2-2-2010

A methodological approach to assess ERP implementation process

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芽|Sprouts Working Papers on Information Systems ISSN 1535-6078

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Abstract
The paper suggests a methodological approach aimed at representing technical and organizational capabilities the firm should managed in the implementation process, configuring the problems that may occur during the implementation process and selecting the most suitable implementation strategy.

Keywords: assessment, technical and organizational capabilities, ERP

Permanent URL: http://sprouts.aisnet.org/10-22

Reference: G. Capaldo, P. Rippa (2010). "A methodological approach to assess ERP implementation process," Proceedings > Proceedings of ALPIS . *Sprouts: Working Papers on Information Systems*, 10(22). http://sprouts.aisnet.org/10-22

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Abstract

Considerable attention has been paid in recent years to the dilemma that user organizations may face regarding the extent to which they should adapt and enhance the ERP package they have acquired, because this may prejudice maintainability and ability to take on board future enhancements and upgrades. However, the connections between implementation choices and issues of post-implementation maintainability highlight the need for organizations using technologies such as ERPs to address the whole package implementation life-cycle.

Implementation choices become not so much a question of depth of technical expertise. In fact, the issue is not to reveal available technological choices and analyze the forces determining which designs are eventually adopted. Instead, the situation is often characterized by an apparent absence of choice in term of implementation strategy, and the problem is accounting for this absence. Attention is thus focused on the real limitations on choice located in the organizational system, and which bear upon specific contexts in which technical change is taking place. Resolving these calls for extensive, and by implication shallower, knowledge about the enormously wide array of potential interactions between technological products and elements of the organizational infrastructure affecting implementation choices creates issues about how such knowledge can be represented and managed to adopt the new system.

The paper suggests a methodological approach aimed at representing technical and organizational capabilities the firm should managed in the implementation process, configuring the problems that may occur during the implementation process and selecting the most suitable implementation strategy.

The methodology has been built upon the needs of methods and tools to guide Public Administration in the renewing and acquisition of enterprise systems namely ERP. Thus, variables and capabilities are referred to the context of the public sector.

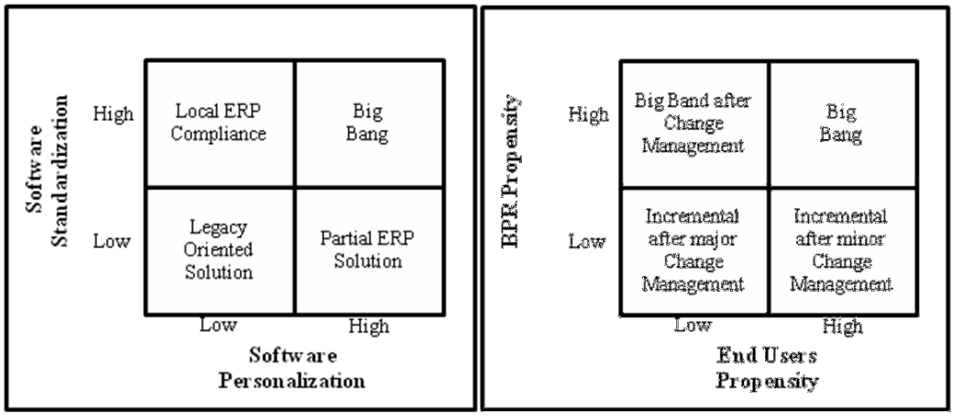
The methodological approach is aimed at developing a tool that can help firms in the implementation process of ERP system by identifying the most appropriate implementation strategy based on an assessment of the firm prior to ERP implementation. Change management strategies

are identified on the basis of the result of the assessment, and they are aimed at driving the firm to a successful implementation.

The assessment is based on the analysis of the technical and organizational capabilities of the firms as showed in the following table:

Technical capabilities		**Organizational capabilities**	
Software standardization	Attitude to standardize the system	*Business Process Reengineering (BPR) propensity*	Process Orientation of the organization
Software integration	Attitude to close legacy system		Project management capability
	Needed ERP size implementation		Capability to monitor the risk related to BPR
		End Users propensity	End users profiling
			Availability of change enablers

The results are represented in two matrices of choices in which all the capabilities are evaluated in order to establish the strategy that best fits with those characteristics. In the next figure, the matrices show that for the higher values in all the capabilities, the firm has the chance to successfully implement the ERP following a Big Bang strategy. In all the other situations, an incremental strategy would be better, and change management activities to enable the success of the implementation are suggested for each different position in the matrix.



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Working Papers on Information Systems | ISSN 1535-6078

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