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Value Co-Creation & Proposition in Service Business Models & Eco-Systems – Interactions, Perspectives, Roles

20 Manager Interviews in SMEs & MNCs
3 Case Studies from IBM

Leadership, Strategy, Technology, Services

Business Administration
Master’s Thesis
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Think Future, & Act Backwards
ABSTRACT

The academic and business understanding of how Business Models through Service Logic co-creates, proposes, and captures value in extensive and complex Networked Systems is at its first daylight, specifically in the context of Service Systems with their Ecologies. With the complexity emerging in the Service Economies along with the advances in Information and Communication Technology such as the Cloud and Big Data, to describe and define the business operations, units, and value propositions consequently is done by business modeling and innovation of the company to acquire a current or new capitalization strategy, control and execution. Open Business Models such as the Business Model Canvas are easily integrated in existing or new Enterprises and Service Systems, and aim to facilitate the development of private as well as public entities in adapting, accessing, and integrating operant and operand resources by the ever-so-more used Service Logic. A Service Business Model has the academia and business recognized Service-Dominant Logic (S-D Logic) as a foundation for sensemaking in complex Networked Systems and Service Economies. The authors have conducted 20 face-to-face interviews with private and public company managers at all levels, review of literature in the Business Model and Service Logic fields, and also reviewed case studies from IBM on Business Models and its Leadership, Strategy and Technology (and Services) – which is a natural extension of our Interdisciplinary and Systems Sciences studies with S-D Logic at Karlstad Business School and Karlstad University for the past four years. The author’s research, interviews and IBM’s case studies show a need for further conceptualization and sensemaking of the Value Co-Creations and Propositions in Service Eco-System settings – and also decision-making assistance for managers designing, innovating and using Service Business Models to create sustainable Ecologies. Moreover, a Leadership perspective with a systems level strategy in Service Eco-Systems through externally-faced Value Propositions with the ability to create opportunities needs to be developed through a systems thinking. Furthermore, the quality of interaction, shared information, and influence in Dyad Perspective to facilitate Triad Relationships captures value – which is facilitated by the new Service Canvas Business Model. We argue for a multiple perspective in Service Business Models to cater both partner and customer perspective with internally- and externally-faced Value Propositions to Co-Creat or Capture Value – we see that this requires an objective (objectification) foundation for consensus; the 4C model. We contend that Service Eco-Systems cannot scale or sustain without the proper use of Technology specifically Communication but also Information, which determine most of the quality in modern and digital service interactions and perspectives. Our interviews, reviews, and cumulative research in Service Business Models and Eco-Systems with IBM case studies are all strong foundations for current and future research but also for business practice today.

Key words Business Models, Service Business Models, Business Model Canvas, Service Concepts, Value Co-Creation, Value Proposition, Service-Dominant Logic, Service Science, Service Eco-Systems, Manager Interviews, Case Studies, Karlstad University, Karlstad Business School, Service Research Center, CTF, IBM
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Master Thesis – We will add resources to better service business models from our perspective, here; and an executive summary can be found in the appendix.

Service Business Models – Oriented towards this specific master thesis and future academic and business solutions: www.servicebusinessmodels.com
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________________________

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May of 2014

Sweden, Europe
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<tr>
<th>Abbreviation</th>
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<tr>
<td>BM</td>
<td>Business Model</td>
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<td>BMC</td>
<td>Business Model Canvas</td>
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<td>BMI</td>
<td>Business Model Innovation</td>
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<td>BMD</td>
<td>Business Model Design</td>
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<td>CBM</td>
<td>Component Business Model</td>
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<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CEF</td>
<td>Cloud-Enabled Framework</td>
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<td>CTF</td>
<td>Centrum För Tjänsteforskning</td>
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<tr>
<td>GDL</td>
<td>Goods-Dominant Logic</td>
</tr>
<tr>
<td>IBM</td>
<td>International Business Machines</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
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<tr>
<td>IS</td>
<td>Information Systems</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>KAU</td>
<td>Karlstad University</td>
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<tr>
<td>MD</td>
<td>Managing Director</td>
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<tr>
<td>MNC</td>
<td>Multi-National Company</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>SBM</td>
<td>Service Business Model</td>
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<td>SBMC</td>
<td>Service Business Model Canvas</td>
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<td>SC</td>
<td>Service Concept</td>
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<tr>
<td>SDL</td>
<td>Service-Dominant Logic</td>
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<tr>
<td>SME</td>
<td>Small and Medium-sized Enterprises</td>
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1. INTRODUCTION

“There’s not a single business model, and there’s not a single type of electronic content. There are really a lot of opportunities and a lot of options and we just have to DISCOVER all of them.” – Tim O’Reilly, founder of “O’Reilly Media” and supporter of free software and open source.

Traditional balance has been changed between customer, partners and suppliers by developments in the global service economies. Technological advancements, advance of available communication technologies, and the establishment of wide global trading regimes means that customers have more choices, variegated customer needs can find expression, and supply alternatives are more transparent (Teece 2010). Business Models (BM) therefore need to be more customer- thus service-centric since the technology has evolved to allow lower cost-provision of information and customer solutions, and also a focus on diversification of customer values is mandatory as well as partner satisfaction. These developments consequently require businesses to re-evaluate their value propositions communicated to customers but also partners – and ultimately their relationships with customer, partner and value network in order to facilitate and maximize value co-creation.

The global environment has also amplified the need to consider not only how to address customer needs more perceptively but also how to capture value from providing new services contextually, socially and actually (revenues). Without a well-developed BM, innovators and business practitioners will probably and ultimately fail to either deliver or capture service value successfully thus the success can be derived from proper BM design (BMD) and its process. SME and MNC recognize formally and officially that a BM is a part of the business success both in the short and long term – a success factor in B2B, B2C and B2B2C (partner network) interactions; with its own stand-alone value (Zolnowski et al. 2014).

For handling complexity (B2B2C; network orientation), focus on and from BMs have different competitive aspects and several single BMs with focused value propositions, in combination, are powerful and holistic approaches to the future needs of the focal value network (Huhtanen 2010), by change needed to be created, captured and compiled by all stakeholders – ultimately
shared through cooperation or reciprocity in the service systems. Industry-specific BMs can come together and, with stakeholder-synergy, build the competitive advantage through sustainable ecology systems (eco-systems) in the formed value network.

Vargo and Lusch (2004) proposed and clarified that the economy is converging from the perspective of goods with focus on tangible resources and embedded value to needed perspective on service with focus on intangible resources such as customer competencies and knowledge thus value creation and resource integration; known as the service economy or “Service-Dominant Logic” (S-D logic or “SDL’’). Furthermore, an emphasis on complex systems thinking is currently spreading through the Service Science (SS) field, which IBM is specifically promoting as a complement and competitor to SDL.

A strong tool for building understandable BMs is the Business Model Canvas (BMC), which is an “open” BM; a sort of umbrella for capturing different industry-specific BMs in one encompassing and managerial-friendly design process, framework, and context so that managerial decision-making become faster, clearer, and understandable in the actual design process and after-design development and usage – Business Model Innovation (BMI). Companies applying BMC are start-ups, SME and MNC such as the authors’ own start-ups, their network of SMEs, and also the well-known Coca-Cola, GE, P&G, MasterCard, Ericsson, LEGO, and many more. Furthermore, the BMC is very popular in start-up environment such as incubators and support-orienting entrepreneurship organizations and as a tool in consultancy services for business development.

1.1. PROBLEM STATEMENT

The problem presently is that large, partly or entirely, good-gone-service (“servitized”) companies such as IBM, Volvo, Ericsson and IKEA have opened new horizons of services in goods industries and are facing complications in resource integration and compliance of their existing BM with service-oriented BMs – also in accordance to “lean services”. Those complications and compliance issues are widely in discussion today, and businesses (as well as NGOs) are trying to come up with concrete BMs that can cater all of their needs from the service perspective. Foremost, pure managerial and leadership challenges arise to a service-oriented logic shift, especially in terms of understanding and consensus thus educational learning curves can be high.
As of today, there is a lack of cumulative research in evolving existing BM with the service perspective (rather than adding parts as representations) (Zolnowski et al. 2014; Daxböck 2013). The foremost Zott et al. (2010) states that a convergence, and an agreement, with the BM concept in heading towards a system-level holistic view on the business logic and the activities needed for a successful execution, especially focusing and explaining value creation and value capturing (Zolnowski et al. 2011b; Zolnowski et al. 2014) thus by BMs value propositions.

Furthermore, there has been more than 1200 BM-oriented peer-reviewed papers published in academic journals since 1995 (Zott et al. 2010), and the BM importance has grown with the ICT development along with the Internet to a yearly publishing of 200 papers in academic journals (PAJ) and 1000 papers in non-academic journals worldwide (PnAJ) (ib).

![Figure 1-1 Business Model Articles in the Business/Management Field (Zott et al. 2010)](image)

**1.2. RESEARCH QUESTIONS AND AIM**

After going through the pile upon piles of research papers, books and minor local interviews with service researchers carried out on and with SDL and BMs, the authors formulated the following research questions:
Research Question 1

“How can the Co-Creation and Capture of Value be understood and improved through Business Models?”

Theoretical aim

Research Question 2

“How can Leadership, Strategy and Technology constitute success in a Service Eco-System through Value Co-Creation and Proposition?”

Theoretical and empirical aim

Research Question 3

“What roles and perspectives do Leaders and Managers have in facilitating Business Model Innovation/Design, in a Service Eco-System setting?”

Empirical aim

1.3. PURPOSE

The purpose of this master thesis is to improve the understanding of a Service BM (SBM) and Business Model Innovation (BMI) with the Service Business Model Canvas (SBMC) from a networks view. Furthermore, it aims to contribute primary data for the cumulative research request by the academic and business community in relation to SBM yet has its roots in strategy, leadership and technology.

1.4. DISPOSITION

The authors will first introduce the BM background and present the problem area. Thereafter, the authors will build the theoretical framework on BM and Service Concept (SC). Then, the authors will analyze the transitional dimensions and implications of BM, BMC, and latest SCs as SDL, SS, and service eco-systems.

IBM case studies will be presented as well as interview data from 20 face-to-face manager interviews that will lead to an analytical discussion of the service implications and implementation of SCs and BMs. See below for a complete overview of the seven chapters.
INTRODUCTION
• Background of the research and identification of the problem
• Research questions and aim

RESEARCH METHODOLOGY
• Initial work leading to research approach, method, design and process, data collection process and its presentation, credibility of the study, data analysis statement

THEORETICAL FRAMEWORK: Service Concepts and Business Models

EMPERICAL DATA: Case Studies And Interviews
• IBM history, cases descriptions (of selected IBM case studies), face-to-face manager interviews

ANALYTICAL DISCUSSION
• Case studies analysis in context to the theoretical framework, analysis will be made from the research question aiming at value co-creation and proposition along with roles, interactions and perspectives

CONCLUSIONS AND MANAGERIAL CHALLENGES
• Limitations, validity and credibility
• Reflection, findings and conclusions based on research questions

FUTURE RESEARCH
• Recommendation and reflection
• Cumulative and qualitative research

Figure 1-2 Structure of the Thesis (own)
2. RESEARCH METHODOLOGY

This part of the thesis aims to guide the reader into the methodology process applied, with the intention of gaining understanding for each fraction of the research and information follow-up till the final chapter – chapter seven.

2.1. RESEARCH APPROACH

This research has a qualitative as well as quantitative approach, which means that qualitative and quantitative data needs to be collected. The approach is selected for current research as qualitative research methodology is a strategy applied for examining the available information and resource material, and quantitative to quantify the collected data. When analyzing data from empirical findings for this thesis, it will be compared against the theoretical framework and previous research (Erlandson et al. 1993). The methodology shifts from the underlying philosophical assumptions to research design, source material collection, interpretation, and analysis.

Figure 2-1 Research Approach (Creswell 2009; Bryman & Bell 2007) (own)
The first step of the research process is to identify the general research questions. The authors have tried to compose general research questions based on previous and after-general-research knowledge of BMs in service-oriented environments and papers. Furthermore, the questions have been adjusted accordingly along every step of this research process, mainly by getting more in-depth knowledge and insight to the research topic. The authors also got advice and direction for multiple professors, doctors and other employees at Karlstad Business School and the Service Research Centre.

To reach second step, the authors found various resources, including articles, reports, cases, thesis’, and conference papers from online resource databases such as DIVA-Portal (Academic archive), EBSCOHOST (Academic Search Elite, Business Source Premier), EMERALD Insight, Google Scholar, Jstor, LIBRIS (Online library), SAGE Journals, Science direct, Scopus, Springer Link, and Wiley (Online Library). Those resources are helpful for the purpose of collecting relevant previous research, which is collected through detailed research using key words as “Business Model”, “S-D Logic”, “Business Model Canvas”, “Service Business Model”, “Business Model Innovation”, “Value Co-Creation”, “E-Business Models” etcetera. After completing the collection of relevant theories and models, it is interpreted and analyzed in order to do formulate and compile a theoretical framework.

In the third step, the authors collected the case studies about BM from IBM online database, and compiled the case studies in accordance with the research and thesis’ aim. During the time of study, a short questioning with IBM official Dr. Spohrer by online communication via e-mail (2014), and a short interview at a seminar in Karlstad (2012) was conducted.

In the fourth step, the manager interviews were conducted in a time period of two months – 20 face-to-face interviews with different private and public start-ups, SME and MNC through managers (also CEOs/MDs and owners) to collect first-handed primary data. Each interview was divided into four parts as described in figure 2-2.
To conclude the final step and move from general to more specific, it is necessary to take the previous steps under consideration because researchers pose that past experiences and literature are the tools through which the authors reach from specific to more generalization and in practice, as using the theoretical framework and collected data analysis. Furthermore, the authors have analyzed all the collected data in detail by utilizing the theoretical framework and case studies, using Microsoft “Excel 2013” and “Word 2013”, leading towards analyzing and development of appropriate figures, tables, diagrams and overall illustrative objects to describe the nature of the data and thesis. The conclusion is made based upon the whole research, collected data, and findings.

The strategy for combining primary and secondary data is based on a complementary nature: inspiration gathered from the secondary data to (along with the theoretical framework) create the interview questions and manuscript for discussion to further analyze and develop an understanding of the thesis’ research question – number two and three. Some case studies from IBM were discussed during the manager interviews with the purpose to understand research question two and three; develop foundational for theoretical-empirical linkage. Moreover, IBM did a survey-interview among CEOs in “IBM Global CEO” study in 2006, 2008 (specifically addressed BM and BMI), and -the recent- 2012, that also inspired the foundation for the primary data interview question and perspective but that survey was deemed outdated by the authors due to our data criteria and the theoretical framework already confirmed that the usage of BM is a success factor in financially successful companies. The 20 manager interviews is partly aimed to support the
secondary data (such as the Component Business Model (CBM)) but mainly to answer the research questions, which suited IBM’s focus on leadership in the managerial and director-strategy-levels underpinned and found in all case studies.

Lastly, the research questions confirmed and added from two to three due the theoretical and empirical findings, that is, during the advancement of the research process as it got more comprehensive. This shaped both the structure of the thesis and the aim of the primary data analysis.

- **The research question number one** is aimed to be investigated and answered through the theoretical foundation in the thesis, and strengthened by empirical data.

- **The question number two** is aimed to be answered by the empirical secondary data with the theoretical framework providing the base for discussion.

- **The last research question (three)** is aimed to be answered mainly through empirical primary data and by following analytical discussion, basing on the understanding from the whole theoretical framework.

### 2.2. RESEARCH METHOD

Bryman and Bell (2007) describes that a research strategy that usually emphasizes words rather than quantification in the collection and analysis of data as well as Maxwell (2012) mentions that qualitative research approach emphasizes words rather than numbers and focuses on specific situations or people. Qualitative data can be collected by using various sources such as documents, interviews (Bryman et al. 2007), observations, and physical artifacts, among others (Yin 2009). Qualitative method is believed to be appropriate when studying organizations, groups, and individuals (Corbin & Strauss 2008). Moreover, this method is commonly used and can grant researchers a detailed understanding when a social process or an event is complex and hard to revise with quantitative methods (Ghauri & Grønhaug 2010). However, since each method has advantages as well as disadvantages, Bryman and Bell (2007) explain that the main disadvantage of qualitative research is the accumulation of too much information. Therefore, the challenging task is not the data collection but rather how to jettison most of it (Wolcott 2009).
2.2.1. RESEARCH REVIEW

For the theoretical framework, a brief review was done of previous research in the field of BMs and SCs. The initial list for research of online databases comprises of DIVA-Portal (Academic archive), EBSCOHOST (Academic Search Elite, Business Source Premier), EMERALD Insight, Google Scholar, Jstor, LIBRIS (Online library), SAGE Journals, Science direct, Scopus, Springer Link, Wiley (Online Library). These databases include more than 1500 business journals and represent one of the most complete sources on business and academic studies.

