Regulations’ Effects on New Product Development in The Financial Services Industry

A Case Study of Products Launched in Nykredit A/S from 2008-2012

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Executive Summary

This thesis studies the gap between two key market dynamics influencing The Financial Services Industry in Denmark. Firstly, the industry has experienced a 206% increase in the number of external regulations since The Financial Crisis in 2008. Secondly, NPD is a key component when addressing the contemporary economy. However, as no other studies address this gap this thesis studies how the increased level of externally imposed regulations’ effects NPD in The Financial Services Industry, through a case study of 100 launched products in Nykredit A/S.

The case study includes five characteristics which are used to categorize the sample of 100 launched products in Nykredit A/S: Motivation for the NPD Project, complexity of the NPD Project, flexibility of the regulations influencing the NPD Project, degree of innovativeness of the product, and outcome of the product after launch. As a result of the case study, varied effects from the increased level of regulations are observed on all five characteristics. Addressing why these effects have occurred, from a managerial point of view, it is found that the increasing level of regulations cannot explain why all the effects have occurred. From a managerial point of view, the varied effects observed may also be explained by other factors such as changing internal focus, a changing organizational focus, and changing market dynamics. However, looking at these findings in a greater context all the effects on the launched products can to some extent be explained by the increasing level of regulations, as these are an inherent part of the environment of which Nykredit is part of. Thus, all the five characteristics are connected and a NPD project, and the subsequent launched product is therefore continuously affected by the increasing level of regulations. These findings contribute to managerial practices in three ways: 1) Clarify how regulations affect NPD in The Financial Services Industry. 2) Develop three general types of NPD projects which describe what managers most frequently can expect within each type of motivation for the NPD project. 3) Develop four guidelines describing how to achieve, obtain, or avoid a specific outcome of the product after launch.

As a closing remark, this thesis takes the first humble steps towards addressing and uncovering an unknown area being the gap between external regulations and NPD in The Financial Services Industry. However, as no other existing studies address this exact relationship, more research is needed to further develop the knowledge and fill in the gap in this area.
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1 Introduction

1.1 Problem Motivation

From an initial search of knowledge addressing The Financial Services Industry, we find two main components which strongly influence this industry. Firstly, we find that since 2008 there has been a significant increase in the number of external regulations imposed on The Financial Services Industry. Secondly, we find that NPD has become a key component in both the government’s and scientists’ views when addressing the contemporary economy. In order to clarify our motivation for our chosen area of research in this thesis, these two main components are described in detail below which leads to the problem statement that is addressed throughout this thesis.

1.1.1 Increasing Level of External Regulations

Following the financial crisis in 2008, a number of initiatives to strengthen regulation of The Financial Services Industry have been taken both at a national and international level. At its essence, The Financial Services Industry is subject to both so called financial regulations i.e. “Legislation relating to financial matters, issuing orders and supervision of financial institutions (…)” and general business regulations applicable to all businesses. At a European level the EU has initiated a comprehensive effort to amend and strengthen the rules governing The Financial Services Industry. E.g. The European Commission has put forward a number of proposals including capital requirements for banks and insurance companies. In addition, work is being carried out to establish a common framework for dealing with illiquid banks. During 2012 Denmark held the Presidency of the Council of the European Union and therefore contributed to a rapid and effective implementation of these reforms.

The high volume of new external regulations is manifested by a count of the total number of new regulations imposed on The Danish Financial Services Industry in the period 2008-2012 (both included). From this count it becomes evident that the total number of regulations has increased with 206%; from a total of 36 regulations in 2008 to a total of 110 in 2012 (Appendix 1). Professor of public policy at the University of California at Berkeley, Robert B. Reich, explains the development in the following way: “The massive failure of world economies that began in 2008 has paved the way for government action on a scale not seen since the Great Depression. Managers accustomed to dodging officials will now have to collaborate with them.” (Reich, 2009; 96). He further argues that the change has been on the horizon for years and that the current government
initiatives were triggered by the 2008 worldwide economic crisis (Reich, 2009). Thus, we find that the increased number of regulations on The Financial Services Industry in Denmark is an area which deserves further scrutiny.

1.1.2 Focus on Innovation and NPD

From our continuous research, we find that besides the increased and high number of external regulations imposed on The Financial Services Industry, The Danish Ministry of Business and Growth has a strong interest in ensuring an improved innovativeness within Danish industry. They write on the home page that: “Innovation and modernization are key drivers in the creation of growth and jobs in Denmark.” To better secure the growth and job creation, the Ministry initiated what is called a paradigm shift in 2012. This include the launch of The National Innovation Strategy and thereby supporting an even stronger focus on the future innovativeness of Danish companies. This strategic focus is supported by the Ministry of Science, Innovation and Higher Education as they state on their home page that: “Knowledge is important for companies’ productivity and innovation. Companies that invest in R&D are on average 15 percent more productive than companies that do not.” Thus, The Danish Government as a whole is looking to grow the innovative capacity in Denmark and thereby secure economic growth and jobs.

Within the literature we also find a strong focus on the importance of innovation and new product development (NPD) within companies to enhance their competitive position and secure their future survival: “In many industries technological innovation is now the most important driver of competitive success. Firms in a wide range of industries rely on products developed within the past five years for almost one-third (or more) of their sales and profit” (Shilling, 2010; 1). Thus, NPD is a main driver for companies’ future success and survival. However, managing NPD is not an easy task as studies find that as many as six out of seven projects within NPD are cancelled or fail (Cooper, 1988 and Christensen & Raynor, 2003). The topic of financial innovation has also become a key interest for several scientists as financial innovation is found to be a key component when addressing the contemporary economy (Cooper & de Brentani, 1991 and Rossignoli & Arnaboldi, 2009).

1.1.3 Closing a Gap – Regulations’ Effects on NPD

From the above two sections we find two main components which strongly influence The Financial Services Industry. Firstly, since 2008 there has been a significant increase in the number of external
regulations imposed on The Financial Services Industry. Secondly, NPD has become a key component in both the government’s and scientists’ view when addressing the contemporary economy, and hence when developing The Financial Services Industry. We therefore find it relevant to analyze and discuss how these two components affect each other i.e. looking into how the increasing level of external regulations affects the companies’ efforts within NPD.

