

e-Government Success Factors

Jörg Becker, Björn Niehaves, Lars Algermissen, Patrick Delfmann, and Thorsten Falk

University of Muenster, Dept. of Information Systems, Leonardo-Campus 3,
48149 Muenster, Germany
{becker,bjni,islaal,ispade,isthfa}@wi.uni-muenster.de
<http://www.wi.uni-muenster.de/is/>

Abstract. Electronic Government (eGovernment) has been seen as the silver bullet for modernizing public administrations over last few years. But fact is that the broad variety of eGovernment initiatives results in an evenly heterogeneous picture regarding the quality of eGovernment services provided. Within an international context differences in eGovernment quality may result from nationally specific factors such as e-readiness, legal restrictions, existence of a nation-wide eGovernment strategy, and so forth. But what are the factors which have influence on eGovernment success and which do not result from national characteristics? In order to answer this question we conducted an empirical study in the northern German region “Muensterland”. The goal of this article is to present this empirical study. Internal data from 56 and external data from 70 local municipal administrations was gathered and analyzed with regard of the question: What are eGovernment success factors?

1 e-Government Status Quo

Public administration has been confronted by a series of new demands on the one hand and has been forced to cost and staff cuttings on the other hand. There is a conspicuous trend towards growing individualization, whereby there are increasing demands by individuals on the state, to provide solutions to a variety of problems. Simultaneously, in the context of national and international competition, efficient and effective state activity and support for entrepreneurial activities in a region or country are becoming an increasingly decisive factor in location decisions. For some years, the term ‘eGovernment’ [1-4] has been universally proposed as a way of closing the public administrations’ modernization and performance gap.

Hence many public administrations started with eGovernment initiatives. Most of them deal with an improvement of their websites to so called “Virtual Town Halls”. However, most of the administrations just focus on an enhanced information quality and do not take into account the reorganization potential of communication and transaction processes. But especially those eGovernment services which are fully transactional provide real added value to the customers (e.g. enhanced service quality and time saving) as well as to the municipal administration itself (e. g. cost reduction and avoidance of media breaks).

Based on this process oriented approach, eGovernment can be defined as follows: the simplification and implementation of information, communication and transaction processes, in order to achieve, by means of information and communication technol-

ogy, an administrative service, within and between authorities and, like-wise, between authorities and private individuals or companies [5]. Accordingly, eGovernment success is heavily depending on the existence and the quality of administrative services, especially those which are fully transactional.

2 Research Method

To measure eGovernment success and to find out influencing factors we conducted an empirical study [6]. The analysis takes into account two different perspectives to measure and to benchmark the quality of eGovernment activities. To ensure a representative sample in terms of a) national characteristics and b) demographic and sociological structure all investigated public administrations are settled in the same region – the “Muensterland” which is a North-Rhine Westphalian region in Germany. It comprises 1.5 million inhabitants spread out over 4 counties, one county-independent city, and 65 municipalities.

On the one hand, an external perspective was examined which deals with the citizens' and businesses' perception of eGovernment activities. This external perspective is used to define the quality of eGovernment initiatives which can be seen as dependent variable. With a catalogue of criteria the internet portals of all 66 municipality and 4 county administrations in Muensterland were analyzed. The focus of this evaluation was the “Virtual Town Hall” which is the part of the internet portal where administrative services are provided. eGovernment initiatives which provide a large quantity of administrative services were considered more successful than those who don't. Regarding a single service, those were considered more successful which offer a high interactional degree (transaction > communication > information). Furthermore, the navigation concepts to and within administrative services offered was also regarded as core element of eGovernment success. Beside the scope of administrative services the overall impression (e. g. graphical design and layout structure) of the website and the amount and quality of offered information were evaluated.

An internal perspective deals with the self-assessment of the local public administrations. The data collection was made by the use of a questionnaire which was structured into five categories concerning the following topics: a) Status-quo of eGovernment activities, b) scope of the internet portal c) software applications in use, d) perspective of future eGovernment activities, and e) organizational and technical environment concerning eGovernment activities. The questionnaire was sent to all municipality and county administrations and after two weeks of process time 56 of 70 questionnaires had been answered which results in a representative 80 % rate of return. The evaluation indicates that the questionnaires were answered by the organizational units which are responsible for eGovernment activities in the regarded administration and therefore own the essential knowledge regarding the questionnaire. This concludes adequate data-quality of the self-assessment in this empirical study. Additionally, statistical data from other state offices was used to validate information provided by each questionnaire (e. g. population in each city or county). The questionnaire was used to collect data about potential influence factors on eGovernment success which can be regarded as independent variables.