The authors searched the database for academic articles published during the last 15 years containing the terms “Business Models”, “Canvas Business Model”, “Service-Dominant Logic”, “Service Systems”, “E-Business Models”, “Case Studies” and “Service Science” in the title, abstract, and/or keywords. As a result of this process, more than 1000 articles were obtained including working papers, conference proceedings, and reports. The sample of a few most relative papers has been taken to precede the research.

Furthermore, relatively close to the thesis topic three articles received from PhD student Andreas Zolnowski after having a long discussion meeting with Zolnowski at Service Research Center (CTF at Karlstad Business School) in April of 2012, which gave guidance to the future of BMC with a service focus. The focus of the selection of articles ultimately was by IBM-related studies, Zolnowski-related studies (and his fellow researchers), Osterwalder-related studies, and some close-to-home CTF-related studies.

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Figure 2-3 Theoretical Framework Formulation
2.2.2. CASE STUDIES

Yin (2009) defines case study as the method of choice when the phenomenon under study is not readily distinguishable from its context. The case study method presents a portrait of different behavioral, procedural, or driving forces that affect a particular situation. The use of case study method has got significant importance for researchers to get data for their concerned problem.

A case study research design entails the detailed and intensive analysis of a single case or several cases (Bryman et al. 2007). According to Ghauri and Grønhaug (2010), case study research in business studies is particularly useful when the phenomenon under investigation is difficult to study outside its natural setting and, also, when the concepts and variables under study are difficult to quantify – such as SC and BM impact on leadership; value proposition and co-creation.

The case study fits the author’s research since it is a theoretical research and the service aspect of BMs requires knowledge about what values, motives and contexts leads to different types of decisions.

2.2.3. INTERVIEWS

An appropriate instrument for this research to explore the current business approaches regarding their BM and by mapping and identifying the importance of different building blocks, components and elements in the qualitative interview. Due to the suitability and a certain time limit for the whole thesis, the interviews were accomplished over the online communication and face-to-face meetings: 18 out of the 20 interviews were conducted face-to-face, the other two were done by telephone interview without minimal difference in quality – mostly because it was former business partners.

Most of the questions were scaled from 1-10 which means that the respondents could response to the questions as per their best knowledge. Also, a 1-6 scale was used in SMBC grading the value creation of the company-customer and partner interaction – to make the interviewee think more critically in the design context and business thus ask question to engage in in-depth discussions. The authors on the other hand received unanticipated information and were then also able to ask follow-up questions that were not only premeditated but also of interest which resulted in discussions during and after the main manuscript. Questions that simply give “yes” or “no” were not
plenty for the authors; background was of interest and therefore qualitative questioning was engaged in the beginning of the interview process. The overview of the interview subjects can be found in the appendix along with some compiled datasheet of interview results that could give some additional insight on the manager preference from different business settings.

As the interviews were done with a survey-based script to make the interviewees think critically about their own position and business within the time limit, the interviews were validated and deepened by having discussions in one or several sections and models promoting an active reasoning between the models, finding gaps and similarities, points of reference and insights by comparing answers from model to model; connecting it from theory to practice and vice versa. For example, the difference in how most interviewees valued partner and customers from Business Model Canvas (BMC) and Service Business Model Canvas (SBMC) shifted towards partners after analyzing value creation points in BMC context to that of SBMC. This was discussed and highlighted to bring attention to how perspectives changed depending on the design element of every model. How the interviewees perceived the shift in focus was discussed in many interviews. Furthermore, discussion about the focal business in relation to the specific models were plentiful, with the objective to gain understanding to the main research questions but especially research question number three. The purpose of the interview benchmarking via the scale system is to compare and evaluate with strong foundation in each model and aspect in the analysis, and to secondary data and theoretical framework. The implicit and explicit knowledge from the interviews can be hard to separate and understand – both for the interviewee and interviewer.

Interviews were conducted in four steps. **In first step**, a brief presentation of the thesis and area with central concepts was given. **In the second step**, general questions were asked including open questions through which details were intended to get, which is basic demographic information about the interviewee. **In third step**, same interviewees were presented with detailed presentation of different interaction models and BMs, and were asked to rate different elements of each model and, **step four**, some follow-up questions were asked based on their responses. The main focus was the third step. An interview took about 30-60 minutes to complete, which is enough to cover the direct answers and discussion.
The authors made it clear to the interviewees that they were anonymous as presumed that the interviewees would feel more comfortable when giving answers and judgments on different models relating to their own position and business. This approach helped the authors in eradicating the fear of the participants of being responsible for their answers.

2.3. DATA COLLECTION

In order to answer the research question, data needs to be collected. Data can be divided into two different varieties: primary and secondary data. Primary data is new data collected for a specific purpose; interviews gathered for this thesis. While secondary data refers to data that already has been collected for some other purpose (Mintzberg & Quinn 1996); finished case studies from IBM. Since the approach of this paper is both qualitative and quantitative, case studies and interviews are a good collection method for valid empirical data relevant to this thesis’ purpose (Saunders et al. 2009).

2.3.1. PRIMARY DATA (INTERVIEWS)

One of the basic types of data collection techniques found in the research process is primary data collection, which is the first-hand collected data for a specific purpose through observations, experiments, surveys, and interviews.

The authors contacted several IBM officials via email but managed to get positive response from Dr. Spohrer. Furthermore, the authors also contacted the local available start-ups, SMEs and MNCs by using their personal network managing and got hold of 25 (26 with Dr. Spohrer) face-to-face interviews – the largest MNC’s were McDonalds, KappAhl, ICA, Elgiganten, and IBM. Excluding Dr. Spohrer’s 2012 seminar at Karlstad Business School, only 20 successful face-to-face manager interviews were conducted because of the factor of the time limitation (two months) hindered but also limiting the number of interviews to 20 + 1 as it was a large amount of data to make the analysis with and relate it to the theory therefore considering the time span and available resources, researchers decided to conduct the empirical study with only 21 interviews and proceed with the next step in the thesis.

It has to be noted that about 15 of the interviewees the authors had in their direct personal network by business ventures and projects, friendships and acquaintances, and classmates. This offered a more open discussion; trust in revealing BM preferences and sharing questions and insights: theoretical and practical relation to the research questions. In some cases, the authors had very
good knowledge about the interviewee’s business allowing a broad discussion related to research questions and topics. This is one reason why almost 25 manager interviews could be attained in the short amount of time.

The authors tried to gain more primary data by sending interview requests and questionnaires to the concerned IBM officials and research-related researchers but were unable to get any response, and therefore this study had to be done without an in-depth interview with IBM – or BMC’s Dr. Osterwalder. The authors decided to use the Dr. Sphorer’s seminar questioning at Karlstad University (Spohrer 2012) and a recent though short e-mail questioning (Spohrer 2014) along with the interviews with the managers of the 20 different start-ups, SMEs and MNCs as primary data in this research.

One unique aspect in the interviewees is the diversity in nationalities; see appendix, another is the broad array of industry and market areas.

2.3.2. SECONDARY DATA (CASE STUDIES)

Secondary data can be collected in a number of different ways. For the purpose of collecting authentic secondary data, the authors have researched online data bases and identified IBM Research database to carry on further research. By searching on “Business Model” and “Service Business Model”, the authors have found five most relevant case studies, which are further narrowed down to three most relevant case studies to be used as secondary data for the current research following research aim. The search engine was sufficient to find all of the relevant articles with few database searches.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Service Business Models and Concepts</th>
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<tbody>
<tr>
<td>Data Type</td>
<td>Primary</td>
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<tr>
<td>Data Source</td>
<td>E-mail and seminar (IBM)</td>
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<td>Data Gathered</td>
<td>Qualitative Data</td>
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<tr>
<td>Analysis</td>
<td>Descriptive</td>
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Figure 2-4 Summarization of the Data Collection (own)

2.4. RESEARCH AND DATA: SCREENING AND ANALYSIS

An initial cursory analysis of the theoretical data was performed by reading article titles, journal names, abstracts, and introductions; revealed that not all the articles identified by the authors’ search would be useful for the purpose of writing this thesis. Many of these articles were case studies, summaries of articles published elsewhere or studies in which the BM or SC are not the main subject of the analysis.

To exclude non-relevant articles, the following additional criteria being implemented for our literature review on service implication in BMs and its SCs:

- First, to be included in our review, an article must deal with the BM and SC in a non-trivial and non-marginal way.
- And in addition, the articles which are discussing the transition from goods-to-services (servitization) are selected as well.
- Articles selected are latest and up-to-date – from middle of 2000s.

As a result, several resulted search articles and papers has been identified and eliminated that did not fit these criteria, which left with a sample of over 70 articles that deemed relevant for this research based of e-BM, BM, SC, BMI, SDL, SS and BMC.

Through reading the collected sample set of literature has given awareness of further works on BM and SS which appeared relevant, and which therefore include in the author’s review. Moreover, a careful reading of these articles also enabled authors to exclude further studies in which the BM was treated in a rather marginal or trivial way. The authors have also gone through the DIVA and other thesis databases, and found a few most relevant thesis (including master and PhD level) written about the BMs. Final sample, therefore, compiled of 35 works, including books, journal articles, conference proceedings, thesis reports, and working papers.

For screening of the secondary data, authors have taken the keen interest in the IBM case studies focusing mainly on BM and its leadership underpinning. The case studies were reduced to three (from five) following the structure of the thesis’s aim and theory; a case study relevant for respectively the strategic (leadership), organization (management/process) and systems (technology) level. The selected for deletion included data that was too old, or had a similar nature to other articles but less relevant to this thesis’ research purpose and aim.
The authors have tried to look at BM and SC from a different perspective. During the research, the main question in focus keeps on developing and updating with the upcoming latest research throughout, mainly as the topic BM was hot and publications as well as research projects directly associated with this thesis’ research questions were ongoing. For empirical significance, the authors also used Dr. Spohrer’s seminar and e-mail contact, and also the tabulated result from the 20 manager interviews.

Furthermore, the analysis is carried out by using the knowledge and bases developed under the theoretical framework and further nurtured with the collected secondary data which is used and implemented in collecting the primary data; further lead to the use of data analysis methods of text and figure (diagrams, tables and columns), analysis, and systematic notes during interviews to conclude the results and findings from this research study.

2.4.1. PRIMARY DATA

The data is based on the quality of the discussions, interpretations and explanations between the authors and interviewees. The raw data was compiled in Excel and the coding of the numbers was done after all the interviews were completed.

The screening of the entire interview collection was aimed towards quantifying the direct answers thus conclusions based on the grading aspect of each and every model presented. Answers to questions such as which model the interviewee preferred and block in the BMC/SBMC were screened out as it goes too deep in the business practice and psychology thus outside of the limits -time and scope- of this thesis. The main focus is to get hard data to compare against different models and their mechanisms in order to find what constitutes a successful usage of value co-creation and propositions in a managerial environment. The analysis was done comparing the numbers of each aspect in the interviews via, and presented with, column charts.

2.5. TRUSTWORTHINESS OF THE THESIS

The authors believe that the trustworthiness of this thesis is reliable. One of the most important requirements for a research paper is that it is regarded as reliable and readers view it as consistent and trustworthy (Alvesson & Sköldberg 2009). All the articles (published and accessed online through University Library accessed Databases) and the Internet sites used are reliable (IBM’s main website and research database). The books and articles used
mostly in the theoretical and discussion parts are also highly credible and up-to-date (2011 - 2014). The authors went through each step very carefully with plentiful key persons in the areas of both BMs and SCs; talking with key persons at Service Research Center at Karlstad Business School, Dr. Spohrer, Zolnowski but also our combined ten plus years studying at and in SC-related topics with teachers in the front of service research.

2.5.1. RELIABILITY AND VALIDITY

This thesis work conducted by two people with the instruction from the supervisor ensured comparatively high internal reliability. This internal reliability also expanded with the help of primary source material from primary data as interviews and seminar, and secondary data as case studies and other literature in relation to IBM, SC and BM.

Since the primary materials were collected by a short questioning and interview with Dr. Spohrer by e-mail (Spohrer 2014) and through Dr. Spohrer’s seminar presentation and discussion (Spohrer 2012), and the 20 face-to-face manager interviews, the validity is very high. But with the limited number of IBM case studies the empirical secondary data might not well represent the whole concept of BM direction with SDL and BMC and could not achieve a high level of external validity.
3. **THEORETICAL FRAMEWORK: SERVICE CONCEPTS and BUSINESS MODELS**

This part of the thesis aims to guide the reader into the literature, concepts, models, research and definitions building the theoretical framework with the intention of gaining well-groomed and broad understanding of the two main lines of this study: SC and BM.

The broad service and services definition by Edvardsson et al. (2010) says that a service links activities and interactions in time and space with a solution-orientation aim to customer problems. Furthermore, a service is fundamentally co-created and also a perspective on value creation (ib). The customer defines service on the basis of value while using it and the resulting (total) customer experience (ib). Services are (Edvardsson et al. 2005; 2010):

- **Opposite of goods.**
- **Activities and interactions:** processes, deeds, interaction which forms, processes, often embedded in relationships.
- **Created and consumed simultaneous:** Solution to customer problems and value creation thereof.
- **Cannot be stored or owned.**
- **Co-created by producer and consumer (in general):** The quality is determined by a combination of expected and perceived service experience, and by the beneficiary.

“... think of service as the application of skills and knowledge to benefit another or oneself. Do not think of services as what goods are not! I tell them that all of exchange (regardless of the tangible nature or not) is an exchange of service. A service mentality thus is one that focuses on the process and flow of serving others and not the production of units of output whether they are cars produced or beds filled in a hotel.” Service Leadership Blog²

The service view is simply to study a phenomenon as a service applying service logic of value creation and resource integration, analyzing it from a resource and ultimately social construct perspective (Edvardsson et al. 2005).

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² Service Leadership Blog (2014) Accessed from:
http://serviceleadershipblog.com/2014/08/16/service-dominant-logic-in-a-nutshell/
3.1. SERVICE CONCEPTS – VALUE (CO-) CREATION AND RESOURCE INTEGRATION

In marketing theory, value and its creation is of the essence of understanding and creating quality services. Value co-creation focuses on the mutual service process of two (or more) actors interact thus giving the service provider (company) the main responsibility of handling the value co-creation process. Furthermore, the latest research (Zhang et al. 2012) in BMs is converging towards value co-creation and value capture as more emphasis is being put on BMs finding and managing these two competitive advantages, along with value propositions.

3.1.1. SERVICE-DOMINANT LOGIC

Service-Dominant Logic (S-D Logic or “SDL”) was first introduced by Vargo and Lusch (2004) “Evolving to a New Dominant Logic” in the “Journal of Marketing”. The concept of SDL is one of the most immerging and in debate among scholars and researchers ever since. SDL has open several other fields to research and bring attention to the concepts such as value co-creation, customer value, Value-in-Use, Value-in-Exchange and Value-in-Context. Lusch and Vargo (2006) defined SDL as:

“*The application of specialized competences (knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself.*”

SDL’s aftereffects have enhanced and changed the way nowadays organizations are working in both goods and service industry mostly by focusing more on their service aspects and interaction of customer-company-partner. Those changes bring some complications in accepting the traditional BMs and that requires a need of a new or improved BM to cater all the service aspect variables of the organization.

Furthermore, service development from a SDL perspective requires methods that can grasp not only resources (operand and operant) but also the activities and interactions during value co-creation – in Value-in-Context (Edvardsson et al. 2010).
Table 3-1 The Ten Foundational Premises of SDL (Vargo et al. 2004)

| F.P. 1. | Service is the fundamental basis of exchange |
| F.P. 2. | Indirect exchange masks the fundamental basis of exchange |
| F.P. 3. | Goods are distribution mechanisms for service provision |
| F.P. 4. | Operant resources are the fundamental source of competitive advantage |
| F.P. 5. | All economies are service economies |
| F.P. 6. | The customer is always a co-creator |
| F.P. 7. | The enterprise cannot deliver value, but only offer value propositions |
| F.P. 8. | A service-centered view is inherently customer-oriented and relational |
| F.P. 9. | All economic and social actors are resource integrators |
| F.P. 10. | Value is always uniquely and phenomenologically determined by beneficiary |

3.1.1.1. RESOURCE INTEGRATION

The concept of resource integration draws great attention in the literature with and about SDL. Traditionally, resource integration refers to the access of resources among the actors through exchange in a service setting, but now it means the integration of resources among all the actors who are part of the service eco-system (Akaka et al. 2013). According to SDL, the success of a value creation process depends on proper integration of operant and operand resources (Akaka & Vargo 2013), which are (Pareigis 2012):

- **Operant resources** include skills, knowledge, competences and values;
- **Operand resources** are material resources that are “acted upon” by operant resources for production and to produce effects.