When looking at the existing literature and empirical studies, we find that regulations’ effects on NPD are not analyzed and discussed, as NPD and regulations are addressed separately within the existing literature addressing The Financial Services Industry. We therefore find it highly interesting to investigate further how the increased level of regulations imposed on The Financial Services Industry is affecting NPD in this specific industry. To organize our ideas about this subject, we firstly look at the existing studies that address regulations’ effects on innovation in general and secondly we look at studies that address regulations’ effects on innovation in The Financial Services Industry. A short summary of our initial findings are presented below.

1.1.3.1 Regulations’ Effects on Innovation in General

Looking into the literature addressing regulations’ effects on innovation, we find that in general two opposing views are observed. The first view looks at regulations as a trade-off between society and firms; where regulations enhance the gains for society but result in declining competitiveness and increasing costs for companies. The second view sees regulations as a win-win situation where regulations lead to technological innovations and thus bring an advantage to both society and companies (Cetindamar, 2001). This view is strongly associated with the economist Michael Porter who through extensive studies presents his main hypothesis. The hypothesis states that if a country adopts stricter environmental regulations than its competitors it will enable the country to become a net exporter of the newly developed environmental technologies (Porter, 1991 in Jaffe & Palmer, 1997). Many scholars have tested Porter’s hypothesis and found different results. Taylor et al. (2005) findings support Porter’s hypothesis saying that government regulation can stimulate market innovation (Taylor et al., 2005). Jaffe & Palmer (1997) findings are only consistent with the ‘weak’ version of the hypothesis i.e. where environmental regulations stimulate certain types of innovation (Jaffe & Palmer, 1997). Others such as Majumdar & Marcus (2001) find that only regulations shaped in the right way can have a positive effect on innovation (Majumdar & Marcus, 2001), and finally some studies such as Cetindamar (2001) find very limited support for Porter’s hypothesis (Cetindamar, 2001). Thus, the debate on whether regulations have a positive or negative effect on
innovation in regulated industries is yet to be solved. But, it is clear that both theory and empirical studies need to be developed further since both views find conflicting results as to whether the regulations’ effects give a clear trade-off or a win-win situation (Majumdar & Marcus, 2001 and Cetindamar, 2001).

We therefore find that there is one clear similarity within the existing literature addressing regulations’ effects on innovation; however scientists agree that a generalization across industries is impossible at the current state (Ashford et al., 1983, Frame & White, 2004, Jackson, 2007, Jagtiani et al., 1995, Miller, 1986, and Smet, 2012). Ashford et al. (1983) for example conclude that: “(...) the evidence that exists about the relationship between regulation and innovation in the chemical industry strongly suggests that an understanding of this interaction lies more in the investigation of particular cases than in generalizations about overall effects.” (Ashford et al., 1983; 152). Thus, it is not yet possible to make generalizations across industries or countries as individual regulations differ too much in terms of purpose, operational mechanisms, and histories of implementation to be treated as a group (Ashford et al., 1983). Jackson (2007) finds the same to be true within The Financial Services Industry, as countries are hard to compare in terms of jurisdiction, level of financial regulations, etc. (Jackson, 2007). Furthermore, many scholars agree that it is not possible to generalize their findings without further in depth studies based on both quantitative and qualitative data (Frame & White, 2004, Jackson, 2007, Jagtiani et al., 1995, Miller, 1986, and Smet, 2012).

In general terms we find that the existing studies primarily deal with industries such as health and environmental regulations. This group of studies addresses the direct and indirect interaction between regulations and innovation in the specific context of a certain company. However, the overall effects regulations have on innovation are largely ignored.

1.1.3.2 Regulations and Innovation in The Financial Services Industry

Turning to the limited literature available within The Financial Services Industry addressing regulations effects on innovation, Miller (1986) and Silber (1983) are the first to address the importance of regulations in relation to innovation. Miller (1986) states that: “The major impulse to successful innovation over the past twenty years has come (...) from regulations and taxes” (Miller, 1986; 460). Silber (1983) also argues that regulations play an important role in regards to financial innovation: “(...) new financial instruments or practices are innovated to lessen the financial constraints imposed on firms.” (Silber, 1983; 89). In addition, Silber (1983) finds that the argument
that regulations foster financial innovation is too narrow to explain the entire process of financial innovation. However, there is no doubt that regulations have an important role to play when it comes to innovation (Silber, 1983). Rossignoli & Arnaboldi (2009) and Jackson’s (2007) findings are in alignment with Silber (1983), where Frame & White (2004) in contrast find that regulations are a double-edged sword which can both foster and hamper innovation in The Financial Services Industry (Frame & White, 2004). The remaining literature concerning how regulations affect innovation in The Financial Services Industry finds that the area is understudied. Further, the majority of the studies call for more empirical studies of both quantitative and qualitative character (Tennis & Schwab, 2011, Smet, 2012, and Mention & Marko, 2012).

When reviewing the articles studying NPD in The Financial Services Industry the same findings become evident i.e. a lack of empirical studies. Further, none of the current articles address the current state of mind in the industry which is characterized by the increasing level of external regulations. Examples of studies not adjusted to the current state of the industry are Cooper & de Brentani (1991), Naudé et al. (1998), and Thwaites (1992) who all base their findings on assumptions about deregulation in the industry. However, as previously stated, the industry is facing an increasing level of external regulations since the financial crisis of 2008 (Appendix 1).

1.1.4 Case Study of The Financial Services Industry in Denmark

Based on our initial research, we find that it is not possible to generalize across industries and borders, why the most appropriate strategy for studying the gap regarding regulations’ effects on NPD within The Financial Services Industry is an in depth case study. Based on the above introduction our choice of case study is motivated by four specific reasons: Firstly, we find that there is an increasing level of external regulations imposed on The Financial Services Industry in Denmark following the financial crisis in 2008 (Appendix 1). Secondly, the Danish government has a strong interest in developing new and innovative products in order to enhance the Danish economy. Thirdly, we find that The Danish Financial Services Industry has never been addressed before in the literature within regulations’ effects on neither innovation nor within NPD in general. Finally, we find that service industries e.g. The Financial Services Industry is experiencing a huge increase in the number of products and services launched. Meanwhile, The Financial Services Industry is significantly understudied even though the importance of the service economy is generally acknowledged (Naudé et al., 1998, Page & Schirr, 2008, and Edgett & Jones, 1991).
Therefore, we find that regulations’ effect on NPD in The Danish Financial Services Industry is a black box that has yet to be opened.

