Full name: Maaria Nuutinen

Affiliation: Senior Research Scientist, VTT – the Technical Research Centre of Finland (www.vtt.fi)

E-mail address: maaria.nuutinen@vtt.fi

Full international contact details: VTT, P.O.Box 1000, FI-02044 VTT, Finland

+350 40 5508615

Brief professional biography: Maaria Nuutinen is a doctor of psychology (University of Helsinki) and she acts as a team manager for "Organisation development and renewal" – research team at VTT – the Technical Research Centre of Finland. She has over 13 years experience of studying working practices and organisational culture in a different kind of technological working environments. This paper is based on service capability and culture as a resource for service business transformation – ServChange 2010-2012, which she is coordinating. The project is funded by Tekes – the Finnish Funding Agency for Technology and Innovation, participating companies and VTT.

Full name: Inka Lappalainen

Affiliation: Research Scientist, VTT – the Technical Research Centre of Finland (www.vtt.fi)

E-mail address: Inka.Lappalainen@vtt.fi

Full international contact details: VTT, P.O.Box 1000, FI-02044 VTT, Finland

+358 50 341 1233

Brief professional biography: Inka Lappalainen is a Master of Education, specialising in work psychology and management. She has worked for VTT since 2000, co-operating closely with companies and organisations across industries in various R&D programmes. Her main areas of competence are renewability and the development of organisations and collaborative networks. For the past five years, she has focused on service innovations from management and learning as well as customer- and user-driven perspectives. Her approaches also include evaluation and development with co-learning methods to facilitate the renewal and innovation of organisations. She has produced many publications for practitioners as well as for scientific audiences.

Full name: Merja Airola

Affiliation: Research Scientist, VTT – the Technical Research Centre of Finland (www.vtt.fi)

E-mail address: merja.airola@vtt.fi

Full international contact details: VTT, P.O.BOX 1300, FI-33101 Tampere, Finland

Brief professional biography: M. Sc. (Ed.) Merja Airola graduated in 1999 from Tampere University. She has worked as a researcher co-operating closely with companies and organisations across industries in various R&D programmes. Her approaches include evaluation and development with co-learning methods/tools to facilitate the renewal and innovation of organisations, strategic development and collaborative networks.

Assessing industrial service culture and capability: three procedures for promoting service business transformation

Abstract

Purpose – The aim of this paper is to present three different procedures of utilizing a new service culture and capability approach in enhancing the transformation of manufacturing and technical trade companies towards stronger service- and customer value-orientation.

Design/methodology/approach – We developed the approach in order to bring new insights into overcoming the challenges of the transformation by studying them from an organizational culture perspective. In this study we have analyzed the utilization of the conceptual approach for three different purposes: 1) as a booster in the organizational learning process; 2) as a structuring frame for roundtable work and external benchmarking and 3) as a management group assessment tool. We present these three procedures and analyze their potentials and limitations in three different cases.

Findings – Each purpose has strengths and weaknesses. The feedback from participants was mainly positive but also raised development ideas. The approach with three procedures gained support, but should be further developed to include in particular a greater customer perspective.

Research implications – Bring organizational culture and development-oriented research perspectives to service innovations and methodological discussions.

Practical implications – The paper provides practical means for companies to create a personal and shared understanding of necessary changes or to evaluate renewed service practices, thus facilitating the complex service business transformation.

Originality/value – The study creates an understanding of how product- and technology-oriented companies can be supported in a move towards service- and customer value-oriented business from a cultural perspective

Key words Service culture, industrial service business, assessment methods

Paper type Research paper

1. Introduction

There is a growing interest in developing service business in many manufacturing and technical trade companies. The situation of the manufacturers and the traders are somewhat different, although both could have a history of offering e.g. spare parts and repair services. Technical traders typically represent several brand owners and manufacturers, and their customers are other businesses in various fields. There are pressures from both sides to offer more services: the manufacturers expect services to strengthen their brands and the customers expect planning, logistics, installation, training, maintenance etc., services to support their business (Nuutinen and Valjakka, 2010). Several authors have emphasized the fundamental differences between 'traditional' business and industrial service business – for example, in strategic planning and management, offering, pricing and the competence required (Chesbrough, 2011; Grönroos, 2008, 2009; Gebauer et al., 2005, 2010a, 2010b; Oliva and Kallenberg, 2003). These differences can cause many contradictions and conflicts, thereby impeding the targeted growth in service business.

Adopting service-dominant logic (e.g. Vargo and Lusch, 2004, 2008) and interpreting the business transformation in a new, holistic way could serve as a stepping-stone to a renewal of practices and culture as well as the development of new competences. However, there is a need for theoretically

argumented and practically tested approaches to supporting companies in the transformation. In particular, the industry lacks concepts and methods in order to create a personal and shared understanding of 1) why the change is needed: motives and commitment, 2) what kind of organizational change is needed, and 3) how the intended change could be supported and managed in practice.

We have developed a new approach in order to bring new insight into overcoming the challenges, by studying them from an organizational culture perspective (Nuutinen and Lappalainen, 2009, submitted). The purpose of this paper is to present three different procedures of applying the new service culture and capability approach, as well as demonstrating their potentials in enhancing an understanding of changes necessary in the transformation of manufacturing and technical trade companies.