3.1.1.2. VALUE-IN-USE

Value creation is a key characteristic of services (Zolnowski et al., 2011a), and value is derived from the Value-in-Use (the actual usage from the customer) but mediated and monitored by Value-in-Exchange and value co-creation (Vargo et al. 2008).

Shown below, Value-in-Use as used by Vargo et al. (2008) at center stage of the complex value creation process further explained that -the phenomenon related to exchange- knowledge and competencies are universal in the market and therefore generated by all participants – provider and customer.
3.1.1.3. VALUE-IN-CONTEXT

Value is uniquely and phenomenologically determined by actors on the basis of value experienced in a certain use-context (Edvardsson et al. 2010; Vargo et al. 2008). Co-creation is not the only major aspect of services but also other resources’ integration, and therefore the value are defined as per context. Edvardsson et al. (2010) describe the Value-in-Context with an example of purchasing of a cell phone, shown in figure 3-2.

Figure 3-1 Value creation as the customer’s creation of Value-in Use or as an all-encompassing process including provider and customer activities (Grönroos 2011)

Figure 3-2 Value-In-Use and Value-in-Context (own)
The benefits of using the actual cell phone represent Value-in-Use. The total value -the effect that the user is seeking and willing to pay for- is dependent on the integration of other resources from the user and company; front- and back end:

**Operant** is, for example, operating skills, maintenance. (Usage)

**Operand** is, for example, subscriptions to other related service offerings, functions made available by the cell phone. (Context)

The customer enters the use-context when integrating the cell phone and its services with daily activities such as communicating at work or with family members (Edvardsson et al. 2010).

The major decision-making and value is in the contextual part. The context in use-situations can reflect the actual and perceived value of the product (good or service, or both).

### 3.1.1.4. NETWORK-MARKET STRATEGY – VALUE CREATION

Value creation in context of BM can be both of social and economic value (Zott et al. 2011), and it has emerged from networked markets in the ICT revolution (ib). Value creation is used outside of e-business and in terms of customer logic (ib), and can occur in a mix of different factors. Recent progress in the field put emphasis on time as actors both create and evaluate value over a time-frame and also experiment in its usage (Wetter-Edman 2014). This is described by the figure below.

The effective use of BM can lead to a competitive advantage as value creation and co-creation in a changing industry seek an effective use of the managerial tools, which by itself can lead to new thinking, ideas and perspective as well as be used as a benchmarking tool (Matthyssens & Vandenbempt 2008; Edvardsson et al. 2005) and also facilitate capturing value. Ultimately, both customer and provider enter in a value co-creation process.
The logic behind BM and benchmarking is that the business practitioners can view the factors that affect profitability and correlate it to a framework for developing better mental map to cope with capturing value. Some studies show that BM is a tool separated from the company’s resources that generates its own value mainly on the strategic level; to reach and affect the process and systems levels of a business more specific a e-business (Zott et al. 2011).

3.1.1.5. PRODUCT-MARKET STRATEGY – VALUE CAPTURE

Lepak et al. (2007) propose a three level analysis of the ability to value capture, following value co-creation. The individual level means specialized knowledge and skills (operant resources) but also a unique position in a social network and its relationships; this can raise the leverage of an individual to capture the value. Lepak et al. (ib) specifically mention the use (ability) of new technology as a major factor of success at this level.

At the organizational level, innovation and competition are main factors. Innovation has to occur to capture new value, but also competition has to be dealt with so full focus is to maximize the utilization and structure of a company’s resource. Challenges and rarity of other companies could increase the company’s ability to capture value its value creation.
At the societal level, nations, states, and communities, several factors may serve as isolating mechanisms for entities including the presence of unique factor or resource advantages, strong demand conditions, related and supporting industry infrastructure, and competitive markets.

3.1.2. SERVICE SCIENCE

Service Science (SS) aims to explain and improve interactions in which multiple entities work together to achieve win-win outcomes or mutual benefits (Spohrer & Maglio 2008; Maglio et al. 2009; Maglio & Spohrer 2013). Per Dr. Spohrer (2012):

“One thing we can do is advance an emerging discipline known as Service Science, Management and Engineering (SSME) – Service Science for short. Similar to the forces that created computer science as a discipline, companies like IBM need people with a new skill set.”

Considering the point that all businesses are service businesses, all value is co-created between economic entities that possess information-processing and resource-based capabilities (Vargo et al. 2004; Maglio et al. 2013). Magilo and Spohrer (2013) stated the fact that Vargo and Lusch's (2004) SDL is one of the cornerstones for the emergence of SS, providing an appropriate perspective, language, and worldview (Vargo & Maglio et al. 2008).

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Figure 3-4 The Ten Key Concepts of Service Science (Spohrer 2012)
Vargo and Maglio et al. (2008) presented intersection of SDL and SS as: service, the application of competencies (such as knowledge and skills) by one party for the benefit of another, is the underlying basis of exchange; the proper unit of analysis for service-for-service exchange is the service system, which is a configuration of resources (including people, information, and technology) connected to other systems by value propositions. SS is the study of service systems and the co-creation of value within complex configurations of resources. Magilo and Spohrer (2013) have described four basic principles of SS in order to make sense of value creation from SS perspective in the context of Business Model Innovation (BMI).

<table>
<thead>
<tr>
<th></th>
<th>Four basic principles of service science (Maglio et al. 2013)</th>
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<tbody>
<tr>
<td>1</td>
<td>Service system entities dynamically configure four types of resources (people, technologies, organizations, and shared information).</td>
</tr>
<tr>
<td>2</td>
<td>Service system entities compute value given the concerns of multiple stakeholders.</td>
</tr>
<tr>
<td>3</td>
<td>The access rights associated with entity resources are reconfigured by mutually agreed to value propositions.</td>
</tr>
<tr>
<td>4</td>
<td>Service system entities compute and coordinate actions with others through symbolic processes of valuing and symbolic processes of communicating.</td>
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</table>

3.1.3. SERVICE SYSTEMS

One of the recent concepts to emerge from service research are the service systems. Service systems are constellations of resources and intended resource integration aiming for realization of value creation through social and service practices (Vargo & Maglio et al. 2008). It is clear that the structure of employee and customer role is converging to equality in the perspective on the broader context of individual actor’s “value constellation” meaning how value is processed by all actors with equal resources but different roles.

“*The service system is the fundamental abstraction of the study of value co-creation or service science*” and “*the basic unit of analysis for service science*” (Spohrer et al. 2008; Vargo & Lusch 2010; Maglio et al. 2013)
The employee’s operant resources and motivation are the primary factors of success for value co-production and -creation within and between service systems, where every system and its actors are a resource integrators (Gummesson et al. 2010), and therefore can act from a unified service system setting. A service system’s objective is to coordinate efforts to solve customer’s (another service system) problem in the most value generating process possible (Kristensson et al. 2014).

![Figure 3-5 Value co-creation among Service Systems (Vargo et al. 2008)](image)

The service systems are a significant part of a customer’s (greater) social system, and the social actors are a part of the shaping of value propositions mainly by affecting the human resources (competence, communication, status, motivation) of employees and customers (Edvardsson 1997) – directly and by influence.

The co-creation of value is further facilitated directly and indirectly by interacting with physical, informational, technological and social resources (ib). The line of visibility marks the direct interaction capabilities of the customer, illustrated in the figure 3-6.
3.1.4. **DYAD PERSPECTIVE – CUSTOMER AND EMPLOYEE**

In her doctoral thesis, Åkesson (2011) discusses roles constellations between customers and employees. In the context of resource integration, direct interaction and value co-creation, the two roles are redefined with the SDL perspective and tied to a context aiming to complement each other – to, for example, amplify strengths and diminish weaknesses. Åkesson (2011) defines four customer respectively employee roles, and their match:

![Model of the Resource categories in the Service System](image)

**Figure 3-6 Model of the Resource categories in the Service System (Edvardsson 1997)**

![Diagram of Customer and Employee roles constellation for Value Co-Creation](image)

**Figure 3-7 Customer and Employee roles constellation for Value Co-Creation (Åkesson 2011)**
**Knowledge transferee:** Needs to transfer knowledge to value co-create, often passive customers.

- **Interactor:** Interacts directly to customers, “reads between the lines” to find customer needs.

**Accessibility needer:** Depended on contact/interaction/communication to value co-create, often lacking knowledge to integrate resources.

- **Empowered (party):** Can meet difficult situations, takes initiatives, and has the ability to give customized treatment.

**Dialogue keeper:** Achieves value co-creation by continuous dialogue, create new resources. Double-check service by, for example, Web-search and then confirm by phone.

- **Co-creator:** Enjoys problem-solving, flexible to the needs.

**Information Integrator:** Connect unique-find information, has the ability to use resources differently. Prefers self-service and independence.

- **Customer orientation (party):** Puts customer in the center of attention, claims responsibility for their situations. Intends to satisfy the customer needs and expectations.

A person can enact different roles in various degrees of participation and energy. Furthermore, complementary roles mean that there is a match between resource integration and value co-creation thus multidirectional equilibrium will occur when a service system’s (actor’s) expectations, needs and capabilities are satisfied in a network (Åkesson 2011; Vargo 2008).

**Table 3-3 Åkesson’s (2011) propositions to encompass the findings**

<table>
<thead>
<tr>
<th>P1.</th>
<th>Value co-creation is dependent on resource integration, which is shaped through actors’ roles in relation to one another.</th>
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<tr>
<td>P2.</td>
<td>The operant resources consist of knowledge, skills, and motivation.</td>
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<tr>
<td>P3.</td>
<td>A customer role and an employee role that adapt to each other are said to complement one another and form a role constellation.</td>
</tr>
<tr>
<td>P4.</td>
<td>Value propositions have implications for roles and role constellations.</td>
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</tbody>
</table>
3.1.4.1. THE 4C MODEL

Rajala et al. (2013) did an empirical study of B2B security services (technology-based) by interviewing 10 managers from a global IT security service company, and comprised a model based on four themes: conceptualization, calculation, communication, and co-creation – the 4C model. The purpose is to understand value creation after a general servitization on a direct interaction level, developing understanding between actors – and synchronizing the relationship for maximal value co-creation and relationship (trust) building. Rajala et al. (2013) conclude that, in their technology-based service industry, the 4C model can help to objectify service offerings and support a continuing servitization and relationship.

**Conceptualization** – Services and their benefits should be objectified as concrete and usable offerings.

- The manager’s view is that this could lead to higher service quality from the holistic approach.
- The customer’s view is that the service offering and value is a reflection of how well it fulfills the expectations and the resources put in to get the service.

**Calculation** – To quantify services and service value. Monetary quantification is the most common still there are many aspects of services that cannot be quantified.

- The manager’s view is that the customers often cannot successfully estimate the value of a service - especially a complex and technical one.
- The customer’s view is based on monetary value for the service and usually they accept the cheapest alternative, and some do not estimate the lifetime cost of the service.

**Communication** – From manager’s view, a communication focused on customer relationship is key. Open communication through frequent customer meetings and good treatment of the customer accounts is the process leading to long-term partnerships. The communication should go through multiple channels, for example: phone calls and emails, and some customers prefer personal visitation.
**Co-creation** – Creating value by interaction. The manager’s view is that, due to knowledge and competence dominance, customers prefer to be passive and let the manager work for them.

![Figure 3-8 The 4C Model of Objectification (Rajala et al. 2013)](image)

### 3.2. BUSINESS MODELS

The fastest growth in research on the BM concept has been brought many overlapping definitions (Afuah & Tucci 2001; Fielt 2011; Osterwalder et al. 2005; Zott et al. 2010). These definitions can be interpreted in many ways with accompanying problems for the business practitioners and in the discourse of Business Model Innovation (BMI). There is a lack, and possibly a disagreement, of convergence in the definitions of open Service Business Models (SBM).

BM and its role can be understood by explaining its position in a company. As per Osterwalder et al. (2004): BM is a conceptualization of the money-capitalizing logic in a company. In the same way, BM can work as a conceptual link between strategy, business organization, and ICT. Osterwalder et al. (2005) developed an own encompassing BM description:
‘… A conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams.’

Moreover, Osterwalder et al. (2004) emphasizes that BM level is intermediate of the strategic level (goals, objectives, vision; Planning) and the process level (organization, workflow; Implementation). Thus, the BM level is where the business practitioners, sometime with academics and consultants, develop the money-capitalization logic and complete the three levels (the last one: systems; ICT or IS/IT) of running a company – with BMs. Furthermore, Osterwalder et al. (2005) states that BM functions can be summarized by five areas:

- **Management** – implement, react, decision process
- **Analysis** – track, measure, observe and compare
- **Consensus** – capture, visualize, communicate, share and understand
- **Prospecting** – prognosis, innovate, test, simulate and portfolio manage
- **Patenting of BM**

Figure 3-9 Business Models and the Organizational Triangle (Osterwalder 2004)
The first element of the conceptual link business strategy refers to the vision of the company and its strategy translated into value propositions, customer relations and value networks (Osterwalder 2004). The second element, the business organization is about the "material" form the conceptual BM takes in the world, such as departments, units and workflows (ib). The third element is ICT, and the link between ICT and BMs is particularly strong since ICT has been a strong enabler for a variety of innovative BM (ib). Around the triangle are the pressures that directly or indirectly influence a BM, for example: technological change, competitive forces, change in customer demand and change in the social or legal environment. Furthermore, almost all BMs contain calculations and benchmarking key numbers (for example: KPI – Key Performance Indicators). Osterwalder et al. (2005):

**BMs are ultimately about business modeling – shaping the business with a money-capitalizing logic. BM Designing [BMD] refers to a higher abstract level than actual business modeling, per the process of forming a BM with the illustrative and informative goal. BMD allows analyzing, developing and comparing different value creation approaches on a meta-level iteration.**

In terms of latest SCs and its implementation on BMs (Fielt 2011):

“**A BM describes the value logic of an organization in terms creating and capturing customer value**”

BMD could help, guide and assist companies to develop novel approaches to creating and capturing value, specifically from both simple and complex services (Zolnowski & Böhmann 2011).

**3.2.1. E-BUSINESS MODEL**

Earlier studies have rarely discussed the difference between the overall generic BM and the e-BM as the 'e' often is implicitly built-in to the model. However, in some companies, e-commerce is utilized to reach new customers or market other value propositions over the traditional marketing channels. The e-BM is a part of the overall BM and should encompass both strategies, processes and systems decisions (Magnusson 2011).
The e-BM is based on ICT (e-commerce, digital and Internet-based services, mobile applications) and it can be described by three different characteristics: Web based services, which deliver a service over the internet in an interactive manner; as purely informational services, which deliver the benefit of information provision; as sharing (Zolnowski & Böhmann 2011). ICT is a key driver in the value creation process and the emergence of the modern SBM (Zolnowski et al. 2014).

<table>
<thead>
<tr>
<th>Strategy level</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value Proposition</strong></td>
<td>The bundle of product and services that a company offers and the value that these create for a specific customer segment.</td>
<td></td>
</tr>
<tr>
<td><strong>Target Customers</strong></td>
<td>The segments of customers that the company wants to offer value to.</td>
<td></td>
</tr>
<tr>
<td><strong>Competitive Advantage</strong></td>
<td>How the company will gain and hold advantage over their competitors.</td>
<td></td>
</tr>
<tr>
<td><strong>Revenue Model and Cost Structure</strong></td>
<td>How the company will make money by different revenue streams and the monetary consequences of the BM.</td>
<td></td>
</tr>
</tbody>
</table>

**Process (Organizational) level**

| Cost Process                                                                 | The value chain of activities, processes, resources and actors arranged to produce and distribute the value proposition |                                                                 |
| Distribution and Communication Channels                                        | The channels through which the company communicates with their customers and delivers the value propositions.              |                                                                 |
| Core Competences                                                              | The competences necessary to execute the company's BM.                                                               |                                                                 |
### 3.2.2. BUSINESS MODEL INNOVATION

Innovation has always been the focal point in companies. In addition to adopting BMs to facilitate technological innovation and the management of technology, companies can also view the BM as a source of innovation in and of itself (Zott et al. 2010). To become BM innovators, companies need to create processes for making innovation and improvements by relating actual ones to the BM’s abstract level thus providing information for BMI and BMD.

