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Diploma Thesis

Open Data for Ethiopia

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1 Summary

Governments are responsible for collecting, organising and disseminating data on different aspects of their country. This data can be accessed openly by the public or through an official inquiry. There is a recent trend of more and more governments and institutions opening up their data to the public. Therefore, open government data is not just a buzz word anymore but an essential resource for creating new business values. This thesis analyses the importance of open data and its implications for development. It discusses the open data movement, how to start an open data initiative, its demand and civic engagement. Case studies from Africa have been examined to converse the impact of open data on development. The recent open data initiative by the Ethiopian government, the Ethiopian open data portal, its merits and shortcoming were studied. This thesis also provides an analysis of open data in the current context of the country including law, technology, economy, society and organisations. Furthermore, it includes the design and implementation of an open data-driven web application on food security. The implementation also shows how a new value can be added to openly accessible data sets using freely available software tools.

Keywords: Open data, Open Government, Data Portal, Government data, Right to information, Data for development

2 Objectives and Methodology

2.1 Objectives

The main goal of the thesis is to determine how open government data can facilitate the efforts of meeting the development goals of Ethiopia by studying the impact of data openness on the community.

Partial goals of the thesis are such as:

- To make a review of the current state of Ethiopia in terms of public access to government data,
- To analyse available data sets and to evaluate their level of openness,
- To analyse and design a new open data application for agricultural sector in Ethiopia.

2.2 Methodology

The methodology used for the thesis is based on the study and analysis of open data initiatives in the world and particular case studies in Africa. Recommendations on how to achieve an open government in Ethiopia will be stated, based on the practices of the successful case studies. And finally, an open data application will be implemented in sector of agricultural goods using tools for data visualization.

3 Conclusion

The primary objective of this thesis was to determine how open data can facilitate the development efforts of Ethiopia. This thesis has analysed the benefits of open government data, its implications on developing countries and has come to this conclusion.

The level of poverty in most of the African countries does not come as news to many. However, the development initiatives do not get as much coverage as the broad underdevelopment. The story of Ethiopia is not so different from other fellow developing countries in the continent. From vastly growing small and medium enterprises to massive projects like the grand renaissance dam boost the country's development. The strong urge to become a lower middle-income economy drives the government and people of Ethiopia in making the country one of the fastest developing countries in the world.

One can admire this continuous effort of development but eradicating poverty is not an easy and straightforward endeavour. First and foremost, it needs a continuous engagement of citizens and government. Governments should change their policy on engaging more citizens in government processes and hear the voices of the people. Inequalities, as it is present now, will worsen with the lack of engagement and government transparency. Good governance, although many would argue its existence, is diminishing and inconsistent. This problem makes the civil societies and media including data backed journalism to abandon their duties of passing unbiased information to the people.

In the case of Ethiopia, the government has a tight grip on information technology resources, mainstream as well as social media platforms as it feels threatened by the growing use of internet and technology.

A considerable number of researchers in developmental studies would agree that extreme poverty is a result of bad governance, corruption, inequality, and lack of accountability. These can be avoided, to some extent, by the adoption of open government and fostering the use of open data. This thesis discussed and analysed that the main bottleneck for adopting an open policy in Ethiopia will be the current infrastructural capacity constraint in Ethiopia.

Adopting open government cannot solve the poverty issue by itself, but can provide much potential in the struggle for development. Checks and balances are core principles of fighting corruption. Budget transparency and open contracts can, for example, let citizens oversee the usage

of their countries resources. Which in turn makes it harder for government officials and involved parties to commit corruption.

The first partial objective of this thesis is to review public access to government data. The thesis has identified the main source of Ethiopian government data to be the central statistical agency of Ethiopia. The agency is responsible for collecting data from all other government agencies and distribute data to interested parties

The second partial objective of this thesis was to analyse the available datasets in Ethiopia and evaluate their level of openness. This thesis has reviewed the level of openness of available data sources in Ethiopia and has found it to be poor compared with the standards of open data. Based on the five-star deployment scheme, the sources in Ethiopia provide a two-star web data. Ethiopia is also classified as a capacity constrained country by the open data barometer. The efforts of the government for opening data to the public has shown that there is a potential for adoption and the need for a dedicated party to drive this endeavour to become successful has been identified.

The last partial objective was to analyse and design a web application for the agricultural sector in Ethiopia. Open data-driven web application, openethiopia.info, was designed as a practical implementation using open datasets on food security. The thesis managed to show an easy approach on how to add a new value to open government data. The implementation is limited to the use of two data sources. Further development can be done by integrating more sources and providing a statistical analysis of the output of the data visualisations. The target user group of the application provided is limited to the portion of the population which has access to data or broadband internet.

In conclusion, the thesis highlighted how the adoption of open data, open principles and later an open government would contribute to the country's development. Open data counters the failure in dealing with the roots of poverty and push the country to join the lower-middle income economies by the target year of 2025.

4 References

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