Impact of Organizational Factors on Information System Project

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Abstract—This paper explores the impact of organizational factors on a major information system project in a governmental organization in Norway. The study revealed that the predominant organizational factors include; authoritarian style, functional structure, and a working culture that values conformity and loyalty upwards and is resistant to knowledge sharing. These factors are deeply rooted in the procedures, work-flows, minds and hearts of people and limit anorganization's ability to involve, align and manage project key-stakeholders. The results also suggest that project management competence in the owner organization iskey for addressing or reducing the impact of these factors.

Keywords—requirements management; user involvement; organizational factors; organizational culture; information systems projects

I. INTRODUCTION

The purpose of this research is to explore the impact of organizational factors on project outcome in a governmental organization in Norway. We shall base our findings on a case study that describes the development and deployment of a large-scale office management system. For the purpose of adhering to the informant's request forfull anonymity, we shall refer to this organization hereafter as'the Ministry'. The Ministry has a threefold structure: 1) The political body, representing the interests, aspirations and objectives of the political leadership of the Ministry; 2) The administrative body representing the rules, regulations, and constraints set by the civil servants. 3) The professional structure, representing the needs, expectations, work flow and processes of the experts assigned to different posts in the ministry.

These bodies have diverse, and to a degree conflicting, expectations, different working cultures and different approaches to leadership styles. This diversity, combined with a lack of competence in managing information technology projects, may further complicate the project and lead to project complications, cost overrun, delays and frustration among administration and specialists because of lack of real involvement.

The focus of this paper is therefore to examine the organizational factors that affected the Ministry's ability to perform proper project management in particular during the early phase, and the requirements elicitation phase. Project requirements management is concerned with structuring and defining good practices for elicitation, analysis, specification, validation and controlling projectrequirements [1], [2]. The elicitation phase includes important tasks such as:defining vision and scope, identifyingend-user classes, establishing reference or focus groups, collecting requirements through several methods such as observation, interviews, apprenticing, work shop and so forth [1]. Therefore, establishing a proper context for performing project requirements management from the project owner's perspective should be seen as an integral part of the project effort. Our starting point is that these organizational factors hindered the Ministry's ability to adhere to recommended project management practices during the implementation of its IT projects, as stated by literature [3]

The research is exploratory and is based on interviewing the key stakeholders of a major information technology project that has beenconducted in the Ministry.Understanding these organizational factors would be beneficial for similar governmental organizations. Hopefully, understanding these factors and their impact should help the leadership to take proper measures in order to avoid the adverse consequences of these factors in future projects.

II. LITERATURE REVIEW

Broadly speaking, current project management literature distinguishes between three important categories of interrelated challenges that complicate aproject requirements phase.

A. End-User-Related Factors.

The end-user is the group or individual who makes use of acompleted product. Project success from the end-user's perspective is seen as the project's ability to satisfy their needs, wants and expectations [4]. These needs may take the form of practical requirements and standin vivid contrast to those of the project owner [5]. In the project management literature there is a consensus that the effective involvement of end-users is of a paramount importance to ensure success, see for example [6]-[8]. Effective involvement of end-users can, however, be

easier said than done. Resnick [9] for instance, points to organizational flaws, and has shown that in many situations the end-users are simply not given enough time to contribute to this phase because they are overloaded with other tasks and priorities. This paper will examine the organizational factors that have contributed to problems regarding involving end-users.

B. The Performing Project Organization

The performing organization represents the organization that is responsible for the detailed planning and execution of aproject [10]. Project management practices are designed to achievea desired project outcome [11]. There isextensive and intensive research described in project management literature, regarding good practices in managing projects, including stakeholder management [12], risk management [13], communication [14], human resource management [15], project manager skills [16], performance measurements [6]. A lack of competence within aperforming organization can impact itsability to handle issues such as 1) uncertainty about the intended use/operational scenarios of the product [17], uncertainty in projects is often cited as a lack of "true" knowledge [18], 2) multiplicity of stakeholders and their expectations ofthe project outcome [19], resulting in complications regarding prioritization and selection of requirements, and finally difficulties associated with ambiguity and clarity of requirements expressed by end-users and other stakeholders [2], [20]-[23]. Commitment of resources, selection of project leader, assignment of the proper authority level, provision ofsupport and the creation ofaccountability aresome of the measures the project owner's organization could useto provide the right structure for the performing organization to fulfill its obligations and deliver the project as intended.

