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UNDERSTANDING THE FAILURE OF E-PARTICIPATION PROJECTS: CASE STUDY OF ESTONIA'S CITIZEN PARTICIPATION PORTAL OSALE.EE

Thesis Prepared for the Degree of
Master of Arts

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Tallinn 2015

I hereby declare that I am the sole author
of this Master's thesis and it has not been
presented to any other university for examination.

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“ …….” …… 2015

This Master's thesis meets the established requirements.

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Accepted for examination “ …….” …… 2015

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ABSTRACT

In the context of growing demands for public participation in policy-making, governments are increasingly seeking to tap the potential of information and communication technologies for citizen engagement. Despite a global burgeoning of e-participation projects, empirical evidence suggests that many have failed to deliver. The failure of information systems (IS) is a widespread problem in both the public and private sector, yet its causes remain insufficiently understood. This thesis aims to develop a better understanding of why and how information systems designed for citizen participation fall through. To that end, a case study of the Estonian government's e-participation portal Osale.ee is conducted, employing a process model of IS failure. The study demonstrates that while socio-technical approaches to IS failure provide a suitable framework for studying how e-participation projects fail, literature on democracy and participation can help explain the importance of particular factors in the process. In the case of Osale.ee, key contributors to failure can be related to ambiguous objectives, an unfavourable regulatory, institutional and cultural context and poor integration of the system in policy-making, combined with flaws in innovation and support management.

Keywords: *e-participation, e-democracy, e-government, IS success and failure*

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INTRODUCTION

Information systems (IS) have been used in government operations since the 1950s, but it is the spread of the internet that gave birth to the concept of electronic government (Assar *et al.* 2011, 1; Heeks 2005, 51). E-government commonly refers to the use of information and communication technologies (ICTs) to enhance the delivery of public services, improve the effectiveness of bureaucratic procedures and promote citizen participation (Herrera and Gil-Garcia 2011, 29). While the focus of e-government has traditionally been on online service provision (Freeman and Quirke 2013), its democratic function is receiving increasing attention from both practitioner and research communities, illustrated by the growth of online participation initiatives and the emerging research fields of e-democracy and e-participation (Medaglia 2012, 346).

E-participation, defined as democratic participation facilitated by ICTs, can be exercised through various tools with various objectives, from collecting feedback to letting citizens set the agenda. Osale.ee, the Estonian participation portal studied in this thesis, is an example of a web-based information system designed by the government to consult citizens on legislative drafts, and enable citizens to propose ideas to the government and search documents across government websites. The portal was launched in 2007 and is still operational. However, many studies have referred to Osale.ee's failure as an e-democracy tool (Runnel *et al.* 2009; Kitsing 2011; e-Governance Academy 2012; Hinsberg *et al.* 2013; Kalvet *et al.* 2013, Praxis and Pulse 2015).

Current evidence implies that e-participation initiatives often fail to deliver the desired results (Prosser 2012). The same is true for e-government at large – despite "revolutionary" promises (Reddick 2010, vii), the majority of e-government projects fail in practice (Heeks 2003). Some studies suggest the failure rate of software development projects across sectors may amount to 85% (Thomas and Marath 2013, 326). This raises the question of why information systems fail.

Given the globally high rate of IS failure, studying the causes of failure is relevant to researchers as much as to IS managers, including government administrators. A literature review by Ray (2011, 80) reveals that the inability to understand causes of failure can lead to problems such as cost and schedule overruns, unmet requirements and ineffective implementation. The costs of failure can

include wasted investment, missed opportunities, bad service, or damage to reputation (Sauer 1993, 1). Therefore, an understanding of the causes of failure is necessary to realise the benefits of information systems (Van Cauter *et al.* 2014, 72). IS operators also need to comprehend the *process* by which failure occurs to address problems before they result in failure (Sauer 1993).

Despite a widespread use of information systems in the public sector, the issue of IS failure has received relatively little attention in public administration literature (Van Cauter *et al.* 2014). Gaps have also been noted in the research on information systems designed for e-democracy and e-participation. Studies thus far have focused on technological determinants, lacking a broader view on the diverse contextual factors that affect e-participation (Medaglia 2012). With these research gaps in mind, the thesis aims to contribute to a better understanding of the success and failure of e-participation projects, with a particular focus on *why* and *by which process* failure comes about.

As discussed in the theoretical section, the questions of *why* and *how* are arguably best addressed by process-centric IS failure theories and in-depth case studies. Focusing on Estonia's e-participation portal Osale.ee, Chris Sauer's (1993) interpretive process model will be employed to examine its development and outcomes. Despite frequent criticism, there seems to be a lack of comprehensive investigations of why and in what ways Osale.ee has failed. Hence, the thesis sets to reconstruct the system's history from inception up to the present day (2015) to understand in which respects the system has failed and what causes failure can be attributed to.

Although a single case study has limited generalisability, its findings can be valuable as a learning process (Walsham 1995). All information systems have been argued to share limited capacity to control the sources of problems (Sauer 1993, 140). Since this capacity is central to the theoretical model chosen, some of the lessons learned could be transferable to other cases. Secondly, the model has seldom if ever been tested on e-participation tools, which differ from other e-government IS in their goal of promoting democratic participation and impact on policy-making. The study of Osale.ee could thus help assess the utility of the model for this particular kind of IS.

The thesis begins with a theoretical review of IS failure and the context of online participation. This will be followed by a case study of Osale.ee. Based on a description of the system's history, key factors will be extracted and discussed with respect to their impact on the system's outcomes. The aim of the analysis is to learn what factors and interactions have contributed to Osale's outcomes and whether the findings match theoretical assumptions. Finally, the utility of combining IS and e-democracy literature in the research of e-participation projects will be discussed.

1. SUCCESS AND FAILURE OF E-PARTICIPATION PROJECTS: THEORETICAL UNDERPINNINGS

1.1 E-participation: definitions and dimensions

E-participation and e-democracy are subfields of the e-government research domain. Definitions of **e-government** vary depending on focus but the term commonly encompasses the use of ICTs to deliver online public services, rationalise administrative processes, reorganise public institutions, and develop new democratic spaces (Baqir and Iyer 2010, 5; Assar *et al.* 2011, 1). As e-government policies often focus on the electronic delivery of public services, e-government research has been preoccupied with the question of service provision rather than democratic inclusion (Freeman and Quirke 2013).

However, growing demands for public participation in policy-shaping have increased interest in the democratic potential of ICTs (OECD 2001). Therefore, the term **e-democracy** has been introduced to point to the capacity of e-government technologies to transform political decision-making. In broad strokes, e-democracy means the use of ICTs in political communication and decision-making, permeated by democratic rights and values (Lidén 2013, 228). Normatively, e-democracy has been defined as "the support and enhancement of democracy, democratic institutions and democratic processes by means of ICT" (Council of Europe 2009, 7).

By enabling the spread of political information and lowering barriers to inclusion, ICTs have been seen as a solution for strengthening political participation (Lidén 2013, 227). The term e-democracy is therefore often used interchangeably with **e-participation**. A literature review by Susha and Grönlund (2012) concludes that the lines between the two research fields are blurred and their relationship unclear. However, they argue that e-democracy and e-participation studies have notable differences in focus and scope. While e-democracy research focuses on assessing the democratic effects of ICT use in the sphere of citizen participation as well as political culture or political systems, e-participation research takes a more instrumental approach, studying the socio-technical aspects of the utilisation of ICT tools for citizen participation in different public services, which might not necessarily be related to democracy (Susha and Grönlund 2012, 374). Therefore,

e-participation and e-democracy can be argued to be distinct fields which "overlap at a point where citizens take part in a political activity /…/ using electronic media in the framework of the conditions of a participatory democracy model" (*ibid*.).

Even in the context of democracy, definitions of e-participation can vary. For example, Prosser (2012) defines e-participation as "the use of ICT to expand and deepen political participation by enabling citizens to connect with one another and with their elected representatives", including deliberative systems, agenda-setting systems as well as e-voting (10). However, Macintosh (2004) clearly separates e-voting from e-participation, relating e-participation more narrowly to enabling opportunities for consultation and dialogue between government and citizens. Focusing on the point of overlap of e-democracy and e-participation, this thesis will rely on Macintosh's narrower definition. Treating internet voting as a separate domain, **e-participation projects** will be contextualised **as web-based systems designed to enable democratic dialogue between government and citizens**.

This dialogue can take different forms. Gradations of citizen participation are well summarized in Arnstein's (1969) ladder model. Whereas the lower levels represent empty rituals, the top levels give citizens partial or full control over the result. Arnstein's middle rungs (information, consultation and placation) symbolize interactions that can perhaps be considered typical to e-participation – citizens are given a say in decisions, while the final decision-making power rests with the government. Along similar lines, OECD (2001) distinguishes three levels of citizen participation: information, consultation and active participation. Information means a one-way relationship where government gives citizens access to information (e.g. through government websites), consultation denotes a two-way relationship where government seeks citizens' feedback on pre-defined issues (e.g. commenting draft legislation) and active participation means engaging citizens in defining the process and content of policy-making, although the government makes the final decision.

Examples of online tools enabling active participation include different discussion fora, e-petitioning systems such as that of the Scottish Parliament[1] or the city of Reykjavik[2], or combinations of several tools such as Brazil's *e-Democracia*[3] or Estonia's Osale.ee. Osale.ee

[1] http://www.scottish.parliament.uk/gettinginvolved/petitions

[2] https://betrireykjavik.is

[3] http://edemocracia.camara.gov.br/

enables government institutions to consult the public on draft legislation and citizens to propose items to the government's agenda, collect supportive votes and comment on others' ideas. According to Council of Europe's classification (Krimmer *et al*. 2009), Osale.ee aims to simultaneously perform the function of e-consultations, e-legislation and e-petitions.

1.2 The socio-technicality of e-participation systems

E-participation projects rely on **information systems** as a core enabler (Kö *et al*. 2012). Therefore, one set of theories that can possibly explain the success and failure of e-participation projects stems from IS research. For the purposes of this thesis, information systems are defined as "computer-based systems whose major inputs and outputs are information, and which serve to coordinate the work of many different organisational functions" (Sauer 1993, 11). This accommodates both back office systems and systems providing core services. In the context of e-government, IS can aid the management of data, knowledge and resources within the government as well as facilitate public service delivery and interaction with citizens. In technical terms, information systems comprise computer hardware, communication technology and software (Yeo 2002, 242). However, IS research commonly refers to the socio-technical nature of IS, emphasizing the importance of the human actors and the social, political and behavioural processes surrounding their technical core (Walsham 1993, Sauer 1993; Abrahall *et al.* 2007; Assar *et al.* 2011; Kautz & Cecez-Ketzmanovic 2013).

Due to the globally high failure rate of IT projects, a large part of IS literature is devoted to the issue of failure (Dwivedi *et al*. 2015). Empirical studies have outlined a multitude of factors that can affect the outcomes information systems, from technical flaws to the broader context in which information systems operate. Based on existing literature, Dwivedi *et al*. (2013) found far over 50 possible failure factors, related to project content, complexity, technology, management, users, resources, organisational context, broader environment, etc. Many studies have found that failure is more often due to social and organisational than technical factors (Kautz and Cecez-Ketzmanovitz, 2013, 3).

