Comparative Analysis of the Implementation of Business Process Management in Public Administration in Germany and Switzerland

Norbert Ahrend[1], Konrad Walser[2], and Henrik Leopold[1]

[1] Humboldt-Universität zu Berlin, Unter den Linden 6, 10099 Berlin, Germany
`norbert.ahrend|henrik.leopold@wiwi.hu-berlin.de`
[2] Bern University of Applied Sciences, Morgartenstrae 2a , Bern
`konrad.walser@bfh.ch`

Abstract. In the private sector business process management is a common and well-established practice. In the public administration in Europe, this does not hold true to the same degree. However, currently we observe some considerable challenges. Important keywords such as eGovernment, networking, interoperability, compliance and governance and their relation to the administration processes are getting increasing focus. As a result, process management is gaining importance in public administration, especially where the execution of business activities or electronic integration of the process handling is concerned. This article focuses on the different strategies used in the analysed countries. Different approaches to business process management are explored. The objective of the article is to present two case studies, Germany and Switzerland, and to examine the different ways in which these countries handle process management.

Key words: Business Process Management, Knowledge Sharing, Public Administration, Success Factors

1 Introduction

1.1 Problem Statement

If administrative action is viewed as a process, the following challenges need to be mastered. Firstly there is the aspect of networking the public administrations and their processes. In the wider context this means that the customers also need to be integrated into these processes to a greater extent in the future. Thus, the goal is to obtain a larger degree of customer orientation and a reduced workload for the administrations [1]. Last but not least the administration is confronted with a progressive technologisation of everyday life and the diffusion of information technology into the processes. This opens up new possibilities, but also poses considerable challenges that are in conflict with the paradigms of the administrative action as conducted so far [2].

From the perspective of the end customer of the public administration and where the cooperation within the administration is concerned, process management presents a special organisational challenge. Administration is first and foremost *networked action* and has been networked for years, yet this involved a great degree of media discontinuity (e.g. side-by-side use of paper files and computer databases). In this context, the following questions present themselves: Why have the initiatives for electronic integrated business process management (BPM) so far not led to a comprehensive and integrated administration process management? Is the focus of the course of action wrong? Does the problem lie in the organisational form of today's administrations? Is there a lack of willingness to modernise? From an administration perspective, there are various restrictive factors that counteract a seamless process integration or an integrated process management:

- The territorial principle, federalism and subsidiarity and lack of mechanisms for handling federal and organisational borders: The use of eGovernment and portals enable a completely new way of handling of federal borders and paradigms [3, 4, 5, 1]
- Functionally structured administrations: Administrations usually do not have a process- or customer-oriented structure [1], here Weber's bureaucratic model is of relevance [6].
- Lack of thinking beyond the horizons of the areas of responsibility/functional organisational silos of the individual employees in the administration [7]
- Seeing the IT as instrument that is to be subjected to legislative action instead of positioning IT as *enabling factor* for shaping public administration
- In large part, no political negotiation process on the topic of integrated modern administration exists; usually this is performed away from the public eye and is initiated by the IT department or the processes are independent of each other.
- *Resistance to change* on the side of the administration (employees/organisation); accompanied by the *not-invented-here* syndrome.

The current process initiatives in public administration either focus on support processes in the administration (IT, personnel, finances, procurement) or selectively on service management. Where the latter is concerned, the customers are citizens and companies that provide or receive services in account with the constitution and the legislation. However, in most cases no analysis of policy-relevant administration processes (policy making) or strategic administration processes is performed. Similarly, no clear delimitation of the management processes has so far been performed. Here a differentiation can be made between the management of the political administration, the service administration as well as the support administration [8].

An analysis of BPM in public administration also has to have an architectural basis. Here different aspects of BPM can be addressed by considering different viewpoints: Information architecture view (use and distribution of data within the process cycle), business architecture view (organisational view of the process

cycle), application architecture view (implementation of the business processes within applications and across applications), infrastructure view (technical implementation of workflows as technical representation of processes). With the architecture views and their different characteristics, the topic of interoperability also can and has to be addressed on the levels mentioned. In the end, the architectures mentioned represent different system views with different relations between the elements, be it organisational, application-specific, as well as with regard to the relevant technology components.

