

The Role of Knowledge Management in eGovernment

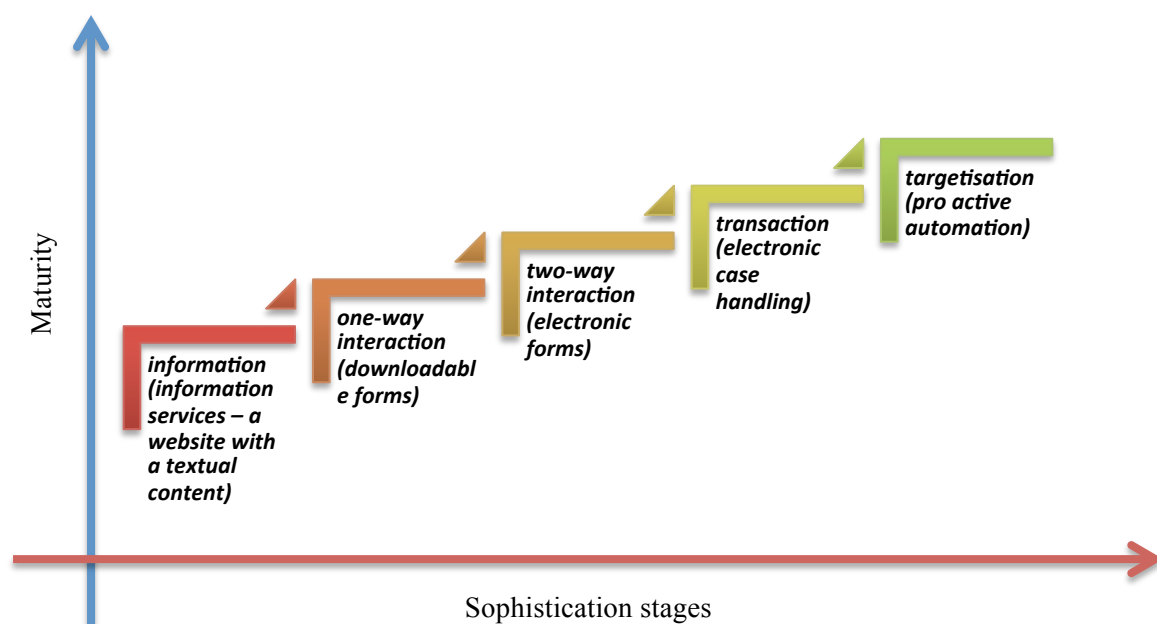
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Abstract: Implementation of electronic governmental services is one of the top priorities of European Union. The reasons for implementation of eGovernment are associated with higher efficiency and quality of managing internal processes (managing governmental resources) and external processes, delivering public services to citizens and businesses. Deployment of electronic services is a long process as eGovernment systems are very complex due to many different factors that play significant role. The factors may include technology infrastructure, socio – cultural environment, legal environment, economic conditions and so on. European Union countries have been developing and adopting different strategies to implement public electronic services, which led to uneven development progress. Most of the implemented eGovernment services have been implemented partially and the usage of the services, especially by citizens, is quite low. In the paper, we try to take some of the concepts and models of Knowledge Management and apply them to the development and implementation process of eGovernment. This perspectives may have an impact on faster implementation and deployment of electronic services.

Implementation of eGovernment services has been among the top initiatives among all European States for some time. EU Governments are aiming to be more efficient in managing governmental resources and in delivering public services to citizens and businesses. Over the last decade, EU countries have been adopting different strategies and approaches in the implementation process. This led to an uneven development progress. To see how countries are successful in the development of the services, we can compare the services delivery against a 5stage maturity model. The model reflects how business and citizens can interact with their governments. There are 5 stages of maturity:

- *information (information services – a website with a textual content)*
- *one-way interaction (downloadable forms)*
- *two-way interaction (electronic forms)*
- *transaction (electronic case handling)*
- *targetisation (pro active automation)*

