**Fundamental and enhancing design principles in**

**Standard Business Reporting**

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**Abstract**

Standard Business Reporting (SBR) initiatives have developed in a number of countries in order to reduce the burden of financial reporting. SBR allows joint tax and financial reporting through a common government gateway, thus reducing the administrative burden of statutory financial reporting. In Europe, SBR projects are a response to the European Accounting and Transparency Directives, and the European Digital Agenda. An SBR initiative is an example of a complex and innovative project that requires the co-ordination of public and private constituencies. Drawing on the qualitative findings of a longitudinal empirical study in Finland, we contribute to the literature by identifying a set of fundamental and enhancing design principles in SBR projects: (1) leadership, (2) win-win-win vision, (3) multi-channel communication, (4) intelligent scope, (5) expertise commitment, (6) track record, and (7) co-creation. Our findings offer a guide that will be useful to other jurisdictions embarking on SBR projects using XBRL.

**Keywords**

Design principles, innovation projects, stakeholder engagement, Standard Business Reporting, XBRL

**1. Introduction**

This study investigates the design principles associated with the successful introduction of Standard Business Reporting (SBR). The idea behind SBR is simple. Instead of requiring companies to prepare different financial reports for different government bodies, a national taxonomy is created that reflects the regulations and Generally Accepted Accounting Principles (GAAP). The taxonomy is essentially a data dictionary that permits information to be labelled (tagged) in a standard, unambiguous way. This allows joint tax and financial reporting through a common government gateway, thus providing a ‘one-stop-shop’ (OECD, 2009).

SBR initiatives have begun to mushroom worldwide in response to national and regional policies aimed at reducing the administrative burden of statutory financial reporting. In Europe, SBR projects are set in the context of the policies of the European Accounting Directive (2013/34/EU) and the Transparency Directive (2013/50/EU). They are also aligned with the European Digital Agenda, where improved standard-setting procedures and increased interoperability are identified as keys to success in Pillar II.

In an SBR project, decisions are made in a balanced mix of public and public/private fora in accordance with the SBR governance. According to the European Commission (EC, 2014, n.p.), SBR provides governments and companies with ‘an unequivocal, cost-effective, secure and adaptable method for the exchange of business information between organisations in a reporting chain’.

The use of international open standards, such as eXtensible Business Reporting Language (XBRL), means that the whole process is highly automated, from data gathering and transfer to validation and processing. XBRL is a tagging technology that attaches semantic meaning to the data reported, thus allowing the data to be machine-read. By standardising and rationalising data formats and descriptions, SBR makes the reporting of financial information easier and cheaper for businesses and facilitates the consolidation of government reporting practices. It results in structured electronic data rather than unstructured hard copy or pdf documents. SBR also allows companies to automate the generation of government reports directly from their accounting systems.

In order to shed light on the issues and challenges related to the implementation of SBR projects, our study addresses the following research question: What are the key design principles that contribute to the success of SBR projects? We investigated this question by designing a longitudinal empirical study of the Finnish SBR program between 2009 and 2015. Taking a qualitative approach, we interviewed the key stakeholders (both private and public) that participated in the implementation program. Our study contributes to the literature by identifying a set of fundamental and enhancing design principles in a SBR project: (1) leadership, (2) win-win-win vision, (3) multi-channel communication, (4) intelligent scope, (5) expertise commitment, (6) track record, and (7) co-creation. Our findings offer a guide that will be useful to other jurisdictions embarking on SBR projects using XBRL.

The remainder of this paper is structured as follows. In the next section, we review the literature on the development and implementation of technical standards and XBRL in particular. We also discuss the SBR project in Finland in the context of programs in other countries, which paves the way for an explanation of our methodology. In the remaining sections we present our findings, discuss the implications and suggest avenues for further research.

**2. Literature review**

**2.1 Standardization of vertical information systems**

SBR is an example of a vertical information system in which data are communicated by reporting entities to one or more statutory bodies rather than horizontally to industry peers. Standardization consists of two interlinked steps: the development and implementation of technical standards. Standardization reduces transactions costs and to achieve economies of scale through interchangeability (Kindleberger, 1983). On the other hand, the primary cost of standardization is a loss of variety (Katz and Shapiro, 1994).

Standards are set by private parties such as leading firms in industry, or by public constituencies such as governments. They are often developed by a consortium of parties whose interests are aligned. Standards are technical specifications designed to promote co-ordination between the parties (Markus *et al*, 2006). Development of standards can be problematic. First, the heterogeneity of interests can be detrimental to standards development (Greenstein, 1992; Weiss and Cargill, 1992). Problems may arise from the divergence of interests between the vendors and users of the standard (Foray, 1994). Second, standards development portrays the characteristics of the prisoner's dilemma (Foray, 1994), as no one has the incentive to contribute to the development of the standard because others who have not contributed cannot be excluded from enjoying the results (Markus *et al,* 2006). The literature offers a number of solutions to this problem. Standard developers are advised to pursue standard development as collective action (Kindleberger, 1983; Weiss and Cargill, 1992) where the key is in the collective participation of representative members of the heterogeneous user groups (Markus *et al,* 2006). Successful vertical information systems standards consortia must encompass heterogeneous groups of user organizations and IT vendors without fragmenting (Markus *et al,* 2006). A key decision is whether to focus on data standards or process standards.