C. Project Owner Related Factors

The project owner represents the parent organization that ordered the project and provides thenecessary financial resources. The owner's main tasks areto perform governance, in terms of keeping the project aligned with the organization's strategy, keep astrong focus on the realization of benefits, provide feedback, commit necessary resources, create commitments, and to oversee the project, following the performing organization. Findings by Basu, et al. [24] suggest that the involvement of top management fromthe owner organization is of paramount importance for successful implementation of major IT projects, andseems to be more important than the project organizations involvement.

Early involvement of stakeholders means a better and more complete understanding of the project's impact on the organization. Basu, et al. [24] warns about "over planning" at the start of a project, however. There must be a carefulbalance between planning in relation to resource consumption. Hong and Kim [25] demonstrated that as far as major projects are concerned, an organization is not always prepared or adapted, culturally or organizationally

for the deliverables of the project will deliver. They showed that there are few organizations with an organizational structure that is prepared for the changes that the introduction of large complex projects entails. Project owner organization should therefore consider the project as a broad introduction of organizational changes, rather than simply an installation of technical software.

As suggested above, organizational challenges such as structure and culture affect an organization's ability to organizeand manage the requirements management process. This paper addresses organizational factors in project owner organization such as culture, hierarchy, knowledge and power structure, and examines their impact on the outcome of aproject.

III. CASE: OFFICE MANAGEMENT SYSTEM

The Ministry realized that, in order to communicate effectively with the outside world, improvements should be done. It was more or less external conditions and factors that "forced" the Ministry to re-evaluate and look for new technologies. In 1999, a number of initiatives to strengthen the use of information technology in the Ministry were proposed. Among these initiatives was the introduction of an electronic office management system.

The core business of the Ministry is gathering, producing and disseminating information to the right people in a timely fashion. Huge amounts of memos, notes and documents are therefore produced and channeled each year. For example, the Ministry produced around 98,000 documents that were archive-worthy in 2002 alone.

There were great expectations among the employees of the new office management system. They were promised that the new system would lead to more efficient and faster processing, easier archiving, and faster searches for documents.

In 2001, the Ministry signed a contract with an external provider to develop and install the system. From summer 2002 to winter 2003 work included the documentation of existing work processes and procedures in the Ministry. Our findings show that neither the employees nor the development department were truly involved in this phase. The project was managed by a project manager from the system provider with no genuine knowledge about the work process, culture or power structure in the Ministry. This suggests that the task of modeling the work process in the organization had been underestimated by both the project steering committee (representing the interest of the Ministry) and the system-provider.

According to the original project plan, a pilot version of the new office management system was supposed to be launched in May 2003, and the system introducedto the rest of the organization by 01.01.2004. However, it was quickly discovered, after introducing the pilot version, that the system did not live up to the expectations.

After this failedattempt, the task of documenting and modeling the work processes in the Ministry had to be

restarted. This task was re-worked from summer 2003 to April 2004. The system-provider then claimed that the new solution was tailored to the Ministry's needs. However, it was quickly discovered that this was not true and parts of this new system were in fact still under development. The system-provider also required the Ministry to upgrade its information system infrastructure.

In autumn 2004 a prototype of the office management system was launched and ran in parallel while the infrastructure of the Ministry was upgraded. In the summer of 2005, an evaluation of the new system was carried out and concluded that full deployment of the new system should take place in spite of there being different interpretations of this evaluation. Many (including external experts) believed that the system was not yet fully tested and had many "infant ailments". However, there was a lot of invested prestige in the project and the project owner wanted to show "vigor". The decision to rollout the system was taken by the Minister himself, despite recommendations to the contrary. There was a rush to get the system implemented with no additional testing. The Ministry was very "voracious" about introducing information technology tools. Full deployment of the new office management system began in September 2005 and by June 2006 it was available to all executive officers and managers in the Ministry.

From its deployment in June 2006 until 2012, the system faced criticism and massive opposition from employees at all levels in the ministry. End user evaluations of the system suggested three major operational problems; 1) the system was not user friendly, 2) the system was hard to navigate, and it was hard to find documents, and 3) it was not intuitive. The employees indicated, through several user surveys, that the new system was practically useless in their daily work. Despite improvements and simplifications in recent years, criticisms by end users have not declined. Most of the Ministry's staff only use the system occasionally. The number of archived documents has reduced drastically, from 98,000 in 2002 to 66,000 in 2010.