The results of the transformation efforts from products to services often fail to meet expectations (Chesbrough, 2011; Grönroos, 2008; Gebauer et al., 2005, 2010a, 2010b; Oliva and Kallenberg, 2003). Valjakka and Apilo (2009) also show through the cases that transforming a product business into a service business calls for a business model that is radically different from their previous one(s), i.e. business model innovation. In the case companies, the transformation took lasted from two to ten years, and the product-oriented and service-oriented models coexisted and evolved. The main reasons behind the long transitions times are the problems created by conflicting business logics and the difficulties of withdrawing from the product-oriented organisational culture. Grönroos (2009, p. 502; see also Auguste, 2006) has summarised three reasons as to why the whole organisation should transform into a service company where manufacturing and service operations combine into one business. These are that: customers are confused by several types of varying operating logics; a successful service business can cannibalise the strong image of a product business; and when there is conflict between two different cultures the older and stronger culture tends to win. Grönroos focused on the manufacturing company, but the same principles also apply to technical traders. We approached the challenge of the technical trade and manufacturers as a transformation from *a technology- and product-oriented culture towards a more service- and customer value-oriented culture*.

Within organisational culture research, there are two conflicting paradigms: culture as a metaphor and culture as a factor (Seeck, 2008). The latter considers culture as something that can be changed in accordance with the aims of a single group – for example, managers. There is a strong aim to develop tools for changing and managing culture within this trend, whereas the former – culture as a metaphor – aims to explain organisation through psychological and social processes. Reiman and Oedewald (2002, 2004) have developed an approach that strongly aims to contribute to practical benefits but also strives to explain organisation. The approach does not try to affect culture directly by means of managerial programmes but rather to increase the organisation's awareness of its present culture and its possible positive and negative features as these relate to the practical objectives. They have defined *organisational culture* as a solution created by an organisation for the demands set by the core task (Reiman and Oedewald 2002, p. 27). The term *core task* refers to "the shared objectives and the outcome-critical content of work that should be taken into account by the actors in their task performances for maintaining an appropriate interaction with the environment." (Norros, 2004, p. 17.).

We have applied organisational culture and core task definitions when studying the transition from product-oriented towards service- and customer value-oriented business logic, leading to comprehensive organizational learning challenges in terms of culture and capabilities. Practically speaking, this means that the deep and partly subconscious perceptions of the organization's core task should change within the personnel. The transformation can be facilitated by exploring and communicating new core task demands and a synchronized development of customer relations,

management, service development practices, and service business understanding (Nuutinen and Lappalainen, 2011; cf. Vargo and Lusch, 2004) described in more detail in the next chapter. A comprehensive and long-term learning process within organizations and actors involved in the value creation is therefore called for. From a change management perspective the challenge is remarkable, but also a good possibility for supporting renewal of the organisational behaviour and culture. This kind of challenge is hardly tackled by typical corporate level top-down change programmes whose flaws e.g. Beer et al. (1990) have analyzed. According to them, effective corporate renewal usually starts at the bottom, through efforts to solve business problems rather than companywide mission statements, 'corporate culture' programmes, pay-for-performance systems or altering the company's formal structure. The joint diagnosis of business problems mobilizes a commitment to change. They emphasise the necessity to take into account all three of the interrelated factors needed in revitalization: Coordination, e.g. among units as well as organisational levels, commitment (see also Lines, 2004) and new competences. The aim is to enhance change in the work itself and to create an asset that did not exist before – a learning organisation capable of adapting to a changing competitive environment (Beer et al., 1990).

We see that organizational learning perspectives have a lot to offer in contributing to a shared understanding by doing justice to the systemic nature of service transformation and still offering concrete frames of references. Paavola at al. (2004) compare in their article three known organizational learning theories, Nonaka & Tacheuchi's, Engeström's and Bereiter's. What is common to these learning models is that they all present four key elements essential in knowledge creation and innovation activity. Firstly, the pursuit of newness is seen as a focal starting point of a cyclical, iterative and long-term learning process. Thus, learning is not a linear process but merely a "process of ambiguity and creative chaos, involving the sense of progress. Knowledge creation does not start from scratch but is a process of transforming and developing – even in a radical way - existing ideas and practices". Secondly, mediating elements, like reflection and experiment, are needed to facilitate to construct shared meanings, create new knowledge and finally renewed practices. Thirdly, the dialectical interaction between different forms of knowledge takes place, aiming at creating conceptual models to guide renewed practices. Furthermore, learning and knowledge creation are seen fundamentally as a social process, where innovations emerge between - rather within - people. Finally, all three theories stress that these four elements also serve as main "tools" to organise and manage individual initiative and collective practices as a purposeful co-creation process towards shared targets. (cf. Lappalainen and Nuutinen, 2010, submitted). In addition, Crossan et al. (1999) emphasizes the strategic nature of organizational learning.

1.1. *Aims and structure of the paper*

The aim of this paper is to present three different procedures to utilize the service culture and capability approach in enhancing a personal and shared understanding of changes needed in the transformation of manufacturing and technical trade companies. In this paper, we will first briefly describe the new approach to supporting organisational transformation from products to services. Secondly, we will illustrate the utilization of the approach in three different uses: 1) as a booster of the organizational learning process, 2) as a structuring frame of roundtable work and external benchmarking and 3) as a management group assessment tool. We will describe these three procedures and analyze their potential and limitations in three different cases. Finally, we will present conclusions and discuss the practical implications and limitations of our study and the approach.

2. The service culture and capability approach

Our approach is based on the related frameworks of Contextual Analysis of Organisational Culture (Reiman and Oedewald, 2002; Reiman and Oedewald, 2004; also based on Schein, 2004/1985) and Core Task –analysis (e.g. Norros, 2004; Nuutinen, 2005; Norros and Nuutinen, 2002). We define the key concepts of our approach on the basis of the above definitions of the core task and organisational culture. The industrial service culture concept can be defined as an organisation's learned manner of responding to perceived changes in the demands of the core task when aiming at developing the service business. Industrial service culture manifests in:

- Service capability (how the demands of a new service-related core task are recognized and taken into account)
- Experienced and ideal values within the work community and with customers
- Work motivational factors: sense of meaningfulness, match between requirements and available resources, and the sense of having control over one's work.