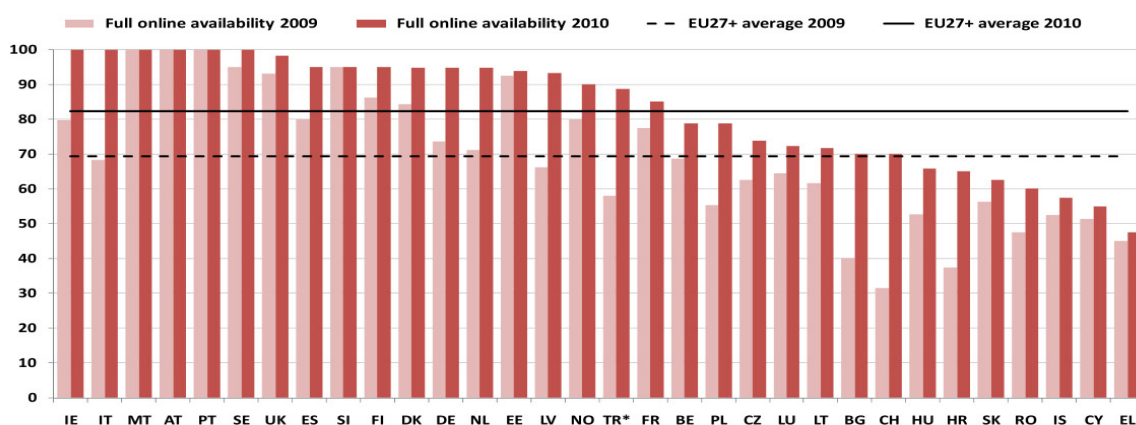
(European Commission, 2009)



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The studies showed that the development of public services has improved greatly in many EU countries. The EU 27 sophistication ranking shows 90%, which is a 7% increase from previous year. In countries such Ireland, Austria and Malta, the sophistication level reached 100 %, which means that the businesses and citizens have an access to the most developed public services in Europe. (Capgemini, 2010)

Full Online availability ranking, 2009-2010 (in %)



Source: Capgemini (2009), The 9th Benchmark Measurement of eGovernment Services, pp 8

Despite the fact that overall sophistication of 20 online services in Europe is relatively high, in developing and transitional countries, the eGovernment initiatives failed in most cases. The success rate is 15%. Most of the successes stories were eGovernment systems that automate basic clerical functions as data processing.

(eGovernment for Development, 2008)

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On one hand, the governments offer quite sophisticated services, but on another hand, the usage of many services is still low. Statistics showed that only 42% of individuals, ranging from 16 to 74, use the Internet to access public services in EU 27. Most of the EU population does not use online public services at all. It seems that mainly businesses benefit from eGovernment. Investments that have been made to eGovernment services do not cover the benefits that result from it. (Capgemini, 2010)

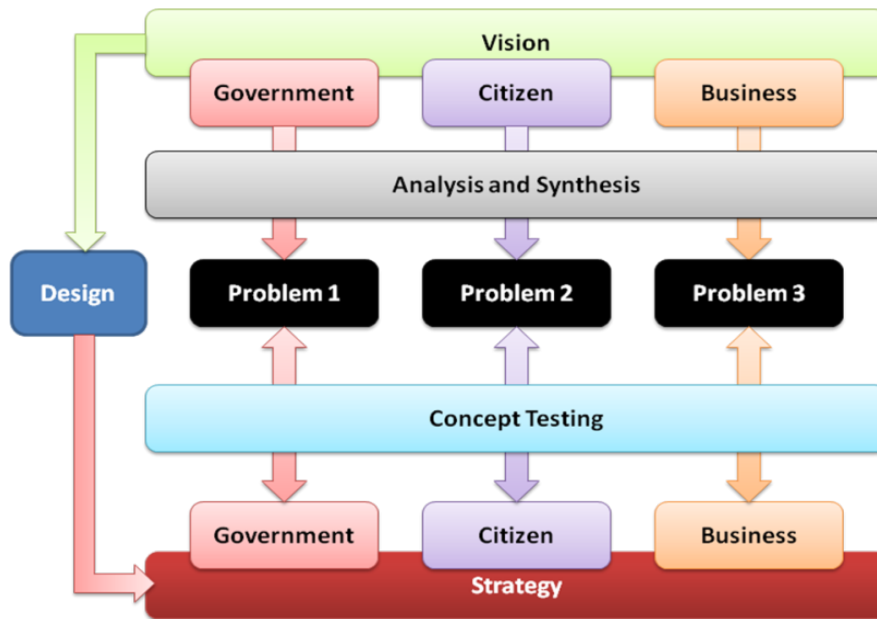
Adoption of public services by citizens seems be more problematic than deployment of services. There are many factors that may influence the successful implementation of such services. One study evaluated the most frequent factors that contribute to a successful implementation and adoption. According to the study, the key factors were the following:

	Factors	Description
Organizational Factors	Vision	The roadmap for implementing the government initiative
	Leadership	Strong leadership style provide both security and transparency for the implementation team
	Top Management Support	Support and commitment from senior management are imperative in order provide and allocate sufficient resources to speed up the process.
	Organizational culture	Organizational environment is the key that encourages change and transformation towards E-government
Systems Factors	User-Friendly	The systems is easy to use and complicated for users
	Flexibility	The systems could be modified, customized and accommodated future users requirements.
	Security	Information should be secured form unauthorized access
	Accessibility	The service should be accessible to users anytime and anywhere, i.e. 24/7.
Users Factors	User computer efficacy	Individual's believed in their ability to used technology in order to solve problems, make decision, to gather and disseminate information.
	Training	Training is a critical element that needs to incorporated within the implementing of government initiative
	Awareness	The service of e-government initiative have be aggressively marketed to users

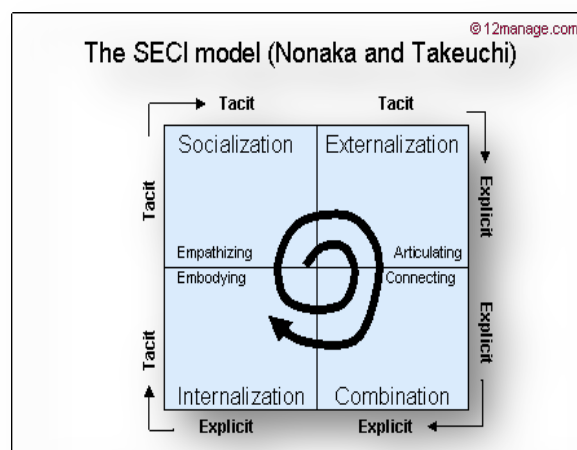
(Ahmed Al-Azri, 2010)

The complexity of eGovernment infrastructure requires multi-method approach to the problem. All of the factors listed in the table above are critical in the implementation process and needs to be taken into consideration. We will focus on users' factors as they are directly related with the adoption process and usage of the services. Then we will apply some Knowledge Management principles and apply them into this subject matter to overcome adoption barrier. For this, we will use standard methodology approach – analysis, synthesis and design accompanied by SECI model (Nonaka Takeuchi).

Our approach can be seen on the following chart that shows the methodology how to progress:



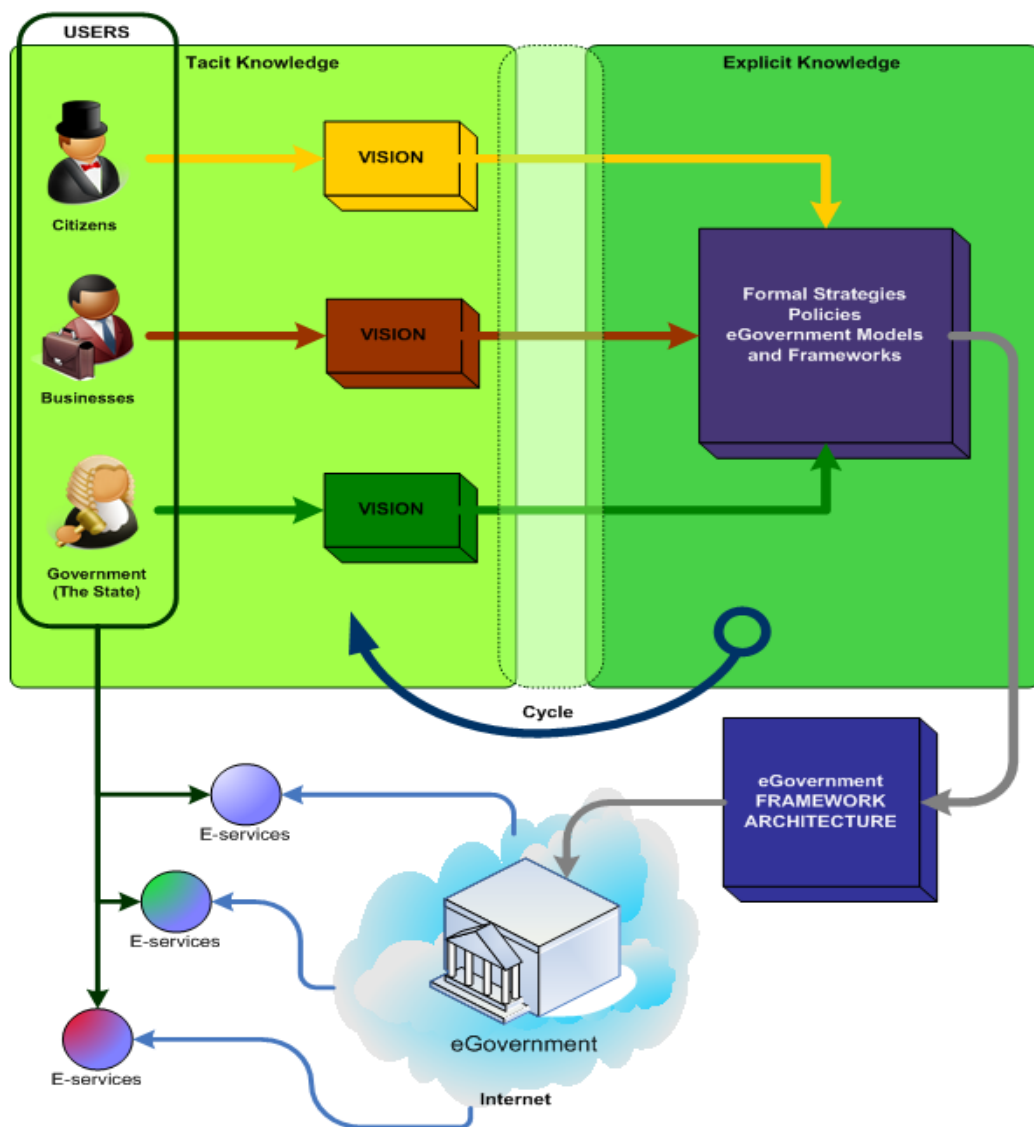
Analysis of the users of eGovernment is the first starting point. Specifically, we need to analyze and understand their visions, preferences and how they would prefer electronically interact with their governments. Then we will synthesize all of the preferences linked with the SECI model and the outcome should be formulated into an implementation and adoption strategies.



Nonaka and Takeuchi (1995)