1.2 Objective

In essence, the purpose of this article is to make a comparison between different approaches towards implementation of BPM in public administration in Germany and Switzerland. From a methodical point of view, this comparison is of interest as the basic parameters of the endeavour are very similar in both countries (e.g. in some regards there is a high degree of federalism), yet very different approaches have been selected for the implementation.

For discussion purposes and in preparation of the country comparison, a system-theoretic approach is taken at first. It is used to discuss administration (process management) as a system, its elements and their mutual interaction with each other. These mutual interactions occur sooner or later when different approaches are used for introducing BPM. Due to different chronological courses of action, different logical mutual interactions can be observed that lead to a more or less successful BPM.

1.3 Methodical Procedure

For this article, different methodical aspects are of importance: Action research, triangulation, case study research.

The *action research* approach is a socio-scientific research method, where the researcher is directly integrated in the social process [9]. In our case this is the development of a process exchange platform[1] or the development of eGovernment standards for BPM. Using action research as basis. only a limited generalisability of the results can be achieved. However, practice-based hypotheses and implications for problem-solving can be developed. In action research, the relations between the researcher and the research subjects develop into a work relationship aimed at mutual action and reflection. The work relationship follows the cyclic research pattern described by Lewin [9]: Project planning turns into specific action, which is then monitored and evaluated jointly. This in consequence leads to a new planning phase and to the initiation of further actions. The objective of the research process is to reflect reality as accurately as possible, as well as transparency, relevance to the practice and interaction [9].

The *triangulation approach* in qualitative research is used to increase the validity and reliability of the results obtained from action research or by the means

---

[1] Start date set for summer of 2012.

of case studies. Thereby, various methods are employed. As a result, differentiated views of or different approaches to the research subject become possible. In essence, triangulation is about using the strengths of one approach to eliminate the weaknesses of the other approach. As pointed out by Denzin, triangulation has a certain proximity to mixed-method research [10]. Thereby, Denzin differentiates between four types of triangulation: *Data triangulation*: Data from different sources or different data from the same source; *Investigator triangulation*: analysis of the data by multiple researchers; *theory triangulation*: different theories are applied to the same data/the same research subject; methodological triangulation. According to Denzin [10], the methods can be combined to increase the validity and the reliability of the methods. In the case at hand, investigator triangulation and data analysis by multiple researchers are implemented in the mutual looks across the border, and a mix of written-down own experiences, studied documents, etc. is used.

With a *case study*, the researcher attempts to obtain statements about the research subject through explorative and descriptive means [11, 12]. With the description, a holistic presentation of the research subject is achieved. Case study research thus has close proximity to participatory observation or to action research. Of the different case study types that can be differentiated, we used the investigative case (stated problem method).

The following supplementary information can be provided regarding the methodical procedures used in this paper:

○ The characteristics for the comparison were derived based on a system-theoretic approach [13, 14].
○ A comparison of two countries with respect to the approach to and implementation of a comprehensive BPM in public administration follows below.
○ The comparison will be repeated - then also including other countries - on this basis after one or two years.

2 Derivation of Comparison Criteria

A lot of research has been conducted regarding BPM in public administration. For example, many system models from different viewpoints have been developed on the topic of how process management can be positioned in public administration [15].

Wimmer and Traunmüller have described the relationship between fundamental terms used in administrative activities [16]. Building on this framework the BPM expert group of the eCH association for standardisation in the field of eGovernment in Switzerland has developed a framework that derives the tasks and services (service catalogues and service architectures) of the public administration using the legislation as a starting point and that then in turn derives further processes (process maps) from this data [17]. From a systemic point of view, the process management can be interpreted as a hinge function acting across several dimensions.

