to avoid it, Prague, 1998. At http://vjrott.com/prg-nov98-esce-ti.pdf Accessed 8 Apr, 2012

[13] United Nations Convention Against Corruption (UNCAC) Workshop report on Corruption, 2003. At http://en.wikipedia.org/wiki/United_Nations_Convention_against_Corruption Accessed 8 Apr, 2012

[14] Economic impact of open data, At http://wiki.linkedgov.org/index.php/The_economic_impact_of_open_data Accessed 8 Apr, 2012

[15] Dublin Open Data, At http://dublinked.ie, Accessed 8 Apr, 2012

[16] Microsoft and Open Government Data, At http://blogs.msdn.com/b/publicsector/archive/2012/01/26/faq-microsoft-open-government-open-data-part-iii.aspx, Accessed 8 Apr, 2012

[17] India, Right to Information Act, 2005, At http://righttoinformation.gov.in/webactrti.htm , Accessed 8 Apr, 2012

[18] M. M. Ansari, Impact of Right to Information on Development: A Perspective on India's Recent Experiences, UNESCO Report, Paris, 2008

[19] GLD, World Wide Web Consortium on Government Linked Data (GLD), At http://www.w3.org/2011/gld/ , Accessed 8 Apr, 2012

[20] Manybills, http://manybills.researchlabs.ibm.com/, Accessed 8 Apr, 2012

[21] GeoReport, http://wiki.open311.org/GeoReport_v2, Accessed 8 Apr, 2012

[22] The World Bank resource, At http://siteresources.worldbank.org/PSGLP/Resources/corruptionunit1.pdf, Accessed 2 Apr, 2012

[23] Google Public Data Explorer, At http://www.google.com/publicdata/directory, Accessed 15 Apr, 2012

[24]US Executive Order 13556, Controlled Unclassified Information, At http://www.whitehouse.gov/the-press-office/2010/11/04/executive-order-controlled-unclassified-information Accessed 15 Apr, 2012

[25] NREGA. At: http://nrega.nic.in/netnrega/home.aspx Accessed 15 Apr, 2012

[26] http://www.igovernment.in/site/fighting-corruption-it. Accessed 15 Apr, 2012

[27] Sharma, A., Vedhera, V. Sood, R., Baheti, R., Sawant, S., ELP OP 54 Project, Technical Report, Indian School of Business 2010.

[28] NREGA: Transparency and Public Accountability Rules http://nrega.nic.in/circular/draft_transparency_rules.pdf, Accessed 15 Apr, 2-12