Chesbrough (2007) in connection to Chesbrough earlier research has focused on networks for customers and partners to collaborate in the co-creation of the BM, and also introduced the notion of open BMs. According to the Chesbrough (ib), companies open their BM by actively searching for and exploiting outside ideas, and by allowing unused internal technologies to flow to the outside, by such other companies can unlock the focal company’s latent economic potential and talent (Zott et al. 2010). Furthermore, illustrated by Gambardella and McGahan (2010), open BMs designed for sharing or licensing technologies, apart from being a source of innovation themselves, may prompt additional BMI in complementary markets - vertical and horizontal- as a consequence of the reconfiguration of downstream industry structure as well as capabilities.

For BMI, Zott et al. (2010) states the NICE value drivers: “Novelty” is the Schumpeterian innovation (large profits will be beaten down by competitors with innovation) drivers implied on BM; “Lock-In” is incentivize and loyalty program; “Complementarities” are a mix of different BM and products; and “Efficiency” is to care about the dynamics in the BM.

Furthermore, a revolutionary BMI is identified as (Zott et al. 2010):

“*It caters the effects of both value creation and value capture which will extend the company’s resources, and seem to have a radical agenda*”
3.2.3. BUSINESS MODEL CANVAS

A BM ontology is a formalization of elements, relationships, vocabulary and semantics, which the Business Model Canvas (BMC) was developed to by Osterwalder and Pigneur (2010) through years of doctoral research in BM, specifically e-BM (Zolnowski et al. 2014). The BMC is a meta-model, an umbrella and open-oriented design tool that has been called “a shared language for describing, visualizing, assessing and changing business model” per Osterwalder et al. (2010) in their book “Business Model Generation”. The BMC is implemented in many organizations such as IBM, Ericsson, Deloitte, Public Works and Government Services of Canada, and many more ranging from SME to startups, to MNC (Osterwalder et al. 2010). BMC is considered an “open” BM and is popular in start-up environments and business development consultancy.

Inspired by the Balanced Scorecard and originated through e-BMs, the concept of BMC is to make the understanding of BMI and BMD simple, relevant and intuitive at the same time without compromising the complexities of different functions in a company – mainly in director- and management-meeting contexts (Osterwalder et al. 2010). The foremost advantage of the BMC is the adaptability and flexibility to multiple business settings, industries and markets (ib) – Simultaneously and across; compare, mix and benchmark.

There are four key aspects of a business:

Customer

Offer

Infrastructure

Financial viability

These has been described and covered in nine building blocks that comprise the BMC, which act as a blueprint for formulating and implementing strategy through organizational structures, process and systems (figure 3-11):
Table 3-5 The nine building blocks and the four pillars of the BMC

<table>
<thead>
<tr>
<th>Business model pillar</th>
<th>Building Block</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product (innovation)</td>
<td>Value Propositions</td>
<td>Provides the solution to the customer problems and fulfill customer needs with value propositions. What value is coming from the bundle of goods and services: <em>How does the start-up create value for its customer segments (ingenuity, usability, and price)?</em> A proposition should address the needs of the audience and distinguish its offerings from all other competitors;</td>
</tr>
<tr>
<td>Customer interface</td>
<td>Customer Relationships</td>
<td>In this block, relationships with the customers are established and upheld with each identified customer segment: This does not necessarily mean the level of intimacy between business (campaign) and customer (supporter), but rather the type of relationship they have. <em>Does the project offer an automated or self-serving product?</em>;</td>
</tr>
<tr>
<td>Customer Segments</td>
<td>Customer Segments</td>
<td>Contains information about the one or more customer segments. The group, which the company intends to reach and serve: Those defined by their particular needs, values, interests, or behaviors – The project tailors to;</td>
</tr>
</tbody>
</table>
Channels

A delivering mechanism of value propositions to the target customers through various communication, distribution, and sales channels. *The way in which the start-up intends to reach said customer segments. This may include partner channels.*

<table>
<thead>
<tr>
<th>Infrastructure management</th>
<th>Key Partnerships</th>
<th>Internal and external stakeholders: Other professional relationships, such as joint ventures or alliances, that reduce project risk and add key resources;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Activities</strong></td>
<td></td>
<td>Identifying and highlighting the key activities being performed: <em>The way a project or start-up executes its value proposition;</em></td>
</tr>
<tr>
<td><strong>Key Resources</strong></td>
<td></td>
<td>Are the assets needed to offer and deliver all previously mentioned block: <em>What resources must the start-up have to create the value proposition? These assets also contribute to the project’s sustainability;</em></td>
</tr>
<tr>
<td><strong>Financial aspects</strong></td>
<td><strong>Cost Structure:</strong></td>
<td>Describes all costs incurred to operate a business model</td>
</tr>
<tr>
<td><strong>Revenue Streams:</strong></td>
<td></td>
<td>Results from value propositions that are successfully offered to customers: <em>How does the start-up generate income through its customer segments?</em></td>
</tr>
</tbody>
</table>

Daxböck (2013) interprets the interrelationship between the blocks of the BMC, and states:

> “This, in turn, helps managers to generate a common understanding of the model and to identify the most important drivers of their BM. Most important, the single building blocks are not independent. They are interconnected and dependent on each other. Changing one element leads inevitably to the necessity of adjusting other elements.”

Figure 3-12 Business Model building blocks and interrelationships (Daxböck 2013)
Three academics have specifically explored and still working on how a service approach and SDL would be applicable and influence the BMC design: Birgit Daxböck, Tilo Böhmann and Andreas Zolnowski. The fundamental premise of SDL and BMC is the lack of illustration or guide in value co-creation and networks, and how the dynamics with value proposition. Zolnowski et al. (2014) article is a semi-response to Daxböck (2013) research result and future research proposition considering the lack of practical value co-creation insights in the service aspect in the BMC.

### 3.3.1. PREREQUISITES AND BLOCK PROPOSITIONS

Daxböck's (2013) analyzes the shift to, and integration of, SDL in the BMC starting with highlighting particular prerequisites for SDL in BMD, focusing on SDL’s Value-in-Context, value networks and co-creation, and the resource integration perspective:

- SBM tends to be more complex because of the value co-creation focus. Thus, companies should facilitate collaborative value co-creation by setting supporting infrastructure for customer integration process.
- Specific competencies are required to be developed for customer interface and its fulfillment of the ever-changing customer needs. The network is in focus through customer relationships which need to change character with an SDL perspective.
- Managing the value creation network is of the essence. The emphasis on value creation is in customer relationship aiming for a transactional one with service provision facilitation. Instead of a customer- or supplier-centric focus, equal importance should be given to all actors in the value network in a SBM conceptualization.
- All actors involved in the value creation process per SDL fundamental premises. The value propositions has been strong enough to start the value generate process, thus it has to attract customer as a service (not as a good).

Daxböck (2013) argues that changing any block in the BMC is not optimal due to the inter-connectness. The BMC is probably already well-balanced with a strong foundation in its BMD process, supporting the notion of service systems, value networks, and aim to treat all actors equally (Daxböck 2013):

>“However, as stated before, a more direct transfer of information and knowledge is necessary to successfully implement a SDL. To facilitate resource transfers from customers to the focal company, it is necessary to perceive customers not only as ‘targets’, but as key partners”
The key partners could be a part of acquisition of resources for the company
(Osterwalder et al. 2004; Osterwalder et al. 2010; Daxböck 2013). Working
with this, Daxböck (2013) illustrates how value co-creation in a service-
oriented BMC might be a possibility:

It allows managers to “think through the business model” (Daxböck 2013):

“The key partners could be a part of acquisition of resources for the company
(Osterwalder et al. 2004; Osterwalder et al. 2010; Daxböck 2013). Working
with this, Daxböck (2013) illustrates how value co-creation in a service-
oriented BMC might be a possibility:

“It allows managers to “think through the business model” (Daxböck 2013):

Table 3-6 Daxböck’s (2013) research result propositions

| P.1 - Value Proposition | a) Implementing SDL enhances the service focus and reduces the product focus of the value proposition.  
|                        | b) Companies implementing SDL are more interested in the value created by customers during the usage process of an offering than companies that remain in a good-dominant business logic. |
| P.2 - Key Activities    | a) Implementing SDL changes the role of a company from being a producer of offerings to being a provider of offerings.  
|                        | b) Implementing SDL enhances the need for interaction with customers. |
| P.3 - Key Resources     | a) Companies implementing SDL develop specific interaction capabilities facilitating the co-creation of value.  
|                        | b) Designing value propositions are related to a feedback learning mechanism based on operant resources provided by the customer base. |
| P.4 - Customer Segments | Companies implementing SDL segment key customers based on their willingness and ability to share information. |
P.5 - Key Partners

a) Companies implementing SDL integrate customers as well as other network partners to gain access to specific service capabilities.
b) Companies implementing SDL have closer relationships with their value network partners.

P.6 - Customer Relationships

Companies implementing SDL facilitate multi-directional value creation activities that enable customers to interact with other network partners at eye level.

P.7 – Channels

a) ICT-based channels enhance the exchange of information and facilitate the co-creation of value.
b) Empowered customers are willing to participate in ICT-based value creation as long as their participation enhances their own value-in-context.
c) To benefit from the use of ICT-based channels, companies establish common standards and instruct customers in using them.

Service Delivery

P.8 - Cost Structure and Revenue Stream

a) Companies implementing SDL are affected by an increase of costs.
b) Companies implementing SDL are able to realize an increase of revenues that is higher than the increase of costs.

Daxböck (2013) concludes that the logic shift in BM conceptualization is a matter of the reciprocal service provision and a focus shift from exchange to interaction. The characteristics of a SBM are the integrating and supporting of customers to facilitate their own resource integration and value co-creation process within the (value) network and context (ib) – empowered customers. Moreover, the role of the customer has to be clearly displayed in the BMC thus the role aspect between customer and actors [employees] are crucial in a service-oriented BMC design, illustrated and explained by a direct link between customer segments and key partners – the interrelationship (ib).

3.3.2. SERVICE BUSINESS MODELS CANVAS AND THE REQUIREMENTS

Zolnowski et al. (2014) push forward the missing representation of service-specific aspect in the BMC: the extension, or redesign, proposed in the paper is specifically called Service Business Model Canvas (SBMC). According to Zolnowski et al. (2014), the key to successful SBM is value co-creation and capture without losing its holistic picture. Value co-creation and resources integration applies to a SMB per the fundamental premises of SDL, including integration of actor in multiple forms, with special focus on operant resources. The customer resource integration is also of special interest and comprised of operant resources – and also decision processes. Network-based value co-creation is the ultimate end-goal of the SBMC but customer integration and value co-creation is the start, at least in the BMD process (ib) and defines how well the value-generating process will maintain and create value in the overall
network thus priority is micro-to-macro focus in value-building terms affecting all of the key actors.

Zolnowski et al. (2014) developed the SBMC (coined the term “SBM C” first) with an actor (three separate ones: partner, company, and customer) perspective focus along with a network emphasis.

### 3.3.2.1. THE CHANGES

The customer relationship block in the original BMC has been renamed to the relationship as it aims for maintaining it with all actors. Channels describe (direct) interactions points and revenue streams points out possible streams for each actor, and key activities and resources represent the contribution of each actor to the service provision (ib). Key activities and resources illustrate how the customer contributes to the resource-stream and service-providing process, and each actor shows their own cost (ib).

**Customer aspect:** Value co-creation involves the entire value chain (customers, company and partners). The relationship between main dimensions and the actors were extended significantly. This integration of the customer activities is central, specifically for resources and activities that must be represented to obtain service provision. This produces a cost for the customer, and a revenue stream.

**Partner aspect:** Value proposition for partners from the company are equally important for a successful BMD, following a specific relationship and channel definition, to capture the complexity.

---

**Figure 3-14 Service Business Model Canvas (Zolnowski et al. 2014)**

<table>
<thead>
<tr>
<th>Customer perspective</th>
<th>Company perspective</th>
<th>Partner perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Costs borne by customers)</td>
<td>(Costs borne by the focal company)</td>
<td>(Costs borne by partners)</td>
</tr>
<tr>
<td>Resources provided by customers</td>
<td>Resources provided by the focal company</td>
<td>Resources provided by partners</td>
</tr>
<tr>
<td>Activities carried out by customers</td>
<td>Activities carried out by the focal company</td>
<td>Activities carried out by partners</td>
</tr>
<tr>
<td>Value proposition for customers</td>
<td>Value proposition of the focal company</td>
<td>Value propositions for partners</td>
</tr>
<tr>
<td>Contribution of customers to maintain the relationship</td>
<td>Contribution of the focal company to maintain the relationship</td>
<td>Contribution of partners to maintain the relationship</td>
</tr>
<tr>
<td>Channels provided by customers</td>
<td>Channels provided by the focal company</td>
<td>Channels provided by partners</td>
</tr>
<tr>
<td>Revenues captured by customers</td>
<td>Revenues captured by the focal company</td>
<td>Revenues captured by partners</td>
</tr>
</tbody>
</table>

(Partners in the business model)
Resources are integrated indirectly with a distinction from activities, and no direct interaction other than relationship-based occurs – leading to an indirect interaction between key partners and customers.

### 3.3.2.2. **DESIGNING THE SBMC**

The actual BMD process from a service perspective is interesting: different starting points are available in the SBMC, as shown in figure 3-15. The illustrated option 1 shows a design process focused on value proposition for the company and customer, while option 2 focuses on the key resources of the partners [micro-to-macro], but involves all the main players: customer, company, and partner.

![Figure 3-15 Starting points for the Service design (Zolnowski et al. 2014)](image)

<table>
<thead>
<tr>
<th>R.1</th>
<th>CUSTOMER AND THE REST OF THE BUSINESS MODEL.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“… Postulates a comprehensive representation of relationships between the customer and the entire business model.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.2</th>
<th>SHARE OF COST AND REVENUES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“The second requirement demands the possibility to represent the share of costs and revenues”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.3</th>
<th>CUSTOMER’S CONTRIBUTION: ACTIVITIES AND RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“The third requirement demands the representation of the customer’s contribution to activities and resources”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.4</th>
<th>CUSTOMER SPECIFIC CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“The integration of the customer’s specific context and thus, situation, needs, and wishes is requested”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R.5</th>
<th>CUSTOMER’S CONTRIBUTION: RELATIONSHIPS AND CHANNELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Lastly, the fifth requirement requests to represent the customer’s contribution to the relationship and channel”</td>
</tr>
</tbody>
</table>

Table 3-7 The Service Business Model Canvas main requirements (Zolnowski et al. 2014)
Shown above, Zolnowski et al. (2014) proposes five requirements for a multi-sided BMC adapting for a SBMC following devised from their case study of an ICT mobile payment service “EDEKA” but also from many years of research on the topic and subject. Lastly, the SBMC allows multi-sided networks and also addresses the lack of partnership perspective with the accompanying integration of remaining blocks – and there is a dualistic perspective.

3.4. SUMMARY

This subchapter describes the origin of the BM concept and discussing different definitions and theories used in literature and addressed the SCs of SDL but also SS, service systems and the dyad perspective. Furthermore, summarizing the theoretical part of BM, the authors observed in academic literature that BMs are discussed in different disciplines, such as e-business, information systems, management, entrepreneurship, innovation, strategy and even economics (Zott et al. 2011; Morris et al. 2005; Pateli & Giaglis 2005; Teece 2010).

The figure 3-16 illustrates the relationship between service logic and BM in this thesis, namely value propositions and value co-creation. The latest research trying to marry the relationship into one is Zolnowski et al.’s SBMC through SDL thinking.

![Theoretical Framework Summary](own)
The service systems build on strive for sustainable eco-systems, which are facilitated by open BM and innovation of value propositions, interaction forms and mutual agreements.

The description, discussion and integration of literature on BM and SC as presented contributed to the objective of our study: enhancing our understanding of BMs, in particular its conceptualization (money-capitalizing logic) and role in the service industry. However, the authors noticed that the overall knowledge on the conceptualization of BMs and its implication in the service industry is still not well-developed and underpinned.
4. EMPIRICAL DATA: CASE STUDIES AND INTERVIEWS

“Two more well-known quotes about the future – the best way to predict the future is to build it, and the future is already here… It is just not evenly distributed” – Jim Spohrer, PhD in computer science and Director of IBM Global University Programs (2012)

In order to empirically study the BM and its different aspects, the authors have decided to go through the case study based on different studies done by IBM. IBM is one of the leading companies that is working with different research projects involving SS (by creation, SDL) and BMs, and are merging together the aspects of interactive business and technology. For current BM and SDL understanding, the authors have conducted 20 manager interviews in various companies. Furthermore, questioning Dr. Spohrer about the topic has been done in early and late stage of the thesis’ development.