In principle, administration (process management) can be represented as a system - with input and output. The input usually comes from the suppliers (private sector or other administrations) or customer requests by means of forms. The output typically takes the form of bilateral service exchanges between the customer and administration. The elements of the BPM system, which is determined by the input and output as well as by the system limits, respectively exist on each organisational level of the administration, such as German Federal Government/federal states/local authorities or Swiss Confederation/cantons/municipalities. The division of tasks between these elements and the relationships are clearly defined in accordance with the constitution, legislation, and directives (subsidiarity). These determine the tasks of the administration, which can in turn be accessed through services.

From a technological point of view, this system includes methods, tools (for the BPM as well as for the technical implementation of business processes) that are in turn used by the administrative units. The system of process management in turn is determined by means of external factors: Politics, market, justice system.

From the presented system we can derive certain comparison criteria for the case studies at hand. Adding a consideration of the remaining challenges, we will focus on the following four criteria:

- Framework conditions (politics, justice system, culture and market)
- Methods and standards
- Tools (modelling, application and implementation tools for process management)
- Challenges

In the following two case studies, significant criteria were examined to describe the respective status of BPM in the countries.

3 Case Studies and their Comparison

3.1 Germany

The different initiatives in Germany that support BPM in the public administration cannot all be examined in their entirety here. Nevertheless, an overview based on the criteria mentioned can be provided.

Framework Conditions. In the political decision-making process, the processes of administrative action and the idea of process management are gaining foothold [18]. Corresponding decision-making processes take place in political committees that get impulses from the administration. Consensus-building or grass-roots democracy elements as part of the decision-making, as implemented in Switzerland, do not play any role within this context.

To safeguard cooperation and thus also the interoperability, agreements are made between the Federal Government and the federal states, as well as between

the federal states and the local authorities. The IT-Planungsrat (German IT planning board) is an important element of this agreement process[2]. The relevant interaction with the so-called conference of ministers in the respective fields have however not yet reached the level of maturity required for effective structuring of cross-institutional and cross-level cooperation. On the respective levels, standards[3] exist, however, these do not comprehensively and/or exclusively cover the topic of BPM.

The existing management structures and paradigms do not fundamentally prevent a successful implementation of BPM in public administration in Germany. However, those who are immediately affected still largely exhibit lack of understanding that BPM is a management discipline, also within the field of public management. This becomes even more apparent if a management function, e.g. organising in the sense of decision-making, is delegated to a special unit within the administration and those employed there cannot or should not perform this function. Nevertheless external factors act on the system and can cause an acceleration of the implementation of the BPM approach. The German Federal Government and the federal states have set themselves significant consolidation targets by means of the *Schuldenbremse*[4] (debt brake); this means the administrations have to slim down considerably. This can only be achieved by means of automation of the business processes (among other measures). The European financial and debt crisis is likely to accelerate this process even further. Simultaneously, the demographic developments in Germany are creating an enormous pressure to preserve the expertise of employees who leave the organisation. This expertise can be preserved in process modules, with the additional benefit that this creates a basis for redesigning the processes, if this should become necessary.

Methods and Standards. Processes and process management today play an important role in a whole range of beacon projects. As early as the year 2000, a *BPM Virtual Community* was set up and operated at the FHVR (University of Applied Sciences for Administration and Law). This project marked the first cross-institutional possibility for exchanging process expertise in Germany. Subsequently and as supplements, cross-institutional registers (of the federal state authorities and local authorities) were set up in the federal states of Schleswig-Holstein and Saxony within the scope of the implementation of the EC Services Directive (2006/123/EC) in 2009. However, owing to the content of the directive, the primary focus of these registers is (currently still) local processes. In November 2010, the KGSt[5] followed suit with their process library for communal processes,

---

[2] In essence, this is also a committee that mediate across federal, federal state and municipal levels, see http://www.it-planungsrat.de/ DE/ITPlanungsrat/itPlanungsrat_node.html.

