

**OPEN DATA FOR BUSINESS TOOL**  
**JAMAICA INITIAL FINDINGS – Draft Report**

Prepared by Laura Manley, May 2016

**TABLE OF CONTENTS**

I.	Executive Summary	2
II.	High Value Data	3
III.	Barriers	4
IV.	Capabilities	5
V.	Engagement	5
VI.	Action Plan	6
VII.	Annexes	
	a. Questionnaire Responses	8
	b. Roundtable Summary	12

**DISCLAIMER**

The Open Data for Business (OD4B) Tool is intended to help inform a long-term strategy to increase the business use of government data. The representativeness of any OD4B assessment is dependent on the number and spectrum of companies and business groups interviewed. It is not a comprehensive or necessarily representative assessment of private sector use of government data in client countries. In some countries or circumstances, the OD4B Tool may not be the most appropriate approach to assessing the business environment for open data. The OD4B Tool is also not meant to provide an overview of all aspects of an open data program, which can be developed through an Open Data Readiness Assessment (ODRA) or other means.

## I) EXECUTIVE SUMMARY

### Open Data for Business Tool

The Open Data for Business (OD4B) Tool is a methodology to assess the private sector's current and potential use of government data in various countries. It is designed to increase the business use of government data through (1) increased private sector awareness of government data, (2) identification of high-value data and barriers to use, and (3) a recommended Action Plan to engage with private sector stakeholders on an ongoing basis.

This report presents initial findings from data collected in May 2016 in Kingston, Jamaica. It includes data collected through interviews, questionnaire responses, roundtable discussions, and insights from the Local Partner. The information collected has been aggregated and analyzed across four assessment areas – high value data, barriers, capabilities, and engagement. Each section of this document demonstrates both the spectrum of responses and overall trends.

### Participants

Sectors: 8 (Agriculture, Business & Legal Services, Data/Information Technology, Education, Finance/Investment, Governance, Tourism)

Interviews: 2

Roundtable attendees: 20

Types of participating organizations: 7

TYPE		#	%
Business	Small (<10)	4	18%
	Medium (11-100)	2	9%
	Large (>100)	3	14%
	Multinational	3	14%
Government		4	18%
Academia & Civil Society		6	27%
<b>TOTAL</b>		<b>22</b>	<b>100%</b>

### Key Findings

Overall, there is a high level of demand for government data from established businesses. The business register, demographics data, and economic statistics were the most highly requested types of government data by participants. Critical barriers to the private sector use of government data included inability to find relevant data, lack of disaggregated data, and lack of timeliness of data.

### Limitations

These initial findings (summarized in the following table) are based on a limited sample (22) of primarily established financial and data/IT companies. In the coming months, additional companies will be interviewed to increase the sample size of the data to provide a more representative assessment of the private sector's demand for government data. This report outlines preliminary findings based on data collected through the Open Data Roundtable and survey responses from participants.

**Table: Summary of Key Findings**

ASSESSMENT AREA	KEY FINDINGS
<b>High Value Data</b>	
Government data of greatest interest	Demographics, business, economics
Data Use	Research, new products/services, and identification of new customers
<b>Capabilities</b>	
Technical infrastructure available	3.2/5 - Average on 1 (low) - 5 (high) scale
Data literacy and skills	3.3/5 - Average on 1 (low) - 5 (high) scale
Capability of greatest interest	Hiring technical staff
Awareness of government data resources	2.8/5 - Average on 1 (low) - 5 (high) scale
<b>Barriers</b>	
Most significant barriers	Data not up to date, difficulty finding, formats
Impact on businesses	Inability to scale, inability to effectively budget and forecast, major cost inefficiencies.
<b>Engagement</b>	
Level of government responsiveness to data requests	2.17/5 - Average on 1 (low) - 5 (high) scale
Most effective outreach and feedback channels	Workshops/Roundtables, Email, Hackathons

## II) HIGH VALUE DATA

This includes types of data that are most important to the participating organizations. High value is determined both by the data's relevance and application for users.

### Current Information Use and Access

Most companies use several types of sources to gather the critical data needed to conduct business. They typically use data for multiple functions within their organization such as: research (77%), the development of new products or services (64%), and the identification of new customers (50%).