4.1. INTERNATIONAL BUSINESS MACHINES

IBM is one of the largest MNC in the world. IBM is generally thought of as a systems, hardware and software company though in the last 20 years the proportion of revenue from services has grown dramatically: in 2004, of the $96 billion in total revenue, $42 billion came from services (figure 4-1). As of 2013, $57 billion were from services with a total of $99.8 billion³.

![Figure 4-1 Increase in Service Revenue at IBM (IBM Annual Report)](http://www-03.ibm.com/press/us/en/pressrelease/43008.wss)

The main domains for IBM today are IT services (consultancy), organizational development, hardware and software development that focus on creating and delivering value through services. Muzumdar (2013) explores a modern IBM by several options for market share growth and penetration.

![Diagram of IBM Value Segments](image)

**Figure 4-2 IBM Value Segments (Muzumdar 2013)**

**4.1.1. GENERAL ENVIRONMENT AND STRATEGY**

Muzumdar (2013) presented the business environment and analyzed the strategy of IBM:

- In technology, IBM focuses on cost saving and increasing dependency of automation. Furthermore, developing sophisticated software is a prerequisite for increasing its dependency on automation.
- By IBM’s size, the cost saving strategy has further been optimized, by outsourcing the staff workloads. IBM outsources software development to other companies to save costs by tax, benefits, and employee insurance.
- In the sustainability aspect, saving paper and energy is a component of the IBM corporate culture, and furthermore save and store data for future function. Education internally is still really important key to growth long term. There is a STEM group of experts which can aid in reaching complicated goals.
- Globally and culturally, language diversity in products gives IT companies around the planet a road to complex areas of usage, which also facilitates diversity in recruitment.
4.2. CASE STUDY 1 – STRATEGIC LEVEL: SEIZING THE
ADVANTAGE: WHEN AND HOW TO INNOVATE YOUR
BUSINESS MODEL

In this study, IBM followed up from the previous “IBM Global CEO” study published in 2008 and the analysis of 28 successful BM innovators. The conclusion of the study was that proactive business in disrupting competitors, redefine industries, and gain shares is seen in CEOs with financial success in the companies but that the BM was at center as a factor. This is valid through periods of change such as the economic turbulence during 2008.

4.2.1. THE TIME TO INNOVATE A BUSINESS MODEL

A BMI is an opportunity to gain advantages (mainly financial) during times of change. To accomplish a successful invention or innovation, these elements have to be considered: economic environment, securities industry or industry conditions, organizational (internal), for which IBM identifies three ways to succeed:

- Reduce cost by collaboration, partnership models and asset re-mix.
- Transform the industry, disrupt the competition, and introduce new industry models.
- Re-think value proposition and revenue model to meet new needs and requirements of customers and markets.

Generally, these areas of BMI are referred and used:

**Enterprise Model Innovation** – The organizational factors are in the main focus, such as operations, organizational boundaries, collaboration and partnering. This BMI is popular during economic turbulence as it aims to reduce costs by economical and strategic change. Here, the value lies in advantages, (service) value delivery and partnerships.

**Industry Model Innovation** – The industrial structure is the main focus, such as existing industry, new industry, and transition between industries. This BMI is used after a long financial success as financing allows for higher risk-taking and room for experimentation. The crucial point of the economic turbulence is to realize that the company is, or is about, to enter a turbulent period and hence start BMI.

**Revenue Model Innovation** – This form of BMI is aimed primarily for short-term profit-oriented solution in a turbulent environment.

---

4 (Giesen et al. 2009)
4.2.2. HOW TO INNOVATE

“The Three A’s”: Alignment, Analysis, and Adaptability. Figure 4-4 explains it:

Figure 4-4 The “Three A’s” model for Business Model Innovation (Giesen et al. 2009)
These characteristics - the “Three A’s” - are critical to the successful design and execution of BMI, and strong BM innovators often combine all three characteristics and realize the associated value.

4.2.3. ALIGNED – CREATING INTERNAL AND EXTERNAL CONSISTENCY

Internal and external consistencies have to be aligned for successful BMI; internally, customer value proposition is at center with the rest of the dimensions aligned including value-generation process and value-delivery process; and externally the value network, including customers, partners and supplies have to operate in open collaboration and partnership models. It is important for BMI to leverage their operant and operand resources innovatively.

Internal alignment:
- Each BM element should be aligned consistently with each other for successful BMI.
- Understanding how BMI elements relate and create value is important as the changing of BM affects the organization.

External alignment:
- Connect with customers, partners and the value chain through “open” and collaborative BM.

4.2.4. ANALYTICAL – LEVERAGING BUSINESS INTELLIGENCE GREATER

Successful BM innovators have an acute understanding of their customers and (service) value delivery to new segments with a new way and understanding how a new service implementation is “wrapped” in a BM – the BMD process. Furthermore, understanding customers, markets, channels and competitors are based on the quality of information that creates advantages in new and unique ways. This information is based on large amounts of data coming from the in- and outside:
- Create the strategic foresight needed to design the BMs of the future;
- Understand their potential economic impact, and;
- Continuously measure and enhance performance.

Strategic foresight – The ability to better understand potential future scenarios and how the organization can benefit through new BMs is now more important than ever as organizations have to operate (and make decisions) in a more complex and fast changing environment.
Effectiveness measurements – To innovate smart, well-designed measurements bring deeper information about what works thus contributing to organizational flexibility in new or changing business environments – internally and externally. Benchmarking is critical for successful BMI; internally, it requires integration of new and existing fragmented data, increased performance, better extraction and analysis of data in order to support decision-making; and externally it requires the focal company to integrate its data with the value chain: partners and suppliers, and also customers for fast decision-making.

4.2.5. ADAPTABLE–BUILDING FLEXIBILITY INTO THE BUSINESS MODEL

The BM innovators that simulate the speed, flexibility and mindset of a start-up while exploiting existing capabilities, resources and assets in the BMI process tend to be successful. Effective combination of leadership and change capabilities is a signature ability of successful BMI in SMEs and MNCs, as well as dynamic corrections and rapid execution.

Leadership and change – Successful BM innovators pursue new ways, opportunities and model with a ruthless focus on sustaining current business. These BM innovators can explore, experiment and pilot new BM without risking the existing BM, and several BM can complement each other in multiple department organizations. Leaders will need to exhibit the following characteristics:

Innovative leadership

Focusing on thinking outside-of-the-box with key parts of managing the new while keeping up the old; new improved leadership and consistency can be a parallel support to overcome the inherent organizational inertia.

Effective decisions to enable breakthrough innovation

Along with innovative leadership, breakthrough innovation is necessary for a culture of innovation and an entrepreneurial mindset. One way of attaining that within an organization is to regularly updating and enhancing entrepreneurial spirit. For example, Apple Inc. started flying a pirate flag from its headquarters as a symbol of maintaining a “rebel spirit.”
4.3. CASE STUDY 2 – PROCESS (ORGANIZATIONAL) LEVEL: COMPONENT BUSINESS MODELS: MAKING SPECIALIZATION REAL

Widespread adoption of standard communication technologies (the web, email and instant messaging – ICT) and enterprise software packages (CRM and ERP) have given companies many of the same channel capabilities as well as a similar outlook on their organizations.

**Internal and External Specialization** – As the implications of the global connectivity platform ripple out through the marketplace, companies face a fundamental need for specialization on two parallel tracks.

Figure 4-5 shows, the steady advance of ICT, culminating in the recent emergence of the global connectivity platform, have had a profound impact on the evolution of business designs, by mentioning the three phases of external specialization.

As seen in figure 4-6 the evolution toward external specialization is mirrored by a similar evolution on the internal side. Indeed, the same standardized communication platforms and plummeting transaction costs driving specialization in the external marketplace are creating a similar set of change imperatives within the company.

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5 (Pohle et al. 2005)
4.3.1. DEFINING COMPONENT BUSINESS MODEL

To cater the transformation to internal and external specialization a practical reality, the current study has given the concept of Component Business Model (CBM). CBM allows companies to evaluate the goals and strategy of the entire company to take simultaneous advantage of specialization. Without increasing complexity, the model allows an organization to expand and evolve while reducing risk, driving business performance, boosting productivity, controlling costs and improving capital efficiency and financial predictability.

4.3.2. WHAT ARE BUSINESS COMPONENTS?

As shown in figure 4-7, business components are the modular building blocks that make up the specialized company. Each component encompasses five dimensions.
1. A component’s business purpose is the logical reason for its existence within the organization, as defined by the value it provides to other components.
2. Each component conducts a mutually exclusive set of activities to achieve its business purpose.
3. Components require resources: the people, knowledge and assets that support their activities.
4. Each component is managed as an independent entity; based on its own governance model.
5. Similar to a standalone business, each business component provides and receives business services.

4.3.3. **THE CBM FRAMEWORK**

As it has been seen, components aggregate business activities into discrete modules that can be shared across the company. But how do the components work together within the context of an overall BM? As the figure 4-8 shows, CBM provides a framework for organizing components by competency and accountability level. By employing this framework, executives can begin to envision how current business activities might function as an interlocking set of modules.
4.3.4. Developing a component view of the enterprise

A company can begin to develop a component view of the company by using the CBM framework as an analytical tool to identify the gaps and redundancies, and it must resolve to become a component-based company.

Figure 4-9 Mapping the enterprise as a network of business modules: An example from the retail industry (Pohle et al. 2005)
Companies in different industries will model their competencies specifically, though, in every case, each activity should line up under a particular competency: figure 4-9 above shows an example of a component map for the retail industry.

The component map provides a basis for developing strategic and operating insights for the business. By gauging the relative business value of different areas of the map, executives can determine which components demand immediate attention. As figure 4-10 below illustrates, this type of analysis yields a “heat map” (“hot spots”) that highlights the components that represent the greatest economic value.

![Component Map Example](image)

*Figure 4-10 Heat maps identify “hot” areas to exploit the Business Value (Pohle et al. 2005)*

To determine heat map priorities, executives will typically consider the following questions:

- Which components differentiate them most significantly in the marketplace?
- Which components have the most dramatic impact on their ability to maintain and grow margins?
- Which components offer significant cost and capital optimization opportunities?
4.3.5. **KEY CBM ACTIVITIES**

Key CBM activities can include:

- Defining discrete components in terms of business processes, organization, operations and supporting technology
- Linking the consumption of resources with revenue generation and competitive performance
- Analyzing underlying competencies to identify discrepancies between the way business processes are and the way they could be
- Highlighting system and application gaps, duplicative processes and overextensions
- Identifying collaborative patterns to help transform business performance
- Ultimately producing a plan to repurpose existing facilities and develop new processes, organizational structures, and systems.

The conclusion of the study leads to the bottom line: to compete in the emerging world of flexible and open value networks, companies will need to focus on the few activities where they have a truly differentiating advantage in the value they provide or the cost at which they deliver versus the competition.

CBM enables companies to improve how they manage people, processes and technology. Componentization reduces the number of technology gaps, overextensions and duplications, allowing the company to cut non-core investments and identify opportunities to develop new services-based on excess capacity on existing technologies. Furthermore, CBM-driven specialization makes it easier and less expensive to collaborate with external specialists.

The flexibility of open data and protocols allows companies to incorporate variable pricing and risk-sharing into service agreements, making margins more sustainable and mitigating the potential downside of entering new markets.

Simply, CBM points the way forward by giving executives leverage (value capture) to drive flexibility, scalability, efficiency and openness throughout the enterprise. The global connectivity ICT platform has forever rendered transactions cheap, simple and ubiquitous.
Although the cloud is widely recognized as a technology game changer, its potential for driving business innovation remains virtually untapped. Indeed, the cloud has the power to fundamentally shift competitive landscapes by providing a new platform for creating and delivering business value. To take advantage of cloud’s potential to transform internal operations, customer relationships and industry value chains, organizations need to determine how best to employ cloud-enabled BMs that promote sustainable competitive advantage.

The case study has observed three business archetypes, representing the extent to which organizations use the cloud to impact a company, as well as industry value chains and customer value propositions (two of main extinctive parts of a BM).

- **Optimizers** use the cloud to incrementally enhance their customer value propositions while improving their organization’s efficiency.
- **Innovators** significantly improve customer value through cloud adoption, resulting in new revenue streams or even changing their role within an existing industry eco-system.
- **Disruptors** rely on cloud to create radically different value propositions, as well as generate new customer needs and segments, and even new industry value chains.

Whether companies choose to become optimizers, innovators, or disruptors depends on a variety of factors, including how much risk they are willing to assume and their current competitive landscape. IBM suggests business leaders carefully assess their organizations to determine which archetype they most closely match as well as which one they aspire to in the future, and how they can leverage cloud to create new BMs that promote long-term revenue and profit growth.

### 4.4.1. TAPPING THE POWER OF THE CLOUD

The world is experiencing a digital and mobile transformation, with more information available more quickly in more mediums than ever before – ICT is the foundation for competition and gaining advantages in wide range of markets. As part of this, consumers have jumped on the social media bandwagon, with many relying on it as their primary collaboration format, and

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6 (Berman et al. 2012)
in some cases sole market and marketing channel. Add to this the advent of new analytics capabilities and the results are sweeping changes in almost every aspect of daily business and consumer life.

But how does cloud computing play in all of this? The cloud provides a way for businesses to exploit the capabilities borne of these digital trends to better meet customers’ needs and drive future growth. In fact, the research illuminates six key cloud attributes being used to power BMI, which are narrated as business enablers in the study: Cost flexibility, business scalability, market adaptability, masked complexity, context-driven variability and eco-system connectivity.

![Cloud's business enablers](image)

Figure 4-11 Cloud Empowers six potentially “game-changing” business (Berman et al. 2012)

### 4.4.2. CLOUD-ENABLED BUSINESS INNOVATION

Cloud business enablers are already driving innovation across customer value propositions and company/industry value chains. Companies are applying the cloud to generate additional revenue streams by enhancing, extending and inventing new customer value propositions – And the cloud is being used to improve, transform and create new organization and industry value chains (see figure 4-12). This has resulted in shifts in who creates value, as well as how it is created, delivered and captured.
Figure 4-12 Cloud Business Enablers help spur innovation across customer value propositions, across company and industry value chain (Berman et al. 2012)

**Value chain**

*Improve* – Cloud adoption can help an organization maintain its place in an existing value chain through increased efficiency and an improved ability to partner, source and collaborate.

*Transform* – By assisting in developing new operational capabilities, cloud can help a company change its role within its industry or enter a different industry.

*Create* – Organizations can use cloud to build a new industry value chain or disintermediate an existing one, radically changing industry economics.

**Customer value proposition**

*Enhance* – Organizations can use cloud to improve current goods and services, and enhance customers’ experiences to retain current and attract new customers, garnering incremental revenue.

*Extend* – Cloud can help a company create new products and services or utilize new channels or payment methods to attract existing or adjacent customer segments in an attempt to generate significant new revenues.

*Invent* – Companies can use cloud to create a new “need” and therefore own a new market, attracting new customer segments and generating entirely new revenue streams.
4.4.3. CLOUD ENABLEMENT FRAMEWORK

Using the extent to which an organization’s use of cloud can affect value propositions and value chains as dimensions, IBM created a “Cloud Enablement Framework” (CEF) which identifies three organizational archetypes: **optimizers, innovators, and disruptors**. These archetypes characterize the impact of an organization’s cloud-enabled business strategy. They are based on the extent to which an organization enhances, extends or invents customer value propositions – And improves, transforms or creates new value chains.

![Cloud Enablement Framework](image)

Figure 4-13 The Cloud Enablement Framework helps organizations classify the extent to which their use of cloud impacts value propositions and value chains. (Berman et al. 2012)

The framework is not a maturity model. IBM does not expect or recommend that organizations first start as optimizers and then become innovators and disruptors. Instead, an organization should determine its place in the CEF based on the company’s strategy, risk profile, and competitive landscape etcetera.

Furthermore, this case study further mentioned several small case studies to reflect the power of the cloud are: Optimizer Case Study: North Carolina State
University; Innovator Case Study: 3M Visual Attention Service; and Disruptor Case Study: Comcast Xcalibur. To strengthen the main topic of the research it is worth mentioning the first example in case study about optimizer.