A specific case of a Danish financial services company that is being affected by the regulations in our project is Nykredit A/S (Nykredit). Nykredit is a Danish financial services provider with both commercial and mortgage banking. In addition, they have activities within insurance, leasing, pension and real estate agency, and employ approximately 4100 employees. Nykredit is the largest lender in Denmark and one of the major private bond issuers in Europe, with a market share of 42.6% on mortgage banking and 5.2% within commercial banking. The company is an interesting and appropriate case as they are one of the five Danish financial services companies identified as Systemically Important Financial Institutions (SIFI) by The SIFI Committee under the Ministry of Business and Growth.

1.2 Problem Statement

From the above introduction we find two key market dynamics which strongly influence The Financial Services Industry. Firstly, we find that since 2008 there has been a significant increase in the number of regulations imposed on The Financial Services Industry in Denmark. Secondly, we find that NPD has become a key component in both the government’s and scientists’ views when addressing the contemporary economy. However, we find that this link between externally imposed regulations and NPD in The Financial Services Industry is yet to be studied. Based on this we therefore seek to explore this gap through a case study of products launched in Nykredit from 2008 to 2012 (both included). This will be done through the following problem statement:

How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012?
1.2.1 Research Questions

To structure the analysis and discussion we have developed the following research questions which will also work as the structure of the project:

1. What are the existing findings of how regulations affect innovation within The Financial Services Industry and which main characteristics determine these effects?

2. What are the main topics of NPD within The Financial Services Industry?

3. How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied?

4. What are the effects of the increased level of external regulations on products launched in Nykredit from 2008-2012 and why do these occur?

5. What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012?

1.3 Delimitation

Based on the above introduction, the identified overall problem statement, and the defined research questions this project has been delimitated in four ways: Firstly, in terms of regulations, we solely focus on externally imposed regulations and written rules enforced on to the company by the government, thus we do not investigate the effect internal organizational rules have on innovation. Using the concepts from the institutional perspective we delimitate this project to a focus on regulative institutions i.e. legislations, regulations, and contracts which are enforced by reward and punishment systems. Therefore, we do not consider the other two identified forms of institutions i.e. normative, and cultural-cognitive institutions. The former being (often informal) rules, assessments, standards, etc. about what is appropriate, and the latter representing frameworks of understanding through which we decide what is 'real', and create meaning (Meyer & Rowan, 1977 & Scott, 2001).

Second, we only view the identified problem statement within a Danish context and therefore only grasp our findings in the light of the specific demographical specificities of The Danish Financial Services Industry and not in contrast to any other markets.
Thirdly, we only investigate regulations’ effects on innovation within the specific discipline that NPD represents within innovation management, and therefore we do not investigate the effect on other disciplines such as Idea Management or Portfolio Management.

Fourth and finally, we treat NPD and New Service Development (NSD) as equals and use the term NPD in the remainder of this project, as there is still no consensus in the literature about whether NSD and NPD are two distinct disciplines or not (Naudé et al., 1998, Ramdas et al., 2012, and Cowell, 1988).

1.4 Research Design
To analyze the stated problem statement, we have defined an appropriate methodology and method. Below, we provide a short description to each of the two elements.

1.4.1 Methodology - The Social Constructivist Perspective
Throughout the project we base our approach to science on the social constructivist perspective. This perspective can broadly be defined as: "(…) the view that human knowledge is not eternal and universal, but decisively marked by the social and cultural context in which it occurs.” (Fuglsang & Olsen, 2009; 351). However, as this perspective consists of several different views, we specifically subscribe to Berger & Luckmann’s approach to social constructivism which they title The Social Construction of Reality (Fuglsang & Olsen, 2009). Berger & Luckmann (1987) propose that the sociology of knowledge must: “(…) deal with the social construction of reality.” (Fuglsang & Olsen, 2009: 368). An inherent part of this perspective is that it is not possible for the researcher to reach neither an objective nor a definitive truth. Thus, the overall standpoint of the perspective is that “(…) society and its institutions are a product of recurring behavioral patterns, and the meanings of which we attach to these.” (Fuglsang & Olsen, 2009: 368). In that way, our case study of regulations’ effects on products launched in Nykredit from 2008-2012 is grasped as socially constructed through repetitive behavioral patterns. The relationship is therefore created in the daily interaction between Nykredit’s work with NPD and the environment which they are part of and which have an increasing number of regulations. This interaction is manifested through habits, routines, and ways of interpreting own and others’ actions such as legislators, management, customers, etc.

The chosen methodology influences the further work through this project as it imposes on us to concentrate mainly on qualitative data which helps us answer the what, how, and why in our
defined research questions. Using qualitative data we are able to answer questions about meaning, concepts, definitions, characteristics, etc. (Berg, 2007). Had we on the other hand chosen to have a more positivistic perspective, we would have focused more on quantitative data types as this perspective is more concerned with finding an objective and definitive truth (Berg, 2007). However, it is commonly agreed in the methodology literature that neither of the data types are perfect by themselves (Berg, 2007). Looking further into this, we find that it is possible to integrate quantitative and qualitative methods and that a combination of data from these methods ultimately provides a richer and more contextual basis for interpretation and validation of results, and thus provides a better testability and richer context in research (Cook & Reichardt, 1979, Light and Pillemer, 1982, Maxwell, et al., 1986, Meyers, 1981, Van Maanen, et al., 1982, and Van Maanen, 1983a). Based on this, we therefore subscribe to the pragmatic view enabling us to combine the two methods in our case study, as this will provide us with a wider range of coverage and thus enable us to get a fuller picture of our research area. In the end this provides us with the best in depth results which we could not achieve if we solely used qualitative or quantitative methods (Bonoma, 1985).

1.4.2 Method - The Case Study Approach
As stated in the introduction, the overall design of our project is the construction of an in depth case study of all products launched in Nykredit from 2008 to 2012 (both included). Theoretically, a case study can be defined as:

“(…) an approach capable of examining simple or complex phenomenon, with units of analysis varying from single individuals to large corporations and businesses; it entails using a variety of lines of action in its data-gathering segments, and can meaningfully make use of and contribute to the application of theory.” (Berg, 2007; 283)

Therefore, the case study method is an appropriate research method in this project as it is complementary to the social constructivist perspective by helping us explain in depth the circumstances in a present social phenomenon i.e. regulations’ effects on NPD specifically in terms of products launched in Nykredit from 2008–2012 (Berg, 2007, Yin, 2009 and Eisenhardt, 1989).