*"I had to use the CIA Factbook website for basic information about Jamaica that the government should provide. I couldn't find it anywhere else."*

The following sources were most frequently cited for accessing information:

- Internet searches, typically using sites like google, the CIA Factbook, and the World Bank site
- Internal data collection including customer consumption patterns and self-reported personal data such as education, and skills and certifications

- Government websites
- Website scraping
- Informal channels, such as social media, newspapers, personal and professional networks for information about the market or new trends

Many companies stated that they use google as the first place to look for data, but that it was difficult to find relevant information to Jamaica. Several of the companies said they defer to internal historical data to forecast sales or estimate prices.

Several other companies stated that they have tried to use government websites to access information, but they were unable to find the relevant disaggregated information they needed. As a result, many companies said they scrape websites for the relevant information needed.

### Demand for Government Data

The top three types of data of greatest interest were demographics and social data, such as the census or population statistics (68%), the company register (55%), and economic statistics (36%). In addition, several participants said they needed more information on business registration protocols and guidelines for taxes.

*“Even if the data isn’t completely up to date or accurate, we could use it as a benchmark for our industry and try to improve it ourselves.”*

The participants also stated that the most important features of the data were the timeliness of the data and its provision in a disaggregated raw form. Several companies and researchers stated that the information provided by government was aggregated, so they were unable to find the specific information needed for business decisions or run analyses with the raw data.

Many companies and researchers were also interested in using government data for as an initial benchmark for their operations. For example, one company was interested in using population density data to help determine the need for new IT infrastructure in the region. Another company said that they needed to estimate higher budgets as a result of not getting accurate economic statistics to forecast profit and loss.

## III) BARRIERS

Participants were asked to select the three most significant barriers to government data use. The most common barriers cited were timeliness (77%), difficulty finding (55%), formats (55%), lack of disaggregated data (41%), and high cost (36%).

### Timeliness

The most significant barrier reported was the timeliness of data. 77% of participants stated that the data available was either not released frequently enough or it was out of date. Several participants said they had found data from several years ago that was no longer relevant because of the rapidly changing market.

*“We think the data that is provided is relatively accurate. The challenge is that the data isn’t released often, some of the data we want isn’t there, and you have to pay for little bits of information that isn’t analyzable.”*

## **Findability**

55% of participants stated that they had difficulty finding the data they needed. Many stated that they didn't know where to begin looking for government information and had only come across it through a contact. Others said they gave up trying to find the data because they didn't know if it even existed.

## **Formats**

The third barrier most frequently cited was data formats. Another 55% of participants stated that lack of consistent machine readable formats were a major barrier to their use of government data. In many cases, government data is provided in paper formats or through a pay for individual query system.

## **IV) CAPABILITIES**

### **Awareness of Government Data**

Of the participants, who were primarily Data/IT and financial institutions, the average level of awareness of available government data was 2.75/5 (1-low, 5-high). The lowest levels of awareness came from medium sized companies (1.5), while the highest came from small IT companies and startups (3.5).

### **Data Literacy & Skills**

The average level of data literacy and skills was 3.25/5 (1-poor, 5-excellent). However, the average level of data literacy and skills for multinationals was 3.67/5 compared to SMEs who had a slightly lower average of 3/5. Many companies said advanced computing or IT courses available in Jamaica were extremely limited. 27% of participants stated they were most interested in technical skills trainings to build capacity.

In particular, many participants stated that finding employees with IT skills was a major constraint for utilizing any advanced technologies or scaling their operations. 50% of participants said that hiring technical staff was the capability they were most interested in improving over additional data management tools or training. Several IT companies complained of the difficulty finding and maintaining talent because many of them went to find other jobs abroad. Some financial institutions stated they were able to attract some talent because of their competitive salaries and benefits.

### **Technical Infrastructure**

On average, participants' technical capacity to utilize data, such as equipment and data management tools was 3.17/5 (1-poor, 5-excellent). Multinationals and large companies had slightly higher levels (3.33/5) than the SMEs (3/5), mostly due to their larger technical budgets and resources available for data management and storage.

## **V) ENGAGEMENT**

### **Current Communication Channels**

Most participants stated that they were unaware of any process for formally requesting data. Several companies cited specific examples where they had to contact several people in government and through personal contacts in order to get the data needed, which was many times paper based or not available. 82% of participants stated that they use email to communicate with government about their data, while 45% said they set up individual meetings and 36% said they visited the government office without an appointment.