1.2.1 Theoretical approaches to IS success and failure

According to a literature review by Kautz and Cecez-Ketzmanovic (2013), theoretical accounts of IS success/failure can be divided into three broad strands: rationalist approaches (e.g. Lyytinen and Hirschheim 1987, Delone and McLean 1992 and 2003), socio-technical and process-oriented perspectives (Sauer 1993) and social constructivist views (Fincham 2002). Rationalists regard IS

success and failure are discrete outcomes of causally linked variables and often focus on establishing lists of critical success/failure factors, whose presence or absence are assumed to predict a system's outcome. The socio-technical/process perspectives assume that failure cannot be directly attributed to distinct factors. Instead, they focus on the process of failure, which is seen as a function of social and technical factors, actors and their interactions. The social constructivist perspective sees success and failure as a matter of subjective interpretation. In this view, different social groups can construct different assessments of an IS, so the same system can be perceived as a success and failure at once. (Kautz and Cecez-Ketzmanovitz 2013)

All approaches have their drawbacks. The rationalist view, albeit dominant in literature, has been argued to lack the ability to provide coherent explanations of why and how success/failure occurs (Kautz and Cecez-Ketzmanovic 2013, 3). Compared to rationalist models, socio-technical/process views are seen as capable of offering a more holistic understanding (Sauer 1993). Although sets of explanatory factors of success and failure can be useful to identify commonalities across cases, IS success and failure is often context-specific (Sauer 1993; Dwivedi *et al.* 2015). The temporal dimension included in process-centric models has been found to be central to understanding the explanatory factors of IS success and failure in an organisational context (Dwivedi *et al*. 2015, 145). Process models have also been criticized. For example, they lack the ability to explain conflicting perceptions of the same IS (Kautz&Cecez-Ketzmanovic 2013, 3). While social constructivist models can fill this gap, these in turn have been criticized for putting too much emphasis on interpretation, ignoring technical realities (*ibid*.).

Although agreeing that stakeholders' interpretations matter in IS failure, this thesis departs from the purely constructivist view and assumes that technical, organisational and contextual factors matter as well. Based on the advantages discussed above, the thesis will take a socio-technical approach, relying on Chris Sauer's (1993) model of IS failure as one of the most comprehensive process accounts available (Kautz and Cecez-Kecmanovic 2013, 3). Sauer's epistemological stance is interpretivist. While his conception of failure involves some objective criteria, Sauer regards IS outcomes as a result of the interactions between the system and its supporters, involving a great deal of (inter)subjective interpretation. Interpretivist research relies on the view that social phenomena and are best studied through subjective interpretations within their social and historical context (Recker 2013, 89). Interpretive methods aim to understand the "process whereby the information system influences and is influenced by its context" (Walsham 1993, 4-5).

1.2.2 Defining failure

Sauer (1993) defines failure generously, deeming no information system failed unless it has ceased operation, leaving supporters dissatisfied with the service received (4). Both termination and dissatisfaction are important conditions (*ibid*., 27-28). This understanding implies that any system which still operates must be valuable to someone and thus not (yet) failed, underlining the nature of IS as a continuous innovation process. Several alternative takes exist in literature. For example, Heeks (2005) distinguishes between success, partial failure and total failure of information systems, whereas Lyytinen and Hirschheim (1987) divide IS failure into categories.

While agreeing to Sauer's concept of a terminal failure, this thesis will also look at manifestations of failure in the IS during its lifetime as a potential indication of being on the road towards terminal failure. This approach builds upon the assumption that even if a system has not been abandoned at the moment of examination, it is important to identify the aspects in which it is perceived as a failure to take action and prevent a lapse into a circle of decline. For the purpose of this analysis, the broad categories of failure proposed by Lyytinen and Hirschheim (1987) serve as a useful basic framework. These include:

1. Correspondence failure – failure to meet the system's design objectives and specifications.
2. Process failure – failure to develop the IS within an allocated budget or time frame.
3. Interaction failure – failure related to IS usage level, user attitudes and satisfaction. Severe under-utilization and low user satisfaction are likely to be signs of interaction failure.
4. Expectation failure – the inability of a system to meet stakeholders' expectations, requirements or values. Expectation failure is measured by the difference between the actual and desired situation for a particular stakeholder group.

It is important to clarify that Sauer recognizes the adverse outcomes of failures such as inadequate functionality, lack of usage or failed expectations. However, he considers these problems an inherently normal part of the information systems process, which can be addressed as long as sufficient support exists to the IS (Sauer 1993, 28).

In the case of e-participation projects, the categories of interaction and expectation failure deserve a special attention. The objective of any information system is to provide users with contextualised knowledge, i.e. select, structure and present data in a way that is useful to a particular recipient in a particular context (Yeo 2002, 242). Consequently, a key indicator of good performance would

be the system's ability to provide accurate and useful information in a manner that best serves its users. This may mean the provision of timely and relevant information, intuitive design, tools facilitating the search of information, etc. However, the specific objectives of e-participation tools are likely to produce an additional set of expectations.

Based on a synthesis of literature, Prosser (2012, 10-11) defines the goal of e-participation to be the enhancement of the legitimacy of democratic institutions and processes. Increased legitimacy has also been a key goal for Osale.ee (Hinsberg 2007, 76). In order to enhance legitimacy, e-participation initiatives typically aim to facilitate access to information, deliberation and decision-making, increase the quality and quantity of participation, and create a sustainable system (Prosser 2012). Although not all goals are relevant in all cases, the overarching aim of increased legitimacy implies the need to ensure broad and equal participation (Karlsson 2012). According to the Council of Europe (2009), e-democracy initiatives should pay attention to the "number, legitimacy and representativeness of participants" (29).

Contrary to these expectations, empirical studies have shown that participation in e-democracy initiatives tends to be limited to a narrow circle of better educated, technologically knowledgeable and politically active citizens (Hindman 2009, Karlsson 2012, Lidén 2013). Therefore, interaction failure is a plausible risk for e-participation systems, which undermines the goal of legitimacy and may in itself constitute an expectation failure. Furthermore, e-government initiatives often involve different stakeholders with multiple and competing objectives (Dwivedi *et al*. 2015, 150). Considering the variety of stakeholders that e-participation initiatives aim to mobilize, risks of expectation failure seem high even in case of sufficient use.

1.2.3 Chris Sauer's interpretivist process model of IS failure

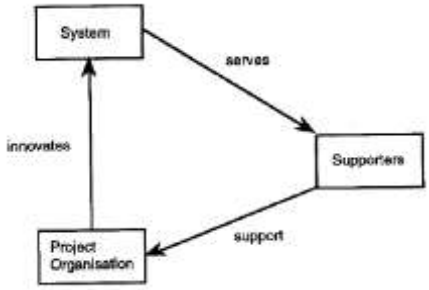
Chris Sauer (1993) argues that rather than objects, information systems should be viewed as processes embedded into other organisational processes. The core of Sauer's model is the notion of IS as innovation processes characterised by the adoption of some new technology or organisational procedure, uncertainty about the results, and constant change. Sauer borrows his approach from natural systems models, according to which systems have a goal of survival, which can be achieved through responding to the environment. Therefore, IS success depends on its coordinators' ability to serve the (changing) needs of stakeholders and sustain sufficient support. Being "part of a complex web of social action" (*ibid*., 26), a system succeeds or fails through the interplay of two major components: the adequacy of the IS innovation process, and the level of

support to the system. The innovation process is constrained or facilitated by contextual factors, which can also act as sources of problems for the IS.

The model involves two main actors: the project organisation and supporters. **Project organisation** is defined as the group of people in an organisation "who at a particular point in time are occupied with the processes of initiating, developing, implementing, operating or maintaining a given system" (Sauer 1993, 11). **Supporters** is a much more heterogeneous category, involving any groups of people (users, initiators, funders, power-brokers and other stakeholders) supporting the system at a given moment. While stakeholders need the project organisation to develop the IS in their interests, the project organisation needs stakeholder support to successfully operate the system (*ibid*., 26). Sauer argues that not all stakeholders' expectations are equally important – some might even be unrealistic. He therefore suggests that project organisations focus on the support of the stakeholders perceived as the most important at a given moment.

The model revolves around two processes. The first is the **innovation process** – the development, operation and problem-solving in the IS by the project organisation. Its goal is to solve problems in the system and develop the IS to maintain sufficient support. In case problem-solving does not address the context adequately, flaws occur, which can create consequential problems. If flaws in the system accumulate, the system loses support and faces the risk of abandonment and failure. In order to sustain the innovation process, the project organisation needs resources and access to people and organisations who can influence external factors and other supporters. This creates the need for the **support management process** – deliberate efforts to ensure that enough support is available. Although the level of support largely depends on the results of the innovation process, support can also be leveraged by strategies such as negotiating, bargaining, communication and involvement of stakeholders in the innovation process. Through the two processes, the IS, project organisation and supporters are all interdependent.

Figure 1. Triangle of dependencies: system, supporters, project organisation



Source: Sauer 1993

The processes are not isolated from the external environment. Sauer distinguishes six **dimensions of context**, which can pose problems to the IS, constrain the innovation process, and influence the availability of support:

1. Cognitive limits: due to bounded rationality of humans, innovation and problem-solving are likely to involve flaws.
2. Technical process: constraints arising from the characteristics of computer systems (hardware and software configuration, technical complexity, etc.) and problem-solving techniques. The innovation process can be constrained, for example, by solutions to previous problems, which become the starting point for subsequent problems.
3. Environmental factors: regulators and regulatory context, customers (changes in demands and behaviour), suppliers (technological equipment), technology (new technologies), competitors to the IS, interest groups (differing interests), and culture/institutions.
4. Political constraints: organisational politics and political pressure from outside.
5. Structural arrangements: the project organisation's structure and its place in the host organisation constrain problem-solving and organisational outcomes. Problems beyond formal structures may remain unrecognised, distance from top management inhibits access to support, etc.
6. History: one-off events, which constrain the innovation process by influencing problem-definition and limiting the project organisation's options.

As Sauer underlines, none of the contextual factors has an immediate impact on the IS outcomes. Their influence is mediated by the project organisation's innovation process. There are also feedback loops: solutions applied by the project organisation affect support and context, while context also affects the available support. In case of sufficient support, problems can be tackled. If flaws are not dealt with, users will evaluate the system negatively and the IS loses support. Terminal failure is the "final outcome of a dual process in which support and systems outcomes interact to produce a situation where the project organisation is unable to sustain itself through the support available to it" (Sauer 1993, 5-6).

1.3 The context of digital democracy

Although technology constitutes the backbone of information systems, the predominant focus of e-participation research on technological factors in search of success and failure causes has been heavily criticized (Medaglia 2012). Instead, researchers are encouraged to adopt a more sophisticated approach and combine technological issues with those related to broader societal institutions (Dwivedi *et al*. 2015). Studies need to examine the effect of diverse contextual factors, such as policy and legal issues, accessibility and availability of information (Medaglia 2012), and institutional and political resistance (Susha and Grönlund 2012). Sauer's model ascribes contextual factors an important role in shaping the system's outcomes but does not say much about what specific factors may affect e-participation tools. This suggests consulting literature on democracy and participation to develop a comprehensive understanding of e-participation success and failure.