[3] SAGA 5.0 on Federal Government level; standard specifications in system concepts of federal states or by means of explicit standards of the federal states, FAMOS as modelling standard of KGSt on the local/municipal level.

[4] http://www.bundesregierung.de/static/flash/schuldenbremse/index.html

[5] Kommunale Gemeinschaftsstelle für Verwaltungsmanagement (German local government association for municipal administration); www.kgst.de.

however this is restricted to the members of the KGSt. On Federal Government level, only the BMI (German Federal Ministry of the Interior) has within its departments a process platform that has been designed to be cross-institutional and that is also being used as such. Within the individual administrations or authorities on Federal Government, federal state and local level, process analyses have been conducted with relation to specific eGovernment projects. However, currently sustainable process management can only be found in a few individual cases. For example, within the Federal Employment Agency, an end-to-end BPM has been established through implementation of a service-oriented architecture[6].

Tools. The NPB [7] (National Process Library) is the first attempt at implementing a comprehensive cross-institutional and cross-level approach. A conscious decision was made not to enforce (standardised) restrictions with regard to tools or methods, in order to make sure that at least this aspect does not restrict the exchange of process expertise. The initiators of this endeavour are aware of the fact that standardization is unavoidable in the medium or long term. However, the intention is to let this standard take shape in an open process in which suitable methods and tools for the different aspects of the process management can establish themselves.

In this context the xProzess interface of XÖV (project for standardisation of XML in public administration) deserves special mention. This interface makes it possible to integrate existing and future registers (for example, there are plans for connecting the federal state of Saxony and its process library to the NPB). Furthermore, all BPM tool manufacturers in the German-speaking region will implement this standard and integrate it into their tools[8]. Through the bidirectional usage options for tools and manufacturers that this offers, the establishment of the BPM approach in public administration is supported significantly.

Challenges. In the process management system, the employees of the administrative unit, both as affected parties and as participating parties, play a significant role. They provide expertise to and are users of the respective systems. In the field of knowledge management in general and in process management in particular, the externalisation of process expertise can be seen as the biggest challenge. There is still a great need for further research on how the corresponding restraints can be overcome, in particular under the framework conditions present in public administration.

Finally, it can be said that currently BPM is still, to too large an extent, being initiated by the IT departments of the individual administrations and, on the other hand, the support provided by the executive personnel is not adequate. The initiatives mentioned in this article do not change this basic finding in any way.

---

[6] http://www.arbeitsagentur.de/nn_387830/Dienststellen/besondere-Dst/ITSYS/IT-Themen-und-Projekte/SOA-ROBASO.html

[7] Research and development project at the Humboldt-Universität zu Berlin, commissioned by the Federal Ministry of the Interior: http://www.prozessbibliothek.de.

[8] The manufacturers have furthermore committed themselves to providing the administrations with editors free of charge (in some cases with reduced functionality).

3.2 Switzerland

Using the system model as a starting point, there are several initiatives in Switzerland that support BPM. In the text that follows, selected aspects are examined using the description criteria for process management as a system in public administration.

Framework Conditions. Switzerland is based on consensus-oriented democracy and opinion formation. Agreements for safeguarding the collaboration are made between the Confederation and cantons, as well as between cantons and municipalities. Within the scope of the framework agreement of the Conference of the Cantonal Government (CCG) (2007), eCH standards are declared to be binding for the joint eGovernment project. Thus, in the end, the interoperability is provided for in all dimensions, as eCH standards implicitly form the basis for the interoperability. The mentioned agreements between the Confederation and cantons, as well as between cantons and their municipalities (the latter is not yet the case for all cantons) also ensure that the internal borders are no obstacles any more, at least not where the cross-border cooperation is concerned.

eCH has been set up as eGovernment standardisation body (association). eCH approves standards that have typically been developed in expert groups, although these standards are not legally binding. eCH offers the expert groups the opportunity to involve manufacturers, users etc. in the standardisation, by means of public-private partnerships, and to thus further the diffusion of the standards on a voluntary basis. Furthermore an agreement on eGovernment cooperation between the Confederation and the cantons require that eCH standards are binding within the cross-institutional e-government[19].

