

Investigating factors influencing the adoption and use of free and open source software (FOSS) in Tanzanian higher learning institutions: Towards an individual-technology-organizational-environmental (ITOE) framework

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ABSTRACT

This paper is located within the global debates about adoption and use of Free and Open Source Software (FOSS) in developing countries. From the Tanzanian Higher Learning Institutions (HLIs), this paper investigates factors influencing the adoption and use of the FOSS. The rationale for the investigation stems from the notion that Tanzanian HLIs is yet to fully adopt and use FOSS, despite huge investments and efforts being made on ground. This is facilitated by the lack of clear FOSS adoption and use framework. The source of this data was a questionnaire which comprised of structured questions, using a five-point Likert Scale. The population sample for the study was all HLIs stakeholders in Tanzania. Participants included both public and private HLIs. The positive factors include autonomy for code modifications, IT staffs and decision makers, organization awareness, trustworthiness of FOSS, licensing and scalability, collaboration and knowledge sharing, collaboration on international ICT, organization policy and good social economic policy. The negative influences that emerged included, Lack of proper plan, low confidence, lack of expertise, unfit for purpose, difficult to implement, lack of supporting software. Furthermore, this paper motivates other researchers to analyze why the adoption and use of Free and Open source software is still low to higher learning Institutions in East Africa even though their potential benefits that have been advocated in many previous studies. Finally, the paper has proposed Individual-Technological-Organizational- Environmental (ITOE) framework for adoption and use of FOSS.

Keywords: ITOE framework, Free and Open Source Software, Tanzanian Higher Learning Institution