**2.2 The role of interest groups**

According to Stigler (1971, pp. 3-4) the central tasks of the theory of economic regulation are to explain who will receive the benefits or burdens of regulation, what form regulation will take, and the effects of regulation upon the allocation of resources. Stigler (1971) argues that the problem of regulation is the problem of discovering when and why a group of like-minded people is able to use the state for its purposes, or is singled out by the state to be used for alien purposes. The decision process of states and governments and governmental agencies in SBR is fundamentally different from that of the market because they can use coercive power in implementing SBR standards.

According to interest group theory (Stigler, 1971; Posner, 1974; Peltzman, 1976; Becker, 1983), interest groups would lobby the regulators for various amounts and types of regulation, or against regulation. Becker’s (1983) version of the theory views interest groups as competing for and against regulation. In case of an SBR project where the aim is to set up a common taxonomy for statutory reporting purposes for all reporting entities, different entities may perceive their implementation costs differently due to differences in their legacy systems.

Reducing the cost of reporting financial data is a major driver for implementing SBR in many countries. In the EU, it contributes to the policy on reducing administrative burdens by 25% (EC, 2012, para 5). SBR creates efficiency gains to preparers, recipients and users of the financial information. According to Sinnett and Willis (2009, p. 25) and Logius (no date, p. 2), the specific benefits of SBR include the following:

* It reduces the reporting and administrative cost of providing data to the government.
* It streamlines the process of aggregating data across a company’s internal departments, offices and business units.
* It offers efficiency benefits: once-only input but several deliveries.
* It improves data quality: fewer errors and faster error detection.
* It is a reliable method for delivering information to and between authorities and companies, giving certainty about the receipt and avoiding penalties for non-compliance.
* It follows current legislation.
* It increases a company’s ability to change providers of filing services, which increases competition for business and reduces costs.
* It increases the interoperability of finance applications, and simplifies the bank loan application process.
* It is used internationally.

The biggest obstacles in implementing SBR are associated with coordination problems. SBR requires the concerted joint effort of public and private constituencies and coordination is often difficult due to change resistance. In SBR, the participating public organizations include those that receive statutory reports (such as the tax office, business register and statistics authority), supervisory authorities and industry associations with a stake in the development project. Service providers (such as firms of accountants and IT companies) and analysts are the main private companies participating in a SBR project. A study in the UK concludes that there is ‘little stakeholder engagement and very few organizations have voluntarily adopted XBRL. Regulatory engagement seems to be the only impetus for diffusion. Therefore, better channels of communication within stakeholder networks, such as between regulators, preparers, users and the XBRL community are needed. Greater regulatory commitment is now needed to create an impetus for XBRL such as creating tools and making publicly available, accessible, repositories of XBRL data’ (Dunne *et al*, 2013, p. 167).

According to interest group theory, the outcome depends on which group is the most effective in applying pressure on the regulator; for example, carrying out subjective analyses of costs and benefits, and promoting the group’s position in the media. If interest groups do not consider it beneficial to lobby, they may discontinue their efforts. The problem of free riding by individual businesses can be reduced if they can be represented cost-effectively by business associations.

Interest group theory suggests that the benefits of creating standard-setting bodies outweigh the operating costs as the costs of organizing individual members of interest groups or interest groups themselves would be higher. Acceptance of any given standard is enhanced by letting the interest groups participate in the decision making.

It can be argued that SBR reduces the demand for the services of an external accountant, thereby introducing tension between individual external accountants and the SBR initiative. Nevertheless, individual accountants may be willing to let the association of external accountants represent them in the SBR implementation activities. Dessein (2002) examined the problem of the principal (the external accountant in this case) either delegating the communication to an agent (the Association of Finnish Accounting Firms in this case) or maintaining the veto-right. Dessein (2002) finds that the principal optimally delegates control as long as the divergence in preferences is not too large relative to the principal’s uncertainty about the intermediary (the Association of Finnish Accounting Firms in this case).

**2.3 SBR projects around the world**

Figure 1 illustrates a pre-SBR situation where companies make multiple reports in different data formats to the same or different government agencies. It is loosely based on the UK where companies register and file their statutory reports and accounts at Companies House. Figure 2 illustrates the move to SBR with consolidated returns using standard data format.