In various beacon projects regarding the handling of BPM, for example at the Swiss Federal Department of Foreign Affairs (FDFA), at the Federal Office for Agriculture (FOAG), or at the Federal Office of Police (fedpol), it has been proven that BPM is a suitable instrument for supporting architecture management, the Internal Controlling System (ICS), as well as for personnel management.

Methods and Standards. By means of the eCH standardisations[9], a comprehensive basis for the introduction of end-to-end BPM has been created. The eCH standards for business process management are divided into a framework, descriptive standards, reference directories and help documents. It has to be emphasized that eCH has specified BPMN 2.0 as descriptive language. The tools for BPMN use have not been standardised. Starting with the eGovernment strategy of Switzerland as a basis, the focus has been placed on customer-oriented governance. This means that the private business sector can conduct all communication with the authorities electronically; the authorities communicate with each other electronically; the general public can conduct important formalities with the authorities electronically [20].

---

[9] For information on BPM-relevant standards, see www.ech.ch for the following documents: eCH-0126, eCH-0138, eCH-0139, eCH-0073, eCH-0140, eCH-0141, eCH-0088, eCH-0049, eCH-0070, eCH-0074, eCH-0096
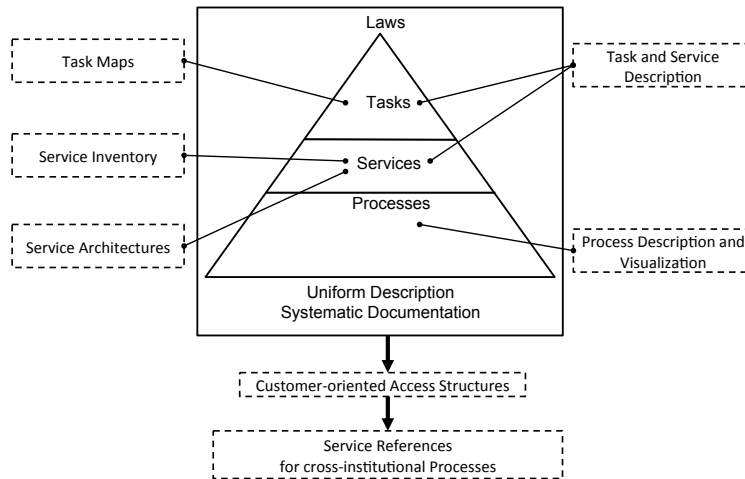
Fig. 1. BPM Ecosystem, in account with eCH-0138 [17]

It is also crucial to eCH that selected federal offices and canton representatives participate in the eCH expert group for business processes. These include the Federal IT Steering Unit (FITSU: chief of the expert group, division for corporate and eGovernment architecture), the Federal Chancellery, the SECO (State Secretariat for Economic Affairs) the cantons of Basel (city) and Aargau, as well as Zurich, tool providers, consulting services and software companies involved in BPM, as well as members of academic institutions (universities and applied science universities).

The eCH export group has structured the actual standards (see footnote earlier) in account with Figure 1. Based on the legislation, the tasks, services, processes, and appropriate access structures are structured using inventories and architectures. The strategic thrust of all these initiatives has been defined in the document *Vernetzte Verwaltung* [1] within the context of the modernisation of public administration.

In the so-called prioritised eGovernment projects, the BPM standards are also used almost exclusively[21]. With this approach, Switzerland has succeeded in setting up a *BPM ecosystem*. However, this cannot be considered to be equal to a successful implementation of the BPM approach. Instead, it provides the prerequisites for achieving organisational changes towards process orientation within the administrative units themselves. From the current point of view, this seems to be a very slow process.