## Responsiveness to Requests

The average perceived responsiveness of government to data requests was a 2.17/5 (1-poor, 5-excellent). Many participants cited examples of writing emails, visiting offices, and making phone calls with no response. According to participants, they were most successful if they had a contact in the government that was able to provide the data directly.

## Optimal Communication Channels

When participants were asked about effective strategies to engage with government, the top three options selected were: public workshops/roundtables (73%), designated email for data-related questions (23%), and hackathons and competitions (18%).

*“We need more of this kind of forum. If this was a phone call or conference call, I would have been at my desk working and not really engaged.”*

Several participants expressed interest in participating more actively in the process to open government data and said public workshops and roundtables would be highly attended, particularly by businesses. Many participants also requested a data inventory to give potential data users a better understanding of the data that is available or coming soon. Others suggested a private sector working group to provide feedback on specific datasets of interest.

## 6) ACTION PLAN

Based on the initial findings, this section describes recommended next steps to increase the private sector use of government data.

Action	Description	Lead
1. Prioritize data with high business value	<ul style="list-style-type: none"> <li>Target the release of demographics data, company register, and economic statistics.</li> </ul>	
2. Improve data findability and usability	<ul style="list-style-type: none"> <li>Publish data in on a central data portal and publicize the website</li> <li>Create data inventory or catalog with information about the latest updates of the data and context</li> <li>Provide the data in raw, disaggregated form, in CSV to facilitate research and analysis</li> <li>Create an API for data that is higher in demand and that changes often (e.g. company register)</li> </ul>	
3. Empower data leadership	<ul style="list-style-type: none"> <li>Hire CIO that can champion an open data initiative publicly to get buy-in across the government, engage with the community of data users, and help develop data standards</li> </ul>	
3. Create private sector engagement strategy	<ul style="list-style-type: none"> <li>Develop private sector data advisory council that includes SMEs and companies from multiple sectors</li> <li>Host recurring workshops/roundtables to allow companies to provide feedback that are not participating in the advisory council.</li> </ul>	

4. Increase data literacy trainings and education	<ul style="list-style-type: none"><li>• Host data literacy trainings and workshops in collaboration with the local universities</li><li>• Develop partnership between academic institutions and companies for data/IT internships to build out technical experience and skills before joining the workforce.</li></ul>	
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## ANNEX A. QUESTIONNAIRE RESPONSES

### ORGANIZATIONAL INFORMATION

Type of Org	%	Total
Small (<20)	18%	4
Academia	18%	4
Government	18%	4
Multinational	14%	3
Large (>100)	14%	3
Medium (10-100)	9%	2
CSO	9%	2
<b>Grand Total</b>	<b>100%</b>	<b>22</b>

Industry/Sector	%	Total
Data/Information technology	23%	5
Finance/Investment education	23%	5
Governance	18%	4
Tourism and hospitality	14%	3
other	9%	2
Business and legal services	5%	1
Agriculture	5%	1
<b>Grand Total</b>	<b>100%</b>	<b>22</b>

Business Model	%	Total
Fee for service	50%	11
Direct sales	32%	7
Other	14%	3
contracting	5%	1
<b>Grand Total</b>	<b>100%</b>	<b>22</b>

Funding for Data Initiatives	%	Total
Y	82%	18
N	18%	4
<b>Grand Total</b>	<b>100%</b>	<b>22</b>

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## DATA USE

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**How do you access information? (Select up to 3)**

Source	Total	% out of 22
Internet search	17	77%
Collect data internally	16	73%
Government websites	16	73%
Newspapers	10	45%
Professional networks	10	45%
Social media	10	45%
Scraping	10	45%
Personal networks	7	32%
Radio	5	23%
TV	5	23%
Other businesses	3	14%
Other (e.g. APIs)	2	9%
<b>Grand Total</b>	<b>111</b>	

**What do you use the data for? (Select up to 3)**

Source	Total	% out of 22
Research	17	77%
New product/service	14	64%
ID new customers	11	50%
Org optimization	10	45%
Pricing	10	45%
Other	1	5%
<b>Grand Total</b>	<b>63</b>	

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## CAPABILITIES

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**Rate on scale (1 = low - 5 = high)**