*Insert Figures 1 & 2 here*

The Netherlands was the first country to initiate SBR. Electronic tax filing for all companies and all taxes via a digital portal became mandatory in 2005 and since 2007 the Dutch taxonomy has allowed businesses to use XBRL to file reports directly from their software to the tax authority, statistics office and the chamber of commerce (Sinnett and Willis, 2009). The project also attracted interest from other Dutch agencies such as the pensions, healthcare and education authorities (for further information, see <http://www.sbr-nl.nl/wat-is-sbr/international/>).

The Finnish SBR project was a public-private collaboration which started in 2009 with a view to decreasing the administrative burden on reporting companies and increasing the efficiency of report receivers (we refer the reader to Appendix 3 which presents the timeline of the program). It was publicly funded and involved a considerable amount of pro-bono work by private companies. The project was successful in bringing together the key organizations involved in government reporting at an early stage, largely due to the fact that the project was developed under the Real-Time Economy development program. This is a national program with a track-record of successful development projects in the field of financial administration.

The SBR project was supervised by the Real-Time Economy Advisory Board, which comprised representatives of the Bank of Finland, the Tax Office, the Ministry of Employment and the Economy, the Federation of Finnish Enterprises and other national institutions. The Advisory Board also benefitted from the participation of system integrators, the Association of Accountants, and representatives from Finland’s leading business school. The SBR project had a full-time manager and a budget of approximately €1m per annum during 2009-12 to allow subcontractors to develop solution mock-ups and conduct pilots and surveys. In addition, the Real-Time Economy program obtained a national award for being the outstanding social media community, which was used to collect and share information between large number of individuals and organizations.

The main objective of the Finnish SBR project was to develop a standard taxonomy for government reporting. ‘Taxonomies have been in use in government for many years but with a fundamental limitation; there have usually been multiple taxonomies for the same area. So different Departments within a jurisdiction would typically have their own taxonomies meaning that there could be, and usually are, different definitions for the same data item in different departments. Indeed, definitions may even vary within departments’ (OECD, 2009, p. 11). The scope of the Finnish project included mandatory financial reporting, company tax returns, and statistics reporting. Companies had to prepare many different government reports essentially containing the same content but in different formats. Moreover, the information was collected via different channels and technologies, which varied from manual or postal submission of paper forms to electronic submissions using web forms. To tackle these inefficiencies, the initial focus was the implementation of a common chart of accounts, following the approach taken in France and Spain, but it quickly became evident during working group meetings that this would not be feasible in Finland due to the high cost of the changes that would be needed to companies’ bookkeeping systems. Therefore, it was decided to focus on creating a standard taxonomy linked to existing charts of accounts. The SBR taxonomy was finalised in 2011.

**3. Methodology**

A qualitative approach was taken to the research design. The involvement of two of the authors in the Finnish SBR program gave a unique opportunity to gather longitudinal empirical data. From the very start of the program, researchers acted as observers at the steering group meetings and at the project meetings and workshops. They also had full access to the documentation of the SBR innovation process. This included project plans, communication plans, professional and business press articles published on the project, and any material delivered to the financiers of the project. In addition, the researchers were commissioned to conduct interviews with key stakeholders and provide feedback to the project team. The researchers were able to immerse themselves in the data for a prolonged period of time, which allowed persistent observation of the subject under study. By using multiple methods, they were able to capture both rational criteria (from the documents, for example) and non-rational criteria (from observation of the meetings and from the interviews, for example). In addition, they received feedback on their interpretation of the qualitative data gathered, and all these factors increase the credibility of the study’s findings (Collis and Hussey, 2014).

**3.1 The interviews**

The interviews were conducted in four stages over the period from 2009 to 2015. Appendix 3 provides a timeline of the SBR project with data collection stages.

*Stage I:* In 2009, we held nine interviews in order to improve our understanding of financial reporting procedures relating to mandatory reporting to governmental and other external stakeholders, which is the focus of SBR in Finland. Four were held with experts in accounting firms; two with experts from accounting software vendors; and three with experts working for operators transmitting mandatory financial data. Two of the authors analysed the interview transcripts using their knowledge of accounting information systems project management (in addition to holding a PhD in accounting and information systems science, the researchers had held management positions related to information and accounting systems development spanning more than two decades). The thematic analysis of the interview transcripts identified seven preliminary concepts that play an important role in the success of a national financial reporting project.

*Stage II:* We used the findings from the first-stage interviews as the basis for further interviews, which were conducted in 2010. Two were held with members of the SBR steering group, and three were held with senior management representatives of the organizations involved in the SBR project. The aim of the interviews was to validate the preliminary constructs that had emerged during our analysis of the first-stage interviews and to improve understanding of the interplay between the preliminary constructs.

*Stage III:* To validate the design principles and related sub-constructs, we conducted four expert interviews in 2014 with global experts on SBR. The interviewees included the director general of the Dutch SBR program, a member of the board of XBRL International having experience from a number of SBR implementations from the Netherlands and Australia, an adviser to the Dutch SBR/XBRL program at the Netherlands Tax and Customs Administration, and a director at a service provider for an international SBR program.