1.3.1 Key factors

According to the Council of Europe (2009), key enablers of e-democracy include access to and accessibility of technology, political will and leadership, political objectives, a developed civil society, high trust and transparency, extensive promotion of e-democracy, quality and quantity of participation, impact of participation on the outcome, consideration of stakeholders' expectations and reservations, user-friendliness and appropriateness of e-tools, effective stakeholder cooperation, information about the use of citizens' input, and feedback to citizens (31-32).

Adapted to the level of e-democracy tools, the key enabling/challenging factors could be grouped into variables such as: 1) System design – appropriateness and user-friendliness; 2) Process design – information on the use of citizens' input, feedback procedures, impact on policy outcomes; 3) Demand side – consideration of stakeholders' expectations and reservations, promotion of the system to increase take-up; 4) Political leadership/resistance; 5) Culture – trust, level of civil society development, culture of participation and collaboration.[4]

1.3.1.1 System design

A core value of engaging citizens in policy-making is seen in its potential to enhance the quality of public decisions by including diverse perspectives (OECD 2001, 11). A decisive factor of the quality and effect of online consultations has been found to be deliberation (Lidén 2013, 242). Defining deliberation as the development of a collective decision by a reasoned exchange of

[4] In this context, widespread access to technology is regarded as an essential prerequisite for all online projects and will not be discussed in detail.

arguments, Talpin (2013) argues that deliberation requires institutional settings that enable discussion and systematic facilitation. In a similar vein, OECD (2003) highlights competent moderation among the key conditions for effective online consultations.

According to the Council of Europe (2009), e-democracy depends on citizens' access to relevant and timely information (25). OECD (2003) points to information accessibility as a major problem for citizens. It is suggested that the provision of public information start from assessing the needs of end users and their "capacity to find, digest and use relevant information" (*ibid*., 15). Access to information can be improved by measures such as search engines, software for improving the intelligibility of government texts, online glossaries, etc. (*ibid*.).

1.3.1.2 Process design

The failure of e-participation projects has been associated with poor integration into political processes (OECD 2003, Scherer *et al*. 2010, Freeman and Quirke 2013). Freeman and Quirke (2013) argue that instead of viewing e-participation as a separate process, it should be fully integrated into government operations and broader political processes. Similar observations have been made for other e-government projects: their success often depends on whether broader institutions of governance are prepared and willing to act on the informational outcomes of the projects (Dwivedi *et al*. 2015).

In order to integrate e-participation processes into legislative and political processes, governments are urged to analyse the possible points of participation, involve decision-makers from the outset and make sure that results of participation are forwarded to relevant decision-makers (Scherer *et al*. 2010). The availability of public consultations online is not sufficient – the entire process of consulting the public should be rethought (Council of Europe 2009, 60). According to OECD (2003), a holistic approach to policy-making should "explicitly incorporate" (87) ICT-enabled engagement procedures in information, consultation, participation, analysis, feedback and evaluation. The Council of Europe (2009) stresses that the extent to which the opinions expressed through an e-democracy method will be taken into account in decision-making should be clear from the outset (28).

A closely related issue is the impact of participation on political decisions. The importance of demonstrating impact has been underlined by the Council of Europe (2009) as well as OECD (2003). OECD (2003) refers to the discrepancy between growing calls of governments for citizen participation in public consultations and the real impact of participation on the final policy content.

According to Scherer *et al*. (2012) there is little evidence of decision-makers incorporating the results of e-participation projects into their policy practices. Lack of impact may therefore cast doubts on the effectiveness of the e-participation channel used.

1.3.1.3 Demand-side factors

The failure of many e-government initiatives can been attributed to factors related to the demand side and citizen's perspective (Hsiao *et al*. 2012, 80). The take-up of participation initiatives is globally low (Edelmann *et al*. 2012). Empirical evidence suggests that e-participation initiatives have not brought more people in decision-making, engaging a narrow "elite" of already politically active citizens (Hindman 2009, Karlsson 2012, Lidén 2013). Variables explaining participation in e-democracy initiatives include prior interest in politics, internet skills, younger age and high level of education (Lidén 2013). Recent Estonian surveys confirm that typical users of e-democracy tools are well-educated citizens from advanced socio-economic backgrounds (TNS Emor 2014). Offline democratic exercises show similar patterns: participation can be related to prior social and political mobilization, educational and socio-economic background, age and gender (men over 30 years of age participate more) and dissatisfaction with public institutions (Navarro and Font 2013).

The challenge of attracting users implies the need for active promotion of the tool and involvement of users in its development. Promotion has been found to be an important success factor for e-government services (Hsiao 2012, 80) as well as e-participation initiatives (Glencross 2009). Advertisement should be backed by user involvement. According to Coakes *et al*. (2013), problems with usability and human and organisational barriers to effective use can be prevented by involving users in all stages of the IS, from feasibility assessments to design and implementation. The Council of Europe (2009) recommends the involvement of all stakeholders into devising e-democracy tools at an early stage (23).

1.3.1.4 Political leadership/resistance

The importance of political support is frequently mentioned in the context of IS failure (Sauer 1993; Heeks 2005). A new system always has political implications – the ability to change organisational structures, culture and power relations (Dwivedi *et al*. 2015, 149). The sphere of "politics" for e-participation systems ranges from top management to politicians. E-participation highly depends on the openness of governments and politicians to empowering citizens (Freeman and Quirke 2013) and political will and leadership (Council of Europe 2009). Political resistance

can be an important barrier. Politicians' fears of losing status and control often explain their unwillingness to support collaborative projects with citizens (Voorberg *et al*. 2014).

1.3.1.5 Culture and attitudes

Cultural prerequisites for e-democracy include a developed civil society, trust in democratic institutions and processes, other citizens and politicians, and an open political culture (Council of Europe 2009). Wigand (2010) and Lidén (2013) point to the cultural effect of Web 2.0 technologies: user-generated content and participatory, decentralized models have enabled a paradigm shift from information consumption to interaction and collaboration (Wigand 2010, 162). However, Freeman and Quirke (2013) find that a more open governmental culture still needs to emerge to support e-democracy practices. Voorberg *et al*. (2014) point to the importance of organisational cultures and attitudes in determining whether administrations are open to engaging citizens. Risk-averse cultures in public sector organisations have been found to be an important factor explaining the failure of collaborative initiatives (*ibid*.).

1.4 The failure of e-participation projects: building hypotheses

The previous discussion highlighted the nature of e-participation projects as a specific kind of IS. While socio-technicality, uncertainty and the central role of innovation management make them information systems like any other, their objectives related to democratic participation imply a particularly high dependence on contextual factors, many of which are related to the complexities of online democratic participation.

Whereas Sauer's process-centric model of IS failure provides a comprehensive framework for studying the process of failure, it lacks an in-depth account of the contextual factors that affect the success and failure of e-participation projects. These factors can be better explained by combining theories of IS failure with literature on e-democracy and participation. Building on the assumptions of Sauer's model and the conditions and context of democratic participation discussed above, the following hypotheses are posed:

H1 Typically to all information systems, e-participation projects fail if a) **context is not adequately addressed** in the problem-solving process within the IS, or b) if the obstacles created by **contextual factors are beyond the project organisation's power**.

H2 E-participation projects face an inherently **high risk of failure** due to the complexity of the **context** that affects (online) democratic participation.

2. CASE STUDY: OSALE.EE

2.1 Research strategy

As the core research questions of the thesis are the *why* and *how* of failure, the research takes a qualitative approach, employing case study research as a well-established method for studying the process of failure (Recker 2013, 95). Detailed case studies have been argued to contribute to a rich and realistic understanding of IS failure (Sauer 1993; Van der Blonk 2003; Abrahall 2007) enabling to reveal the actions and circumstances that lead to undesired outcomes (Sauer 1993). Allowing to study a phenomenon in its natural context, a case study can be a handy tool in cases "when the boundaries between phenomenon and context are not clearly evident" (Recker 2013, 95).

While a case study permits in-depth analysis, it does not allow for ambitious generalisations. The case study of Osale.ee does therefore not aim to establish universal causal relations but rather expose one set of factors and interactions that have determined the outcomes of one IS. However, as Walsham (1995) argues, case studies can be generalized to theoretical propositions, and the explanations of phenomena in specific IS settings may serve as useful guidance in other contexts. Therefore, case study can be a valuable learning experience, helping to generate ideas about cause-effect chains and possible practical solutions in different contexts (Sauer 1993, 133).

Empirical case studies in IS research can take a positivist or interpretive approach, and the combinations in between (Walsham 1995). While positivists focus on facts, non-positivists view facts and values as intertwined and involve both in scientific research (*ibid*., 75). Sauer's socio-technical model employed for the case study of Osale.ee is largely interpretive. Interpretive researchers view reality as an intersubjective construction and study human interpretations and meanings of the IS (Walsham 1995). The interpretive element of the case study of Osale.ee mainly lies in involving implementers' and users' interpretations of the system in the study. Although the evaluation of Osale.ee also includes some objectively measurable criteria, such as low use, importance is also given to stakeholders' evaluations of the system. Another layer of interpretation concerns the researcher, who also interprets other people's interpretations (Walsham 1995, 77). Interpretive analysis therefore always involves a degree of subjectivity.

The unit of analysis will be the whole process of Osale.ee from its initiation in 2004 to its operation in the present day (2015). The case study will be both descriptive and explanatory. As Pollitt and Bouckaert (2011, 207) argue, the availability of good descriptions is important for both theory-building and theory-testing. Therefore, to explain the system's outcomes and test the theoretical model, the study first sets to describe what has happened.

2.1.1 Research questions

The case study seeks answers to the following research questions:

1. What causes e-participation projects to fail?
2. By which process does failure happen?

These questions will be broken down into six more specific questions to be investigated in the case study of Osale.ee:

1. What is the outcome of Osale.ee in the present day? In which respects, if at all, can the outcome be considered a failure?
2. What problems and flaws has Osale.ee encountered during its existence?
3. What contextual factors have affected the system and innovation process?
4. What action has been taken to solve problems in the system? Has it been optimal in the given context?
5. What action has been taken to leverage support to the system? Has support mobilisation been effective?
6. What causes can failure be attributed to?

According to Sauer (1993), sub-optimal decisions are common and accumulation of flaws often unavoidable in information systems. At the same time, he proposes that the innovation process can be made more effective by careful context scanning and assessment of needs, support and IS impact. Project organisations should ask what problems may arise, what problem-solving is needed, what constrains their action, what support is needed and how the system will be perceived by potential supporters (Sauer 1993, 322-325). To evaluate whether possible failure of Osale.ee has been caused by external circumstances or a flawed innovation process, the findings of the case study will be put to the following test:

1. Were the problems and context beyond the project organisation's power?
2. Has the project organisation taken steps to improve the innovation process? Has it been informed by an assessment of needs, context, support or impact at any step?