Industrial service capability consists of commonly developed operational, cognitive (and cultural) solutions, which manifest themselves in four elements:

1. Understanding of service business
2. Service business management practices
3. Development practices of service business and services
4. Customer relations. (Nuutinen and Lappalainen, 2009, 2010 and submitted).

In each of the elements, the intended transition is defined on the general level (see Figure 1). Elements are overlapping and interconnected and should be analysed at multiple levels in the target organisation. The evaluation frame provides five basic elements with criteria for assessing the change from a technology- and product-oriented organisation towards a (more) service and customer value -oriented organisation. Each transition within the element is then described in more detail in the form of tables including examples of typical opinions and conceptions of the particular phase. On the basis of these the individual statements for service culture and capability questionnaire are formed (Lappalainen and Nuutinen, 2010). The questionnaire has two parts adopted from a CULTURE questionnaire (Reiman, 2007) and one added part focusing particularly on service business and its development perspectives. The idea is that the framework, examples and statements are always specified according to the context and the company in question.
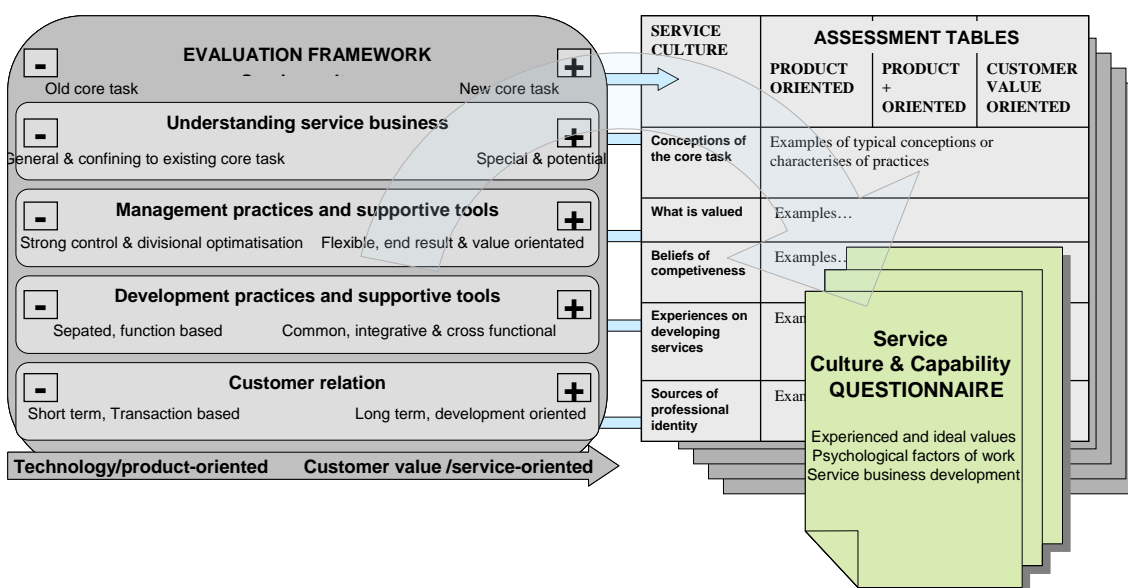

Figure 1. Targeted transition and elements of service culture and capability: the general framework, assessment tables and questionnaire.

Our approach has also been affected by several other theoretical backgrounds: organisational capabilities (e.g. Teece et al., 1997; Schreyögg and Kliesch, 2007); service quality (e.g. Edvardsson and Olsson, 1996) and service management (e.g. Normann, 2002; Gebauer et al., 2005; 2006; Gebauer and Fleisch, 2007; Oliva and Kallenberg, 2003).

The approach aims at providing a *complementary* perspective in order to tackle those complex cultural challenges faced when pursuing significant strategic growth, especially in manufacturing and technical trade industries. The focus is on transition *from technology- and product-oriented culture towards more service- and customer value-oriented culture*. The evaluation framework (described above) could be utilised for many kinds of purposes and phases in order to support industrial service business transformation in companies. According to our previous studies, companies lack practical but holistic procedures and frameworks at least for three purposes (Nuutinen and Lappalainen, 2009 and 2010; Nuutinen and Valjakka, 2010). Firstly, there appears to be a need for a simple but holistic tool to assess quickly how *top management view* the current state of service business capabilities, the obstacles and opportunities for a company. This kind of assessment is essential particularly when building the commitment for major strategic change, as well as checking the direction or the progress of an ongoing change process. Secondly, companies are looking for suitable *external benchmarking forums* with the methods to compare and discuss their strategic choices, service concepts and practices with other companies in the same industries. Ideally, those external forums provide the means for continuous reflection, new ideas and collegial support for managers during long-term transformation processes in the companies. Thirdly, companies lack methods to acquire multi-voiced views and shared understanding of the motives, aims and means concerning service business transformation *within the entire company, as a collective learning process*.

3. Methods

To facilitate the cultural transition in industrial companies we have developed different procedures for applying our evaluation framework for these three purposes: 1) as a booster of the organizational learning process; 2) as a structuring frame of roundtable work and external benchmarking and 3) as a management group assessment tool. The three procedures with the purposes, procedures and resources required are described next. Simultaneously, their case applications are demonstrated in order to illustrate their practical relevance. Finally, we describe briefly how we analyze their usability.

3.1. *Organizational learning process*

The first purpose is to boost the *organizational learning process* and thus the transformation covering an entire company. Here the conceptual evaluation frame is applied together with the practical procedure for how to evaluate the collective mindset of the organisation concerning service business development. The participatory evaluation procedure provides the systematic means to create a shared understanding of the complex, ongoing change and manage it more purposefully.

