

Software development and governments role

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(November 30, 2012) : Plenty of research literature is available that emphasizes on governments role in developing software industry. A new study, released this week by the United Nations Conference on Trade and Development, has now looked at governments role in nurturing local software industries in developing countries. Titled "Information Economy Report, 2012", the Unctad study underscores the importance of software as the brains behind the growing mobile connectivity and broadband penetration, and stresses upon exploiting its potential in domestic areas of healthcare, education, governance, etc. But that requires an inward focus, to promote local software development to meet domestic economy's software needs. The report stresses realignment in this export-orientation towards software development. A singular focus on software exports does help governments earn valuable foreign exchange and integrate into global value chain, but it crowds out domestic software needs. That is why very low domestic software spending is seen in the developing countries. The report identifies countries like Malaysia, Argentina, India and Philippines, where local software spending is catching up with high software exports. Then there are countries of Brazil, Korea Republic and South Africa, where software development is more localised, hence, software exports are low. Thanks to government efforts, 90 percent of China's software sales of \$285 billion (2011) were domestic. In Pakistan, software spending has a low share in economy, and the industry's export intensity is also low, notes Unctad. The report mentions that the computer software & services spending in Pakistan as a percentage of GDP was only 0.5 percent in 2010, and 12.8 percent of overall ICT spending in 2011. While the study calls for customized software solutions to be developed for various sectors, it also recognises that it depends on the extent of software industry's collective maturity. Hence, adaptation and adoption is recommended in the first phase for more innovative work to be carried out later on. The Unctad study has also come up with a software development ecosystem, which it calls the "National Software System". NSS is about interactions among developers and users of software services, which are governed by the "quality and affordability of ICT infrastructure, access to relevant human resources & capital, legal framework, enabling business infrastructure, and the links with (foreign) software networks." Unctad maintains that NSS is deeply influenced by governments vision, policies and strategies. It says that the governments are not only the critical buyers of software they also determine software education curricula, responsible to make available & affordable the ICT infrastructure, and also shape legal & regulatory frameworks. All of this affects the production & adoption of software in the domestic circuit. The report concludes by recommending that a "localized" software development strategy should form part of the overall national ICT strategy. That strategy should be mindful of local software needs, and resolve constraints of investment capital, limited qualified human resource and low government procurement. To lower software acquisitions cost and spur innovation, Unctad asks governments to encourage free & open source software. This can lead to growth in mobile applications development, which offers a solid business case in countries where cellular teledensity far exceeds computer usage. As it seems, these recommendations are highly relevant to Pakistan, and policymakers must do rethinking on these grounds.