3 Potential Success Factors

Several potential success factors have been analyzed:

- 1) Organizational responsibility for eGovernment
- 2) eGovernment awareness
- 3) Budgetary funding
- 4) Organizational Change

Taking organizational change (4) as an example, successful eGovernment initiatives achieve the provision of (fully) transactional processes. But in many cases existing administrative (back office) processes are inapplicable to eGovernment. In the move of an integrated organization and information system design, the implementation of transactional eGovernment processes and the optimization of business/administrative processes are interdependent. But only about 50% of the persons in charge for eGovernment see this coherence (cp. figure 1).

The main advantages of eGovernment perceived are (still) up to date-information (88%) and better customer service (88% as well).

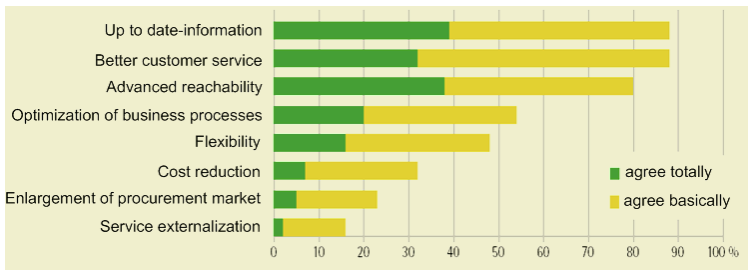


Fig. 1. Main advantages of eGovernment? [n=56].

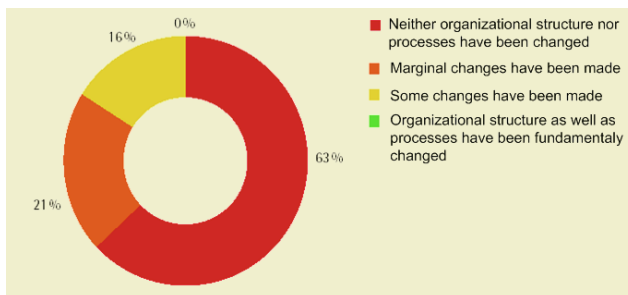


Fig. 2. Impact of eGovernment initiatives on organizational structure? [n=56].

The answers to the question “What impact had eGovernment initiatives on your organizational structure and your processes to date?” were consequent. In 84 % of the public administrations eGovernment has lead to none or only marginal changes in the processes and the organizational structure. Though in most cases existing administrative services were perceived as non-applicable to eGovernment, only 16% of the administrations have undertaken efforts to change some of the processes in the move of eGovernment. None of the administrations had its organizational structure as well as processes changed fundamentally (cp. figure 2).

4 Conclusions and Further Research

The results show that the degree of interaction of most services does not reach the level of transaction. The majority of the municipalities only describes the services (information) or provides contact information (communication). However significant benefits can only be realized when a public service offers the chance for transactions and hence becomes an eService. Before classic public services can be offered as eServices it is advisable to reorganize the underlying processes and organizational structure in the back office. Those municipal administrations which have already undertaken changes tend to perform better than those which have neither changed their organizational structure nor the underlying processes in the move of eGovernment.

As further research we intend to conduct the empirical study on a regular basis. Furthermore, we will compare our findings with other empirical studies which also address eGovernment success factors which do not directly depend on national characteristics.

References

1. Falck, M. (2002). Business Process Management - As a Method of Govern-ance. In Electronic Government, First International Conference, EGOV 2002, Aix-en-Provence, Proceedings (K. Lenk and R. Traummüller Ed.), 137-141, Springer, Berlin et al.
2. Lenk, K. (1997). Business Process Re-Engineering in the Public Sector: Opportunities and Risks. In Beyond BPR in Public Administration. Institutional Transformation in an Information Age (J. A. Taylor, I. T. M. Snellen and A. Zuurmond Ed.), 151-163, IOS Press, Amsterdam.
3. Scherlis, W. L. and Eisenberg, J. (2003). IT research, innovation, and e-government. Communications of the ACM, 46 (1), 67-68.
4. Traummüller, R. and Wimmer, M. (2001). Directions in E-Government: Processes, Portals, Knowledge. In Proceedings of the Proceedings of the DEXA International Workshop "On the Way to Electronic Government", 313-317, IEEE Computer Society Press, Los Alamitos, CA.
5. Becker, J.; Algermissen, L.; Niehaves, B. (2003): Electronic Government – Status quo and development perspectives. Working paper no. 94 - Department of information systems, University of Muenster. Muenster.
6. Becker, J.; Algermissen, L.; Delfmann, P.; Falk, T.; Niehaves, B. (2004): Virtuelles Rathaus 2004. Muenster.