*Stage IV:* To test the final set of design principles, we conducted two focus groups in 2015 with the key stakeholders of the Finnish SBR project. Each focus group included five people who had participated in the implementation of the SBR program. Both focus groups included participants from both public and private organizations.

Figure 3 summarises these four stages.

*Insert Figure 3 here*

**3.2 Data analysis**

We used the critical success factors method (Daniel, 1961; Rockart, 1979), which was originally developed to align information technology planning with the strategic direction of an organization. Document review and the interview transcripts provided data for deriving an organization’s critical success factors (Caralli, 2004, p. 45). Our analysis was aided by the qualitative data analysis software, ATLAS.ti, which is used to systematically analyse complex phenomena in large amounts of textual data (Parker and Roffey, 1997). This software provides tools that help the user locate, code, and annotate findings as well as evaluate their importance and visualize complex relations between them. In order to increase the traceability of the data analysis, we used open, axial, and selective coding. The outcome of the analysis consisted of design principles that were perceived by the interviewees to be important in the implementation of SBR.

In Stages I and II, the interviews were semi-structured and lasted approximately one hour. The interviewees were asked broad questions and encouraged to provide examples to expand their views (see Appendices 1 and 2). The interviews were recorded, transcribed and sent to the interviewees for verification prior to analysis. Triangulation was used to increase the validity and reliability of the theoretical constructs arising from our analysis. We employed data triangulation by collecting data from different sources: the interviews and the large set of notes and documents resulting from the researchers’ participation in the SBR project meetings. In addition, the data coding of the interview data was carried out independently by the two researchers participating in the project and the results compared. A final strategy was to invite an experienced, independent researcher to code three interview transcripts and this yielded a match with our coding of more than 70%. This gives us greater confidence in the validity of our constructs.

In Stage III, we validated the set of design principles extracted in Stages I and II by presenting them to experts, who were asked to comment them and suggest modifications. This resulted in minor changes to the principles. For example, a principle ‘Execution’ consisting of ‘Competent resources’, ‘Role-definition’, and ‘Timely delivery’ was found confusing and after careful discussion was subsequently renamed ‘Leadership’.

In Stage IV, we tested the final set of principles in two focus group sessions. Each participant was asked to cite five factors that contributed to the success of the program. This exercise produced a list of 50 items which were documented by the researchers and discussed in the focus group. The 50 items were analysed by the researchers and mapped onto the design principles generated in Stages I-III.

**4. Findings**

Our longitudinal empirical study resulted in the identification of seven design principles, which we discuss in detail in this section. Table 1 reports the average number of citations for each factor based on independent coding by two researchers in Stages I-II (untabulated).

*Insert Table 1 here*

**4.1 Leadership**

We have labelled the design principle with the highest level of occurrence *leadership*, which has three components: *competent resources, role definition* and *timely delivery*. We define *leadership* as identifying competent resources to execute tasks and ensuring the timely delivery of validated outputs. The project manager(s) must map the expertise needed to execute the project efficiently and define the roles and responsibilities of the people involved in the core of the project, as illustrated by these quotations.

*“It’s important to have enough deep skills combined into the horizontal view [horizontal collaboration is collaboration across rather than along the supply chain].”* (Director B, large publicly listed IT company)

*“Execution and passion for execution feeds itself in this project. Roles and responsibilities have been divided efficiently.”* (Executive, Tax Office)

*“When you have this kind of large project, it needs to be cut into feasible parts and go phase by phase. The timely delivery of small concrete steps makes the participants feel that we are going somewhere.”* (CEO, Association of Accounting Firms)

**4.2 Win-win-win vision**

The design principle with the second highest level of occurrence is labelled *win-win-win vision*, which has two components: *benefit* and *vision*. *Win-win-win vision* is defined as articulating the benefits of the innovation and creating a vision to the relevant parties involved. Successful innovation requires a clear articulation of a common vision and the firm expression of the strategic direction. Most of the interviewees stated that the vision and potential benefits of the innovation must be defined and communicated to each of the parties involved in the beginning of the project.

*“I think the most important success factor is to have a vision - to have a strong vision and to be able to communicate and share it.”* (Director A, large publicly listed IT company)

*“The project management must sell the vision and the potential benefits of the innovation to the stakeholders. That’s the way to get their interest.”* (Director, bookkeeping software company)

**4.3 Multi-channel communication**

*Multi-channel communication* is the design principle with the third highest level of occurrence. The components of this construct are *internal* *and external communication*, *multi-channel use* and *access to professional and business press*. We define *multi-channel communication* as extensive sharing of information about project progress and benefits both internally and externally using many channels of communication. The pivotal role of effective communication was identified in many of the interviews. This is not surprising as large development projects require the involvement of participants from several organizations which, in turn, enables efficient multi-channel communication. The following quotations highlight these factors.