3. Given the contextual constraints, can problem-solving and support management be judged adequate?

2.1.2 Data collection

Information on the case was collected through desk study and interviews. Based on use statistics, existing studies, policy papers, reports, press releases, articles in the media and an observation of Osale.ee, a timeline of the case study was reconstructed, extracting information on the objectives set for the IS, its use in practice, and problems mentioned in relation to the system. For a richer understanding of the context, legislative acts and government strategies were consulted and background events relating to citizen participation, law-making and politics taken into account.

As case studies with an interpretive element require access to stakeholders' views and interpretations, interviews are an important data source for researchers (Walsham 1995, 78). To validate the findings of the desk study and develop a deeper understanding, the desk study was complemented by interviews with the system's implementers and users. As a fortunately timed coincidence, the Government Office[5] as the host organisation of Osale.ee commissioned an evaluation of the use and usability of Osale.ee early in 2015. The evaluation largely relied on focus group interviews including representatives of the Government Office, ministry officials, civil society organisations, interest groups and individual users. Since the study's coordinators were kindly willing to share their data, the author was saved the need to conduct a number of interviews.

Therefore, a total of six additional interviews were carried out in April-May 2015. The interviewees included Eleka Rugam-Rebane, advisor of the Communication Unit and the lead initiator of Osale.ee; Hille Hinsberg, former advisor of the Communication Unit and coordinator of Osale.ee in 2007-2010, currently expert at the Praxis Centre of Policy Studies and one of the coordinators of Osale.ee's evaluation in 2015; Juhani Lemmik, advisor of the Government Office's Strategy Unit and coordinator of Osale.ee since 2011; Liia Hänni, program director at the e-Governance Academy[6], idea champion and user; Kaie Holm, a user representing an organisation; and Jaanus Nurmoja, an individual user. Both Holm and Nurmoja have been supporters of the system in the past but have not actively used Osale since 2014 and 2011, respectively. The

[5] Government Office (*Riigikantselei*) is a government institution supporting the Estonian Government and Prime Minister in policy planning and implementation. Its tasks include coordinating the government's citizen engagement policies.

[6] e-Governance Academy is an independent foundation founded by the Government of Estonia, Open Society Institute and UNDP, working in the fields of e-government, e-democracy and civil society.

interviews were semi-structured – while the key questions were prepared beforehand, space was also left for additions and free discussion. Four interviews were conducted in the form of face-to-face meetings, one as a telephone conversation and one using e-mail and Skype. One interview was recorded on audio, others were written down in detailed notes. The full list of interviewees and main questions is available in Appendix 1.

2.2 Case history

The Estonian government's e-participation portal Osale.ee (also Osalusveeb or Osale)[7] is an information system launched by the Government Office (GO) in 2007 as a central electronic platform for citizen engagement. Although Osale has not been terminally abandoned, it has acquired a reputation as an unsuccessful e-participation project. A reconstruction of Osale.ee's history aims to develop an understanding of what problems have emerged over time, how the system has been evaluated by implementers and stakeholders and what role contextual factors have played in its outcomes. A short timeline of Osale.ee is available in Appendix 2.

2.2.1 Background

Osale.ee was initiated in an environment of a rapidly developing e-government. Estonia has been a pioneer in developing electronic public services and today all public services include an e-service component (Kalvet 2012). The chipped ID card (the primary identification document for citizens and permanent residents) has enabled digital signing of documents since 2002 and remote e-voting in nationwide elections since 2005. Internet penetration has constantly raised – while in 2007, 65% of the population used the internet (TNS Emor 2007), today 84% are internet users (Statistics Estonia 2014). The government's efforts to create opportunities for online participation have also been praised in international rankings – from 2008 to 2012, Estonia ranked 8.-9. In the UN e-participation index. By 2014, however, Estonia had fallen behind, ranking 22nd out of 193 countries (United Nations 2014).

Osale was not the first portal of its kind. Its predecessor TOM or *Täna Otsustan Mina* (Today I Decide) was launched in 2001 at the initiative of Prime Minister Mart Laar and his IT advisor (e-Governance Academy 2010) as an online platform where citizens could propose policy ideas to decision-makers. The portal was administered by the GO's Communication Unit. TOM soon

[7] Accessible at www.osale.ee

encountered challenges, such as a limited number of active users, low quality of ideas, limited impact of citizens' proposals and the prevalence of formalistic responses by state officials over an open attitude to dialogue (Glencross 2009; e-Governance Academy 2010). By TOM's third birthday in 2004, e-democracy enthusiasts had declared it a failure (Postimees 2004).

According to the implementers and idea champions of Osale.ee, TOM seemed to be ahead of its time. Government institutions lacked an understanding of how to integrate TOM-generated ideas into their work process and citizens lacked the knowledge and skills to formulate their ideas in formats that officials could work with. As the quality of the ideas was generally low, officials were reluctant to discuss and respond to them. According to the administrator of TOM and lead initiator of Osale.ee, there was a gap in the regulatory, strategic and political context – as government-wide discussions on citizen engagement policies only started around 2004-2005, the ground for e-participation was not yet fertile (Rugam-Rebane 15.05.2015).

The regulatory context of Osale.ee included laws, strategies and regulations on access to public information, legislative procedures, civil society engagement and information society. For example, the Public Information Act (*Avaliku teabe seadus*) (2000) stipulated the basic principles and requirements for public access to documents before their submission for passage, including drafts of legislative acts, development plans, etc. The national Civil Society Development Concept (*Eesti kodanikuühiskonna arengu kontseptsioon*) (2002) listed the co-operation principles of government and civil society in developing and implementing public policies. The legal basis for information exchange in e-participation channels was set by the Response to Memoranda and Requests for Explanations Act (*Märgukirjale ja selgitustaotlusele vastamise seadus*) (2004) requiring government institutions to respond to citizens' questions and information requests within 30 days.

An important context-setter was the formulation of the Good Practice of Engagement (*Kaasamise hea tava,*) by the Government Office, ministries and civil society organisations in 2004-2005. The Good Practice of Engagement elaborated the key principles that support civil society participation in policy-making, such as informing relevant stakeholders of policy initiatives that affect them, allowing sufficient time for stakeholder consultations, requirement of feedback, etc. Until the end of 2011, the Good Practice served as a voluntary guideline. In 2011, the government formally adopted it as part of the central government's policy-making process.

2.2.2 Initiation, development and implementation (2004-2008)

First preparations for Osale.ee began around the years 2004-2005. According to Osale.ee's initiator and coordinator, the process of developing the Good Practice of Engagement almost naturally led to discussions about a new e-participation tool, which would be better integrated into formal rule-making processes (H. Hinsberg 30.04.2015; Rugam-Rebane 15.05.2015). After consultations with NGOs and ministry officials involved in developing the Good Practice, the Government Office decided to build a new information system for e-participation which would enable government officials to engage civil society in legislative drafting. The goal of the portal was to involve citizens in public decision-making processes (Lemmik 16.04.2015), and enhance the transparency, openness, quality and legitimacy of decision-making (Hinsberg 2007). The practical objective was to create a tool for the implementation of the Good Practice for Engagement (Hinsberg 30.04.2015).

As TOM had been administered by the Communication Unit, the unit also took the lead in developing Osale.ee. Other idea champions included, for example, the e-Governance Academy and Network of Estonian Nonprofit Organisations. According to the lead initiator, the demand for Osale.ee foremost came from interest groups and civil society. The attitudes of ministries' officials varied. Those facing more pressure from interest groups expressed more enthusiasm for a central e-participation platform, others remained indifferent or even resistant. The top management of Government Office supported the idea, while the attitude of the managers of other government institutions was mostly lukewarm. The difficulties officials had met when managing the often conflicting demands of interest groups had turned many reluctant to engage the public, which did not create enthusiasm for a new participation tool (Rugam-Rebane 15.05.2015). Unlike TOM, which was initiated by the Prime Minister, Osale.ee never had any idea champions among politicians.

The main innovation compared to TOM was the new focus on integrating citizen participation into the process of legislative drafting. Although TOM had been criticized, initiators decided to preserve the functionality of spontaneous ideas from citizens to government. The main reasons included the high symbolic value of TOM as an innovative phenomenon, pressure from civil society actors such as the e-Governance Academy, and the wish to signal that the government is interested in citizens' ideas (Rugam-Rebane 15.05.2015).

Osale.ee was launched in July 2007 with the functionality of public consultations. In parallel with this process, the e-Governance Academy (eGA) and the European University Institute initiated a

project financed by the European Union with the aim to analyse the TOM experience and build a new adaptable open-source tool for e-participation, which could be disseminated in other countries (TID+ Project 2008). Since the goals of the two processes largely overlapped, the Government Office became a partner in the project. The project entitled TID+ started at the beginning of 2007 and the software produced became the basis of the second functionality of Osale – an improved "TOM" where citizens could make proposals to the government, comment and vote on each other's ideas.

The system has three kinds of stakeholders: officials of government institutions (mostly of the executive branch), civil society organisations and interest groups, and individual citizens. According to GO officials, the analysis of the demand by non-governmental actors was limited to the discussions connected to the Good Practice of Engagement, and a survey carried out in the TID+ project in 2007 involving 25 active TOM users (TOM Survey 2008). The survey suggested improvements to TOM, such as active promotion of the channel, categorisation of ideas according to subject, involvement of experts, lawyers, officials and moderators to increase the quality of debate, design updates, requirement of identification with the national ID card, and integration with other government information systems (*ibid*.).

Convincing government institutions to use the system took time. According to the former coordinator (Hinsberg 30.04.2015), several ministries had started to engage stakeholders through their own online channels. Therefore the idea of a central portal initially met resistance as some feared it unable to fulfil their unique needs.

The "TOM functionality" was finally integrated with Osale.ee in June 2008, including the transfer of all 1187 ideas proposed by the more than 7000 TOM users to the new platform (Simson 2008). By that time, 18 public consultations had been carried out in Osale.ee, each read on average 3000 times (Vabariigi valitsus 2008). The final version thus consisted of two major sections: 1) the government-to-citizen section, where government officials could publish legislative drafts and other documents for citizens to comment; 2) the citizen-to-government section (improved "TOM"), where citizens could propose their own policy ideas, comment and vote on others' proposals and receive feedback from government officials. The system also had a third functionality – an integrated search engine of documents from all government websites. In terms of OECD's three types of government-citizen interaction discussed above, Osale.ee intended to enable all three: information (publishing legislative drafts and the search engine); consultation (the functionality of commenting draft proposals) and active participation (TOM functionality).

Figure 2. Preview of Osale.ee front page

Source: http://osale.ee, retrieved April 14, 2015

In order to post ideas and comments, users are required to register and log in. Identification with the electronic ID is optional and one can also use a nickname. Each citizen who has submitted a proposal can set a deadline for collecting comments and votes. The proposals that have received supportive votes or comments are forwarded by the system's coordinator to the relevant government department, who is required to formulate a reasoned answer in 30 days. For consultations initiated by government institutions, the authoring institution sets the deadline for submitting comments and questions (commonly 2 to 4 weeks). Within 30 days from the end date, the authoring institution is required to post an aggregate answer to the opinions, giving a reasoned explanation of which opinions were reckoned with. The final version of the legislative proposal is published on Osale.ee only after formal acceptance by the relevant governmental institution.