![Optimizer Case Study: North Carolina State University](image)

The above mentioned short case studies recommends, organizations carefully evaluate the various opportunities available to harness the power of the cloud as an optimizer, innovator or disruptor, and find the right opportunity for their particular circumstances or goods and service line.

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7 Case study based on information obtained through the following sources: “Discovery begins at NC State.” North Carolina State University Web site (accessed December 7, 2011)
8 Case study based on information obtained through the following sources: “3M Visual Attention Service.” 3M Web site (accessed December 1, 2011)
4.5. IBM CONTACT AND MANAGER INTERVIEWS

The interviews are made in two forms: by conversation through e-mail and seminar with Dr. Spohrer, and 20 manager interviews with local start-up, SME and MNC companies. Daxböck’s (2013) propositions and Zolnowski et al.’s (2014) requirements were used as foundations, along with Dr. Spohrer’s own research, in the formulation of the interviews which clearly stated a BM interest. As by far most businesses comprise of SME, the majority of the interviewees are in this size. Also, BMI tend to be used intensively in rapid developing companies such as start-ups and SMEs; that is, close to IBM and NSCU direction by optimizing and innovating.

4.5.1. IBM GLOBAL UNIVERSITY PROGRAM DIRECTOR

The aim of the questions proposed to Dr. Spohrer is to understand the ICT’s influence in shaping the systems level and its influence in the strategy and process level in context of BMD and SMBC.

Dr. Spohrer answered half of the stated questions, and those questions and answers are of complementary nature to the theoretical and empirical framework; specifically directed about:

1. Emergence of service eco-systems’ influence: effects in value creation and resource integration in BMs;
2. Sharing effects between service systems’ BM: sharing of technologies, value proposition and information;
3. How technology enhances and complicates the exchange of information and value between service systems.

Dr. Spohrer explains that service systems are connected by value propositions internally and externally implying no distinction between customer and partner proposition. Furthermore, Dr. Spohrer acknowledges that the BMC is a tool for external-facing value proposition thus the communication to other service systems hence all actors. Dr. Spohrer further links the CBM’s external-facing value propositions as priority tool in business components (for example: outsourcing decisions and its resource integration) but also emphasizes the internal technology (for example: ERP) usage as important for the component success in terms of productivity and innovation in all service systems thus ecologies.

Dr. Spohrer concludes that SS and SDL are new ways of viewing the world, going further with mentioning (complex) nested and networked service eco-
systems, which seems to be the future as it was specifically proposed to the authors at the seminar at Karlstad Business School in 2012 following questions about future fields in information systems. Dr. Spohrer (2014) ends with stating the systematic constraint of transformations:

“There are only a finite number of standard transformation possible, so the evolution is constrained by those possibilities - either scaling up, scaling down, or remaining stable.”

4.5.2. MANAGER INTERVIEWS

The interviews analyzed manager’s perspectives and interactions with services, value creation and proposition, and the aforementioned BMI and BMD, from their own total experiences and current business or managerial positions and challenges.

The interviewees are in middle or top positions (aside in the start-ups), including managers (CEOs/MDs). The companies are in diverse types of markets: MNCs such as KappAhl, McDonalds and Elgiganten; SMEs such as ICA. The areas are in restaurants, local and international consultancy, retail, transport, Internet crowdsourcing, e-commerce, cloud technology, real estate, fashion and clothing, product-, software and web development. A limited table of the interviewees and companies can be found in appendix.

4.5.2.1. THE 4C MODEL AND ROLE CONSTELLATION

The 4C model shows that the 20 managers expect customers to highly value six aspects: the highest are “Reliability and Credibility” and “Value for Money”, and then the rest are “Expertise”, “Personal Contacts and Dialogue”, and “Problem-Solving” (the sixth is divided on equal basis among three aspects).

The results show that conceptualization is the foremost important aspect in objectifying a service as the highest frequencies are among calculation and competency. Shown below, managers identify six main areas in their own intentions with a direct service-related manager-customer interaction (value proposition and offering); highest first: “High-Quality Products”, “Customer Needs and Requests”, “Personal Contacts and Dialogues”, “Long-Term Relationships”, “Problem-Solving”, and “Trust Building” – These are at a similar frequency.
Figure 4.15 Managers expect customer expectations (own)

Figure 4.16 Customer expectation from a service-related interaction (own)
Interviewees identified the four role pairing showing that every pair had an equal frequency count: 25 per cent each as the interviewee identified their own most common pairing. This supports Åkesson’s (2011) results.

The interviewed managers decided that their customers on average claimed the role of “Accessibility Needer” as the most frequent taken during service-related interactions (typically physical meetings), and “Information Integrator” as the second most frequent. “Dialogue Keeper” is rare as it got one identify-point.

![Figure 4-17 Primary roles of Managers and Customers (own)](image)

The managers themselves claimed the roles on plain basis with “Customer Oriented” as most frequent. Accordingly, the best exchange happens when the role of manager and customer is aligned per the role pairing stated. The results show a misalignment of “Knowledge Transferee”-“Interactor” and also with “Accessibility Needer”-“Empowered”.
4.5.2.2. **(SERVICE) BUSINESS MODEL CANVAS**

The managers pin-point value creation in a framework of the BMC which is designed for easy-to-use and understand outline and intuition.

![Bar chart showing frequency of value creators](image)

Figure 4-18 The Business Model Canvas: Identification of most valued blocks (own)

“**Customer Relationships**” and “**Value Proposition**” received the highest frequency, along with the relationships the double that of propositions. The lowest value creators are “**Key Activities**” and “**Customer Segments**”. The rest are within 25 points range.
The interaction least valued for the company-customer value creation are channels and revenues. Even in this interaction, most blocks have been valued to an equal level with value proposition and relationships sticking out.
The managers valued the perspectives from partner-customer interaction point of view and in terms of value creation. Value propositions and relationships stick out and gain most value through interaction with approximately 25 per cent higher frequencies.

What distinct the two interaction points is the amount of points given to each. The managers valued the interaction company-partner more (in total points) than company-customers. Resources and activities in the company-customer interaction are valued higher than those in company-partner, showing a break in pattern between the two interaction points.

It is important to know the value proposition and relationship block are critical for value co-creation but also key resources, which are more valued for company-customers

4.5.2.3. COMPONENT BUSINESS MODEL

![Figure 4-21 Areas of value contribution in a holistic framework (own)](image)

Execution and direction for customers are the extremely valued areas for the managers in a CBM framework. Also, the execution of products and services is valued high – the “hot spots”. Logistics and channels got no or few points.
4.6. SUMMARY

Figure 4-22 shows the pyramid of IBM case studies presented in this chapter, representing how IBM's leadership is surrounded by these selected case studies on strategic, process and systems level.

*The first IBM case study*

It discusses the strategic trend in increasingly complex and fast changing environment, stating the importance of BMI. The study focuses on developing the understanding when to make a change? Or how to execute? Study further determines that organizations can identify the right timing based on the economic environment, their own state of industry transformation and a set of internal factors that includes the degree of product and service innovation, and available financial resources. To increase execution success, organizations must build a set of capabilities Three A’s: organizations need to be *aligned* with customer value, *analytical* to gain insight from differentiated intelligence, and enabled by an *adaptable* operating model.

*The second IBM case study*

It is the process level study and been the focal point for author’s in understanding the BM concept of IBM. The study defines the CBM of IBM as a technique for analyzing an enterprise by first partitioning it into relatively independent, non-overlapping business components to identify opportunities for innovation and improvement. The study reveals that the CBM approach allows the company to address a number of critical business and technology issues, for example strategic issues, sourcing issues, technology issues, mergers and acquisitions, prioritizing transformation initiatives and unlocking value through the identification and creation of new solutions. Furthermore, the study presented the IBM's CBM framework and how to develop it.

*The third IBM case study*

It emphasizes on the system level and addressed the cloud technology. The study reveals the power, usage, and reflected upon advantages of cloud and its importance in creating and delivering business value. The study started with observed and discussed the three business archetypes and customer value propositions from cloud perspective: Optimizers, Innovators, and Disruptors. The study further defines the cloud and presented cloud’s business enablers. Furthermore, this study focused and reviewed the Cloud
Enabled Business Innovation and Cloud Enablement Framework (CEF), comparing the relationship between value chain and customer value proposition. The factors under consideration from a value chain perspective are improve to transform to create customer value chain proposition perspective are enhanced to extend to invent. Those factors are explained in connection the business archetypes, as presented in figure 4-13.

![IBM Case Studies Pyramid](own)

The IBM contact and manager interviews

Figure 4-23 represents the summary of the primary data and findings presented in form of charts, from this chapter. Findings from primary data shows that the entrepreneurship is the key driver of innovation in university cities, and educating and creating awareness by using external-faced value propositions is crucial for sustainable service system ecology.

The data collected from the 4C model resulted that understanding and objectification along with value for money, reliability and credibility, trust and
long term focus are the key point from both managerial and customer point of view. Results from role constellation narrowed down customer orientation and accessibility are more focal points. BMC and SBMC results shows the extreme focus on customer relationship and value propositions, and a more weight on partner perspective than customer perspective.

Respondents of the interviews responded to CBM by IBM, and the "hot spots" resulted in the model as Execute > Customers and the Direct > Customer – where the bridge between management and front-line employees is associated by frequency. The authors also accessed the result from finding that service systems need to be able to scale up, down or remain stable by possibilities created to allow it to develop, and that is based on systems level and through ICT – to drive growth and sustainability.
5. **ANALYTICAL DISCUSSION**

As the primary data shows, the value proposition and customer value aspect is the most valued in manager’s perspective but also from the customer perspectives. Value is highly subjective, for which objectification is important; understanding and agreeing on the amount value of the dyad relationship leads to easier money-capitalization logic with service logic hence valuing it from two perspectives: objectively (two parties agree) and subjectively (two different notions of the same service; disagreement). Value is derived from subjective view, which mean dyad perspective values differently and also benchmarks get variant results and interpretations thus giving more importance for objectification of a service. Value propositions in BMs should hence be valued both from the company’s respectively the customer’s framework in how to asses value thus benchmark value — and not only from the customer as both subjective benchmarking must find and stand on common ground.

One solution for value benchmarking is to be enhanced and guided by the 4C model; its understanding of objectification from dyad perspective by offering vocabulary, structure, abstract sensemaking (making sense of an object or experience) and insights. Furthermore, Dr. Spohrer (2014) acknowledges that ICT can enhance the value co-creation by promoting information sharing and facilitating learning, but it can also complicate the service interaction if the value co-creation processes become complex or have steep learning curves, for which the 4C model serves as a tool for approaching the information or learning misalignments.

5.1. **SERVICE BUSINESS MODELS AND SERVICE SYSTEMS**

Dr. Spohrer (2012) raised the following question: *“Why is outsourcing the jobs or changing the business model (for example: leasing, mass-customization) cause the category to change?”* According to Dr. Spohrer (ib), there are two ways the company can think about the world: one is what the customer needs and wants in goods and services, and the other is based on the service eco-system view meaning an ongoing relationship with customer and their stakeholders, aiming for an encompassing win-win situation thus sustainable approach to environmental changes. Furthermore, Dr. Spohrer (2014) acknowledges that service systems are in fact connected internally (specifically in the CBM) and externally by value propositions — and also acknowledges that the SBMC is a design tool specific for external-facing value
propositions thus to form a linkage to the service eco-system. From the primary data of SBMC, the authors can observe a positive notion that the value propositions and customer relationships are equally valued thus the value interactions and perspectives are perhaps with the nature of the SBMC design supporting the argument Dr. Spohrer makes with connecting service systems through shared value propositions.

Furthermore, Dr. Spohrer (2014) states in a response to shared values:

“The key is to interview all the stakeholders, and ask them what is working well and what can be improved. For each issue that can be improved, there are a set of transformations possible - outsource it, insource it, automate it [aim of CBM], create a new service systems to address unmet needs, shift the employees to a self-service model”

The propositions by Daxböck (2013) provide a guide for service aspect implementation in an open BM, specifically the BMC – and, perhaps, a representation for a new aspect of SBMC: Daxböck (ib) presents a possible in-model linkage to an additional interaction, thus value creation point (or possibility) between the customer segment block and the key partners block – a version of SBMC, indeed. The service system’s view on value creation acknowledges that all service systems should be seen as actors thus treated of equal importance to the overall service eco-system though more emphasis would be on Value-in-Exchange, and sharing, among systems; money, value propositions, information, and knowledge etcetera transferred between in the eco-systems. Information is important and, following this, and in accordance to primary data, the role constellation preference indicates an information misalignment: a misalignment of “Knowledge Transferee”-“Interactor” and also with “Accessibility Needer”-“Empowered”. Logically, the more perfect information is available in and between service systems, the easier it is to facilitate a sustainable service eco-system. The interviewed managers were in half of the cases not in their empowered-role with the counter customer role, which means that the service system did not get what it fundamentally needed for the interaction. Though the manager-role interactor was twice more used than knowledge transferee this indicates an overuse of action orientated roles. That said, the value creation incentive is thus on the producer service system, perhaps even trying to force for a knowledge-based customer role, and with that get valuable insight of the customer/partner perspective for the SBMC.
design. Furthermore, results from the interview data regarding the BMC blocks containing the most value and value creation in the companies are not surprising: highest frequencies are “Value Propositions” and, the extremely valued, “Customer Relationship” (double the frequency); in the service economy, the value is created by interaction and resource integration, implying that the value proposition is a resource itself. Moreover, “Key Activities” received no recognition at all, raising the question of why activities in the BMC are not value creators from the view of the managers, and rather something neglected when judging the entirety of the BMC design on manager’s own business construct and activities. This validates the need for the SBMC in the service eco-system setting thus the leadership therein. Zolnowski et al. (2014) define this dual interaction (triad relationship) – a service system acts between two service systems; making it an eco-system – with a three perspectives in their developed SBMC (for example: B2B2C value constellation). Concluding from the interview data of SBMC, the triad relationship support the importance of value proposition and customer relationships though the more interesting analysis is that the managers valued the interaction with their partners more than customers from the SBMC design perspective thus implying a service eco-system goal by value co-creation and sustainability. Furthermore, as the company-partner interaction is valued slightly more, implying that relationship focus should turn to partner in the BMD and BMI rather customer, which is what the service eco-system concept is aiming at; to build long-term opportunities. Therefore, the emphasis is put on the operant resources of the actors for value co-creation by value facilitation – providing operand resources (improved by a system’s view). The main objective for the actors (service systems) should be to fulfill each other’s value proposition thus creating sustainable ecology. This could by itself be seen as a part of operand resources when the value proposition is communicated enough to instruct a service system’s external (and internal) actors on how to utilize operant resources – by specialization (CBM) or entrepreneurship (SBMC). As understood by primary data of CBM, understanding service systems requires a high level of abstract-thinking, which is more suitable for strategy level managers than front-line employees though the high-level (direct) managers have to bridge the gap by lifting the importance of proper value facilitations in and between service systems to low-level (control and execution) managers and front-line employees thus here is where 4C model and role constellation hence direct interaction becomes crucial for the chain to hold for BMD.
5.2. IBM CASE STUDY 1

The role of the manager (or CEO/MD) is to expect, evaluate, decide, and ultimately act for the customer value creation process, meaning managers can act as value facilitator and its leaders in the service systems with the BM as an abstract-level sensemaking but also a design-oriented tool for modeling To maximize value facilitation and co-production, understanding the value generation process and how the service receiver experiences and determines the value is a crucial part of anticipation the upcoming changes in the market. IBM emphasizes on re-thinking value propositions and revenue models by meeting the needs and requirements of customers and markets as a source of innovation focus by the management. IBM shows why a transformational BMI is necessary (figure 4-3) – Incremental BMI is a good strategy in stable business environmental changes, though in turbulence or rapid change in the environment companies could transform the market through BMI by, for example, meeting new needs with leadership in innovation and change management. IBM emphasizes leaders’ role in BMI and recommends open BM especially in external alignment (externally-facing value propositions) for others in the value chain to leverage thus creating BM more towards SBMC; a customer-partner-company interaction inherently supporting a service eco-system thus giving it a solidarity aspect in the value chain ultimately to retain value in the eco-system. This will value capture by creating a competitive service eco-system to face external environmental changes.

5.2.1. RELEVANT CURRENT IBM STRATEGY

Specifically, from IBM’s cost leadership perspective (Muzumdar 2013):

- Good relationship with suppliers and vendors for cost saving. Maintain effective cost controlled purchasing.
- Service quality feedback and cost effective use of spare hardware.
- International alliance with increased presence and work in the regions. The objective is to increase market shares and access new markets.
- Efficient ways to deliver products, soft- and hardware.