*“Communication is very important. When the Tax Office makes modifications to its systems, it must communicate the changes to the users. The Tax Office should organize informative meetings for users of their systems.”* (Accountant B, large accounting firm)

*“Government organizations have to take a role in communication so that the Association of Accountants doesn’t have to take the entire communication burden [in the professional press]… Also system integrators need to be involved in the communication.”* (Accountant, small accounting firm)

*“All project participants can’t participate in every project meeting. It’s been very important to have a full-time project manager who has her eye on the ball, who shares information and takes broader role than being simply a mechanical project manager.”* (Director, bookkeeping software company)

**4.4 Intelligent scope**

We have labelled the design principle with the fourth highest level of occurrence *intelligent scope.* This construct has three components: *boundary, flexibility* and *defining the key customer*. We define *intelligent scope* as setting the boundaries of the project at an ambitious yet achievable level. It was evident from the interviews that while it is important to focus on something that is manageable and does not require too drastic a change in current practice, it is also important to work on a project that is large enough to have an impact and get people interested in the project. In other words, setting the boundaries of the project is crucial, as illustrated by the following quotations.

*“I see that it’s important that the SBR uses the existing chart of account structures, making it easier to adopt by accountants and other experts in the field of financial administration. The SBR is very intuitive and the structure seems logical.”* (Accountant A, large accounting firm)

*“The project decided to market the innovation as a reporting taxonomy instead of a new chart of accounts. In Finland, people react emotionally to changes in the chart of accounts and we felt that it would be better to market the idea as a SBR.”* (Accountant B, large accounting firm)

*“Normally stakeholders are not all equally important, rather there are some leaders. It’s a kind of success to get some kind of significant participation from them.”* (Director A, large publicly listed IT company)

*“The Tax Office is the key organization as they are the main report receivers; another key customer is the Business Register.”* (Accountant A, large accounting firm)

**4.5 Expertise commitment**

The design principle with the fifth highest level of occurrence is labelled *expertise commitment*, which encompasses *top management sponsorship, expertise involvement* and *satisfaction of early success*. The construct, *expertise commitment,* is defined as involving high-level project human resources through a sponsorship of executive level of project organizations. Getting commitment from all parties involved was perceived to be a key design principle by the interviewees. Typically in development projects involving private/public collaboration, participants from many organizations are involved and they often participate on a voluntary basis. Getting the participants committed to the SBR project was important because there are usually no formal methods of governance that can be used.

*“We are a small organization and we need to evaluate the projects in which we participate carefully. Allocating resources is, therefore, an important decision for us… Certain individuals from the Real-Time Economy programme created enthusiasm and we perceived that as important.”* (CEO, Association of Accounting Firms)

*“True commitment to the project is crucial because then people are motivated to really prepare material for the meetings. Often there are people who participate merely because it’s advantageous to their career, but in such cases they don’t contribute to the project and they disappear when problems arise.”* (Director, bookkeeping software company)

*“The key is that one can start with smaller scope things, so that everyone can see what the target and benefits are, and then gradually enhance the solution and the participation of the different stakeholders. Soon they feel the outcome is something that includes their contributions and that they have helped create the results… There’s commitment and motivation to promote it further.”* (Director A, large publicly listed IT company)

**4.6 Track record**

The penultimate design principle identified, with the sixth highest level of occurrence, is labelled *track record.* This construct has three components: *proven ability to deliver, existing platform* and *access to funding*. We define *track record* as credibility through previous successful projects. We found that having a track record was particularly important in the early stages of the innovation project as it was easier to get the various parties involved. Being part of something bigger and leveraging the past accomplishments were seen as ways of enhancing the credibility of the project and avoiding being overly reliant on one or two people.

*“We felt it was important to have the Real-Time Economy program, leveraging from earlier projects of Full SEPA [Single Euro Payments Area], FVC [Full Value Chain], and FIA [Fully Integrated Accounting].”* (Director B, large publicly listed IT company)

*“SEPA was one kind of trigger in the beginning and electronic invoicing, and then it is an issue of how to build on success, how to build on existing practices and so forth.”* (Director A, large publicly listed IT company)

*“It was important to us that the people involved in the project were credible and had a strong background in similar development projects. It made us take the project more seriously.”* (CEO, Association of Accounting Firms)

In order to ensure funding for the SBR project, the project team prepared two extensive project plans, which were used in successful funding requests from the Finnish Funding Agency for Technology and Innovation. The requests included predefined spending areas of the project, which were subsequently followed up by the project manager and the steering group in the project meetings.