2.2.3 Building awareness (2008-2010)

At the time of development and first years of implementation, the coordination of Osale.ee was the task of the Government Office's Communication Unit. An advisor of the unit was responsible for the coordination of government-wide citizen engagement policies, including the implementation of the Good Practice of Engagement as well as Osale.ee. The coordinator followed the discussions in the portal, responded to citizens' questions and proposals when necessary and forwarded proposals to the relevant ministries (Hinsberg 30.04.2015). In order to build the user base, the coordinator organized trainings for government officials. During weekly meetings with communication officials in ministries, the coordinator regularly encouraged ministries to use Osale.ee for public consultations. Whenever a new draft was initiated, the coordinator addressed the responsible officials to remind them to publish the draft on Osale.ee.

Potential users among NGOs, interest groups and citizens were targeted through presentations at relevant events, articles in the media, newsletters and face-to-face communication. However, several influential interest groups remained reluctant to share their opinion in a public space and preferred to stick to e-mail communication with government officials (H. Hinsberg 30.04.2015). One awareness-raising campaign was outsourced from private advertisement agencies, which included an upgrade of Osale's visual design, addition of guiding videos and screencasts, and an online campaign to attract new users. As part of the campaign, people were invited to answer a survey and propose ideas on Osale.ee to win a meeting with the Prime Minister (Rudi 2009).

The efforts seemed to bear fruit – while in 2007, only 6% of the population reported knowing Osale.ee, awareness had risen to 14% in 2008 (Saar Poll 2008). An all-time peak of traffic on Osale.ee was reached at the end of January 2009, when Osale received 5 906 unique site visits per week (Metrix.station). This coincides with the time of the online campaign. In November 2009, the European Commission awarded the portal the title of Best Practice in supporting the goals of the EU's e-government strategy (Riigikantselei 2009). However, by 2010, public awareness had again dropped to 8% (TNS Emor 2010). This is reflected in the dynamics of site visits. In 2007, Osale.ee received on average 279 site visits per week, in 2008 the number increased to 998, peaking in 2009 with 1372 weekly visits on average and dropping to 933 in 2010 (Metrix.station).

Since its very first years of operation, Osale received criticism for failing to attract interest by potential users, leading to an under-use of the system (Runnel *et al.* 2009, 46; Praxis 2013; Kalvet *et al.* 2013). The quantitative goals set by the GO for 2008 included a regular use by all ministries and at least 100 non-governmental organisations and interest groups (Hinsberg 2007). A glance at the discussions threads in the portal suggests the latter goal was probably never met. A study of ministries in 2009-2010 showed that out of all existing channels for communicating with stakeholders, Osale.ee was the least used (Praxis and IBS 2010). At the same time, passive readership seems to have been much higher than the number of active contributors – for example, the National Audit Office's consultation on citizens' rights in the context of e-government services launched in 2008 has been read more than 32 000 times in seven years.

At the time, first civil society-led e-participation initiatives emerged. At the beginning of 2010, an e-petitions portal Petitsioon.ee[8] was launched by the Estonian Home Owners' Union. The portal enables citizens to create petitions, collect electronic signatures and conduct opinion polls. The

[8] Accessible at www.petitsioon.ee

initiative was purely citizen-led as no detailed regulation for submitting petitions to the Parliament existed before 2014.

2.2.4 Critical changes (2011)

The year 2011 started out with a major change for Osale.ee – the former coordinator left her job at the Government Office. This caused the need to review the coordination of Osale.ee and the GO decided to shift responsibility for citizen engagement policies, including the management of Osale.ee, from the Communication Unit to the Strategy Unit. The effect of this change cannot be underestimated. According to the Strategy Unit's advisor who took over some of the work of coordinating Osale.ee, the former coordinator had a "commitment to Osale.ee both in terms of content and working time" (Lemmik 16.04.2015). In 2011, Osale's administration shifted to two Strategy Unit's officials – the advisor and a consultant.

The advisor keeps an eye on the portal, checks whether ministries publish drafts for public consultations as required and whether the contact list of ministries' citizen engagement coordinators featured in the portal is up to date. The consultant's main task is to forward citizens' proposals to the relevant ministry and ensure that they get answered. The GO's IT department is involved in the process on a needs basis in purely technical questions. According to the advisor's estimation, Osale.ee takes "around 5%" of the working time of the advisor and consultant (Lemmik 16.04.2015). According to Lemmik, the Strategy Unit consultant is the only person whose job description includes some tasks related to Osale.ee. The job descriptions of the former and current coordinator never included a reference to Osale – their activities have rather been based on an intuitive recognition of what needs to be done (Hinsberg 30.04.2015; Lemmik 16.04.2015).

The shift to the Strategy Unit happened because of an important change in context – the adoption of a new government-wide policy for legislative drafting. The Rules for Good Legislative Practice and Legislative Drafting *(Hea õigusloome ja normitehnika eeskiri)* adopted at the end of 2011 established rules for mandatory ex-ante impact assessment and linked it to citizen engagement. Government institutions became obliged to engage relevant stakeholders in the impact assessment and development of the intent for a legislative draft or strategy. Since the government had adopted the Good Practice of Engagement at the beginning of 2011 as part of the official rules of the Government of the Republic (*Vabariigi valitsuse reglement*), the new drafting regulation established to the Good Practice of Engagement as the basis for organizing stakeholder engagement. As citizen engagement became integrated with impact analysis, it was no longer

regarded as a communication issue – therefore the Strategy Unit acquired responsibility for both (Lemmik 16.04.2015).

Another crucial event was the launch of a new government information system in April 2011. The Draft Information System (*Eelnõude Infosüsteem* or EIS)[9] was adopted as the official platform for inter-institutional coordination of legislative drafts, encompassing all drafts submitted by government institutions for inter-institutional and public consultation or government session (OECD 2015). Besides ministries, EIS also enables to involve interest groups and the general public – everyone interested can register as a user, follow the proceedings of drafts and add comments in the phase of public and inter-institutional consultations. EIS is also integrated with Osale.ee – when a draft requiring public consultation is published on EIS, the system sends a notification to Osale.ee, which is used as the platform for public consultation. The results of the consultation are later published on Osale.ee via EIS. (Instructions for Using the Draft Information System 2011)

The adoption of EIS had a two-fold effect. On the one hand, Osale became better integrated into the process of legislative drafting. On the other, EIS became a competitor to Osale – since EIS aggregated information on all legislative drafts in process (not only those submitted for public consultations), it served as a one-stop source of information for citizens interested in what was going on in the government (Hänni 02.04.2015). According to Osale's current coordinator, it also abolished the unique role of Osale.ee as the principal public channel for making proposals to the government (Lemmik 16.04.2015). Unlike the concept of "public consultations", which is undefined in regulations, inter-institutional approval is regulated in a detailed manner in the Rules for Good Legislative Practice and Legislative Drafting, requiring ministries to include feedback on all opinions in the explanatory memorandum of the draft. Therefore, although the potential to make substantial changes to legislation is higher in earlier phases, the lack of information, clear procedures and structured feedback impel many to choose to submit their opinion in the later and better regulated phase of approval (Hänni 02.04.2015).

2.2.5 Steady decline (2011-2015)

As stated in an e-Governance Academy's report (2012), Osale.ee fell into hibernation in 2011. This is attributable to the initial confusion created among officials by the adoption of EIS but also to the change of coordinator when former active content-creation was replaced by "merely technical

[9] Accessible at http://eelnõud.valitsus.ee

work" (e-Governance Academy 2012, 16). 2011 seems to have become the starting point of a gradual decline. By the end of 2011, weekly site visits of Osale had dropped to 564 compared to 933 in 2010 (Metrix.station). According to surveys of internet users carried out in 2012 and 2014, only 1% had visited Osale.ee (TNS Emor 2014). In comparison, the civil society-led e-petitions environment Petitsioon.ee had been used by 3% in 2012 and 7% in 2014 (*ibid*.). The dynamics of site visits slowly dropped from 387 per week in 2012 to 316 in 2014 (Metrix.station). Out of the 17 consultations published in the portal in 2014, the most popular ones received 2 comments and 13 received no comments at all.

Figure 3. Dynamics of unique site visits 2007-2015

Source: Metrix.station, retrieved 15.03.2015

Some studies (Runnel *et al.* 2009; e-Governance Academy 2012) explain Osale.ee's decline with a kind of 'vicious circle'– as government officials perceived a lack of interest on the part of citizens, they tended to prefer alternative channels for citizen engagement. The lack of relevant information on the site in turn discouraged new users, creating even fewer incentives for citizens and officials to use the portal. As a result, the system is not perceived as efficient and effective by any stakeholder group (e-Governance Academy 2012, Praxis and Pulse 2015).

At the same time, societal events in 2012-2013 point to a surge of civil activism in Estonia. A party financing scandal in 2012 ignited a public trust crisis, which resulted in the publication of Charter 12, a manifesto of opinion leaders calling for the creation of an "alternative institution" to give civil society a voice in reforming the political system (Harta 12, 2012). In a week, the Charter collected over 17 000 supporting signatures in the e-petitions portal Petitsioon.ee. A roundtable of political parties, academy and civil society gathered to resolve the crisis and decided to crowdsource citizens' ideas online on issues such as party financing, rules for setting up political parties and democratic practices in policy-making. Instead of using Osale.ee, the roundtable

launched a new project, the People's Assembly (*Rahvakogu*)[10]. The website was open for contributions for 3 weeks in January 2013 and attracted 60 000 visitors, nearly 2000 registered users and a total of 6000 original proposals and comments (Praxis 2014). In combination with expert analysis and a public deliberation day, the process resulted in 15 policy proposals delivered to the Parliament (Hinsberg 2014). One of People's Assembly's achievements was the introduction of "collective addresses" into legislation in 2014 – a form of petitioning allowing citizens to send proposals backed by at least 1000 signatures to the Parliament (Response to Memoranda and Requests for Explanations and Submission of Collective Addresses Act 2014). However, active interest in the People's Assembly did not translate into interest in existing e-participation tools such as Osale.ee.

Another event on the backdrop was the adoption of the Open Government Partnership (OGP) Action Plan in June 2014. The OGP is a global initiative launched in 2011 to make public governance more open and responsive to citizens (Open Government Partnership 2015). Joining the partnership in 2012, Estonia acquired the obligation to establish a national coordination mechanism involving government and civil society in the implementation and monitoring of good governance practices. While the initiative had difficulty taking off, spring 2014 brought a change (Hänni 02.04.2015). At the time of drafting the second Action Plan in March 2014, the government of Estonia stepped back and a new government coalition was formed by the new Prime Minister Taavi Rõivas. Due to rapid changes, the new government lacked the time and capacity to actively contribute to devising the new Action Plan, so the civil society actors involved in the process took the lead (Hänni 02.04.2015).