Large amounts of resources, both human and financial, have been used to solve problems in the wake of the massive criticism and resistance from users. The result is that still, after 10 years of trial and error and an estimated price tag of 150 million Norwegian kroner the project has failed to meet the expectations of end users. In 2012 the Ministry decided to redevelop the entire system, and has selected a new IT solution to be implemented in 2013/14.

This case study reflects in many ways how the Ministry organizes and run projects:

- Projects lack effective adherence to the structured requirements management process, including lack of stakeholder profiling, no robust processes or mechanisms for insuring tangible end-user involvement, a lack of measurability for project objectives, lack of proper frames for measuring and evaluating project outcome.

- External project managers appointed or selected have little knowledge about the Ministry.
- Internal project managers have little or no competence in project management.
- There is a lack of alignment on all levels.
- There is an unhealthy relationship with the systemprovider, in the sense that theywere virtually given the freedom to identify and interpret the organization's needs the way they saw it, with no means of follow up and control from the owner.
- There is a lack of proper, measurable definition of project success criteria.

The consequences were:

- Most projects in the Ministry produce a lot of frustration and resistance in the Ministry.
- The Ministry is not prepared for the outcome of projects regarding changes to work routines effected by the introduction of the new system.
- There are endless adjustments and changes to the scope of work and to infra-structure. Some of these changes are not founded on real needs.
- There are significant cost overruns.
- There are diverse interpretations of results and performance.
- There is no shared understanding of what type of changes the final product will introduce in the Ministry.

IV. EMPIRICAL SURVEY

To investigate the underlying causes ofthe poor project governance during the requirements gathering and development,sixunstructured interviews were conducted. Each informant had about 60 minutes to talk freely about their experience with the project,however they were encouraged to focus particularly on issues related to structural and cultural aspects in the Ministry that might have impacted the performance and outcome. They were asked to talk about challenges they faced, especially in connection with the project,andillustrated with concrete examples.

The interviews were conducted at a neutral location, such as a cafe or in a meeting room or viatelephone, due to travel commitments. The informants requested full anonymity. Thereis a deep-seated skepticism aboutopenness in the Ministry, particularly regarding problematic issues. One informant eloquently put it this way:

"A painful subject to talk about."

V. ANALYSIS AND DISCUSSION

A. *System Related Factors*

Ourfindings have shown that there areseveral factors that inhibit the Ministry's ability to perform proper management, including:

1) *Functional Structure.*

The organizational structure is hierarchical, and has a strong focus on functional assignments. This structure influences how resources (financial and human) are allocated and prioritized. As noted by many authors Kerzner [26], Meredith and Mantel [27] and Pinto [28], this type of organization structure is the most common, and has existed for more than two centuries [26]. It is preferred by many organizations because it maintains intellectual capital by grouping similar expertise under one department [27]. But this form may not be well suited to performing cross-divisional project assignments because each department tends to overly focus on their own needs and interests in the project [28]. Evidently, the development and introduction of a new office management system is a project that will impact several structures in the Ministry (the administrative, the specialized as well the political structures) and therefore it is of a multidisciplinary nature and requires a more structured and holistic approach during planning, implementation and deployment. As noted by Meredith and Mantel [27], such a structure does not facilitate a holistic approach to projects because the cross-divisional communication and sharing of knowledge is slow and difficult at best.

2) Authoritarian Style

Our findings have shown that an authoritarian management style and a "top-down" approach were used in the project to communicate important decisions. Both the political and the administrative leadership of the Ministry exercised pressure to deploy the new office management system, despite warnings that this was risky. Although autocratic style permits quick decision-making, informants have pointed out that they did not feel that their voices wereheard and that they felt that this style was not appropriate to the type of project assignment. Prabhakar [29] examined the impact of leadership styles on project success and concluded that leaders who employ transformational leadership (a conscious ability to maneuver from one leadership approach to another) and hold subordinates trust, maintain their faith and respect andappeal to their expectations enjoy more project success. Thite [30] recognized that there is no leadership style that is effective in all project situations, their study recommends a more flexible style in managing information systems projects.This was not the case in the project. The authoritarianstyle impacted the Ministry's ability to align the project both upwards and downwards. Several authors have stressed the importance of seeingprojects as tools for value creation in the organization [31]-[33]. In this respect, the findings suggest that there is a weak or missing alignment between the project and the ambitious plan of restructuring the entire ministry. Failing to connect the IT project to higher level objectives may explain the reason behind the lack ofenthusiasm and commitment, and to a high degree the resistance against the project in the Ministry. Basu, et al. [24]suggest that the involvement of top management is of paramount importance for successful implementation of major IT projects. Their involvement seems to be more important than the project organizations involvement. Real alignment in top management was not present.