“Suitable resources wherever they are required demands workforce flexibility […] Government leaders face difficult challenges in this complex and fluid environment […] strongly believe that governments can play a critical and a sustaining role by creating an environment that encourages learning, dynamic training models and innovation.” IBM main website, 2014 (Barnes 2011)
The strong focus on managerial aspects suggests BMI along with SS is the only solution for highly complex service systems and economies; developing with the on-going big data: storage, analysis, usage, policies, and gathering. As per Maglio and Spohrer (2013), SS ultimately aims to predict, control, and guide the evolution of value co-creation, implying that IBM is in ambition to lead the service economies in the future by service logics though trying to establish SS as an academic field at the same time also a sort-of brand, such as the CBM (patent approved 2013). The obvious reason for branding SS and CBM is capitalization but also control purposes, though, if successful, could be monopolized as a sort of immaterial right – maybe going as far as hindering service-oriented BMs by heavy incorporation of IBM specific patents, policies (influence), technology, special competencies etcetera, thus IBM capturing the value by leverage on all three levels: individual, organizational, and societal. IBM’s working principles on SS and BMI opening up for many forms of sharing in the service eco-system:

- The access rights associated with entity resources are reconfigured by mutually agreed to value propositions.
- Service system entities compute and coordinate actions with others through symbolic processes of valuing and symbolic processes of communicating.

### 5.2.2. INTERACTIONS AND ROLES

Following the 4C model, the interaction cases could be improved thus raising value through new but incremental better value propositions and customer interfaces in SBMC thus service eco-system along with all actors and their roles; the NCSU case as an cloud technology example: sharing resources upon customer needs in real-time and space promotes interaction thus value creation and sustainable service eco-systems. Furthermore, from B2B operation and the service system perspective; all managers, customers, resource integrators and value co-creators are actors with fundamental design and likely expecting a value loop and capture from the relationship in a successful ecology system. To capture value, there has to be an established partner-customer value looping aimed at customer needs from the shared service eco-system.

As valuing the lifetime cost for a service is often neglected or hard to determined, the primary data show that one of the two most important customer expectations is to get “Value for Money” supporting the need for managers to value (calculate), facilitate and communicate the potential lifetime cost to its customers. The other expectation that got equal frequency (much
higher than the rest) as “Value for Money” was “Reliability and Credibility”, which says that repetition and proof of success is an important factor in creating value as it sets a prerequisite for future interactions, resource integrations and expectations thus effects the monetary and lifetime cost for a service – and has to inherently a part of the value proposition. To create the best reliability and credibility, some form of standardization has to be established thus the framework of the 4C model and BM, and this is mutually supported by the primary data of manager’s intentions, which show the “Trust Building”, “Long-Term Relationships” and “Customer Needs and Request” are the most important aspect in a service to facilitate as it should bring highest value creation. Also, the primary data confirms the findings from the 10 interviewed managers conducted by Rajala et al. (2013) for the 4C model: customers prefer monetary value for the service and usually they accept the cheapest alternative; this adds to the validity of this thesis’ interview data.

Furthermore, in the primary data, most managers identify their primary role as “Customer-Oriented” while the roles of the customers are often “Accessibility Needer”, which support the earlier analysis of misalignments. Also, there is a clear misalignment in the interview data in the pairing of the manager-customer roles accordingly though the pairs themselves are identified as equal occurrence further strengthening this thesis’ data of 20 interviewees, manager’s subjective judgments and analysis by validating the findings of Åkesson (2011). Furthermore, Åkesson (2011) states that the view of a dyad relations is important for the value creation from a managerial aspect meaning the manager’s intention and motivations, and influence, affects the value formation in the whole service eco-systems. The suitable role constellation for conceptualization is knowledge transfer as the customer is likely to act passive listening and expecting a service (value) offering – in order to conceptualize. This requires an “interactor”, meaning a manager that finds customer needs by observing and interpreting in order to maximize the 4C model’s value capture.

Moreover, service systems creates value facilitations for the Value-in-Exchange leading to a heavier focus on interaction between service systems hence proper role constellations are of more importance, as shown by the primary data: equal role pair distribution but misalignment in primary roles. This support Åkesson’s (2011) proposition one and four that state that value co-creation is shaped by role constellation and are co-depended as well as value propositions have implications for role constellation.
IBM also states that it requires the focal company to integrate its data with the value chain: partners and suppliers, and also customers for fast decision-making – this supports SBMC’s triad perspective. Some form of value estimation has to be given or communicated to the customer including a lifetime cost which is often overlooked by the customers though is IBM’s goal – create sustainable service eco-systems. To do this, the adaptability aspect of leadership in BM include and supports the notion of empowering the managers interacting with a customer with objectives of promoting the key partner interaction, resource integration, and value proposition synchronization through objectification, role constellation, and BM understanding thus BM leadership in the service eco-system.

5.3. IBM CASE STUDY 2

The case study under analysis was conducted a few years ago but its implication is spreading in almost every institution befitting not only the private organizations but also the governmental organizations.

5.3.1. RELEVANT CURRENT IBM STRATEGY

IBM focuses on increasing dependency of automation, which can facilitate the CBM due to its component independence, being self-driven and closed perspective on specialization. Customer-service contract extend throughout the hardware and software lifetime, which is often overlooked by B2B clients according to Rajala et al. (2013) thus needs to be addressed, which is the indirect case in the CBM inherent design for technology-based companies.

IBM (Muzumdar 2013) seeks…

- To attract and retain top technical, skilled people by attractive incentives. This is the motto.
- Cost effective ways to improve work. Developing efficient operations and effective ways of completing projects.
- Efficiency in its operations and services. Manage positive cash flows and debt costs.

“…Provide business and technical expertise… also being adaptive and collaborative… deploy the best talent and most suitable resources wherever they are required demands workforce flexibility” IBM main website, 2014 (Barnes 2011)
Organization leaders are using CBM to break down traditional business silos; with CBM organizations are able to map business strategy to business components, identify key areas of competitive differentiation, and understand where there are opportunities to maximize the cost-effectiveness of nonstrategic components. As with the BMC, Dr. Spohrer (2014) states that the CBM is also a design tool for externally-faced value propositions especially revolving ICT tools (such as ERPs), which IBM has been granted a patent for this BMD. Primary data show that execution and direction in customer-oriented block are with extreme margins the focus in value generation, which is in-line with value proposition-sharing and -communication.

5.3.2. IBM PROGRESS AND ORGANIZATION

The main difference between the CBM and SBMC is the focus on specialization. While the SBMC highlights entrepreneurship and promotes a holistic approach to every block and network, the CBM focuses on internal specialist searching for external specialist interaction often hiring expertise to consult with the business components with complementary nature. The externally-faced value proposition is a form of a reflection of what, preferably the “hot spots”, needs in term of complements to the core of a specialist. The CBM foundational premise is though contradictory to Dr. Spohrer’s view of future university cities: entrepreneurship is the driver of innovation because it gathers and utilizes resources which would be necessary for innovation is service economies and systems. On a BMD level, the CBM should thus be developed to cater some aspects of the SBMC, becoming more suitable for start-up prospects and network sustainability. Value propositions have direct implications for roles and role constellation thus the actual interactions, and the SBMC facilitates a BMD of the external value loop customer-partner, which the CBM seem to not have and instead focuses on an internal value loop between components.

Moreover, the primary data show a clear preference of customer-oriented components specifically execution and direction implying a focus on direct strategy-to-action interaction with other service systems which make logical sense as the high-level management try to use BM with direction thus probably have a service eco-systems perspective on customers and partners. Dr. Spohrer recognizes though the constraints of scaling due to system-level limitation inferring to the technology thus it is often of that supportive and fundamental growth role of technology that affect the human resources in facilitating the interactions in and between service systems.
Dr. Spohrer (2012) at a seminar advocated entrepreneurship ahead of specialization for the future innovation driver (universities and colleges in cities) aligned with the interdisciplinary SS perspective and its heavier focus on resource integration, gathering and manipulation, but also how the innovation drivers are integrated with ICT leaving a mere BMI as technology is the foundation for growth (Spohrer, 2012), as technology is everywhere and nowhere. Technology aspect is a universally agreed innovation growth driver, which IBM has implemented in the fundamental design of CBM. The CBM is being patented to be able to be incorporated in businesses’ ERP system; to, for example, gather and use big data in real-time thus creating the CBM as an everyday tool for managers in understanding complexity in the systems perspective. Therefore, the main currency for the future evaluation in CBM should be value – how every business value the different aspects in a business needs probably a IBM leadership to understand the bigger service systems’ picture. Furthermore, the internal value loop seems to be a matter of ERP technology as main factor of growth in complexity. By foundation, both the CBM and SBMC have an e-BM background though IBM seems to have overestimated the role of technology and specialization in the social and societal sustainability of the future. It is clear that IBM chose to focus on real-time and on-demand BMI scalability in the CBM creation to cater new components without developing a new BM along with its processes. In the sense of comparability, IBM could benchmark its CBMs in the service eco-system to gather big data from CBMs thus engage in both widespread consultancies in BMI and achieving more knowledge control; big data is becoming exponentially high-valued.

Developing, IBM uses CBM with KPI supporting the benchmark-need in data mining of business components for further usage in BMD and BMI. The CBM tool and method has been used to model several dozen industries and the KPI measures that are used to track their improvement and learning rates. This supports the notion of multi-sided perspective in SBMC and the customer-partner interaction displayed by Daxböck (2013), facilitating a win-win situation. The value proposition in a focal SBMC should aim to create this situation, leading to value co-creation on multiple fronts in exchange for information that might facilitate service eco-system growth, innovation and value proposition – to create opportunities for scaling up and down, or remaining stable.
The identified “hot spots” in the CBM should be embedded in the externally-faced value propositions, as these often contain the company’s competitive advantage. The service eco-system is stronger with more margins and revenue streams shared by information, deals, contracts or co-operation. The CBM has a clear SDL influence, which states that it could be a complement to SBMC, or a worthy contender – it is strategic to view a business from different perspective in changing environments but also from through multiple BMD. Two important CBM activities that support the SBMC are competency for the identification of discrepancies and collaboration patterns, which can help raise the KPI numbers; it builds bridges between partners and customers.

5.4. IBM CASE STUDY 3

The systems level is the facilitator of an e-BM execution with its software, hardware and networks; including web-based, informational and sharing services. The development of the service economy tend to demand and depend on the technology factor meaning all BM have to in some way account for the system level thinking and exploitation for capitalization-logic in value propositions thus disturbing the common notion that BM meta-thinking is between the strategic and process level per Dr. Osterwalder. According to Zolnowski et al. and IBM fundamental notion, ICT is the key driver for innovation thus value creation process and consequently the SBMs through the empowerment of the cloud should promote sustainable BM thus gaining competitive advantage and capturing value. One interesting way to view the systems level is in terms of service – how can the technology serve the rest of the BM and society in developing interactions and resource integrations; NCSU is a great example: can technology systems be replace by a service systems view – IT-as-a-Service?

5.4.1. RELEVANT CURRENT IBM STRATEGY

IBM’s has strong value in its brand, reputation, client base and employees, growing in IT and strategy consultancy. IBM uses cloud-enabled data storage to reduce IT costs and also gain efficiency in operations. Furthermore, IBM:

- Seeks cost effective data systems; develop and maintain.
- Has a strategic alliance with SAP and Oracle. IBM implements the software of these around the globe.
- Sharing of infrastructure, technology and workforce in other countries.
- Follows a non-equity strategic alliance; to make operation with other software companies effectively
“Accelerating advances in technology, a fast-changing and dynamic marketplace, demanding customers, mounting global competition, and pressure from investors are our reality.” IBM main website, 2014 (Barnes 2011)

IBM seems to follow the “optimizer” path; using the cloud to reactively, cautiously or strategically enhance or innovate own BM, the CBM, and customer value proposition thus supporting the service eco-system.

### 5.4.2. CLOUD COMPUTING AND BUSINESS INNOVATION

IBM's cloud computing offers two success-defining business innovations: customer value proposition (externally-faced) and value chain (focus: partners) thus encompassing the SBMC notion of triad relationships and value capture. The value proposition of Apple has always been simplicity in complexity – creating -disruption- new needs (on visible or invisible demand) or culture strongly affiliated with the brand and its ethos. This is achieved by satisfying existing needs of communication by calling and surfing the web, but the brand “value” is also cultivated through events, media attention, and personal connection etcetera – emphasizing the loop aspect of SBMC by involving customers and direct partners in, for example, events: exchanging both internal and external value propositions. Needless to say, the cloud indirectly simplifies the user interface and software thus the interaction between the customer, company and partners with short and fast digital access between customers and partners.

The ability to facilitate resource integration holistically in the service eco-system might be the decisive factor for long-term survival for any individual company – as proven by the interview data: the main value creation is in value proposition and customer relationship, in SBMC perspective. For BMD, SBMC seems to be the solution catering the individual company’s need for this transformation to SDL and the service economy. Moreover, it is observed in the primary data that SBMC promotes a partnership perspective supporting this shift towards value looping and external value creation being in the “loop”, being available for creation on-demand hence the main factor is time and place, to maximize the capture of value by providing the interaction on customer-needs thus when it can be maximized.
For example, the benefit of Apple is its holistic control of the value chain, giving freedom for ultimate design as technology would allow it, inventing new technologies to create new opportunities: more importantly, inventing totally new and unique value propositions without a proved BM -disruptive innovation- Apple focuses on having a flexible BMI to adapt for market response.

5.4.3. PERSPECTIVES

IKEA is a good example of a working, simple though ingenious BM that stand the test of time; from a service view, how transparency in departments, workflows and different units work in harmony due to a strong internal culture and values. By benchmarking company values (KPI) and culture, patterns emerge. As the social environment includes home environment, the front-line personnel at IKEA is in some sense in the customer’s home, already creating value before purchase through interaction, but also acting as intermediary per the SBMC for the company connecting partners with customers by simply offering an environment for experience and sensemaking making the KPI comparable to other countries’ and general environment. Receiving feedback without or before a purchase in a simulated environment might be a factor in IKEA’s huge international success, supporting the notion of value loop of customer-partner in the SBMC but eliminating distance -middleman; company- between customer and partner (sellers of the goods). IKEA is a perfect example of the principles behind the SBMC thus resource allocation through service and service systems level reasoning.

Primary data shows roles are often misaligned between manager and employee, which indicates: the more misalignment in a BMD and customer relationship, the greater need for a 4C model view – an objectification of the service thus service environment, which has come to the living room; quite literally. To offer the customer (and partners) the perspective per the SBMC notion, it becomes valid to create interaction points along the decision-making process whilst creating value through real-time, physical value proposition. The IKEA example is a perfect representation of a successful value proposition and co-creation hybrid working observable (open, transparent, free; share value proposition) in terms of **strategy, technology, service, and leadership.**
Another example of a successful implementation of the SBMC triad perspective (B2B2C) in cloud-infrastructure, platform, application and software- is the cooperation between IBM and Google (Google Apps Marketplace). In 2010, IBM offers Google cloud technology to their Google Apps Marketplace from which IBM gets revenue by providing essential and additional resources (maintenance and support) (Huhtanen 2010). In addition, IBM also offers computer software and data centers along with their cloud technology and consultancy services. For handling complexity, focus on and from SBMC have different competitive advantage aspects, and in combination (of several BM in the value network) are powerful for holistic approaches to the future needs of the focal value network (partners). The SBMC is hence focused on fewer key partners but more complex relationships and their direct but also indirect interactions thus multiple value creations. Applying service logic, this increases interaction points and frequency at the same time as offering new value proposition. This reasoning is supported by primary data that shows a higher value for partners in a SBMC context.

As time thus value is the new scarce currency: with a traditional understanding, customer value priors provider value as many everyday services are standardized: lowest possible cost along with the highest possible value though for the customer. The service then is in most cases everyday services and the difference is that the customer uses one service 1-2 a day while the service provider gives that service 10-100-1000 times a day. With the law of lean management and mass-production, the highest possible value in the dyad and triad perspective should always lie at the customer as the law of diminishing return say the more an actor uses an object (service), the less value it gives in return – giving it also a 4 dimensional notion to actor needs as well as BMI: value propositions change and demanding additional value such as higher profits. However, this can be reversed by SBMC as the customer can become the content creator (for example: collaborate value creation on online forums) giving existence-important role of a customer in triad relationships, rendering the focal company merely a value co-facilitator towards partners but in this respect with key partners: to facilitate the value creation (co-creator role) can be done by 1) capitalizing on customer’s value creation and 2) agreements with (key) partners to reflect that the company becomes a formal intermediary having dual value creation.
5.5. **EMPIRICAL FINDINGS**

**Entrepreneurship is the key driver of innovation in university cities (not specialization)**

The ability to gather and maintaining resources in service eco-systems is important for the long-term sustainability. This supports the need for sharing of resources thus value propositions can be seen as one resource that can be integrated with other service systems.