The approach was piloted and further developed with a global company providing a comprehensive range of innovative observation and measurement products and services for meteorology, weather-critical operations and controlled environments. The evaluation process was conducted in the company between August 2008 and February 2009. At that time, the company was going through organisational restructuring within its service business. The participatory assessment aimed at supporting the ongoing change process by providing research-based information about the state of development of its organisational service capability, and facilitating the formation of a service-oriented culture and internal collaborative working practices. In addition, raising staff awareness

and enhancing the commitment of key personnel to the service business development were anticipated. Finally, it was agreed to state the development actions in a development plan.

As discussed in the introduction, when pursuing increasingly integrated and customer value-based business models, the transformation should cover the entire organisation. Thus, the service business should be seen more as *shared development agenda* and the evaluation should also be implemented in the whole company. The multi-level nature of the assessment is illustrated in Figure 2 with three main organisational levels. The evaluation is conducted as a *collective learning process*, which is modified according to company-specific needs. The main phases of the evaluation process with data gathering methods and working practices are described in Figure 2.
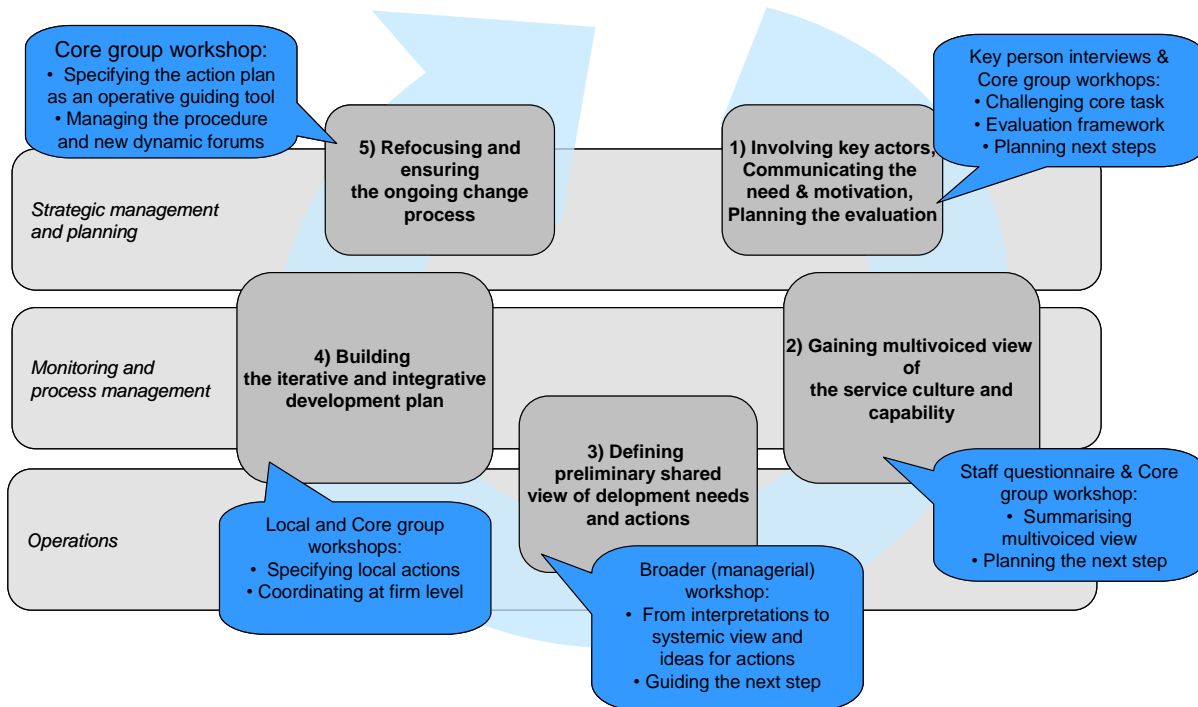

Figure 2. The evaluation as a collective learning process: phases and methods.

The process begins with indentifying and committing key actors to make a critical assessment of current core task beliefs via interviews and workshops, as well as to build a specific plan for collective assessment process. In order to gain the multi-voiced view of the current state of organisational service culture and capability we have developed a staff questionnaire, which has to be modified for company-specific needs. By means of the questionnaire, managerial workshops and multi-level feedback discussions facilitated by us, an improved common awareness of organisational development state of service culture and capability will be iterated collaboratively. Finally, the evaluation process, main results, development needs and actions, as well as their connections to the entire service business change process are summarised in the development plan by the core group. Consequently, the concrete actions described in the development plan will support continuous improvements in service capability and cultural transition towards more service-oriented culture and the life cycle service partner.

As in our pilot case, the entire process takes about six months, and could be utilized in various phases of service business transformation, preferably repetitively, when it is a question of perennial change. At first an external assistant will be necessary, but the procedure has been developed to encourage companies to take ownership its application by them selves. The need for resources within the company also depends on how intensively and broadly the staff and management are likely to be involved in the process (see more in Lappalainen and Nuutinen, 2010).

3.2. *Structuring the roundtable work and external benchmarking*

The second use of the approach is *to structure roundtable work and external benchmarking*. The general aim of the cross-company roundtable working is benchmarking and learning from each other. It offers a good context to share best practices, solve a practical problem or work on a real case, visionary working and service value network integration (Salkari, 2009). Also important is sharing current problems with people in similar positions (Nuutinen and Valjakka, 2010). The participants can consist of 5 to 10 non-competing company members, a researcher and/or a consultant.