**4.7 Co-creation**

The final design principle identified is labelled ‘co-creation’ and this construct has three components: network, teamwork, and integration of resources. Based on the interview data, we define co-creation as creating the deliverables in collaboration with a large network of experts from several organizations. The involvement of a network of organizations and working together was considered to be important to the success of the project as illustrated by the following quotations.

*“[To be successful] you need to have a critical mass of participants, enough people to be convincing and interesting.”* (Director, bookkeeping software company)

*“The first step is to get the critical organizations and people on-board. If some important organizations are missing then they might throw a spanner in the works and prevent the project from going forward.”* (CEO, Association of Accounting Firms)

*“You have to get a lot of people involved – players, regulators and researchers – and you can go a little bit further… and include education, which grabs what you are creating so that even the young people who are studying these things engage with it.”* (Director A, large publicly listed IT company)

*“Combining the efforts of business and academia; credibility aspect and education aspect.”* (Director A, large publicly listed IT company)

*“The networking aspect is one thing that follows from the common vision... [You need] to develop the markets gradually from the vision and create the network that will deliver the solution, the innovation and the ideas. You cannot do these things alone.”* (Director A, large publicly listed IT company)

**5. Discussion and conclusions**

**5.1 Theoretical implications**

We classify the concepts identified in this study into fundamental and enhancing design principles. We identify *leadership* (factor 1), *expertise commitment* (factor 5) and *co-creation* (factor 7) as being fundamental to the success of the project; and *win-win-win vision* (factor 2), *multi-channel communication* (factor 3), *intelligent scope* (factor 4) and *track record* (factor 6) as enhancing design principles. These hierarchical relationships are depicted in Figure 4 and discussed next.

*Insert Figure 4 here*

***Leadership***

Our interview data supports our contention that *win-win-win vision, multi-channel communication, intelligent scope* and *track record* enhance the first fundamental design principle: *leadership*. Previous research shows that product and process development projects draw on equipment, skills, resources and personnel from diverse functional areas who must work together to achieve the objectives of the project (Tatikonda and Rosenthal, 2000) and hiring inexperienced consultants has been identified as a failure factor (Kaplan and Norton, 2001). Based on Simons (2010), all possible resources should be allocated to meet and exceed the primary customer’s needs. Companies that execute strategy well should define their core values to reflect the relative importance of shareholders, employees and customers. Core values must indicate whose interests come first when difficult decisions must be made about trade-offs.

Our study suggests that articulating the vision and benefits of the project (*win-win-win vision*) gives direction and motivation to the project team to execute the tasks. Efficient communication using various channels (*multi-channel communication*) helps build awareness, create motivation and open doors to new meetings and events that are needed for efficient leadership of the project. In addition, careful scoping of the project (*intelligent scope*), makes it easier for the project team to find resources to execute the tasks. All three sub-categories of track record (*proven ability to deliver, existing platform* and *access to funding*) provide obvious basis for a successful execution of the project.

***Expertise commitment***

We find evidence that *win-win-win vision, multi-channel communication, intelligent scope* and *track record* enhance our second fundamental design principle: *expertise commitment*. Innovation projects demand long-term commitment (Brenner, 1994) and support from top management (Doll, 1985). Morgan and Hunt (1994) define relational commitment as existing when an exchange partner believes that an on-going relationship with another is sufficiently important to warrant maximum effort to maintain the relationship. Moorman *et al*. (1992) contend that commitment infers an enduring desire and willingness to work at maintaining the relationship. Commitment can be a result of emotional attachment or cognitive calculation (Randall *et al*., 2011). Previous studies have identified several constructs that provide insights into the co-creation process, such as satisfaction and intention as well as trust and commitment (see for example, Garbarino and Johnson, 1999; Gruen *et al*., 2000).

Our findings show that it is essential to have an access to high-level expertise from the participating organizations. Articulating the vision and the benefits (win-win-win vision) to the high-level decision-makers in the organizations helped create top-level sponsorship and thereby committed competent resources to the project. Similarly, being able to rely on an established development project with successful track record (track record) helped attract top-level sponsorship. Access to professional and business press (multi-channel communication) helped put positive pressure on decision-makers in the participating organizations so that they almost felt obliged to commit resources to the project. Fear of overloading resources was mitigated by intelligently scoping of the objectives of the project (intelligent scope). This was perceived as an important factor in committing resources to the project.

***Co-creation***

We also find that all the enhancing principles (*win-win-win vision, multi-channel communication, intelligent scope* and *track record*) facilitate our third fundamental design principle: *co-creation*. In the process of value-creation, parties integrate resources and combine their capabilities to generate what is valuable for them (Lusch *et al,* 2010). In addition, Gummesson and Mele (2010) stress the importance of multi-party interaction in the co-creation of value. According to Bardy (2006), when all network partners have equal power, there should be a ‘win-win…-win’ situation for all. However, all parties need to endow resources equally and engage in joint efforts to establish the network’s strategy and business plans, and to shape the configuration of value chains. The success of a project often depends on recognizing and addressing roles and role conflicts (Graham and Bois, 1997).