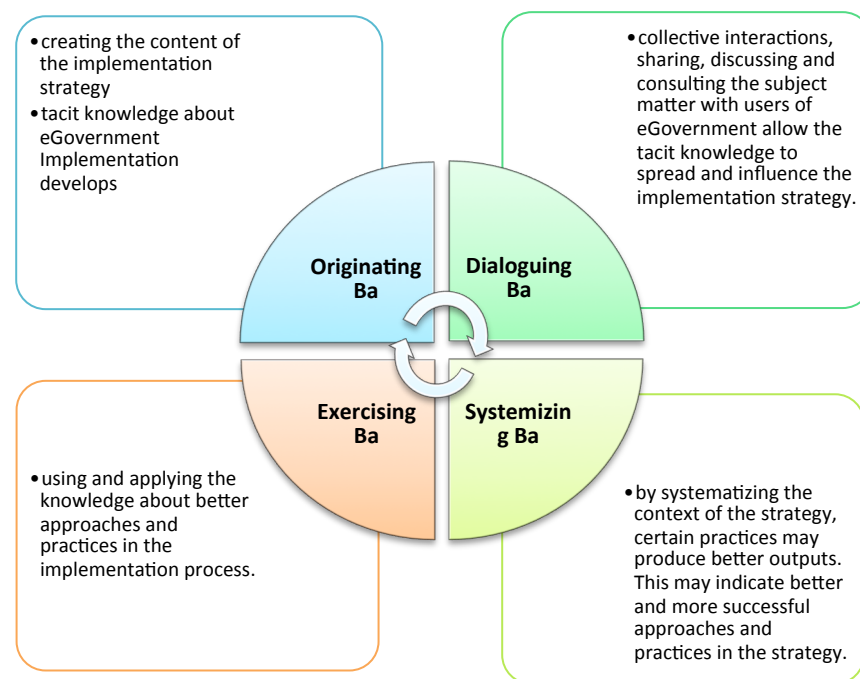
The users of eGovernment are the main source of knowledge in the form of their visions and preferences. They have certain visions about eGovernment and how it should serve to them. The process of defining the vision should be done through socialization. All of the users through face-to-face communication and interaction should share their tacit knowledge about eGovernment. Next process is externalization where concepts about the eGovernment are developed from the visions of users. This is the actual step where the tacit knowledge about the vision is being transformed into explicit knowledge. When connecting and combining different concepts about the eGovernment then we can set and define strategies, policies and design and develop eGovernment models and frameworks. Last step in the process is internalization, which means that explicit knowledge becomes part of individual's knowledge base through the use of eGovernment applications and services. (Nonaka, 1995)

Applying the SECI model in the formulating the implementation and adoption strategy of eGovernment services may help in the physical implementation and adoption process by better understanding of the actual needs of the users. The following scheme explains how knowledge conversion (from tacit into explicit) will help to form eGovernment framework which forms a foundation for implementation and adoption of eGovernment services.



To apply some of the KM principles in achieving the goals in the implementation process, we may apply the concept of Ba for building knowledge-developing environment. The Originating Ba in the implementation strategy is to create the context of actual application. Through this activity the tacit knowledge about eGovernment implementation develops. Through collective interactions, sharing, discussing and consulting the subject matter with other users of eGovernment allow the tacit knowledge to spread and influence the implementation

and adoption strategy. This step is called dialoguing. By systematizing the context of the strategy, certain practices may produce better outputs. This may indicate better and more successful approaches and practices to the implementation strategy. The last step is exercising, which means using and applying the information about better approaches, practices and use them in the application process. (Nonaka, 1995)



Nonaka and Takeuchi (1995)

The study gives a KM view on implementation and adoption strategy of eGovernment and how implementation and adoption process of eGovernment may benefit from the KM principles, mainly by applying the principles by Nonaka and Takeuchi.

Bibliography

- European Commission. (2009). *eGovernment Benchmark: 8th Benchmark Measurement*. Retrieved 08 10, 2012, from http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/egov_benchmark_2009.pdf
- Ahmed Al-Azri, Z. A.-S.-K. (2010). The Successful Implementation of E-Government Transformation: A Case Study In Oman. *European, Mediterranean & Middle Eastern Conference on Information Systems*.
- Capgemini. (2010). *The 9th Benchmark Measurement of eGovernment Services*. Retrieved 10 1, 2012, from www.capgemini.com/insights-and-resources/by-publication/2010-egovernment-benchmark/
- eGovernment for Development. (2008). *eGovernment for Development Information Exchange: Success and Failure in eGovernment Projects*. Retrieved 10 1, 2012, from <http://www.egov4dev.org>
- Nonaka, I. T. (1995). *The Knowledge - Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.