The idea of creating the frame is to systematize and focus the discussions as well as to enhance a deeper step-by-step analysis of each participant's situation and the differences between the companies. The target group is CEOs or business developers of companies that are not competitors but act, for example, within the same industry. The roundtable work has been designed to consist of six meetings each lasting three to four hours. The process of co-learning in the roundtable work was facilitated by several methods (Figure 3).
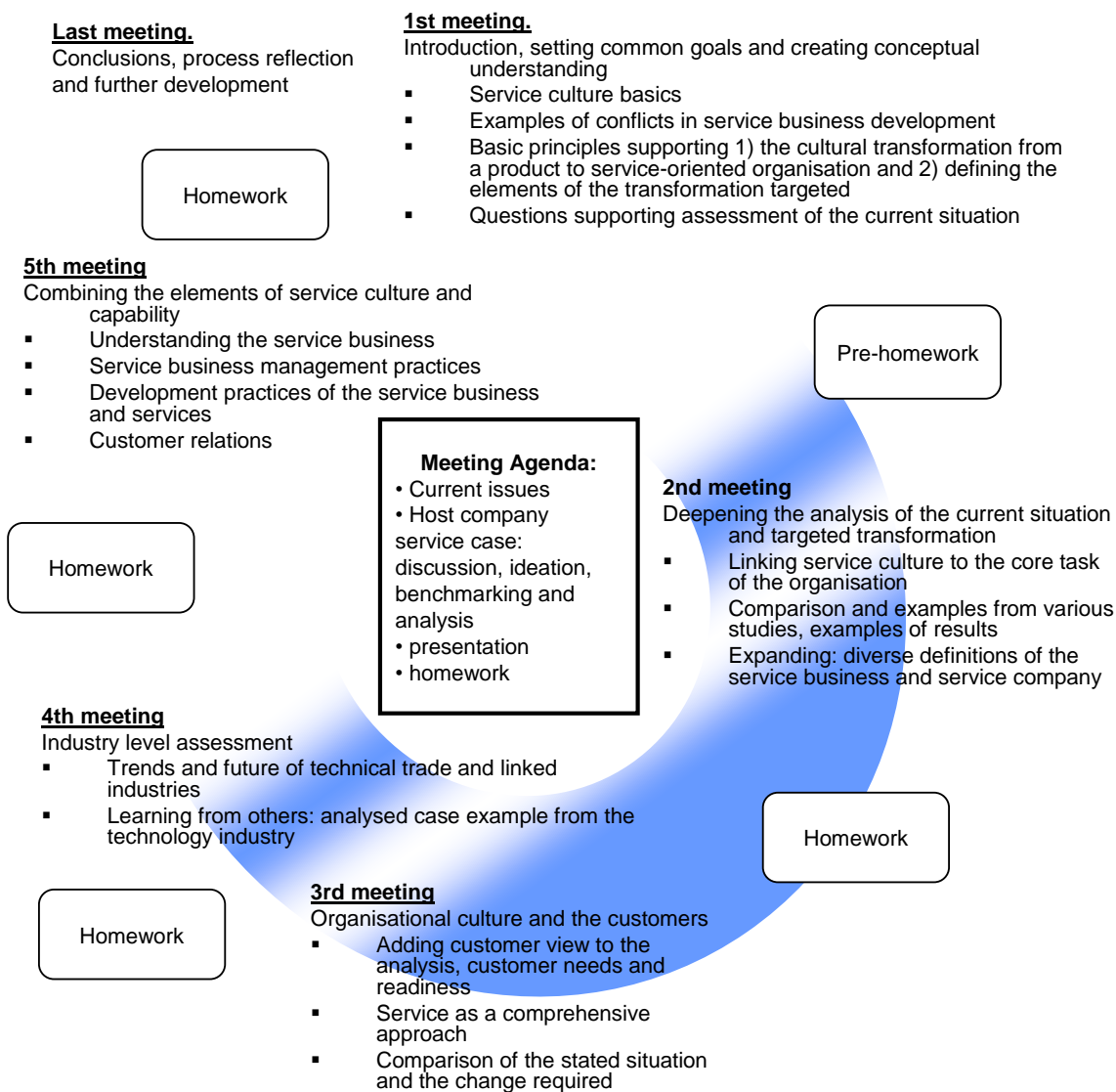
Last meeting.
Conclusions, process reflection and further development

Homework

1st meeting.
Introduction, setting common goals and creating conceptual understanding
- Service culture basics
- Examples of conflicts in service business development
- Basic principles supporting 1) the cultural transformation from a product to service-oriented organisation and 2) defining the elements of the transformation targeted
- Questions supporting assessment of the current situation

5th meeting
Combining the elements of service culture and capability
- Understanding the service business
- Service business management practices
- Development practices of the service business and services
- Customer relations

Homework

Pre-homework

Meeting Agenda:
• Current issues
• Host company service case: discussion, ideation, benchmarking and analysis
• presentation
• homework

2nd meeting
Deepening the analysis of the current situation and targeted transformation
- Linking service culture to the core task of the organisation
- Comparison and examples from various studies, examples of results
- Expanding: diverse definitions of the service business and service company

4th meeting
Industry level assessment
- Trends and future of technical trade and linked industries
- Learning from others: analysed case example from the technology industry

Homework

Homework

3rd meeting
Organisational culture and the customers
- Adding customer view to the analysis, customer needs and readiness
- Service as a comprehensive approach
- Comparison of the stated situation and the change required

Figure 3. The process of roundtable working and the main facilitating methods (modified from Nuutinen and Valjakka, 2010)

We piloted the approach in the context of technical trade roundtable working. The Finnish Technical Traders Association set up a project that aims at new service innovations and profitable service business. One of the concerns was that growth in service business is impeded by the present organizational culture, i.e. the values and conception of the work held by the personnel. To overcome this challenge, a special roundtable group was established focusing on the issue. The roundtable process started in May 2009 and ended in May 2010. Six persons from six companies participated in roundtable sessions. The case is described in more detail in Nuutinen and Valjakka (2010).