Lievens *et al.* (1999) suggest that through the transfer of information, innovation team members share their understanding and learn from each other about customer needs, technological specifications and opportunities, competitive strategies and the required information resources. Many scholars in the field of innovation management have argued that innovation processes are essentially communication and information processing activities (e.g. Tushman and Nadler, 1980; Ebadi and Utterback, 1984; Brown and Utterback, 1985). Previous research has found that inventors with superior track records are more likely to form collaborative ties that enhance brokerage, thereby occupying positions that allow them to broker across network boundaries (Lee, 2010).

The service management literature has emphasized the role of effective internal and external communication (e.g. Grönroos, 2000; Gummesson, 1987). Networks and alliances of customers, suppliers, competitors and other non-market participants are a key source of innovations (Lawson and Samson, 2001). According to Moliner *et al.* (2007) co-creation and a sense of connection constitute part of a mega-construct consisting primarily of trust, commitment and satisfaction as indicators of the degree to which an exchange relationship moderates the customer’s sense of value.

Our analysis of the interview data reveals the tax authority as the key customer and there was a constant and continuous validation of the key deliverables (*multi-channel communication*) with this key customer (*intelligent scope*). Creating the business case with all stakeholders (*win-win-win vision*) was perceived as an important mechanism for ensuring the *co-creation* of the innovation. It was also very important to have an existing ‘brand value’ (*track record*) (i.e. the Real Time Economy Program’s past success) as this attracted parties to join and co-create.

**5.2 Practical implications**

Our study provides new insights into the design principles that contribute the success of SBR projects and offer a guide that will be useful to other jurisdictions embarking on SBR projects using XBRL. Furthermore, we argue that the seven critical design principles we have identified are applicable to other large-scale public-private innovation projects as each factor is actionable and can be influenced by the project manager.

Our findings support the claim made in the literature that the successful development of standards requires the participation of heterogeneous groups of specialists (Greenstein, 1992; Markus *et al*., 2006). Co-creating the SBR program with a consortium of several public and private organizations emerged as an important feature of success. Practitioners should evaluate carefully which organizations are critical to the project and persuade them to take an active role. Creating a business case with a win-win-win vision enhances the commitment of organizations involved in a complex public/private innovation project.

**5.3 Limitations of the study**

Although the Finnish SBR project provides a valuable case study resulting in knowledge that can be transferred to similar projects in other jurisdictions, we acknowledge that our study focuses on a single setting. Further research in other countries could be conducted to validate our model of the design principles. Although we collected and analysed a rich data set derived from interviews with key stakeholders, project material and observation, further research could be conducted to investigate the causal links between the design principles and develop hypotheses for statistical testing.

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**Appendix 1: Interviewees**

|  |  |  |
| --- | --- | --- |
| *Organization* | *Description* | *Date* |
| Small accounting company | Accountant | 12.10.09 |
| Bookkeeping software company | Accounting software vendor A | 23.10.09 |
| Bookkeeping software company | Accounting software vendor B | 23.10.09 |
| Mid-tier audit company | Auditor | 26.10.09 |
| Large publicly listed IT company | Specialist in data transmission A | 27.10.09 |
| Large publicly listed IT company | Specialist in data transmission B | 27.10.09 |
| Large accounting company | Accountant A | 03.11.09 |
| Large accounting company | Accountant B | 03.11.09 |
| Large publicly listed IT company | Specialist in data transmission A | 04.11.09 |
| Large publicly listed IT company | Specialist in data transmission B | 04.11.09 |
| Large accounting company | Accountant A | 06.11.09 |
| Large accounting company | Accountant B | 06.11.09 |
| Small accounting company | Accountant | 10.11.09 |
| Mid-tier audit company | Auditor | 13.11.09 |
| Large publicly listed IT company | Director A | 29.04.10 |
| Large publicly listed IT company | Director B | 30.04.10 |
| Bookkeeping software company | Director | 26.08.10 |
| Tax Office | Executive | 05.11.10 |
| Association of Finnish Accounting Firms | CEO | 12.11.10 |

**Appendix 2: Interview Guides**

**Stage 1 Interviews (2009)**

Interviewee’s background

What is your overall perception of the SBR development work?

What are the pros and cons of the SBR project in your opinion?

Who are the most important users of the statutory reports in your opinion, why?

Would it make sense to try to integrate statutory reports, why?

Who should be involved in the creation of SBR?

Who should own and maintain the SBR concept once it has been completed?

Do you have ideas of the technical aspects of information delivery, after the SBR has been completed?

Do you have anything to add that you consider relevant to the development of the SBR?