B. Lack of Project Management Comptence

Hong and Kim [25] demonstrated that the early phase and preparation is important for project success. This is especially true in connection with major projects that will require changes in anorganization. It is very important that management understands the organization's structure and needs in order to succeed in the implementation of complex projects where deliveries will have a direct impact on working methods and organization. They have stressed that the successful implementation of IT systems require that the organization has a structure that is adapted to the changes. This requires management to commit to the project as a means for organizational changes, rather than simply the installation of technical software [34, 35]. A lack of competence was also reflected in the selection of internal project managers for overseeing the project, communicating with contractors and so forth. Informants stated that the Ministry's management or steering committee did not understand the needs of the organization. The interviews showed that a principal shortcoming was that the project did not take into account the changes that hadto be implemented in the organization to get the system to work. The department responsible for organizational development was not included in the crucial early stages. The first came in, after much pressure and many negotiations, very late in the project process. This resulted in a lot of resistance from the organization in connection with the implementation and use of the system The organization was not prepared nor organized in relation to the changes in the system which would lead to new ways of working. According to Hong and Kim [25] this situation is prevalent in information technology industry. They have reported that three out of four organizations have similar problems with changes.

C. Cultural Challenges:

Pinto [28] describes organizational culture as the third contextual variable in the degree to which projects are managed effectively. Culture is the unwritten rules of behaviors or norms that are shared by a subset of anorganization, and which shape and guide the behavior of employees [28]. Culture, according to [28], is a product of many factors including; the type of work, environment, geography, reward systems, procedures, key members, and critical incidents. All these factors shape the working culture of an organization and therefore changing the organizational culture is not just a matter of will. Organizational culture affects how departments are expected to interact, it influences the level of employee commitment to the goals of aproject, influences the project planning process and finally influences how managers evaluate the performance.

Ourfindings show that the work culture in the Ministry could be described throughtwo features:

1) Conformist working culture

Ourfindings have shown that organizational culture is obstacle to effective involvement of end-users in the Ministry. The career promotion mechanism (reward system) in the Ministry may also have impacted its organizational culture and created another culture of diffidence and forced loyalty upwards. The questions is how to overcome this "diffidence culture", which seems to be inhibitory in the requirements process where new and possibly unpopular decisions has to be taken. This culture in the Ministry seems to prevent real and effective decision making. The threshold for describing "where the shoe pinches" should have been lower.

2) Resistance to change

According to the informants, the prevailing culture in the Ministry is a culture which rarely promotes innovation and new thinking. Neumann and Leira [36] studied several cases of organizational change in the Ministry and their conclusion was that changes in the Ministry, in each case, came from outside and not from the organization itself. The Ministry has a tradition and work culture that fights for the status quo. Such a work culture inhibits the introduction of new ways of working. This appeared in the highest degree in connection with the introduction of the new office management system.

One reason that the project was not accepted was resistance within the Ministry. This was also affiliated with power structure. The top administrative leader and several older expeditionary leaders decided it was not necessary to learn the office management system and continued to send handwritten memos and instructions to their secretaries to type. In the wake of this resistance to new working methods, several other departments completely sabotaged the project because top management did not find it necessary to use the system themselves. In the Ministry, the type of work conducted is quite complex and is knowledge-based, and of a political and cross-cultural nature, and therefore persevering relationships, and stability is of vital importance. This cultural factor perhaps explains skepticism in the organization to the new system. The ability to share knowledge and information is a characteristic of an organization's work culture. Interviews suggested that there is culture of holding information. Milne [37] emphasized that one of the biggest challenges for a knowledge organization is Knowledge sharing is. According to the author "it is the fundamental requirement of a knowledge-based organization, and in particular, organizations where there is a fortified culture among staff to safeguard information, rather than sharing it with others.