3.3. *A management group assessment tool*

The third use of the approach is to serve as the *management group's assessment tool* for their company's present state of service culture and capability (Figure 4). The process begins with motivation and introduction to the entire evaluation as well as the first phase, an individual assessment. As guidance for the evaluation, each of the service culture and capability elements and the related transformations are described in more detail in the form of tables giving examples of typical challenges or contradictions (see Figure 1, Nuutinen and Lappalainen, 2010). These examples are written as propositions, and the members of the management group choose and mark the proposition which best describes the company's current situation. The answers are collected in the summary table. After the individual assessment, each manager's results are collected, examined and discussed in the workshop in order to create a shared understanding within the company. The individual assessment takes about one hour, and the feedback workshop a couple of hours. An internal or external facilitator can be used in order to make the workshop more effective and constructive.

The concurrence between the results, the shared understanding and the goals of the service development are easier to set. However, great incoherence between individual results points out the contradictions and challenges that must be solved before efficient service business development can be pursued. The discussion itself is essential, and after that, the idea is to identify, iterate and prioritize development targets.

The focus of the approach can be on areas, which are the most contradictory and challenging in the management group. Also ICT can be utilized in the collection of individual results and presentation of the management group results and for highlighting the mature gaps and contradictions.

The approach was piloted as a benchmarking tool in the workshop of service business seminar with managers from different companies. The companies participating in the workshop are developing service business and represent technical trade and ICT consulting. The self-assessment was conducted in a situation when we had started, or were going to start, co-operation with them in a new research and development project. We have not actually got an opportunity to properly study its use in an actual management group context, but based on various feedback this kind of mean is called for. A similar need was also expressed in the feedback from the organizational learning process.
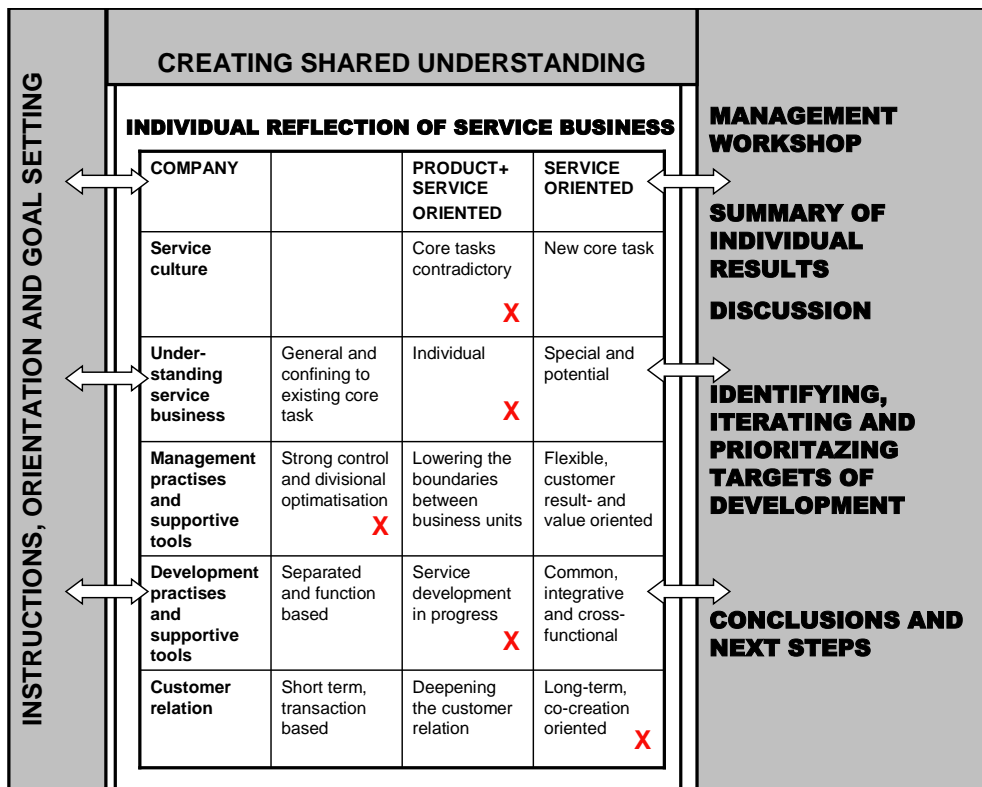
Figure 4. Main phases and the summary table of the management group's assessment.

3.4. *Analysis of the approach for three different purposes*

We conducted a multiple case study in which we applied the action research approach (e.g., Argyris and Schön, 1996) as a way at first to facilitate the service business transformation of the case companies with the three procedures of our service culture and capability approach (cf. Yin, 1994). Secondly, we analysed the suitability of our approach with the three different procedures, which had been roughly predefined for their generic purposes and contextual needs. We collected data on the progress and effectiveness of the procedures by *participatory observations* in the workshops. Data for participatory observations were gathered by drafting memos from our most important perceptions and reflections related to the evaluation frame and its usability for different purposes. The data were complemented with interviews of key persons and feedback discussions with participants. Thus, the so called suitability analysis was iterative and qualitative in nature, conducted throughout the facilitation processes in cases.