**Stage 2 Interviews (2010)**

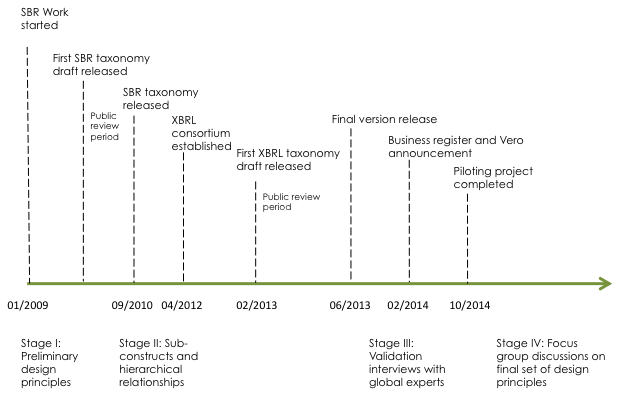
Interviewee’s background

* Education, work experience
* Prior experience in development projects

What are the general design principles of development projects?

What were the design principles in the standard business reporting project?

**Appendix 3: Timeline of the Finnish SBR project and data collection**



**Figure 1. Pre-SBR position – multiple data format reporting**



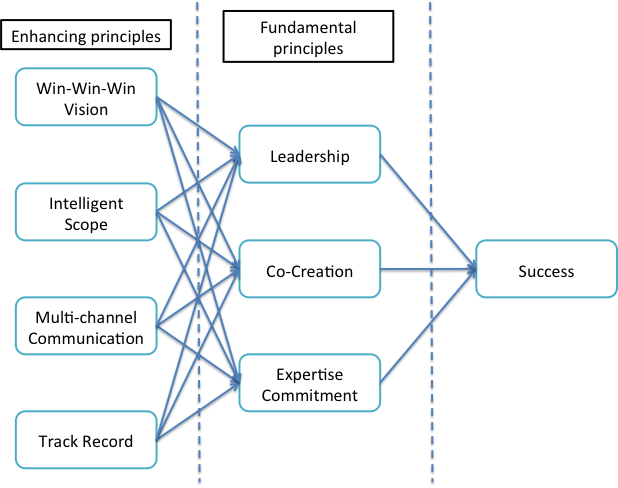
**Figure 2. Standard data format – consolidated reporting model**



*Source*: OECD (2009, pp. 8 and 10)

**Figure 3. Summary of the main stages in the study**

**Figure 4. Hierarchical relationships of design principles**



**Table 1. Summary of the findings**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Design principle* | *Sub-categories* | *Definition* | *Construct from prior literature* | *Frequency (%) Researcher* | | *Average frequency* |
|  |  |  |  | *1* | *2* | *(%)* |
| 1. Leadership | Competent resources  Role-definition  Timely delivery | Identifying competent resources to execute tasks and ensuring the timely delivery of validated outputs | Competent resources (Tatikonda and Rosenthal, 2000)  Failure factor: hiring inexperienced consultants (Kaplan and Norton, 2001)  Role-definition (Graham and Bois, 1997) | 23 | 28 | 25 |
| 2. Win-win-win vision | Benefit  Vision | Articulating the benefits of the innovation and creating a vision to the relevant parties involved | Vision (Lawson and Samson, 2001)  Benefit (Bardy, 2006) | 20 | 20 | 20 |
| 3. Multi-channel communication | Internal and external communication  Multi-channel use  Access to professional press | Extensively sharing information about project progress and benefits both internally and externally using many channels of communication | Communication (Porter and Parker, 1993)  Internal and external communication (Gummesson, 1987; Grönroos, 2000)  Multi-channel use (Lievens *et al.,* 1999) | 14 | 20 | 17 |
| 4. Intelligent scope | Key customer  Flexibility  Boundary | Setting the boundaries of the project at an ambitious, yet achievable level | Key customer (Simons, 2010)  Flexibility (Tatikonda and Rosenthal, 2000) | 16 | 11 | 13 |
| 5. Expertise commitment | Expertise involvement  Top management sponsorship  Satisfaction from early success | Involving high-level project resources through a sponsorship of executive level of project organizations | Expertise involvement (Morgan and Hunt, 1994)  Top management support (Doll, 1985) | 14 | 9 | 12 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 6. Track record | Proven ability to deliver  Existing platform  Funding | Establishing credibility through successful past projects | Proven ability to deliver (Lee, 2010) | 8 | 7 | 8 |
| 7. Co-creation | Network  Teamwork  Integration of resources | Creating the deliverables in collaboration with a large network of experts from several organizations | Network (Lawson and Samson, 2001; Gummesson and Mele, 2010)  Consortium of organizations (Greenstein, 1992)  Teamwork (Sebell, 2012)  Collective action (Markus *et al*., 2006)  Failure factor: too few individuals involved (Kaplan and Norton, 2001)  Integration of resources (Lusch *et al*., 2010) | 5 | 5 | 5 |
| TOTAL |  |  |  | 100 | 100 | 100 |