Type of Organization	Technical Infrastructure	Technical Skills	Level of Awareness	Value of Govt Data	Level of Govt Responsiveness
Multinational	3.33	3.67	2.33	5.00	2.33
Large (>100)	3.33	3.33	3.00	4.67	2.33
Medium (10-100)	3.00	3.00	1.50	4.00	1.50
Small (<20)	3.00	3.00	3.50	4.75	2.25
<b>Grand Total</b>	<b>3.17</b>	<b>3.25</b>	<b>2.75</b>	<b>4.67</b>	<b>2.17</b>

**What capabilities are you most interested in improving or increasing (Select 1)**

Source	Total	% out of 22
Hiring technical staff	11	50%
Technical skills training	6	27%
Data management tools	5	23%
<b>Grand Total</b>	<b>22</b>	

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**HIGH VALUE DATA**

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**Type of government data of greatest interest (Select up to 3)**

Data Type	Total	% out of 22
Demographics	15	68%
Business	12	55%
Economics	8	36%
Financial	7	32%
Geospatial	5	23%
Education	3	14%
Government operations	3	14%
Health	2	9%
Tourism	2	9%
Housing/real estate	1	5%
Scientific research	1	5%
Public Safety	1	5%
Energy	1	5%
<b>Grand Total</b>	<b>61</b>	

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**BARRIERS**

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**Select greatest barriers to use of government data (select up to 3)**

Data Type	Total	% out of 22
Not up to date	17	77%
Difficulty finding	12	55%

Formats	12	55%
Lack of disaggregated data	9	41%
High cost	8	36%
Legal restrictions	1	5%
<b>Grand Total</b>	<b>59</b>	

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## ENGAGEMENT

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**Rate the level of responsiveness of government to businesses about data (1-5)**

2.17

**How do you currently communicate with government about data? (select up to 3)**

<b>Data Type</b>	<b>Total</b>	<b>% out of 22</b>
Email	18	82%
Individual Meeting	10	45%
Visit office	8	36%
Survey	6	27%
Phone number	5	23%
Workshop/Roundtable	4	18%
Hand-written letter	3	14%
<b>Grand Total</b>	<b>54</b>	

**What are the most effective ways businesses can communicate with government about data? (select up to 3)**

<b>Data Type</b>	<b>Total</b>	<b>% out of 22</b>
Workshop/Roundtable	16	73%
Email	5	23%
Hackathon	4	18%
Formal Feedback Form	3	14%
Phone number	2	9%
Survey	2	9%
Social Media	2	9%
Visit office	1	5%
<b>Grand Total</b>	<b>35</b>	

OPEN DATA FOR BUSINESS TOOL  
**JAMAICA ROUNDTABLES SUMMARY**

*On May 6, 2016, COI in collaboration with the Center for Open Data Enterprise co-hosted a Roundtable as part of the Open Data for Business (OD4B) methodology. Roundtables are facilitated discussions that bring together current and potential users of government data to (1) raise awareness about open data among the private sector, (2) help identify high-value datasets, and (3) discuss solutions to data problems.*

*Participants were asked a series of questions in groups about their interest in government data, experience accessing the data, challenges, and potential solutions. The following sections summarize the main points of conversation from the two roundtable discussions.*

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Total Participants: 20

Types & Sizes of Participants:

- 50% Business
  - 15% Small (1-10 FTEs)
  - 10% Medium (11-100 FTEs)
  - 10% Large (>100 FTEs)
  - 15% Multinational
- 30% Academia & Civil Society
- 20% Government

Sectors Represented: Agriculture, Business and Legal Services, Data and Information Technology, Education, Finance and Investment, Governance, Tourism

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**DISCUSSION SUMMARY**

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**High Value Data & Access**

- Demographics
  - Overall, we would like population and census data
  - We are trying to develop a dashboard which would use population data and information on national infrastructure. We want to know the correlation between cell phone penetration and remittances, so we need data on population density, ICT infrastructure, etc.
  - We want information on people, income levels, education levels, male/female, etc. We need this to help us think about our customers and products.
- Financial & Economics

