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Evaluation of the use of web technology by government of Sri Lanka to ensure food security for its citizens

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Abstract

Web technology is one of the key areas in information and communication technology to be used as a powerful tool in ensuring food security which is one of the main issues in Sri Lanka. Web technology involves in communicating and sharing resources in network of computers all over the world. Main focus of food security is to ensure that all people have fair access to sufficient and quality food without endangering the future supply of the same food. In this context, web sites play a vital and major role in achieving food security in Sri Lanka. In this case study, websites pertaining to Sri Lankan government and link with food security were analyzed to find out their impact in achieving the goals of food security using web technologies and how they are being involved in ensuring food security in Sri Lanka. The other objective of this study is to make the Sri Lankan government aware of present situation of those websites in addressing food security related issues and how modern web technologies could be effectively and efficiently used to address those issues. So, the relevant websites were checked against several criteria and scores were used to assess their capabilities to address the concerns of food security. It was found that the amount of emphasis given by these websites to address the issues of food security is not satisfactory. Further, it showed that if these web sites could be improved further, they would generate a powerful impact on ensuring food security in Sri Lanka.

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1. Introduction

1.1. Government administration and services

Sri Lanka is a multicultural country with many food traditions and a population of 20.35 million as at 2012 census[1]. For administrative purposes, Sri Lanka is divided into nine provinces and twentyfive districts. The districts are further subdivided into divisional secretariats and   divisions which are attached to the divisional secretariats. There are 3 types of governments in Sri Lanka. District and divisional level administration is done by Central government. Provincial level administration is done by Provincial government linked to central government. The third and lowest level administration which links to Central government is done by three other types of local authorities called Municipal Councils, Urban councils and Pradeshiya Sabha. All of these administrative units have their own government institutes to provide public service free of charge or at discounted rate. Sri Lanka is one of the few countries in the world that provides universal free education from primary to tertiary stage[2] and free universal healthcare[3]. In addition to these services government has control on several services in relation to food and food security. Government has institutional capacity to handle food production, food distribution with a mechanism to look after fair distribution of food and ensure good practices on food related issues. Despites these services 22% of whole population i.e. 4.7 million people of Sri Lanka are undernourished according to The FAO Hunger Map 2015[4].

1.2. Data on government web

The data pertaining to food, in relation to the whole population and dispersed throughout these institutes hasn't been centralized or decentralized properly. Most of data in paper format or databases are in isolated computers or computer systems. But government has taken initiatives to give more value to these food related data by putting most of these data on internet and web to provide more effective and efficient food related services to public. This in turn positively contributes in ensuring food security in Sri Lanka.

Government Information Center (GIC) of Sri Lanka plays vital role in controlling and managing information about 1439 Services offered by 203 Organizations. GovSMS links with Government Information Center to obtain about 13 services from Government Departments via Short Messaging Services (SMS). GovSMS platform has SMS short code 1919, which is unified across all GSM and CDMA operators[5]. According to the government web portal, as at 15th April 2015, there are 650 websites pertaining to Ministries, Statutory Bodies and cooperation, Provincial Councils, District Secretariats, Divisional Secretariats, Departments, Government owned companies[6, 7]. Most of the websites used two national/official languages namely Sinhala, Tamil[8]and the link language, English to provide their services. Among these web sites, 82 web sites directly or indirectly provide the information about food to citizens of Sri Lanka. In addition to that, GIC through its short code 1919 and specially Department of Agriculture, Sri Lanka, through its short code 1920 provide information in relation to food to the public[9].

1.3. Use of technologies to disseminate the information on food security

Sri Lanka is the first country in the South Asian region to introduce 3G, 3.5G HSDPA, 3.75G HSUPA and 4G LTE mobile broadband Internet technologies[10] enabling these web services more accessible to its citizens.

Still with this advancement in the computer science, Sri Lanka is far away from using new technologies effectively and efficiently in its public service through government websites. Although Sri Lanka advanced to 65th place in 2015 from 76th in 2014 of Network readiness index[11], it doesn't seem government owned websites sufficiently use its power of web technologies to tackle issues of food security.