We classify our case study as an instrumental case study as our primary reason for choosing a case study is to obtain a deeper understanding of and insight into a theoretical explanation. In turn, this enables us to refine theory as well as help us generalize our findings (Berg, 2007). Further, the
case study has an explanatory character, as it is constructed to provide explanation in relation to the many different variables influencing a complex research agenda such as regulations’ effects on NPD (Berg, 2007). The design of the case study has been created as an iterative process following the model presented by Berg (2007). This means that we started with an idea about a research topic and then gathered theoretical information from which we reconsidered and refined our idea. Following this, we examined possible designs for data collection which made us reexamine our theoretical assumptions and thus ultimately refine these further. Next, we started the actual data collection, analysis, and dissemination, but have never left any stage behind completely. This helps us to constantly have an updated understanding of the present situation (Berg, 2007).

1.4.2.1 Research Instruments
To support the case study method, we have used the following research instruments throughout the project; a sample strategy, an archival strategy towards our sample, and supplemented our findings from archives with semi standardized interviews and a focus group interview. Below a short introduction to each instrument is given.

Firstly, we chose to use a sample strategy based on a convenience sample. This type of sample strategy relies on an available subject i.e. close at hand and easily accessible (Berg, 2007). The convenience of our sample, i.e. products launched in Nykredit from 2008-2012, is grounded by the fact that one of the authors have worked in Nykredit since 2011. Thus, we were able to get full access to the data we needed without being dependent on a contact person in Nykredit to provide us with data during our research process. Further, we have conducted our research on-site at Nykredit’s headquarters for five months (Q1 and Q2 of 2013). In other words, we consider this sample strategy appropriate for our given study. However, this approach naturally also creates a risk of implicit knowledge which we have been aware of throughout the thesis.

Secondly, initiating the project we chose an archival strategy to identify our sample. We chose a public archival record strategy by looking at an archive that has been prepared for the expressed purpose of examination by others. However, a public archive can still be restricted to certain groups. Further, the public archival strategy was appropriate in our research project as it provides a large quantity of data which is more or less standardized. The specific archives used in our project represent official documentary records which convey important and useful information that is effectively used as data in a research project (Berg, 2007).
Next, in order to supplement our findings from the archives, we conducted both semi standardized interviews and a focus group interview. The semi standardized interview is characterized by a structure that is more or less planned before initiating the interview. Due to the loose structure of the interview, the interviewers are able to reorder and/or reword the questions during the interview. Further, the interviewers are able to adjust the level of the language during the interviews. Most importantly, the interviewers are able to answer questions and make clarifications during the interview. This further enables the interviewers to add or delete parts of the interview between interviews based on experiences from previous interviews (Berg, 2007).

Finally, we conducted a focus group interview which is an interview style designed for small groups of individuals formed by an investigator and led in a group discussion on some particular topic or topics. Through this discussion, the researchers learn about conscious, semiconscious, and even unconscious characteristics and processes in a particular group. Focus groups are particularly useful as a supplement to other research instruments (Berg, 2007).

### 1.5 Introduction to Data Collection

From our initial screening of external regulations’ effects on NPD, we knew that we had to conduct an extensive amount of data collection within our case company. It has taken several months to firstly develop a case study design, next analyze the effects of the increased external regulations, and lastly analyze and discuss why these effects have occurred. In order to collect this data, we have, as previously stated, been working from Nykredit’s headquarters throughout Q1 and Q2 of 2013 and collected the data through an extensive amount of interviews and workshops with the Product Implementation Department in Nykredit (Appendix 6 to 11 and 13). Beside this, we have collected secondary data through both publicly and non-publicly available sources e.g. internal databases in Nykredit, external databases describing Nykredit and The Financial Services Industry (Appendix 2 to 5 and Bibliography). Below, we describe both the two groups of data individually and in more detail.

This first group of data i.e. the secondary data can be defined as data we have collected from existing sources (Berg, 2007). This group can again be divided into two groups: Publicly available data and non-publicly available data. The publicly available data is data collected from databases, different internet sources, articles, etc. All these types of data have been collected bearing in mind that it should be trustworthy, factual, relevant, and current (Berg, 2007). We have chosen these criteria to ensure as reliable sources as possible, enabling us to use them for argumentation in an
academic project. Information about publicly available data is accessible in our bibliography. The non-publicly available data we use throughout the thesis is data we have been given by Nykredit and have thus been made by Nykredit. All these data are available in the attached appendixes. Later in the thesis we use the secondary data to provide a brief introduction to The Financial Services Industry in Denmark and our case company.

Our primary data represents the second group of empirical data and can be defined as data which we have gathered uniquely for the purpose of this project (Berg, 2007). This data is available as appendixes attached to the project. This data set is collected using the research instruments identified and described in our method in Chapter 1, and has been collected in several steps following the iterative model presented by Berg (2007). Common for all steps is that they were carried out in a close collaboration with The Product Implementation Department in Nykredit during Q1 and Q2 of 2013. In this period we were given access to all available information including archives, intranet, databases, etc. We use the primary data below to identify our sample, present the NPD process in Nykredit, identify our sample of launched products, categorize our identified sample, and discuss our findings. This is all done by utilizing our qualitative data collection which is based on semi standardized interviews with the Head of Product Department Peter Læsøe, workshops with the Project Managers, and finally a focus group interview.

The empirical data is summarized in Table 1 which provides a short description of the purpose of the data, the overall considerations about the data, and an indication of where each type of data is available for the readers of this project.
### Table 1: Summary of Empirical Data

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Considerations</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicly Available Data</td>
<td>Ensure broad understanding of the environment around Nykredit and their NPD projects</td>
<td>Critical reflections about all data is necessary to ensure a valid dataset</td>
</tr>
<tr>
<td>Non-publicly Available Data</td>
<td>Create a deeper understanding of the internal processes in Nykredit</td>
<td>Problems about subjectivity in the data</td>
</tr>
<tr>
<td><strong>Primary Data</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification of Data Sample through Nykredit’s Archives</td>
<td>Identify our sample of products launched in Nykredit from 2008 to 2012 (both included)</td>
<td>Only possible to identify products which Nykredit has documented</td>
</tr>
<tr>
<td>Semi Standardized Interviews with Head of Product Implementation</td>
<td>Establish understanding of the NPD process in Nykredit, and identify how these are aligned with theoretical findings</td>
<td>Transcribed to ensure documentation in the future work with the project</td>
</tr>
<tr>
<td>Workshops with Project Managers</td>
<td>Categorize our identified data sample within the different characteristics and their subcategories</td>
<td>Transcribed to ensure documentation in the future work with the project</td>
</tr>
<tr>
<td>Focus Group Interview with Head of Product Implementation, &amp; Chief Project Manager</td>
<td>Establish understanding of how Nykredit’s management of NPD can explain regulations’ effects</td>
<td>Transcribed to ensure documentation in the future work with the project</td>
</tr>
</tbody>
</table>