- We bid for many contracts, so unless you have a good contact or have already had several projects, it's hard to know about new projects and RFPs. We need data on new government projects and RFPs.
- We need economic statistics to plan and forecast sales. The finance team always has to call different agencies through our contacts for data so that we can forecast prices. It took us two weeks to get the tax and tariff rates for services and that's only because the finance team has contacts, otherwise, they might not have ever gotten the information. If we didn't get this data through a contact, we would probably have to estimate a much higher rate to cover our costs.
- We want GDP data and information on the national outlook for the country's economy. This would help us figure out how much we should be planning ahead
- Business
  - We need the company register. It's really important for us to have data on other companies. We need to know who our potential suppliers are and also who we could partner with.
  - We want to know if a company already has a certain name, so having a list of the companies is essential
  - Many businesses are headquartered in other countries. The operations units exist elsewhere. We had a company that wanted to know how to set up a business, including employment, income tax, etc. This person assumed that the ministries would have this information to set up a business. I called to find this information from the government and was on hold for hours. I just gave up and had to go through all of my contacts to find out basic information on how to set up a business.
- Education & Labor
  - We need data on education levels of our population and skills available. This is very important for recruiting
  - Employment statistics
  - Data to help with skills and job matching

#### **What are the barriers to data use?**

- The agencies have given us information in paper format. Then we have to spend so much time making the data usable.
- For the tax administration, you have to pay a dollar per search. If a customer comes into my institutions, I take their number (like a social security number) to verify information. You get charged USD 1 per query. Even after you pay, you don't get the data. You get a basic answer to your query and then you have to pay again if you want more. You can't analyze the information.
- A lot of this is outdated or you can't even find it. When you can find it it's usually in paper and there isn't date stamp or anything for time sensitive information.
- The cost of the data – paying for bits of information.
- Because the data is in poor shape when it comes in, we have delays are because the private sector needs to crunch and clean the data.
- Issue of trust between government and business. Businesses don't have trust that the data will be up to date or even available, so sometimes we don't even try to get it.
- We think the data is pretty accurate, but it isn't timely and it's not relevant because it's not what we actually want.
- Even if the data isn't accurate and you could improve it or use it as a benchmark.
- Legislation restrictions for the commercial use of data are substantial. Some agencies don't want to share and they are restricted by laws

- We have to web scrape the data because it's usually not available.
- We buy the data from government agencies, which is the opposite of open data. Some of us even use the information from international organizations because it's better than what our government has.
- I had to use the CIA Factbook website for basic information about Jamaica that the government should provide. I couldn't find it anywhere else.
- Not publishing in raw you can't do certain kinds of analysis. Raw data isn't available
- Policy dictates how the data is published instead of the people and businesses that can use it
- "It's government policy" is the go-to response when I want data and they can't give it to me
- Lack of skills training and our education system is a major issue. For many of us in the private sector, we have deficiencies in our technical and analytical skills. We have stats students without the analytical and IT skills. The computer science students are going overseas. We need more critical thinking across the board.

### Recommendations from Participants

- We need guidelines for finding this information. How about a data inventory or catalog, so we know what's even available in the first place.
- The government needs to prioritize the data that could have a huge impact. We know that health data could make a big change.
- The data needs to be raw. I couldn't use any government data for my thesis because it was so aggregated it was worthless.
- The government needs a central data portal. We need know have one place where we go for information and that website needs to be publicized.
- We need a CIO that's public and interacting with the community. We need a visible public champion that can communicate across sectors.
- We need a data management person as well. This person needs to know policy and data to bridge both. This person can help create data standards
- We are all interested in a private sector data advisory group. We need to use the data first and then we could actually begin to give feedback. We need to get involved with the government data committee
- This kind of forum is valuable because we could provide experience on how PPPs could work better
- This roundtable is also more helpful instead of surveys. All of the little discussions are helpful. We need more of this kind of forum. If this was a phone call or conference call, I would have been at my desk working and not really engaged.
- We need an API, but at minimum we need data in excel format. It needs to be easily extractable.
- We need a data strategy that goes beyond what specific data do we want. We need a more holistic strategy otherwise we will have siloes of data.
- The private sector hasn't been included in this government data conversation, so we need to be involved more to talk about the data that would be helpful for us and to see how we can help the government.
- I don't know if there is a clear strategy in government to do something with their data. I think they need to have a strategy and publish it from a central location. There could be a concern about APIs getting a competitive advantage. Once you do that it will make other companies get up to speed more quickly.
- Movement in the industry comes when government provides direction. If there is a champion from the private sector, this could happen. We need someone like a minister to push this type of agenda and be very visible.
- We need to build APIs and begin to access this information

- If we believe in this opportunity, we need to build out capacities with our students. We could have students work in the private sector as interns to get the experience beforehand.
- Private sector could assist governments with data literacy
- We need to start thinking about how citizens can provide feedback on their use of open data