The new civil society-shaped Action Plan included the objective of developing e-participation tools to improve user experience, service integration and promotion of the tools (Riigikantselei 2014a). According to Liia Hänni (02.04.2015), it also instigated a broader debate on the role of information systems in citizen engagement. As part of the Action Plan, the GO Strategy Unit commissioned an evaluation of Osale and the Draft Information System (EIS) in 2015 with the aim to evaluate their use and usability and develop a future vision for both information systems. One of the GO's objectives was to learn why Osale.ee "does not work as expected" (Praxis and Pulse 2015, 2).

[10] Accessible at www.rahvakogu.ee

2.3 Dimensions and factors of failure

2.3.1 In what ways has Osale.ee failed?

In Sauer's terms, Osale.ee is not a terminal failure. It still operates and due to integration with the Draft Information System, new drafts are published for consultations from time to time. However, the conclusions of the 2015 evaluation are pessimistic: Osale.ee is under-utilized and perceived as ineffective by all stakeholder groups (Praxis and Pulse 2015). As indicated by the evaluation and the interviews carried out for the thesis, Osale.ee can be considered failed in terms of under-use, widespread stakeholder dissatisfaction and negative evaluations of the system.

An objectively measurable dimension of failure is under-utilization, which is manifest in the low traffic on the site and inactivity of discussions. This can simultaneously be considered an interaction as well as expectation failure. The under-use of the government's central e-participation site has significant negative consequences to its ability to achieve the desired effect – an enhanced perception of the legitimacy of decision-making processes.

The 2015 evaluation identified the following user groups: government officials, who submit drafts and monitor comments; interest group representatives, who read proposals related to their field; active citizens, who leave comments and may post an idea; and other citizens, who visit Osale out of curiosity once in their life (Praxis and Pulse 2015, 17). According to the evaluation, officials regard the tool as unable to generate the input that they need, only allowing superficial engagement. At the same time, interest groups perceive Osale as useless, as it does not enable genuine dialogue with the government, the process following consultations remains unclear and ideas lack adequate feedback. Since interest groups often have well-established communication channels with ministries (Hänni 02.04.2015; Hinsberg 30.04.2015) and have written Osale off as useless (Praxis and Pulse 2015), the main supporters of the system can be seen in the few active citizens, for whom Osale provides an access point to decision-makers. According to the evaluation, they are no more than 5-10 individuals in total (*ibid*., 17).

The main dimension of user dissatisfaction is related to the process of information exchange in the system, poor integration with the policy-making process and the consequent lack of impact (e-Governance Academy 2012; Praxis and Pulse 2015; Hänni 02.04.2015; Lemmik 16.04.2015; Nurmoja 11.05.2015). Relevant information is often unavailable – although Osale.ee was created to engage citizens in the early stages of legislative drafting, not all ministries submit all important drafts to the system (Praxis and Pulse 2015, 19). The Good Practice of Engagement has not become

a standard (*ibid*., 20). Consultations are often carried out too late in the policy cycle and with no prior notification, leaving citizens little time to react (e-Governance Academy 2012, 15-16; Lemmik 16.04.2015, Praxis and Pulse 2015). Citizens' comments and proposals sometimes receive no response at all (Praxis and Pulse 2015; Nurmoja 11.05.2015).

In addition, Osale.ee does not provide information on the steps preceding and following public consultations, and the consultation's role in the full process of legislative drafting (Praxis and Pulse 2015; Hänni 02.04.2015; Nurmoja 11.05.2015). The site provides no information on who and how will work with citizens' opinions. The situation is even worse in the citizens' ideas section – as the procedure for working with citizens' ideas proposed on Osale.ee is nowhere defined, the majority of ideas at best receive a formalistic reply and are never pursued further (Praxis and Pulse 2015).

Another strand of criticism is related to flaws in the portal's design and user interface. In the 2015 study, stakeholders identified the following problems: uncomfortable, unintuitive interface, poor accessibility of interesting information (lack of a logical structure and tools facilitating information search), outdated technological platform (incompatibility with mobile devices) and poor visual design. A key problem has been the mismatch of the design with the expectation of facilitating interactive dialogue (Praxis and Pulse 2015; Lemmik 16.04.2015). Posting rows of comments on top of each other without filtering and moderation makes keeping track of different arguments difficult and inhibits a dynamic discussion. Another problem has been the form in which documents are presented. The drafts are often in difficult legal language and miss explanatory notes outlining the main points and the aspects in which feedback is expected (Lemmik 16.04.2015; Hinsberg 30.04.2015; Praxis and Pulse 2015). Finally, user support has been reported inadequate: instructions are not easily found and are mostly presented in the form of videos, which prevents quick access to necessary information (e-Governance Academy 2012, 16).

As the process of developing a future vision for Osale.ee has not finished at the time of writing the thesis, the fate of Osale.ee is not yet decided. However, the recommendations of the 2015 evaluation suggest that if EIS was upgraded to include comprehensive information of the full life cycle of legislative drafts and access points for citziens, there would no longer be a need for Osale.ee (Praxis and Pulse 2015, 4). The study suggests that Osale's "TOM functionality" could be taken over by the so-called People's Assembly 2.0, a civil society-initiated e-petitions environment currently in development as a platform for preparing "collective addresses" to the Parliament (*ibid*., 8). The termination of Osale.ee is thus a likely scenario.

At the same time, the coordinators and users interviewed are careful not to deem Osale.ee a complete failure. According to coordinators, although Osale did not turn out to be *the principal channel*, it did provide *a channel* for participation. The users consider the existence of a publicly accessible e-participation portal as a value in itself. They have appreciated the opportunity to express opinions and receive official responses, and share their views with a larger audience, which would not be possible through e-mail communication with officials. Liia Hänni, e-democracy expert and long-time supporter of Osale, points to the value of Osale as a learning process helping to understand the problems and limitations of e-participation.

2.3.2 Key factors in the failure process

2.3.2.1 Process design

The failure of e-participation projects is often associated with their poor integration into political processes. This has also been the most frequent criticism of Osale.ee. The theoretical discussion highlighted the need to involve decision-makers in designing e-participation processes and give e-participation platforms a mandate, which is clear to all stakeholders. In the case of Osale, governmental and non-governmental users alike have lacked an understanding of Osale's role in the rule-making process.

One of the possible causes is the ambiguity of the concept of "public consultation" (Hänni 02.04.2015; Hinsberg 30.04.2015). Although the term is present in several regulations, it is not explicitly defined in any. Due to the lack of clarity in the focus and objective of consultations, the participation process on Osale.ee has remained poorly integrated into policy-making. With government institutions only doing the minimum by publishing drafts, without adequate follow-up and feedback, Osale.ee has remained a piece in a puzzle, missing the rest of the picture. The functionality of citizens' ideas to the government has been even more detached from institutional procedures.

2.3.2.2 Demand side

Public demand for e-participation is a complex variable. Although governments are expected to open policy-making processes to the public, citizens often lack the interest and ability to participate. Similar patterns are evident in the case of Osale.ee. As civil society in Estonia has evolved, calls for participatory policy-making have become more vocal – the People's Assembly, new e-participation tools such as Petitsioon.ee and the role of NGOs in the Open Government Partnership process illustrate the development. However, the use of e-democracy tools remains

low. In a 2014 survey, 82% of internet users reported using electronic health services while only 26% had used e-voting, by far the most popular e-democracy service (TNS Emor 2014).

One of the challenges is the accessibility of relevant information customized to users' needs. According to Osale's coordinators, officials were repeatedly suggested to simplify legal texts and highlight the aspects in which citizens' feedback is expected. This has rarely been done. Another demand-side factor is the increasing importance of comfortable user experience. According to Lemmik (16.04.2015), information systems with poor interface design are no longer accepted by users. E-participation websites are expected to be responsive and usable on mobile devices, easily navigated, dynamic and adaptable to different profiles and preferences (Praxis and Pulse 2015, 9).

Experts and theorists emphasize the importance of promoting e-participation tools to ensure and maintain sufficient use. Most interviewees suggested that the promotion of Osale.ee has been insufficient. While in the first years, efforts were made to build awareness of the tool among stakeholders, promotion seems to have completely stopped in 2010-2011.

Finally, the interviewees and evaluation point to the emergence of a new conception of e-participation (Hänni 02.04.2015; Lemmik 16.04.2015; Hinsberg 30.04.2015; Praxis and Pulse 2015). Firstly, the idea of asking people to comment on drafts is becoming replaced by an understanding that citizens wish to be engaged in the early stage of idea-generation. Secondly, having one central participation platform is no longer considered essential. Instead, there is demand for an information system aggregating comprehensive information on the full cycle of a legislative draft, including the discussions held in each step of the process. Citizens can then be engaged through a multitude of channels.

2.3.2.3 Culture and attitudes

Although the Good Practice of Engagement has existed for ten years, the 2015 evaluation concluded that its principles have not become practice. The causes may be largely cultural. According to Osale's idea champion Liia Hänni (02.04.2015), awareness of the goals and procedures of citizen involvement has probably increased thanks to the institutionalisation of the Good Practice but the culture of engaging and open policy-making still needs to take root.

The 2015 evaluation points to the differences in attitudes to engagement between and within government institutions, which is dependent on the existing organisational culture and the top manager (Praxis and Pulse 2015, 21). Cultural differences also exist between the government and civil society. Whereas officials prefer to consult influential interest groups and umbrella

organisations, NGOs prefer a fully open process accessible to anyone interested (*ibid*.). According to the former coordinator, individual attitudes matter as well: officials favouring one-way communication have been much more reluctant to contribute to Osale than their collaboration-oriented colleagues (Hinsberg, 30.04.2015).

The 2015 study also referred to another problem of institutional culture. As Osale.ee is an official channel, officials fear that citizens expect them to always represent the official position of their organisation (Praxis and Pulse 2015, 19). Due to the perceived risk of misperception, officials have been cautious about initiating discussions in the early stages of legislative drafting where official positions have not yet been formulated.

2.3.2.4 Political support

Whereas the initiative for TOM, the predecessor of Osale.ee, came from the Prime Minister's cabinet, Osale has seen no political leadership. All interviewees expressed the opinion that Osale.ee has not been a priority to any politician or top government official – it has not been referred to in key policy documents, statements or political discussions. It is thus worth asking if the Prime Minister's leadership of TOM and the absence of a political champion for Osale.ee could explain why TOM managed to attract much more interest.

According to coordinators, neither has there been political resistance to Osale.ee. However, the indifference of politicians and top managers is not a neutral variable – as noted above, political leadership is an important enabler of e-democracy. The importance of the political factor was reflected in several interviews. One interviewee pointed to the importance of political championing in motivating officials to take up new citizen engagement procedures and information systems. Another interviewee noted a change of institutional culture, which emerged with the change of Prime Minister in 2014 – government officials seem to prioritize engagement more than before.