#### 1.6 Structure

From the above introduction, we find two key market dynamics which strongly influence The Financial Services Industry in Denmark: A significant increase in the number of regulations imposed on the industry, and that NPD has become a key component when addressing the contemporary economy. However, we find that this link has not yet been studied. Based on this, we therefore seek to explore this gap through a case study of products launched in Nykredit from 2008 to 2012 (both included). This is done through the following problem statement: *How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012?* To answer this overall problem statement we have developed five research questions which work as the structure of this thesis. Having answered all of these five questions independently we are finally able to answer our overall problem statement. Throughout the thesis each research question is addressed in its own chapter, and the structure for each chapter is described thoroughly in the beginning of each chapter. Below, we provide a short introduction to each research question and thus how they combined create the structure for this thesis.
We initiate the fundamental parts of this thesis in Chapter 2, where we address the first of the two main components of the identified gap between increased external regulations and NPD, through an in depth literature review of how regulations affect innovation. This enables us to answer our first research question: What are the existing findings of how regulations affect innovation within The Financial Services Industry and which main characteristics determine these effects?

Having conducted a literature review of the existing literature addressing regulations’ effects on innovation we turn to Chapter 3. Here we address the second main component of this thesis’s focus being NPD. Thus, in Chapter 3 we introduce the main theoretical topics of NPD and answer our second identified research question: What are the main topics of NPD within The Financial Services Industry?

Following these two descriptive chapters, we continue to Chapter 4 where we address how the gap, in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry, can be studied. This is of importance as this thesis represents the first attempt to study regulations’ effects on NPD in The Financial Services Industry. We therefore find that it is necessary to gather an extensive data set and design an appropriate case study. This enables us to categorize and study our data, and in turn achieve trustworthy and reliable academic results. Based on this, we are able to answer our third research question: How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied?

In Chapter 5, we utilize the above identified case study design and the categorized sample of launched products in Nykredit from 2008-2012 to answer our fourth research question: What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur? Answering this, we start by looking individually at each of the subcategories in the five identified characteristics and identify what effects are evident in our sample. Secondly, we turn to discuss why these effects have occurred from a managerial point of view. We next turn to discuss whether there are conflicting findings between the initial effects, identified in our categorization of the 100 launched products, and the managerial inputs about regulations’ effects on NPD. Lastly, we discuss in a greater context why the effects observed in our case study have occurred.

Following this, we turn to Chapter 6 where we address our sixth and final research question relating to how our findings have contributed to both managerial practices and existing theory:
What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012? We initiate the chapter by discussing how our findings contribute to the managerial practices, relating to NPD projects in The Financial Services Industry during times of increasing levels of externally imposed regulations. Next, we discuss how our findings throughout this thesis contribute to the existing theoretical literature presented in Chapter 2 and 3.

In Chapter 7, we end this thesis with a final conclusion. Here we summarize our results and thereby answering our overall problem statement. Lastly, we reflect upon our findings and opportunities for further research.
2 Literature Review - Regulations’ Effects on Innovation

In this chapter we address the first of the two main components of the identified gap between increased external regulations and NPD through an in depth literature review of how regulations affect innovation. This enables us to answer our first research question: What are the existing findings of how regulations affect innovation within The Financial Services Industry and which main characteristics determine these effects? As earlier stated, the motivation for the literature review of regulations’ effects on innovation and not a literature review of regulations’ effects on NPD is that no such studies exist.

The chapter is structured in the following way: Firstly, we introduce how the literature review has been conducted i.e. search keywords, journals searched, etc. as well as provide an overview of all literature included in the review. Secondly, we use the literature to define the terms ‘innovation’ and ‘regulation’ in order to have a clear understanding of what the two terms are defined as throughout the project. Thirdly, we review the literature findings about how regulations affect innovation both in general and specifically within The Financial Services Industry. From this knowledge, we look further into the main characteristics determining how regulations affect innovation both in general and specifically within The Financial Services Industry. Finally, in the end of this Chapter we conclude on our findings.

2.1 Method for Literature Search of Regulations’ Effects on Innovation

The following literature review began by searching for relevant contributions in our MIB literature. However, we found no relevant articles for our particular study and thus we expanded our search. We initially limited ourselves to searching through five journals within our research field: Harvard Business Review, Research Technology Management Journal, International Journal of (Entrepreneurship &) Innovation Management, Creativity and Innovation management, and Journal of Product Innovation Management. After this initial search we progressed to searching broader in Business Source Complete (BSC) i.e. a database with premium content of peer-reviewed, business related journals. Our literature search was limited to covering a specific set of keywords: 1) Financial Services Industry, 2) Regulation + Financial Services Industry, and 3) Innovation + Financial Services Industry. As this only resulted in 10 articles we expanded the search to also cover 4) Regulation + Innovation. From this search we selected the main articles based on most quotations in other articles, relevance, and reliability of the study. In total, 22 academic articles
from 18 different journals of relevance for our specific project are included in the literature review. A complete overview of the identified papers and the distribution from each journal is illustrated in Table 2:

<table>
<thead>
<tr>
<th>Bibliography</th>
<th>Journal</th>
<th>Main topic</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashford et al. (1983)</td>
<td>Law and Contemporary Problems</td>
<td>Due to the differential ability of firms to absorb the costs of compliance, flexible firms can meet regulatory requirements without significant technological change, while less flexible firms suffer</td>
<td>Non-Financial Services Industry</td>
</tr>
<tr>
<td>Cetindamar (2001)</td>
<td>European Journal of Innovation Management</td>
<td>Regulations are the main factor in the diffusion of environmental technologies, but have a limited positive effect on the firms’ innovativeness and competitiveness</td>
<td>Non-Financial Services Industry</td>
</tr>
<tr>
<td>Delaplace &amp; Kabouya (2006)</td>
<td>European Journal of Innovation Management</td>
<td>Regulations play an important role in the innovation process. However, they are only one part of the whole system which influence the development of a technological innovation</td>
<td>Non-Financial Services Industry</td>
</tr>
<tr>
<td>Frame &amp; White (2004)</td>
<td>Journal of Economic Literature</td>
<td>The importance of economic growth naturally raises the importance of financial innovation. Financial innovations can be grouped as new products, new services, new production processes, or new organizational firms</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Jackson (2007)</td>
<td>Yale Journal on Regulation</td>
<td>Financial costs of the US financial market regulations are much higher than the cost observed in most other jurisdictions</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Jaffe &amp; Palmer (1997)</td>
<td>Review of Economics and Statistics</td>
<td>Test Porter’s hypothesis’s focus on environmental regulation and find that environmental regulations do not create a significant growth in innovative outcome, as regulations’ effects on innovation is part of a greater complexity</td>
<td>Non-Financial Services Industry</td>
</tr>
<tr>
<td>Jagtiani et al. (1995)</td>
<td>Journal of Banking and Finance</td>
<td>Increased stringency of bank capital requirements have no effect on the adoption of various market innovations</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Majumdar &amp; Marcus (2001)</td>
<td>Academy of Management Journal</td>
<td>When regulations are flexible they utilize investments in pollution control systems and will thus enhance productivity. However, in-flexible regulations have a negative impact on productivity</td>
<td>Non-Financial Services Industry</td>
</tr>
<tr>
<td>Mention &amp; Torkkeli (2012)</td>
<td>International Journal of Entrepreneurship &amp; Innovation Management.</td>
<td>The aspects of innovation in The Financial Services Industry are studied. It is concluded that the field of financial innovation must be studied further</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Merton (1995)</td>
<td>Financial Management</td>
<td>Regulations can have a powerful influence on the behavior of financial intermediaries, however this is only in the short run as regulations both shape and are shaped by the time path of financial innovation</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Miller (1986)</td>
<td>Journal of Finance and Quantitative Analysis</td>
<td>The major impulses to successful financial innovations have come from regulations and taxes during the last quarter of a century</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Olin &amp; Wickenberg (2001)</td>
<td>Creativity &amp; Innovation Management</td>
<td>NPD and rules are not mutually exclusive; both struggle and harmony are found between rules and NPD</td>
<td>Non-Financial Services Industry</td>
</tr>
</tbody>
</table>
There is a significant need for market protection to make disruptive innovation. However, a limiting factor of success in regulation occurs when radical technology is demanded.

Firms would have introduced 62% more services to consumers during the study period if the regulation had not been in place.

The financial crisis has resulted in an increase in governmental regulations which has a huge impact on both public and private companies.

Changes or modifications within regulations are reported as one of the main drivers for changes in The Financial Services Industry.

Regulations foster innovation as new financial instruments are innovated to lessen the financial constraints. However, this perspective is too narrow to explain the entire process.

The results indicate that the importance of reputation, interactions, and the existing mechanisms of relations must be embedded to enhance the innovation process.

The negative impact of regulation on productivity is substantially less than that exerted by other factors, such as the changing work force composition and erosion of incentives for capital formation.

There is a clear difference between the effects of economic regulation, which tends to hamper market innovation, and the effects of social regulation, which tends to stimulate social innovation.

Regulation and the anticipation of regulation stimulate invention to focus on certain technology pathways.

Financial regulations focus too much on company profitability which must change to more focus on consumer safety.

### Table 2: Overview of Literature Review of Regulations’ Effects on Innovation

Based on this introduction to our identified literature, we continue to our literature review of how regulations affect innovation. We begin by defining the two main concepts i.e. innovation and regulation as this is essential to ensure a correct understanding of the terms throughout the project.
2.2 Defining Innovation and Regulation

We find that there is no agreement in the literature about an overall definition of innovation which is seen in the broad diversity of available definitions. According to Schumpeter (1911) an innovation is: “(...) the successful commercialization of a new good or service stemming from technical discoveries or, more generally, a new combination of knowledge (new and old).” (Schumpeter, 1911 in Braunerhjelm & Svensson, 2010; 414). Another later definition is presented by Thompson (1965) who states: “Innovation is the generation, acceptance and implementation of new ideas, processes products or services.” (Thompson, 1965; 2 in Baregheh, et al., 2009; 1325). Kimberly (1981) defines an innovation in another way, embracing that there are different forms of innovation: “There are three stages of innovation: innovation as a process, innovation as a discrete item including, products, programs or services; and innovation as an attribute of organizations.” (Kimberly, 1981; 108 in Baregheh, et al., 2009; 1325). Schilling (2010) simply defines and Innovation as; “The practical implementation of an idea into a new device or process.” (Schilling, 2010; 18). However, when narrowing down the search to the literature concerning our research topic Taylor et al. (2005) define the innovation process as a set of activities; invention, adoption, diffusion, and learning by doing. In this process there is an overlap which allows for feedback between the activities, and where invention is an idea, sketch, or model for a new device, process, or system (Taylor et al., 2005). Rossignoli & Arnaboldi (2009) find that financial innovation can be defined as: “(...) the product and organizational innovation, which allows cost and risk reduction for the single bank and/or and improvement of services for the financial system as a whole.” (Rossignoli & Arnaboldi, 2009; 278).

When searching through the literature for a definition of a regulation we likewise do not find a definition which is agreed upon. Delaplace and Kabouya (2006) give an example based on Freeman (1988) which implies that a regulation is defined as one of the components in the national system of innovation in which a firm develops their strategies (Delaplace & Kabouya, 2006). In Smet (2012) we find the closest attempt of a definition: “The overall objectives of regulations are to set boundaries to something new, that reduces cost and risks, provide a service that is more aligned with customers’ demand or introduces more efficiency and transparency to the market.” (Smet, 2012; 77). Regulations are therefore distinctive policy instruments which encompass all possible forms of public innovation in the social and economic system (Smet, 2012). With this introduction to how both an innovation and a regulation can be defined, we now turn to the studies describing the gap in the literature addressing regulations’ effects on innovation.
2.3 Regulations’ Effects on Innovation

An example of a study that investigates the link between regulations and innovation is Ashford et al. (1983). They find that regulations always create a need for companies to be in compliance which often requires a change in technology. The need to comply with regulations may also change the nature of activities inside the firm e.g. R&D may be redirected, new organizational units created, and a different set of alternatives may be faced. In addition, regulations will affect the company by changing the patterns of activity in the world outside the firm and thereby establish new patterns of competition in a new market framework (Ashford et al., 1983). Ashford et al. (1983) also find that because different firms have different trajectories, they respond differently to regulations which results in different competitive consequences. Therefore, there is a close link between external governmental regulation and internal innovation action (Ashford et al., 1983).