4. Results

The main results of the potential and limitations of the three procedures to apply our industrial service culture and capability approach are described as follows. The results are based on three different case studies illustrated briefly above. Essentially, we reflected on each of the procedures from the transformation point-of-view. In other words, *how do the three procedures promote the transformation in each of the elements of the service capability and culture?*

4.1. *Usability of boosting organizational learning process*

According to our participatory observations and feedback given by the core group in the company, the organisational evaluation process of service culture and capability at first provided the

conceptual framework for personal and collective reflection concerning the organisational development stage of service business. Thus, it contributed to the creation of a shared understanding of attained progress and further development potentials, needs and means for service business. Secondly, the procedure enabled a systematic and collective learning process, which on the one hand refocused ongoing change process and on the other hand enabled a regular evaluation process and dynamic forums to strengthen service-orientated culture.

The benefits of the process were expressed e.g. as follows:
- *"[It] gave a comprehensive (16 interviews and 372 surveys) feedback and overview of the customer relations, collaboration and especially the hidden opinions and thoughts about the change and daily work with and within services."*
- *"The survey itself changes culture/awareness at all levels"*
- *"The report [development plan] is great top management tool"*

The main needs for improvements concerned clarifying the conceptual framework of the evaluation elements with criteria and involving the staff even more in the evaluation process. Moreover, in that specific case the primary focus was on creating a shared understanding *within a restructured service organisation*, and a secondary focus was more as a next step within the entire company. Due to case-specific needs, cross-functional cooperation was not supported systematically throughout the assessment process, but only when collecting organisation-wide survey data and proving feedback for all. However, in order to promote shared customer value and life cycle thinking, *cross-functionality* should be taken into account systematically and practically when implementing the evaluation process. In that way, the collective evaluation process enables participants to create new collaborative practices to promote service- and customer value-orientation.

4.2. *Benefits of structuring the roundtable work and external benchmarking*

The group members' views expressed on roundtable working were mostly positive. For example, the possibility of sharing experiences and obtaining feedback on one's own development ideas was prized. Moreover, simply sharing concerns and doubts was regarded as valuable: managers do not have many people who understand their situation. There were also individual and situational differences concerning the opinions. Those meetings where the focus was on one's own organisation were considered the most useful. The individuals' motives seemed to be mostly related to getting help for one's own situation, which is, of course, quite natural. However, this occasionally caused disturbances in the group dynamics, when someone lost his/her interest and either ignored or withdrew from discussion. During the roundtable work, it transpired that the technical trade – as well as almost all other industries – was subject to the dramatic impacts of the economic recession. The recession hit the participating companies at different times and with varying force. The possibility of sharing one's concerns was one of the most important benefits, according to participants.

It is not reasonable to expect radical change in the organisations during a roundtable process consisting a few meetings and with only one person from each company. Adoption of common frames of reference was important. Theoretical presentations of service culture and capability offered new, shared concepts to discuss and analyse one's own and others' situations. The recession dominated the discussions and also affected the possibilities of realising the service business development plans, shifting the emphasis onto survival rather than innovation. Participating companies differed in many significant features and this made learning from the others more difficult and also offered excuses not to change one's own opinion (related to the difficulties of breaking out of the present culture).

The positive side of the roundtable method structured by our frame is that is offers a kind of 'safety valve' for the managers – they can express their doubts more freely than in their own organization, where they may feel greater pressure to be 'a believer'. Discussion with the others can also serve as eye-opening moments – one's own culturally-rooted excuses for not proceeding with service development are challenges. On the negative side, the new understanding gained easily remains only as a property of the participant and does not diffuse without participatory processes in an organization like the one described above.

4.3. *Potentials of the management group assessment*

The feedback on the approach acquired from the service business seminar emphasized the importance of the management's role in organizational service business transformation. According to the feedback results, the assessment aimed at the management group within a company contributes to a shared understanding of service business in initiating the process, identifying the present situation and contradictions. In addition, it would help to prioritize the development targets. Shared understanding among the management group is essential for managing and leading the change consistently in the different business areas and units, as well as in customer relations. Secondly, there was a need for an easy tool that points out the contradictions and challenges among the management group and creates the structured scheme for discussion. The main needs for improvements concern developing user-driven/interactive/web implementation of collecting, analysing the data and presenting summaries. Secondly, the customer view should also be emphasised.

4.4. *Summary of the strengths and weaknesses*

To summarize each procedures has its own strengths and weaknesses, which are presented in Table 1. The feedback from participants was mainly positive, but also raised development ideas.

Table 1. Strengths and weaknesses of three procedures of applying service culture and capability approach.

How do the procedures promote the transformation?	Organizational learning process;	Roundtable work and benchmarking.	Management group self assessment tool
Service-oriented culture	+ Start with critical evaluation of core task by key actors => motivation/ commitment for evaluation + Wide participation => strong impact - Still top– down -orientation strong in the case, but this could be changed by selecting key actors differently	- Few participants from the organization=> impact on the whole organizational culture minimal + support individual awakening and keeping on the track	+To initiate and commit managers and the management group to change - Exclude the personnel and service provider view and commitment
Service business understanding	+ Gaining multi-voiced view covering entire organization + Dynamic iteration between individual reflection and shared understanding on a multiple level	+Benchmarking, learning from others - Many solutions developed by the other companies are not directly suitable to one's own situation	+ Increasing understanding differences between business areas - Exclude the personnel and service provider view

	- Cross-functional focus was not stressed enough to boost awareness of the value chain and life cycle thinking.		
Management practices	+ At its best support building new network structures and managerial practices via multi-level workshops + Provides long-term support and tools for repetition - Demands lots of resources and organizational commitment to succeed	+ Collegial support for new practise ideation - the new ideas should still be sold to the managers who have not participated	+ Supportive and efficient way to manage the service business development in the different area of business +Acknowledgement of contradictions - State of the art - do not include execution
Development practices	+ Internal networking promoting cultural change - Cross-functional networking should be stressed more	+ External networking promotes new ideas and methods - exclude the specific development process	+ Conception of the resources needed - Exclude the specific development process: steps, timetables, initiatives
Customer relationship	+ Increasing a wide understanding of customers' needs and potentials within the company -Second hand customer understanding => strengthened bias ('we know what our customers need')	+ At is best supports challenging typical company-specific excuses not to involve more customers in the development - Second (or third) hand customer view	+Wide view of customers in the different business unit lever - Second hand customer view