2.3.2.5 System design

Osale's stakeholders have considered flaws in system design secondary to process design. Nevertheless, a poor interface design may have negatively influenced acceptance by users. Theorists underline that the effect of participation can be increased if the design permits a dynamic moderated discussion and easy access to relevant information. All have been largely absent in Osale.ee. The users interviewed highlighted the importance of being able to follow what happens with their proposals, and suggested Osale's integration with other government information systems and document registers. Users also regarded the technical functionalities as limited, not allowing

to add graphs and tables to ideas, initiate petitions and interactive discussions. At the time of initiation, several idea champions had suggested a step-by-step development, testing bits of Osale.ee and using feedback as input in the next steps (Rugam-Rebane 15.05.2015). However, rigid public procurement procedures required the whole platform to be developed at once (*ibid*.).

While most interviewees and the 2015 evaluation point to the absence of interactivity as a flaw, there seem to be mixed views on whether this was ever an objective. According to Lemmik (16.04.2015), generating discussion was an expectation, which became neglected over time. However, the initiator and former coordinator claim that Osale.ee was not designed as a discussion forum but a tool for aggregating opinions and ideas (Hinsberg 30.04.2015; Rugam-Rebane 15.05.2015). According to Hinsberg, the expectation that Osale.ee should also function as a discussion platform emerged much later.

2.3.2.6 Competitors

The adoption of the Draft Information System (EIS) in 2011 likely sped up Osale.ee's fall out of active use. According to interviews and the 2015 evaluation, EIS can be regarded as a competitor to Osale.ee in terms of access to public information and commenting draft legislation. As the use of EIS is mandatory for officials, they have no interest in separately initiating and following discussions on Osale.ee, especially considering its low usage (Lemmik 16.04.2015). A user also pointed to the development of social media tools as competition to Osale.ee, allowing flexible forms of discussion and access to officials and politicians (Nurmoja 11.05.2015).

2.3.2.7 Structure and personnel

One of the key events was the change of staff and structural shift from one organisational unit to another in 2011. A study by the e-Governance Academy (2012) points to the sharp difference of the face of Osale.ee before and after 2011. Several interviewees stressed the importance of individual persons and the loss of commitment that happened when the first coordinator left. Part of the problem can be related to the project organisation's structure. The responsibilities and tasks of Osale's coordinators were never explicitly outlined in documents. The process of problem-solving and innovation has remained completely *ad hoc* with no defined objectives, which may have prevented deliberate development of Osale.ee. Finally, with the structural change all promotion efforts stopped. This could partly be explained by emerging perceptions of Osale as an ineffective tool, but possibly also the difference in priorities of officials performing communication-related *versus* strategy-related tasks.

2.3.3 Innovation and support management

Osale.ee's innovation process has mostly been reactive or even passive. Although reports of technical problems have not been frequent (Lemmik 16.04.2015), studies indicate that technical and design flaws may have been a barrier to use (e-Governance Academy 2012; Praxis and Pulse 2015). Nevertheless, no developments have been made in the system since 2007-2008. As the software has gradually outdated, upgrading the existing platform has become impossible.

After the communication activities in the first years, no efforts were made to mobilize support. In the period between initial development and the review in 2015, no analyses of stakeholders' expectations were carried out. According to the current coordinator, as the use and interest in the system remained low by all stakeholders, the Government Office saw little value in commissioning studies to "learn what we already know" (Lemmik 16.04.2015). Somewhat surprisingly, mobilizing political support was never an aim. According to the former coordinator, Osale was designed as a tool for administrators, which has little to do with politics (Hinsberg 30.04.2015). In her view, political leadership may be important in promoting a culture of participation but not the channels through which participation happens.

In order to understand the effect of the modest innovation and support management efforts on Osale's outcomes, the key factors identified need to be discussed in relation to the project organisation's power. The project organisation could clearly have adapted the system's design to (changing) expectations, and built demand by active promotion. Given the power of managers to cascade cultural changes top down, the IS may also have benefited from mobilizing supporters among politicians and top administrators. However, the most influential contextual factors (poor integration in the policy-making process, some of the cultural barriers and changes in the environment) were understandably beyond the project organisation's control.

According to the current coordinator, the problems revealed in the 2015 evaluation have been intuitively known for years (Lemmik 16.04.2015). The fact that nothing was done to address the factors which could have been influenced implies that the project organisation either gave Osale.ee low priority or felt a lack of power over the key contextual barriers – or both at once. Indeed, while the innovation and support management can be considered inadequate in many respects, key contextual factors were out of the project organisation's reach.

3. DISCUSSION

Corresponding to the findings of many previous studies of IS failure, the case study of Osale.ee demonstrates the critical importance of the human, organisational and environmental factors compared to technological factors. Flaws in system design, ambiguous focus and vision have also been reported frequent factors in IS failure (Yeo 2002). Other problems can be related more specifically to the complexity of democratic policy-making: the difficulty of attracting users, cultural barriers to collaboration, integration of the IS in the policy process, and contested views of where and how democratic dialogue should happen.

Whilst context has played the leading role, the process of innovation and support management can also be judged inadequate. The lack of human resources devoted to the system after the structural change and the lack of clear development objectives were likely impediments to a successful innovation process. The effect was further exacerbated by poor support management. Although one of the underlying assumptions of Sauer's (1993) model is that systems have a goal of survival and therefore attempt to adapt to the environment, such attempts are hardly visible in the case of Osale.ee. In its current form in the current context the system seems to have little value to most stakeholders. The fact that Osale.ee still operates might perhaps better be explained by its integration with the Draft Information System and the undesired communicative signal that its closure might send to citizens.

In terms of Sauer's triangle of dependencies, the failure of Osale.ee can be described as an interaction of support and systems outcomes, affected by contextual constraints. Contextual factors turned out to be a source of problems for the IS, significantly reduced the system's ability to serve supporters, limited the project organisation's options in the innovation process and the availability of support. Project organisation failed to innovate the system and made little efforts to sustain support. As a result, potential supporters evaluated the system negatively and the IS lost support. As support was lost, the IS was evaluated negatively by even more potential supporters, so the system lapsed into a cycle of failure.

Figure 4. Osale.ee: triangle of dependencies in the failure process

Source: author, based on Sauer (1993)

The case study of Osale.ee largely confirmed the hypotheses proposed. Firstly, information systems fail if the innovation process addresses the context inadequately, either because the context is beyond the project organisation's power or because of flaws in innovation process. In Osale's case, both were simultaneously true. Secondly, the case points to the complexity of the contextual factors affecting e-participation, supporting the assumption that e-participation systems face an intrinsically high risk of failure.

The case study demonstrated the utility of the chosen IS failure model in the study of an e-participation project. The conceptualisation of e-participation projects as information systems enabled to consider the diversity of factors that affect the performance of socio-technical systems, such as technology, project management, or contextual factors. Sauer's process model turned out to be a useful framework for revealing the variety of factors affecting the system's outcomes. Combining Sauer's concept of terminal failure with Lyytinen's and Hirschheim's categories of interaction and expectation failure enabled to consider the critical importance of broad use and stakeholder support in e-participation projects with regard to legitimacy. Contrary to Sauer's forgiving view, an e-participation system which is under-used is often perceived as failed.

In line with theoretical assumptions and previous empirical findings, the case study suggests that IS failure is the outcome of interactions between the IS, project organisation, supporters and context. The difference in each case seems to be the relative importance of different factors in the process. In the current case, the involvement of literature on e-democracy and e-participation helped to identify potentially important contextual factors that affect e-participation projects. While IS theories can serve as a useful framework for studying the process of failure, they lack the ability to explain the contextual factors that affect e-participation systems. Conversely, while participation and democracy theories explain the context, they lack the ability to explain how context interacts with the system and the actors involved. Therefore, by combining literature on IS and democratic participation, a more comprehensive understanding of the failure of e-participation projects can be developed.

The results of the case study suggest the need for further development of theories on the success/failure of e-participation projects. Future research should focus more on contextual than technological factors. Based on the study of Osale.ee, the regulatory context, institutional procedures and organisational cultures might be factors whose effect on e-participation projects could be studied more. However, focusing on factors only remains a narrow approach. The effect of the interactions between the factors, the project organisation and users, and their interdependence in failure could only be revealed by a process-oriented approach to failure. As case studies of e-participation systems seem to be rare in IS literature, future research might focus on testing socio-technical IS failure models on different cases of e-participation initiatives, and develop new and interdisciplinary theories explaining why e-participation projects succeed or fail.

CONCLUSIONS

The recent rise of web-based citizen participation initiatives and their reported lack of success raise the question why information systems designed for e-participation fail. As this issue has not received sufficient attention in literature, the thesis aimed to develop a better understanding of why and how e-participation projects fail. To that end, a case study of the Estonian government's e-participation portal Osale.ee was carried out. The portal was launched in 2007 as a one-stop e-participation platform, allowing the government to consult citizens on legislative drafts and enabling citizens to propose their ideas to the government. The system is still operational but studies have repeatedly referred to its failure as an e-participation tool.

IS failure literature is dominated by rationalist approaches focusing on critical failure factors. However, socio-technical and process-oriented approaches are arguably better able to provide holistic explanations of the causes and process of failure. Chris Sauer's (1993) process model of IS failure was therefore chosen as the guiding framework for the case study of Osale.ee, approaching the process of failure in terms of interactions of different actors and contextual factors. The chosen model is largely interpretive, which allowed for a consideration of facts as well as interpretations associated with the IS.

In order to account for the specific context of e-participation systems, the theoretical framework was complemented with assumptions derived from literature related to e-democracy and participation. Some of the key factors affecting the success of e-participation tools are argued to include specific requirements to design, integration with broader policy-making processes, consideration of the demand side, favourable institutional culture and political leadership. Combining the two theoretical strands, two hypotheses were posed. First, information systems fail if the IS innovation process addresses the context inadequately or if the project organisation lacks power over contextual factors. Second, due to the complex environment of democratic participation, e-participation systems are prone to fail.

The study of Osale.ee suggests its failure in fulfilling stakeholders' expectations and attracting sufficient use. Some of the likely contributors to failure – the importance of the human factor and structural arrangements, flaws in project management, poor support management and the effect of competitors – can be considered typical of all information systems. Other factors can be associated with the context of democratic participation. The particularities of the demand for e-democracy, lack of integration into the policy-making process, under-developed culture of collaboration, and lack of political leadership emerged among the key factors in the case of Osale.ee.

The results of the case study demonstrate the utility of combining the two strands of literature for studying e-participation projects. IS theories can serve as a useful framework for studying the process of failure but lack the ability to explain the particular contextual factors affecting e-participation systems. Conversely, while participation and democracy theories explain the context, they are unable to explain how context interacts with the system and the actors involved.

Although a single case study has limited generalisability, findings from the study of Osale.ee can be considered valuable as a learning process for managers of e-participation projects. What Osale demonstrates is the critical importance of the integration of e-participation into broader political and institutional processes. Hence, it is crucial to clearly define the objective and role of the IS in the policy-making process. Secondly, it is strategically important to mobilise support among the user groups whose active contribution has a key role in ensuring the impact of e-participation. Thirdly, the accessibility of relevant information in formats customized to users' needs seem to be important prerequisites for effective participation. Fourthly, the e-participation tool should be actively promoted to generate use and sustain support. Finally, IS managers might benefit from approaching e-participation projects as a continuous process of adapting to the environment and responding to changing expectations.