Within The Financial Services Industry Merton (1995) also finds that there is a close interaction between government regulations and financial institutions, where governments affect financial institutions in five ways. Firstly, the government acts as a market participant following the same rules for action as other private-sector actors such as open-market operations. Second, it acts as an industry competitor or benefactor; by either directly creating new financial products or markets or by supporting the development of innovation. Thirdly, it acts as both legislator and enforcer; setting rules and restrictions. Fourthly, the government acts as a negotiator; when representing its domestic constituents. Finally, it is an unwitting intervener; who changes general corporate regulations, taxes, and other laws or policies. This final affect by governments is often unwilling which frequently have significant unanticipated and unintended consequences for The Financial Services Industry (Merton, 1995). Within The Financial Services Industry Smet (2012) likewise finds that regulations and innovation are strongly linked since regulations are a part of both the external environment and a part of the organization. Innovation can therefore be acquired by looking at the changes in the regulatory framework (Smet, 2012). Thus, from these examples we find strong support for the fact that there is a close link between regulations and innovation. We therefore look further into the studies addressing regulations’ effects on innovation.

Looking at the literature addressing environmental and health regulations’ effects on innovation, Majumdar & Marcus (2001) find that many scholars note that there are both positive and negative aspects to the growing legal regulation of organizational processes and structure (Majumdar & Marcus, 2001). However, as earlier stated theory and empirical studies need to be developed further as the literature identifies two opposing views on regulations; regulations are
either a trade-off between society and firms or a win-win situation for both society and companies (Cetindamar, 2001).

The leading hypothesis supporting the win-win statement is presented by Porter (1991) who states that if one country adopts stricter environmental regulations than its competitors, the result will be an increase in company innovation which enables the country to become a net exporter of newly developed environmental technologies (Porter, 1991 in Jaffe and Palmer, 1997). According to Jaffe and Palmer (1997) Porter’s hypothesis can be interpreted differently: The ‘narrow’ version of the hypothesis implies that certain types of environmental regulation stimulate innovation, while the more ‘weak’ version of the hypothesis states that regulation will only stimulate certain kinds of innovation. The ‘strong’ version implies that environmental regulation is a ‘free lunch’ where regulations induce innovation whose benefits exceeds its costs, making the regulation socially desirable (Jaffe and Palmer, 1997). Through a quantitative study of this hypothesis, Jaffe and Palmer (1997) only find support for the ‘weak’ version of this hypothesis i.e. environmental regulation only stimulates certain types of innovation (Jaffe and Palmer, 1997). Jaffe and Palmer (1997) further find that the relationship between regulatory stringency and innovative activity is more complex and depends on which measure of innovative activity is employed:

“(…) lagged environmental compliance expenditures have a significant positive association with R&D expenditures when we control for unobserved industry specific effects. These results indicate that increases in compliance expenditures within an industry are associated with increases in R&D shortly thereafter. We find little evidence, however, that industries’ inventive output is related to compliance costs.” (Jaffe & Palmer, 1997; 611).

Further, the findings of Taylor et al. (2005) support the narrow version of the hypothesis saying that government regulation can stimulate market innovation: “Government plays an important role in fostering knowledge transfer via technical conferences, as well as affecting the pattern of collaborative relationships within the technical research community via regulatory changes that affect the market for the technology.” (Taylor et al., 2005; 697).

Opposing the more positive view of Porter’s hypothesis many critics address that regulations will give regulatory costs, constraints, delays, and uncertainties which will hinder investment in new products and industrial plants and divert scarce capital to unproductive uses (Stewart, 1981). Further, Stewart (1981) finds that regulations have a negative effect on innovation and that
regulations may adversely affect innovation in terms of; imposing technical constraints on firms, forcing firms to make additional expenditures or outlays, causing uncertainty, and finally causing delays (Stewart, 1981). According to Stewart (1981) the reasons for these effects are that the legislators have not been very concerned with innovation in the design and implementation of new external regulations. Instead the regulations have been developed for the enforcement, uniformity, and avoidance of disruption which has hindered incentives for innovation (Stewart, 1981). Further, Cetindamar (2001) demonstrates that firms mainly invest in the environment due to regulations that are forced upon them. Thus, Cetindamar (2001) only finds very limited support to the notion that regulations have a positive effect on the firms’ innovativeness and competitiveness (Cetindamar, 2001). Prieber (2002) also finds results conflicting with Porter’s hypothesis, as he finds that firms would have introduced 62% more services to consumers during the study period if the regulations had not been in place (Prieber, 2002). Thus, many studies conclude that Porter’s hypothesis is incorrect arguing that regulations hamper companies’ possibility to innovate.

Narrowing down the search to academic studies addressing regulations’ effects on innovation specifically in The Financial Services Industry very few studies appeared. This is in alignment with the findings of both Mention & Torkkeli (2012) and Jackson (2007) who conclude that regulations’ effects on innovation within The Financial Services Industry are addressed very limitedly, and thus the field of financial innovation must be studied further (Mention & Torkkeli, 2012 and Jackson, 2007).

Looking at the available literature, Rossignoli & Arnaboldi (2009) find that changes or modifications within regulations are reported as one of the main drivers for change in The Financial Services Industry. Regulatory changes are therefore an important element and give ‘regulation-induced innovation’ which is highly relevant for the innovativeness in a company. The reason for this is that regulations create a need for changes in the existing ways of working which must be adapted to the external regulatory change (Rossignoli & Arnaboldi, 2009). In alignment Silber (1983) studies financial innovation from a historical perspective and finds that during the period from 1970-1982 about 60% of financial innovations originated from regulations. The most important forces underlying the remaining innovations are technology and legislative initiatives as: “both factors sometimes operate through constraints, but it is a mistake to ignore their independent role in financial innovations.” (Silber, 1983; 94). Thus, it is evident that regulations play an important role in financial innovation (Silber, 1983). Miller (1986) also finds that a major impulse to successful financial innovations comes from regulations: “The pressures to innovate around
prohibited types of profitable transactions, or around newly imposed or newly-become-effective interest-rate ceilings, are particularly strong (…)” (Miller, 1986; 461). Thus, Miller (1986) finds frequent and unanticipated changes in regulations as the prime motivator for financial innovation during the last quarter of a century (Miller, 1986).

As within the general view of regulations’ effects on innovation, there are also findings within this specific industry which indicate that regulations hamper innovation. Jagtiani et al. (1995) find that regulations do not affect the adoption of various market innovations (Jagtiani et al., 1995). However, Smet (2012) finds that regulations should not per se be viewed as a constraint on the innovative process of the financial services industry and financial innovation (Smet, 2012).