Tools. In addition to these standard specifications, Switzerland is now - after an earlier attempt - setting up a process exchange platform . The platform http://www.ech-bpm.ch/de (in addition to www.ech.ch) already makes some content available (project guidelines for BPM implementation, BPM starter kit, etc.). The focus lies on the distribution of the eGov BPM starter kit.

Challenges. A continuous harmonisation with the corporate architecture man-

agement, which falls in the area of responsibility of the Federal IT Steering Unit (FITSU), is of central importance for the Swiss endeavour. The corresponding eCH expert group SEAC closely cooperates with the BPM expert group of eCH on the topic of harmonisation. The SEAC expert group also develops and publishes a range of standards on architecture management for eGovernment (among others).

It should be mentioned that the coordinated initiatives in the fields of BPM and architecture are currently mostly technology-driven and are only inadequately being supported by the management of the administrations. This is one of the possible reasons for the slow progress of BPM in public administration, as many executives do not give full commitment to such initiatives and BPM thus does not become a strategic initiative of the respective administrations. Furthermore, the BPM and architecture initiatives are being pushed by the Federal IT Steering Unit (FITSU), which is associated more with informatics than with management in the public administration.

4 Comparison of the Case Studies

BPM has reached the practice in public administration. The diffusion is not very high yet, but various initiatives are in progress on all federal levels in Germany and Switzerland.

Framework Conditions. In general, we did not observe a significant impact of the framework conditions. In Germany, the structure of the public administration is frequently used as justification for the current state of affairs and thus is one of the most significant de facto obstacles for a faster implementation of the BPM approach. However, when it comes to the business model, Germany closely cooperates with the providers - a sensible approach - and pro-actively negotiates with various participants, for example regarding integration of platforms of the federal states (for example, connection of the Free State of Saxony is in planning) or other BPM platforms.

Although Switzerland is based on consensus-oriented democracy, the structure of the public administration is similar to Germany. However, the size of the overall population cannot be denied as an influencing factor. Similarly to Germany, also Switzerland follows a partner-oriented approach by introducing the eCH standards.

Methods and standards. The most significant differences can be found in the form and procedures of the standardisation. In both countries, the approaches in part also have political backing. This has to be strengthened in future, as the political support and the support of the management of the administrative units are central success factors for the introduction of BPM. Past initiatives lacked this political support and thus finally withered away.

Switzerland chose to build on standardisation and on designing the process management in the form of a BPM ecosystem. Where the standards are concerned, the uniform specification of BPMN as modelling standard is an important aspect.

As in Germany, no restriction to a certain tool has been specified. Now, after the first wave of standardisation, Switzerland is following a logically consistent path by setting up and providing a process exchange platform to allow exchange of process expertise across all institutions and levels.

Whereas Switzerland is first implementing a comprehensive standardisation initiative (BPM ecosystem) and then building a process exchange platform on this foundation, Germany is pursuing the path of first setting up a process exchange platform and hoping that standardisation (with regard to notation) will slowly but surely occur in consequence. This strategy could be successful, solely on account of the power of accomplished facts. Facts are for example created by the *Nationale Prozessbibliothek* (National Process Library), which is in an advanced state of completion.

Tools. In both countries, initiatives for developing process exchange platforms have been started recently. Germany is taking a more pragmatic approach and is first setting up a process exchange platform. This process is accompanied by standardisation efforts (in particular of interfaces), however, this does not constitute an integrated complete model or strategic action. In Germany, skilled negotiation with all relevant providers of BPM tools resulted in viewers and simple modellers being available free of charge from the NPB. These issues have not been solved in Switzerland yet. Germany is furthermore counting on the xProzess standard interface definition, based on the xÖV family, for process exchange.

Challenges. One aspect that is more or less dominant in both cases is the mostly technical approach to the BPM topic. Those responsible for management have to take charge and create a culture of process orientation and overcoming silos (*mental change*). Currently the BPM implementation of both countries can be said as being too heavily *bottom-to-top*, furthermore it has a too strong technical focus.