EESTIKEELNE RESÜMEE

Miks e-osaluse projektid ebaõnnestuvad: Eesti valitsuse osalusportaali Osale.ee juhtumi analüüs

Info- ja kommunikatsioonitehnoloogia areng ja avalikkuse nõudlus kaasava poliitikakujundamise järele on tekitanud huvi e-valitsemise osalusdemokraatliku potentsiaali vastu. Viimastel aastatel on loodud arvukalt veebipõhiseid osaluskeskkondi, ent paljusid neist peetakse ebaõnnestunuks – sageli on ootused jäänud täitmata ja kasutajaskond osutunud napiks. Infosüsteemide ebaõnnestumine on levinud probleem nii era- kui avalikus sektoris, millele avaliku halduse valdkonnas on seni vähe tähelepanu pööratud. Veel vähem on uuritud e-osaluse eesmärgil loodud infosüsteemide edu ja ebaedu. Seetõttu seab magistritöö eesmärgiks uurida, miks ja kuidas e-osaluse projektid ebaõnnestuvad.

Empiirilise näitena analüüsib töö Eesti valitsuse osalusportaali Osale.ee juhtumit. Portaal käivitati 2007. aastal „kõik-ühes" kaasamiskeskkonnana, mis pakub valitsusasutustele võimalust konsulteerida seaduseelnõude ja strateegiate väljatöötamisel avalikkuse ja huvigruppidega ning võimaldab kodanikel pakkuda valitsusele oma poliitikaideid. Vaatamata kõrgetele ootustele, on senised uuringud viidanud portaali ebaõnnestumisele e-osaluse tööriistana.

Ehkki infosüsteemide edu ja ebaedu käsitlevas kirjanduses valdab ratsionalistlik perspektiiv, mis keskendub kriitilistele edu- ja ebaeduteguritele, võimaldavad sotsio-tehnilised ja protsessikesksed mudelid terviklikumat käsitlust ebaõnnestumise põhjustest ja protsessist. Seega võtab magistritöö aluseks Chris Saueri (1993) protsessimudeli, eesmärgiga uurida erinevate tegurite ja osapoolte ning nende vastastikmõjude rolli ebaõnnestumise protsessis. Valitud mudel on paljuski tõlgendav, mis erinevalt positivistlikest lähenemistest võimaldab uurida ka infosüsteemile omistatavaid väärtusi ja subjektiivseid hinnanguid.

E-osaluse infosüsteemide eripärade arvestamiseks kaasab töö teoreetiline baas täiendavalt osalus- ja e-demokraatia-alast kirjandust. Selles tuuakse e-osaluse edu mõjutavate teguritena muuhulgas esile spetsiifilisi nõudmisi süsteemi disainile, integreeritust poliitikakujundamise protsessiga, nõudluspoole eripäradega arvestamist, organisatsioonikultuuri ning poliitilise eestvedamise rolli.

Ühendades teoreetilised lähtepunktid infosüsteemide ja e-demokraatia valdkonnast, püstitab töö kaks hüpoteesi. Esiteks, e-osaluse infosüsteemid ebaõnnestuvad, kui süsteemi innovatsiooniprotsessis ei võeta arvesse konteksti või kui infosüsteemi haldajatel puudub kontekstitegurite üle mõju. Teiseks, osalusdemokraatia konteksti komplekssuse tõttu on e-osaluse projektidel kõrge ebaõnnestumise risk.

Osale.ee analüüs leiab, et portaalil ei ole õnnestunud luua piisavat kasutajaskonda ja vastata erinevate huvipoolte ootustele. Mõned ebaõnnestumisel tõenäoliselt olulist rolli mänginud tegurid, nagu inimfaktor ja organisatsiooniline korraldus, puudujäägid projektijuhtimises, toetajate olulisus ja alternatiivsete infosüsteemide mõju, on infosüsteemidele tüüpilised. Teisi võtmetegureid võib seostada eelkõige osalusdemokraatia kontekstiga. Osale.ee edu on tõenäoliselt mõjutanud e-demokraatia nõudluse ja kasutajagruppidega seotud eripärad, osalusplatvormi nõrk seostatus poliitikakujundamise protsessiga, vähearenenud osalus- ja kaasamiskultuur ning poliitilise eestvedamise puudumine.

Analüüs kinnitab, et ehkki infosüsteemide teooriad loovad sobiva raamistiku ebaõnnestumise protsessi uurimiseks, ei seleta need e-osaluse edu mõjutavaid spetsiifilisi tegureid. Ja vastupidi – osalusdemokraatia teooriad annavad küll ülevaate kontekstiteguritest, kuid ei paku selgitusi, millise protsessi kaudu kontekst infosüsteemile ja sellega seotud osapooltele mõju avaldab. Seetõttu on e-osaluse projektide ebaedu mõistmiseks vajalik ühendada mõlema valdkonna teooriad.

Ehkki juhtumianalüüside üldistusvõime on piiratud, on neil oluline väärtus õppimisprotsessina. Osale.ee juhtum viitab, et e-osaluse projekti õnnestumiseks on oluline selle tugev integratsioon poliitiliste ja institutsionaalsete protsessidega. Infosüsteemi eesmärk ja roll poliitikakujundamise protsessis tuleks selgelt määratleda juba planeerimisfaasis. Teiseks on infosüsteemi kavandamisel strateegiliselt oluline luua tugev toetus kasutajagruppide seas, kelle soosiv hoiak ja aktiivne osalus on osalusprotsessi mõju seisukohalt kriitilise tähtsusega. Kolmandaks eeldab tulemuslik e-osalus vajaliku info kättesaadavust kõigile osalejatele vormis, mis vastab iga kasutajagrupi vajadustele. Neljandaks ei saa e-osaluse projektide puhul alahinnata kommunikatsiooni tähtsust nõudluse kasvatamisel ja toetuse hoidmisel. Viimaks aga võib projektijuhtidel olla kasu e-osaluse projektide käsitlemisest pideva kohandumisprotsessina muutuva keskkonna ja uute ootustega.

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Appendix 1. List of interviews and interview questions

1. List of interviews

Hinsberg, Hille. Interview (30 April 2015), audio record.

Holm, Kaie. Telephone interview (6 May 2015), written notes.

Hänni, Liia. Interview (2 April 2015), written notes.

Lemmik, Juhani. Interview (16 April 2015), written notes.

Nurmoja, Jaanus. E-mail correspondence (11 May 2015), Skype conversation (13 May 2015), written record.

Rugam-Rebane, Eleka. Interview (15 May 2015), written notes.

2. Main interview questions

Coordinators/initiators/idea champions:

1. What were the reasons for initiating Osale.ee?
2. Who initiated, led and participated in the development? Who were the main supporters?
3. How would you estimate the demand for Osale at the period of initiation?
4. What were the objectives of Osale? Has the system fulfilled the objectives?
5. Would you consider Osale.ee a successful or an unsuccessful project? Why? What does success/failure manifest in?
6. What external or contextual factors have affected Osale? What has been their impact?
7. What specific events have affected Osale? What has been their impact?
8. How would you describe the level of political support to Osale over time? What efforts been made to mobilize political support?
9. What problems and flaws have emerged in the system? When did the problems become evident?

Coordinators:

1. How is/was the coordination of Osale organized? What departments and positions are/were involved? Who is/was responsible for the system's management and technical administration?
2. How do/did coordinators learn about problems and flaws in the system?
3. What procedures are/were used for problem-solving?
4. When and how (if at all) have the expectations and needs of Osale's users been studied?
5. When and how (if at all) have the results and impact of Osale.ee studied?
6. What has been done to promote Osale.ee and ensure stakeholder support?

Users:

1. When and how did you first learn about Osale.ee?
2. For what purposes have you used Osale.ee?
3. Are you using Osale in the present day? If not, why?
4. What have been the advantages of using Osale.ee as a participation tool? Has it been a necessary medium for you?
5. What expectations have you had of Osale.ee? Has the portal fulfilled your expectations?
6. Do you consider Osale.ee a successful or unsuccessful initiative? Why? What does success/failure manifest in?
7. What problems and flaws have you noticed in the system?
8. Do you intend to use Osale again in the future? If not, on what conditions would you start using the system again?

Appendix 2. Timeline of Osale.ee

Year	Events
2004-2005	Formulation of the Good Practice of Engagement. First preparations for developing Osale.ee as the government's central e-participation portal.
2006	Public procurement of the technical platform. Development of the first stage of the IS (e-consultations on legislative drafts).
2007	Launch of the TID+ project to analyse the experience of Osale.ee's predecessor *Täna Otsustan Mina* (TOM) and develop software for the second functionality of Osale.ee (citizens' policy ideas to the government). Addition of the integrated search engine, test use. July – public launch of Osale.ee. By November, 6 public consultations had been carried out on Osale.ee, gathering 25 comments and opinions. Each consultation received on average 1700 visits. The total number of registered users was around 150. (Hinsberg 2007)
2008	Addition of the functionality of ideas by citizens, full integration of TOM into Osale.ee. Minor design updates Within Osale.ee's first 12 months of operation, 31 consultations were carried out, most consultations receiving only few or no comments (Runnel et al 2009, 37).
2009	Due to an online promotion campaign, Osale.ee attracted an all-time peak of traffic: in the week of 19-25 January, Osale received 5 906 unique site visits (metrix.station.ee). The European Commission awarded Osale.ee the title of Best Practice in supporting the goals of the EU's e-government strategy (Riigikantselei 2009).
2010	The number of registered users had risen to 3000 (Hinsberg 2010, 113).
2011	Change of Osale.ee's coordinator and structural shift of Osale's management from the Government Office's Communication Unit to Strategy Unit. The Rules for Good Legislative Practice and Legislative Drafting institutionalized the Good Practice of Engagement, making stakeholder

	engagement in policy-making mandatory and related to ex-ante impact assessment. In April, a new government information system, the Draft Information System (*Eelnõude Infosüsteem, EIS*) was launched, partially integrated with *Osale.ee.* By the end of the year, *Osalusveeb* had 3880 registered users.
2012	Estonia's action plan for the global Open Government Partnership (OGP) initiative, coordinated by the Government Office, went through a public consultation on *Osale.ee* and received 3 comments in total: one from a representative of the OGP roundtable in Estonia, one from an NGO representative and one from an individual citizen (Hinsberg 2013, 23).
2013	Start of the transfer of all central government institutions' websites to a common platform and visual design. A banner inviting to Osale.ee was included in the front page footer of every government website.
2014	June – the adoption of the Open Government Partnership (OGP) Action Plan for 2014-2016. The Action Plan included the objective to review and develop the government's e-participation tools. By the end of the year, Osale.ee had 4241 registered users, who had submitted 439 new policy ideas on top of the 1187 ideas transferred from TOM. Slightly over 200 public consultations had been carried out since 2007. The majority of the consultations launched in 2014 received 0 to 2 comments.
2015	As part of the OGP Action Plan 2014-2016, the Government Office commissioned an evaluation of the use and usability of Osale.ee and EIS from the Praxis Centre of Policy Studies and Pulse (a private consultancy) with the aim to develop a future vision of the information systems. The review suggested the termination of Osale.ee in its current form.