VI. CONCLUSIONS

Our findings have shown that the compound effect of the structure, level of competence and working culture in the ministry greatly influenced the performance and outcome of the case study project in particular:

- *The level of involvement of the end-users during early phase.*

The findings suggest that a major obstacle to end-user involvement is a combination of the conformist working culture in the organization and the total lack of project management competence in the Ministry. The career promotion mechanism (reward system) in the Ministry may also have impacted the organizational culture and created a culture of diffidence and forced conformity and hierarchical loyalty. This culture seems, therefore, to prevent real and effective involvement.

- *Ability to prepare and commit the entire organization for the changes brought by the new system*

The findings suggest that a combination of the authoritarian style and the inherent culture of resistance to changes in the organization have impacted the Ministry's ability to effectively prepare and commit stakeholders to the project and the changes it wouldcreate in the organization. Failing to align the project both upwards and downwards explains the lack of enthusiasm and the resistance tothe project during planning and deployment. The type of work conducted in the Ministry is quite complex and is of a political and cross-cultural nature and therefore persevering relationships, and stability is of vital importance. This cultural factor perhapsexplains the skepticism to the new system in the organization.

- *Ability to take managerial decisions based on holistic understanding of the project.*

The three-fold power structure in the Ministry produced a rigid authoritarian and functional management structure that directly impacted both the organizational ability to provide support, resources and means to plan and execute according to best practices. The structure has a strong focus on assignments and this focus influenced the wayresources (financial and human) were allocated and prioritized to the project. Our findings here are also consistent with the project management literature which confirms that this structure does not facilitate a holistic approach to the project because the cross-divisional communication and sharing of knowledge is slow and difficult at best. A total lack of competence about the principles of the project also created a situation that made it difficult for the steering group to exercise control. This lack of steering and control was also reflected in the selection of internal project managers for overseeing the project and communicating with contractors..

This case study has shown that in governmental organizations the impact of structural and cultural factors should not be underestimated. These factors are deeply rooted in the procedures, work-flows, minds and hearts of people and limit an organization's ability to involve, align and manage key stakeholders in an appropriate manner. Our results also suggest that project management competence in the owner organization is key to addressing the impact of cultural and structural factors.

REFERENCE

[1] K. E. Wiegers, *Software requirements : practical techniques for gathering and managing requirements throughout the product development cycle*. Redmond, Wash.: Microsoft Press, 2003.

[2] R. R. Young, *Project requirements : a guide to best practices*. Vienna, Va.: Management Concepts, 2006.

[3] C. Marnewick and L. Labuschagne, "An investigation into the governance of information technology projects in South Africa," *International Journal of Project Management,* vol. 29, pp. 661-670, 2011.

[4] PMI, *A guide to the project management body of knowledge: (PMBOK guide)*. Atlanta: Project Management Institute, 2013.

[5] A. K. Munns and B. F. Bjeirmi, "The role of project management in achieving project success," *International Journal of Project Management,* vol. 14, pp. 81-87, 1996.

[6] T. Cooke-Davies, "The "real" success factors on projects," *International Journal of Project Management,* vol. 20, pp. 185-190, 2002.

[7] M. Geddes, "Project leadership and the involvement of users in IT projects," *International Journal of Project Management,* vol. 8, pp. 214-216, 1990.

[8] S. Blili, L. Raymond, and S. Rivard, "Impact of task uncertainty, end-user involvement, and competence on the success of end-user computing," *Information & Management,* vol. 33, pp. 137-153, 1998.

[9] M. L. Resnick, "Management requirements for knowledge management systems in the virtual organisation," *International Journal of Networking and Virtual Organisations,* vol. 2, pp. 287-297, 2004.

[10] H. Kerzner, "The growth of modern project management," *Project Management Journal,* vol. 25, p. 6, 1994.

[11] F. C. Braun and M. Avital, "Good project management practices drive more than project success: Learning, knowledge sharing and job satisfaction in IT project teams," in *13th Americas Conference on Information Systems, AMCIS 2007, August 10, 2007 - August 12, 2007*, Keystone, CO, USA, 2007, pp. 1803-1812.

[12] J. Yang, G. Q. Shen, M. Ho, D. S. Drew, and A. P. C. Chan, "Exploring critical success factors for stakeholder management in construction projects," *Journal of Civil Engineering and Management,* vol. 15, pp. 337-348, 2009.

[13] T. Raz and E. Michael, "Use and benefits of tools for project risk management," *International Journal of Project Management,* vol. 19, pp. 9-17, 2001.