5 Conclusion

In this paper we investigated the BPM implementation in the public administration of Germany and Switzerland. Therefore, we conducted and compared two case studies with a set of systematically derived comparison criteria. We found that Switzerland is ahead of Germany where standardisation is concerned, Germany on the other hand has a wide range of free tools available for the process management. Currently it is not possible to predict which approach will be potentially more successful in the long run. Germany definitely has to invest more effort where standardisation is concerned, Switzerland has to strive to enter into similarly self-confident negotiations with the suppliers of BPM(N) tools as those conducted by Germany.

Based on the research subject and the small number of case studies, it is not possible to make generalisable statements. It is planned to include Austria and other countries in future analyses. This might yield information on which

factors contribute to a successful end-to-end BPM in public administration. Furthermore, working from hypotheses that can be derived from this article, further research can be initiated, and a further systematisation of the comparison can be attempted.

References

1. Lenk, K., Schuppan, T., Schaffroth, M.: Vernetzte verwaltung. organisationskonzept für ein föderales e-government schweiz. (2010)
2. S.Schulz, Schuppan, T.: Development of a european framework for e-government competences. In: FTVI/FTRI. (2012) 47–58
3. Gibbins, R.: Federalism in a digital world. Canadian Journal of Political Science **33**(12) (2000) 667–689
4. Schuppan, T.: Structural change through e-government: Local experiences from germany. (2008)
5. Schuppan, T.: The territorial dimension in the e-government era: Experiences from german public administration. (2010)
6. Weber, M., G.Roth, C.Wittich: Wirtschaft und Gesellschaft:. Economy and Society: An Outline of Interpretive Sociology. California University (1978)
7. Bannister, F.: Dismantling the silos: extracting new value from it investments in public administration. Inf. Syst. J. **11**(1) (2001)
8. Walser, K.: Architectural principles for e-government business and application architectures based on an e-government business process reference model. proceedings der metteg2012, belgrad, 3. - 6. juli 2012. belgrad. (2012)
9. Lewin, K.: Tatforschung und minderheitenprobleme. Weiß-Lewin, G. (Hrsg.): Die Lösung sozialer Konflikte. Ausgewählte Abhandlungen über Gruppendynamik. Christian-Verlag, Bad Nauheim. (1953)
10. Denzin, N.: The research act in sociology: A theoretical introduction to sociological methods. (1970)
11. Eisenhardt, K.M.: Building theories from case study research. Academy of Management Review **14**(4) (1989) 532–550
12. Yin, R.K.: Case Study Research : Design and Methods. 3 edn. Applied Social Research Methods Series. Sage, Thousand Oaks (2003)
13. Bertalanffy, L.v.: General system theoria: A new approach tot he unity of science. Human Biology **23**(12) (1951) 302–361
14. Bertalanffy, L.v.: Vorläufer und begründer der systemtheorie. Kurzrock, R. (Hrsg.): Systemtheorie (1972) 17–82
15. Becker, J., Hofmann, S., Jurisch, M., Knackstedt, R., Krcmar, H., Räckers, M., Thome, I., Wolf, P.: Prozessorientierte verwaltung - status quo und forschungslücken. In: FTVI/FTRI. (2012) 61–72
16. Traunmüller, R., Wimmer, M.: Online one-stop government. Wirtschaftsinformatik **47**(5) (2005) 383–386
17. Schaffroth, C.D.M.: ech-0138 rahmenkonzept zur beschreibung und dokumentation von aufgaben, leistungen, prozessen und zugangsstrukturen der öffentlichen verwaltung der schweiz. (2012)
18. German Government: Regierungsprogramm 2009-2013 (2012)
19. Konferenz der Kantonsregierungen KDK: öffentlich-rechtliche rahmenvereinbarung über die e-government-zusammenarbeit in der schweiz 2007–2011 (2007)
20. Schweiz: E-Government Strategie Schweiz 2007-2011 (2007)
21. E-Government Schweiz: Katalog Priorisierter Vorhaben (2012)