5. Discussion and conclusion

The aim of this paper is to present three procedures to utilize the service culture and capability approach in enhancing a personal and shared understanding of changes needed in the transformation of manufacturing and technical trade companies. We have analyzed the utilization of the conceptual approach for three different purposes: 1) as a booster of organizational learning process; 2) as a structuring frame for roundtable work and external benchmarking and 3) as a management group assessment tool. Each procedures supported transformation and a shared understanding but their 'power' is strongly related to participants (who and how many take part) and resources invested. Each of them also has some unique characteristics and this also encourages utilization of them all in supporting change.

The multiple case study and action research approach appeared suitable to our purposes. With these being case studies and having just one case example for each three means, results could be applied carefully to other settings with the same kind of industrial context and change situations. However, some generic conclusions could be made that were supported by previous studies. These results concerned the notions that industrial companies lack practical but holistic frameworks and procedures in order to tackle complex cultural challenges when pursuing strategic growth in the service business. Thus, our approach deepens understanding of change as the transition from technology- and product-oriented service culture towards service- and customer value- oriented culture (cf.

Vargo and Lusch, 2004, 2008). In addition to the evaluation framework, the study developed and piloted three practical different procedures for supporting the transformation and ,showed promising ways to apply the framework for different purposes and recourse situations. The approach with three procedures gained support, but should be further developed particularly to include a more customer-oriented perspective.

As shown above, each procedures appeared to be beneficial while *promoting the transformation in each of the elements of the service capability and culture*, with strengths and development needs. Furthermore, our study supports the idea that they are all suitable in order to tackle those three fundamental questions, which should be solved within the company in order to achieve radical growth in industrial service business. *All three procedures seem to support companies in creating a personal and shared understanding of* 1) *why* the change is needed: motives and commitment, 2) *what* kind of organizational change is needed and 3) *how* the intended change could be supported and managed in practice.

Firstly, all three procedures start with a *critical reflection or challenge to* the current beliefs of the core task of the company – in other words the company's strategic role as a service provider within a business environment and the participants' own roles in contributing to the service business (c.f. Beer et al., 1990). Questioning the current beliefs personally and collectively enables the team to see gaps and contradictions explicitly between participants as well as between time spans, current needs and future potentials (Paavola et al., 2004). The motives for the change need to be clear enough that the complex change is seen as worth pursuing and engendering commitment (c.f. Lines, 2004). In this early stage, both internal reflection and external benchmarking seemed to be beneficial and to compliment each other.

Secondly, when attaining significant and radical growth in service business, even managers have faced challenges in *understanding systemic and complex relations* between different business logics and related pricing, offerings, management, competence and organizational issues (Gebauer et al., 2005) Therefore, holistic frameworks and practical procedures like management group assessment, are needed in order to create an individual and shared understanding of attained goals, new business and management models with core competences at first managerial level. The top down – perspective has been criticized, but it appeared necessary when pursuing strategic transformation, which calls for strong managerial support in terms of vision and resource allocation (Gebauer et al., 2005). Respective participatory procedures are needed to motivate and involve the entire organization step by step to adopt and *reconstruct* operational models and practices in relation to their own responsibilities for renewal and their own competencies. For that purpose, the evaluation as an organizational learning process appeared to provide a relevant basis in terms of a cyclical, iterative and long-term learning process, via mediating elements and aiming at creating conceptual models to guide renewed practices. Furthermore, creating the new service business agenda is seen fundamentally as a social, *co-creation process.* (cf. Paavola et al., 2004, Beer et al., 1990.)

Thirdly, all those three procedures seem to provide practical support to create an individual and shared understanding when making choices between *alternative ways to implement* renewed business and operational models. The challenge is to fit together those different models in daily practices with the risk of reverting to a product- and technology-oriented business logic and culture (Lappalainen and Nuutinen, 2010; Nuutinen and Lappalainen 2010; Valjakka and Apilo 2008). Thus, external benchmarking alternative strategies and learning from other companies by the means of industrial specific round table work and open discussion forums provides much-needed support for managers. These lessons learned could be shared during management group assessments and processed further collectively to build company-specific solutions. A participatory evaluation process contributes to the co-creation of new networked structures within the company as well as a development plan to guide the service business transformation from a cultural point of view.

Therefore, our study brings organizational culture and development-oriented research perspectives to service innovations and methodological discussions. The paper provides a practical means for companies to create a shared understanding of necessary changes or to evaluate renewed service practices, thus facilitating them in the complex service business transformation. The approach provides an essential but typically unavailable perspective with practical tools for industrial companies to understand and better manage the complex and dynamic change process when attaining growth with services. Furthermore, when adding the perspectives of customers and external service providers to the evaluation, the approach would support even more comprehensively an increasingly networked service business development.

In principle, all the three procedures can include participants from the customer side or new phases particularly focusing on customers. In practice, however, this is more difficult. In our on-going studies we have placed great emphasis on the importance of involving customers more in the service business development process, but we have been forced to face the fact that one of the biggest obstacles caused by a product-based culture is an unwillingness to show the customer anything that is incomplete – either services or organizational issues. Overcoming this obstacle is, however, essential, and utilizing some 'bridge-building' intermediate steps (e.g. customer interviews) conducted by us as 'outsiders' and representatives of well-known neutral research organization show promise for further development.

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