[14] S. C. Ward and C. B. Chapman, "Risk-management perspective on the project lifecycle," *International Journal of Project Management,* vol. 13, pp. 145-149, 1995.

[15] A. Belout and C. Gauvreau, "Factors influencing project success: the impact of human resource management," *International Journal of Project Management,* vol. 22, pp. 1-11, 2004.

[16] R. Müller and R. Turner, "Leadership competency profiles of successful project managers," *International Journal of Project Management,* vol. 28, p. 437, 2010.

[17] L. Jun, W. Qiuzhen, and M. Qingguo, "The effects of project uncertainty and risk management on IS development project performance: A vendor perspective," *International Journal of Project Management,* vol. 29, pp. 923-933, 2011.

[18] E. Kutach and M. Hall, "Deliberate ignorance in project risk management," *International Journal of Project Management,* vol. 28, p. 245, 2010.

[19] B. A. Hussein, "An Empirical Investigation of Project Complexity from the Perspective of a Project Practitioner," in *Proceedings of IWAMA 2012 - The Second International Workshop of Advanced Manufacturing and Automation*, ed: Tapir Akademisk Forlag, 2012, pp. 335-342.

[20] E. Kamsties, D. M. Berry, and B. Paech, "Detecting Ambiguities in Requirements Documents Using Inspections," in *First Workshop on Inspection in Software Engineering (WISE'01)*, 2001.

[21] P. R. Duimering, B. Ran, N. Derbentseva, and C. Poile, "The effects of ambiguity on project task structure in new product development," *Knowledge and Process Management,* vol. 13, pp. 239-251, 2006.

[22] R. R. Young, *Effective requirements practices*. Boston, Mass.: Addison-Wesley, 2001.

[23] B. A. Hussein, "Quasi-experimental method to identify the impact of ambiguity and urgency on project participants in the early project phase," in *The 6th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications*, ed: IEEE conference proceedings, 2011, pp. 892-897.

[24] V. Basu, E. Hartono, A. L. Lederer, and V. Sethi, "The impact of organizational commitment, senior management involvement, and team involvement on strategic information systems planning," *Inf. Manage.,* vol. 39, pp. 513-524, 2002.

[25] K.-K. Hong and Y.-G. Kim, "The critical success factors for ERP implementation: an organizational fit perspective," *Information & Management,* vol. 40, pp. 25-40, 2002.

[26] H. Kerzner, *Project management: a systems approach to planning, scheduling, and controlling*. Hoboken, N.J.: Wiley, 2009.

[27] J. R. Meredith and S. J. Mantel, *Project management: a managerial approach*. Hoboken, N.J.: Wiley, 2010.

[28] J. K. Pinto, *Project management: achieving competitive advantage*. Boston: Pearson Prentice Hall, 2012.

[29] G. P. Prabhakar, "Switch leadership in projects:An ampirical study reflecting the importance of transformational leadership on project success across twenty-eight nations," *Project Management Journal,* vol. 36, p. 53, 2005.

[30] M. Thite, "Leadership styles in information technology projects," *International Journal of Project Management,* vol. 18, pp. 235-241, 2000.

[31] M. Winter, C. Smith, P. Morris, and S. Cicmil, "Directions for future research in project management: The main findings of a UK government-funded research network," *International Journal of Project Management,* vol. 24, pp. 638-649, 2006.

[32] H. Ingason and H. Jónasson, "Contemporary Knowledge and Skill Requirements in Project Management," *Project Management Journal,* vol. 40, p. 59, 2009.

[33] T. Williams and K. Samset, "Issues in front-end decision making on projects," *Project Management Journal,* vol. 41, p. 38, 2010.

[34] M. L. Korzaan, "The influence of commitment to project objectives in information technology (IT) projects," *The Review of Business Information Systems,* vol. 13, pp. 89-97, 2009.

[35] L. Zhai and J. Xu, "Systematic thinking on success criteria of IS/IT projects," *Journal of Fudan University (Natural Science),* vol. 42, pp. 749-54, 2003.

[36] I. B. Neumann and H. Leira, *Aktiv og avventende : utenrikstjenestens liv 1905-2005*. Oslo: Pax, 2005.

[37] P. Milne, "Motivation, incentives and organisational culture," *Journal of Knowledge Management,* vol. Vol. 11, pp. 28-38, 2007.