An Enhanced Model for the Strategic Analysis on the Application of Open Source Software in the Kingdom of Thailand

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Abstract

The main objective of this study was to develop an enhanced prototype in form of defining the generic metrics of an assessment tool targeted to deliver a basis for decision-making support and secondary to determine the demographics and preferences of local OSS users. The population was defined as graduated information technology personnel. The samples were clustered by users of operating systems, browsers and Web content management systems. The secondary research concluded with the findings that a best-of-breed selection of the attributes of QSOS 1.6, Open BRR and local findings qualified for the primary research out of which 45 attributes at OS, 43 attributes at browsers and 46 attributes on CMS qualified for the TH-QSOS model.

It was there found that OSS adopters aged below 18 up to 30 years are the most open-minded in terms of experimentation. Furthermore technical adaptability scored as the most important category. The hypothesis testing on "Proposed generic TH-QSOS metrics are important in the perception of the user" by a one-sample t-test showed that the hypotheses of Alexa rank on OS, at browsers the offer of international consulting companies and availability of certified experts were rejected and on CMS all hypotheses passed.

Keywords: Information technology, strategy, operating system, browser, web content management, evaluation, demographics.

The Importance of Open Source Software

In recent years, Open Source Software (OSS) has been recognized with increasing trend as a "state-of-the-art" alternative to commercial software on a global scale (see Fig. 1). OSS already found its way into many critical business applications. Currently some of the world's largest databases - as those of Google, Wikipedia, Facebook or Yahoo - are built on the OSS database MySQL and/or run on the Apache web server (Sambandaraksa 2008). This shows that OSS qualifies as a stable and sustainable solution – even under the pressure of handling vast amounts of data. Hospital OSS was one of the first major OSS projects, based on the operating system Linux and the database PostgreSQL, which was initiated in Thailand and has been utilized nationwide since many years at various small-sized, rural hospitals with tight budgets. With these, OSS proved beneficial in terms of better healthcare service efficiency and improved quality of life for the patient (LinuxMedNews 2006). In the midst of the global financial downturn, it has been recognized as an inevitable measure for businesses everywhere to trim down their operational costs to ensure their survival. OSS is locally widely expected to play an important role in building up Thailand's sufficiency economy policy (Manoonsin 2009). Software piracy could be stated as having constituted an additional major local problem since many years, driven not only by the high price of licensed software, but also by a lack of awareness on alternatives such as OSS (International Open Source Network 2007).

Taking all these facts into consideration, companies in Thailand are under the pressure