**Educating and Creating Awareness by using Externally-faced Value Propositions**

Sharing information and value propositions strengthens the eco-system. The ability and quality of sharing is determined by manager’s role constellation, communication abilities and overall attitude towards a network based business approach. Furthermore, understanding the different perspectives in a service eco-system assisted by the SBMC- is depended on proper use of communication specifically ICT.

**Manager and Customer Intentions: The most valued aspects in service systems interactions**

*Value for Money* – Understanding the perspectives to monetize the service sphere. The importance is in the knowledge, competency and skills in communication ergo role adaptation and constellation, usage of 4C model objectification, and ability to value co-create and design propositions.

*Relationships and Trust* – Relationships towards partners are more valued than customers by the SBMC design process. The BMC and CBM do not include a network perspective in their original forms underthrowing the managers service eco-system view during BMI/BMD. The SBMC by its format focus on the relationship, interaction and understanding thus trust building.

*Validity and Credibility* – Following relationship-building process, attaining confidence in a role setting is crucial for proper information and value proposition sharing. This eases the value loop aspects as is opens the possibility to engage partners and customers in the interactions.
Customer-Oriented and Accessibility roles are focus points in generic Role Constellation for BMI/BMD

Opening up while serving the customers is supporting the theoretical framework focusing on value co-creation and resource integration.

BMC and SBMC: Focuses on Customer Relationship and Value Proposition

The interviews marked a clear statement for the importance in BMI/BMD. In many cases, what was frequently valued in the BMC changed in the SBMC during the interview showing the importance of meta-perspective in BMD process. As the SBMC deems customer and partners as given, in the long term, this facilitates relationships and sustainability by its basis in SDL which focus on interaction, resource integration and the ability to value co-create. The next step is to develop the ability to use and share value propositions among partners and customers. The effort should be aim to create a value loop so the focal service eco-system retain its ability to value co-create and capture, which can be done by value propositions.

CBM: Reveal the "hot spot" as Execute > Customers and the Direct > Customer – And the bridge between

There is a customer focus with the orientation across strategy level to systems level; direct to execution. The ICT is a crucial part in interaction between service systems proving that management has to become better in utilizing ICT to facilitate the level where service systems are understood and the level where it is practiced and grown.
6. CONCLUSIONS AND MANAGERIAL CHALLENGES

CO-CREATION AND CAPTURE OF VALUE

Value is derived from subjective view, which mean dyad perspective values differently and also benchmarks get variant results and interpretations thus giving more importance for objectification of a service. By value-benchmarking and service design through the 4C model with aim for objectification, facilitation of understanding and consensus of both value co-creation and compliance issues in service system’s externally-faced value propositions in dyad and especially in complex triad relationships, is premise for BMD with the SBMC.

The 4C model offers a vocabulary and guidance for objectification even in triad perspectives as company, customer and partner is an equal actor with dynamic or set roles, which want to build sustainable eco-systems. This can complicate through indirect interaction between partner and customer – it has to be synced by the focal company accordingly the SBMC: this requires the 4C model to be integrated to e-communicate for successful capturing of value by technology (for example: externally-linked ERP, by CBM quantified value data inputs) enable an indirect interaction to become direct while service the purpose of the focal company facilitation Value-in-Exchange.

The SBMC is fundamentally a design for sustainable service eco-system construct, and SBMC is a tool for adapting to network perspective in service economies. The open BMC and SBMC act as an overlap of the world-view of SDL and its systems. By having a multi-sided perspective, SBMC can cater more of the needs for any other open SBM currently developed – better value co-creation and value capture with key partners. In this thesis, the authors argue for a multi-sided perspective in SBM among service eco-systems in order to co-create or capture value, and this starts with a mutually beneficial value proposition which requires an objective foundation for consensus in interaction between service systems – and especially important is the externally-faced value proposition as it chains systems to eco-systems thus a fundament for sustainability and strength. The SBMC focused on fewer key partners but more complex relationships and their direct but also indirect interactions thus multiple value creations giving more indirect control and leadership in an eco-system hence capturing value by leveraging a position in a
system specifically a social system; value proposition, creation and perspective understanding. Furthermore, SBMC promotes a partnership perspective supporting this shift towards value looping and external value creation being to the “loop”, and being available for creation on-demand hence the main factor is time and place, to maximize the capture of value.

IKEA is a perfect example of the principles behind the SBMC where perspectives, roles, and interactions are clearly demonstrated. With the value loop and capture occur real-time, even pre-purchase, a successful value proposition and co-creation hybrid working observable (open, transparent, free; share value proposition) in terms of strategy, technology, service, and leadership.

**LEADERSHIP, STRATEGY, TECHNOLOGY, AND SERVICES**

The CBM helps to determine when and where resources should be focused to support operant and the operand resource integration. It also facilitates where the real value (“hot spots”) comes from and enhances the ability to capture value. IBM could benchmark its CBMs in the service eco-system to gather big data from CBMs and thus engage in both widespread consultancies in BMI thus achieving more knowledge control by the CBM design itself; a focus on direct strategy-to-action interaction with other service systems, which makes the high-level management use BM and CBM for direction at strategy level but should incorporate the systems level. On a BMD level, the CBM should be developed to cater some aspects of the SBMC thus becoming more suitable for start-up prospects and network sustainability.

The main currency for the future evaluation in CBM should be value, but how every business value the different aspects of value proposition and co-creation -internally and externally- needs probably a IBM leadership to understand the bigger service system picture.

Lastly, some form of value estimation has to be given or communicated to the customer including a lifetime cost which is often overlooked by the customers which are IBM’s goal – to create sustainable service eco-systems with their patented CBM. The authors contend that service eco-systems cannot grow without the proper use, sharing and understanding of technology, specifically ICT, and IBM seems to follow the “optimizer” path; meaning, using the cloud to reactively, cautiously or strategically enhance or innovate focal BM, the CBM (adding components and reviewing), and customer value propositions by
manipulating resources and interactions with a sense of notion of what an externally- and internally-faced value proposition in accordance to SBMC. Moreover, the value proposition has to be communicated enough to instruct a service systems external (and internal) actors on how to utilize operant resources in BMC, BMC and SBMC: this is facilitated by proper usage and understanding of the 4C model and manager roles.

**ROLES AND INTERACTIONS FOR INNOVATION AND DESIGN**

The adaptability aspect of leadership in BMD and BMI include and support the notion of empowering the managers interacting with a customer and objectives of promoting the key partner interaction thus resource integration, and value proposition synchronization in the service eco-system through objectification in interactions and proper role constellation. Furthermore, leaders and managers can systematically reconfigure resources from a value co-creation and value proposition perspective by multiple understandings of different service systems. This expands the interactions in order to create new or improve existing offerings for existing and new customers but also partners.

A continuous evaluation of the broader eco-system reconfigurations (through acquisitions, divestitures and partnering) could be difficult to benchmark and design in a SBM, or for a BMI, but a fundamental understanding of technology and ICT is de facto a growth driver BMD and BMI. The NCSU case is an example of sharing resources in real-time by cloud technology upon customer needs promotes interaction thus value creation and sustainable service eco-systems. For successful and sustainable leadership in a service eco-system, SDL and systems level thinking are crucial which can be facilitated by the SBMC almost inherently by setting the BMD and BMI environment. Understanding the key growth driver technology in SBM and BMI is of the essence for leaders and managers to achieve value creation and capture, and to offer as well as share internal and external value propositions – preferably by ICT platforms reaching and teaching all stakeholders. To facilitate service system sustainability and scaling, proper role constellations and methods of communication has to be set and that preferably by high-level managers with value propositions in focus. Proper leadership is crucial in service eco-system.

Facilitation of the value creation (co-creator role) can be done by 1) capitalizing on customer’s value creation and 2) agreements with (key) partners to reflect that the company becomes a formal intermediary having dual value
co-creation points; triad relationships are key for sustainability. SBMs are inherently open. A two-page executive summary can be found in the appendix.

**SUMMARY INTERVIEW FINDINGS**

The primary data is concluded:

<table>
<thead>
<tr>
<th>Table 6-1 Summary of Interview Findings</th>
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<tbody>
<tr>
<td>- Entrepreneurship is the key driver of innovation in university cities (not specialization)</td>
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<tr>
<td>- Educating and Creating Awareness by using Externally-faced Value Propositions</td>
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<tr>
<td>- Manager and Customer Intentions: The most valued aspects in service systems interactions</td>
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<tr>
<td>- Customer-Orientation and Accessibility roles are focus points in generic Role Constellation for BMI/BMD</td>
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<td>- BMC and SBMC: Focuses on Customer Relationship and Value Proposition</td>
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<tr>
<td>- CBM: Reveal the &quot;hot spot&quot; as Execute &gt; Customers and the Direct &gt; Customer – And the bridge between</td>
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**FINAL CONCLUSION**

The empirical data in this master thesis is solid with the 20 face-to-face manager interviews and questioning with IBM's Dr. Spohrer. The authors had findings that agreed and supported referred researcher’s findings, and also meet their research requests. Our research and IBM’s case studies shows a need for further conceptualization and sensemaking of B2B2C-oriented meetings by the value co-creation through ICT between service systems but underpinned by value propositions. Moreover, a leadership perspective in service eco-systems through value propositions needs to be developed and researched including a systems level thinking in order to promote sustainability and scaling of service systems. IBM takes on the leader role in service eco-systems.

This postgraduate master’s thesis from Karlstad Business School delivers a comprehensive guideline in theory along with primary and secondary data, with an extensive cumulative theoretical framework. The thesis confirms previous findings and develops a fresh focus in BMD and BMI in systems environments but also facilitates business practitioners, scholars and academics today in their analyzing, illustrating, and design of an open SBM with a systems thus ICT view of the modern business environment.
7. FUTURE RESEARCH

We mainly recommend following Zolnowski et al. (2014) future research request specifically for the interest in the SBMC.

When representing network-based SBMs, the complexity of the SBMC rises significantly thus it could be of interest to adapt an information systems perspective (for example: SOA, advanced ERPs and CRMs), specifically complex nested system point-of-view as Dr. Spohrer (2012) recommended for future fields in ERP and handling big data but as IT-as-a-Service concept believed to be current hot topic in cloud management. Furthermore, the leadership aspect of service eco-system through externally-face value propositions has to be developed with the ICT influence in interactions and role constellation in the digital environment (for example: social media, multi-platform devices, cloud). More specifically, the information flow in service systems needs to be understood with a triad perspective and a relationship focus by shared value propositions, suggested with complex nested systems or IT-as-a-Service.

To develop this thesis’ research, the compiled propositions, requirements, and principles must be theoretically compared, put in real-life context, and tested in future case studies. Ericsson, IKEA and Deloitte are good alternatives, and Ericsson is interesting to compare as Ericsson completed servitization and heading to focus in software, consultancy and services – much like IBM.

One idea is to compare and test the various propositions, requirements, premises, foundations etcetera, presented in this thesis by Daxböck and Zolnowski et al. in simulated and real case studies, or to be used as foundation for interviews for this topic: the SBMC need to be tested on these points to be better understood and used.

For bachelor and master students: IBM tend to visit universities hence a chance to catch an interview, or by request. Also, plan months ahead as booking an interview with persons at IBM as, for students and academics, it is tedious work unless it is in connection to a seminar and lecture at an educational institute.

Feel free to contact us with any questions regarding this postgraduate master thesis. You will find information about us in the first pages.
REFERENCES


E-MAILS AND SEMINARS

Spohrer, Jim (2014) Questioning (via e-mail) (Dated June 2, 2014)

Spohrer, Jim (2012) Seminar: Service Science: Reframing Universities (On 13th September Dr. James (Jim) C. Spohrer, Director of IBM University Programs (IBM UP), visited Karlstad University, giving the presentation on “Service Science: Reframing Universities”.)
EXECUTIVE SUMMARY

In almost every enterprise, services have become an essential part of their Business Models (BM), leading more and more of the companies to transform their product-based BMs to service-based BMs to compete and succeed in current technological service-oriented era.

The figure to the right illustrates the relationship between service logic and BM in this thesis, namely value propositions and value co-creation. The latest research trying to marry the relationship into one is Zolnowski et al.’s Service Business Model Canvas (SBMC) through Service-Dominant Logic (SDL) thinking and the open Business Model Canvas (BMC). The service systems build on strive for a sustainable eco-systems, which is facilitated by open BM and innovation of value propositions and mutual agreements.

To cater the need of better understanding, this study discussed the different BM concept, definitions and theories and also addressed the Service Concepts (SCs) of SDL, Service Science (SS), service systems and dyad/triad perspectives – in detail. For further grasping the concepts and providing better analytical approach, IBM case studies are presented to get the overall picture about IBM and give reflection on the three main case studies closely related to explore the Business Model and Service perspective from strategic, business and the system level.

Customer aspect: Value co-creation involves the entire value chain. The relationship between main dimensions and the actors were extended significantly. This integration of the customer activities is central specifically which resources and activities must be represented for the service provision. This produces a cost for the customer, and a revenue stream.

Partner aspect: Value proposition for partners are equally important for a successful Business Model Design (BMD), following a specific relationship and channel definition or vice versa – To capture the complexity. Resources are integrated indirectly with a distinction from activities, and no direct interaction other than relationship-based occurs – Indirect interaction. SBMC allows multi-sided networks and address the lack of partnership perspective with the accompanying integration of remaining blocks.

The figure to the right shows the pyramid of IBM case studies presented representing IBM’s leadership is surrounded by these selected case studies.
on strategic, process and systems level. The third case study emphasizes on the system level and addressed the Cloud technology. The study reveals the power, usage, and reflected upon advantages of Cloud and its importance in creating and delivering business value. The factors under consideration from a value chain perspective are improved to transform to create and form customer value chain proposition perspective are enhanced to extend to invent. The figure to the left from IBM illustrates the power of the cloud.

The figure here shows the basic in IBM-business model leadership: how CEOs and managers could improve their BM management and BMI (study 1). By value-benchmarking and service design through the 4C model aiming for objectification. This facilitates understanding and consensus of both value co-creation and compliance (issues) with service systems value propositions in dyad but especially in complex triad relationships.

The 4C model offers a vocabulary and guide-ance for objectification even in triad perspectives as every player is an actor with roles. The SBMC is a design till for sustainable service eco-system construct. The open BMC and SBMC act as an overlap of the world-view of SDL and its systems. By having a multi-sided perspective, SBMC can cater more of the needs for SBM, such as better value co-creation with key partners. We argue for a multi-sided perspective of Service BM (SBM) in service eco-systems in order to co-create or capture value, and this starts with a mutually beneficial value proposition which requires an objective foundation for consensus.

The SBMC focused on fewer key partners but more complex relationships and their direct but also indirect interactions thus multiple value creations giving more indirect control and leadership in an eco-system hence capturing value. The CBM helps to determine when and where resources should be focused to support operant and the operand resource integration. CBM is also a design tool for external value propositions as the SBMC. Capturing value in CBM and specialization is done by having a holistic view of the company and the dynamics. Furthermore, managers can systematically reconfigure resources from a value co-creation and value proposition aspect, expanding the interactions to create new or improve existing offerings for existing and new customers. A continuous evaluation of the broader eco-system reconfigurations (through acquisitions, divestitures, and partnering) could be difficult to benchmark and design in a SBM or for a BM Innovation (BMI).
INTERVIEW DATA

NEXT PAGE
## INTERVIEWEE BASIC INFORMATION

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### 4C MODEL INTERVIEWEES

<p>| Managers’ Intentions                      | Interviewee # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | ttl |
|-------------------------------------------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Customer Segmentation                    |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6  |
| Specialization                           |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6  |
| Standardization                          |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Uniformity of Service Operations         |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| High-Quality Products                    |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 11 |
| Customer Needs and Requests              |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13 |
| Understanding Customer’s Business        |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8  |
| Monetary Value                           |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  |
| Response Time                            |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6  |
| Resource Efficiency                      |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lifecycle Costs                          |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Personal Contacts and Dialogue           |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 11 |
| Continuity and Frequency                 |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Technology-mediated communication        |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Long-term Relationships                  |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12 |
| Problem-Solving                          |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9  |
| Trust Building                           |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13 |
| Partnership                              |               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
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### ROLE CONSTELLATION INTERVIEWEES

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