In conclusion we find that in both the literature focusing on The Financial Services Industry and other industries there are conflicting findings about how regulations affect innovation. Some studies argue that (some) regulations foster (some) innovations and other argue that regulations hamper innovation (Ashford et al., 1983, Cetindamar, 2001, Delaplace & Kabouya, 2006, Jaffe & Palmer, 1997, Majumdar & Marcus, 2001, Olin & Wickenberg, 2001, Pilkington & Dyerson, 2006, Prieger, 2002, Reich, 2009, Stewart, 1981, Stewart, 2010, and Taylor et al., 2005). However, we see that the findings in the literature addressing The Financial Services Industry do not conflict in the same degree as within studies of for example environmental and health regulations as all the studies are in agreement that regulations to some degree have a positive effect on financial innovation (Frame & White, 2004, Jackson, 2007, Jagtiani et al., 1995, Mention & Torkkeli, 2012, Merton, 1995, Miller, 1986, Rossignoli & Arnaboldi, 2009, Silber, 1983, Smet, 2012, and Warren, 2008). We further find that very few arguments are made about the direct effect of regulations’ effects on financial innovation and those which do exist are missing empirical testing.

2.4 Main Characteristics Determining Regulations’ Effects on Innovation

From the above we conclude that there are conflicting findings about which effects regulations have on innovation. One reason for these opposing findings is given by Ashford et al. (1983) who find that it is not possible to make a generalization across industries or countries as individual regulations differ too much in terms of purpose, operational mechanisms, and histories of implementation to be treated as a group: “(…) the evidence that exists about the relationship between regulation and innovation in the chemical industry strongly suggests that an understanding of this interaction lies more in the investigation of particular cases than in generalizations about overall effects.” (Ashford et al., 1983; 152). Thus, it is not possible to generalize across different
case studies. The reason for this must be found in a company’s technological base and market strategy which in the right conditions work significantly to the company’s competitive advantage (Ashford et al., 1983).

In the following sections we go more in depth with which characteristics are important to study when analyzing the relationship between regulations and innovation. From our extensive literature review we have identified two determinants which characterize how regulations effect innovation i.e. the flexibility of the regulations influencing the innovation and the complexity of the system behind the innovation.

2.4.1 The Flexibility of the Regulations Influencing the Innovation

One characteristic determining how regulations affect innovation is found to be the flexibility of the regulations influencing the innovation. Ashford et al. (1983) find that a flexible and politically intelligent company that is able to influence and respond quickly to its external environment can exploit regulatory opportunities. Some companies may even be able to meet regulatory requirements without significant technological change, while others are suffering as the regulations are hampering their competitiveness because of the differential ability of companies to absorb the costs of compliance. To this point they find that flexible firms respond to regulation more easily than others and that larger companies always have an advantage where the smaller companies suffer more under regulations. This is caused by larger companies being better at understanding and complying with the regulations and the requirements as they also have a greater influence on the regulatory process (Ashford et al., 1983). Delaplace & Kabouya (2006) also argue that companies individually affect the innovative outcome of a regulation by placing themselves either in advantage as a frontrunner or place themselves beyond the regulatory constraints. For regulations to have a positive effect on the innovativeness of the firms it is decisive that the companies can innovate as the regulation evolves by using the existing regulations to their advantage and thereby obtain a competitive advantage (Delaplace & Kabouya, 2006).

In continuation with the above findings, Majumdar & Marcus (2001) results indicate that regulations that are stringent but flexible in terms of the firm’s path to implementation are more effective at promoting market innovation. In other words; flexible regulations utilize investments in pollution control systems and thus enhance productivity, and inflexible regulations have a negative impact on productivity and thus innovativeness:
“Regulations that are better designed give actors more choices. Better-designed regulations set goals that are ambitious enough to stretch firms beyond their current practices, but they also provide sufficient time for firms to develop and deploy new means to meet goals. The advantages of rules designed in this fashion are that they encourage entrepreneurship, creativity, and risk taking.” (Majumdar & Marcus, 2001; 176).

When regulations are well-designed, i.e. flexible, they provide more time for companies to do R&D and to develop their technologies. The regulations also set goals that the companies must comply with, however the means for reaching these goals are in the companies’ control and they are flexible in terms of implementation time and technology requirements (Majumdar & Marcus, 2001). Stewart (2010) supports this argument as he also finds that flexible regulations tend to aid both market and social innovation by maximizing the implementation leeway available to firms allowing the market to dictate cost efficient and commercially viable solutions. To this point Olin & Wickenberg (2001) argue that the greatest problem about regulations is that organizations and their environments change much faster than the regulations (Olin & Wickenberg, 2001).

In alignment with the findings in the literature looking at environmental and health regulations, it is also important that the financial regulations are flexible in order to make the regulation more rapidly adaptable to the global settings for financial intermediation (Merton, 1995). This view is supported by Warren (2008), Merton (1995) and Olin & Wickenberg (2001). Warren (2008) finds that the inflexibility of some economic regulations hinders the sort of innovation that is most beneficial to consumers in The Financial Services Industry (Warren, 2008). Merton (1995) finds that successful public policy depends on recognizing the limitations of governmental control and improving the efficiency of the intermediation system (Merton, 1995). Thus, in order for rules and regulations to be complementary to innovation and effectiveness, they must be context sensitive i.e. flexible (Olin & Wickenberg, 2001).

### 2.4.2 The Complexity of the System behind the Innovation

A second characteristic determining how regulations effect innovations is found to be the complexity of the system behind the innovation. Ashford et al. (1983), Delaplace & Kabouya (2006), and Stewart (1981) all find that regulations only represent one of several stimuli which can improve or hamper the innovativeness of companies. Ashford et al. (1983) state: “(…) regulation is simply one of many external stimuli that affect a firm’s technological strategy and that responses to
regulation are often consistent with the historical patterns of technological change in a given
industrial context.” (Ashford et al., 1983; 111). It is therefore difficult to say if it is the regulation or
another element in the system that affects the innovation outcome as regulations are only one part of
the whole system which influences the development of a technological innovation. However,
whether it is short or long term considerations it is important to address how regulations affect the
elements of the innovation process (Ashford et al., 1983). Delaplace & Kabouya (2006) also find
that it is necessary to take other elements into account when looking at regulations’ effects on
innovation: “(...) the presence of certain elements will not be sufficient in itself to assure the
development of a given technology if other more important elements are absent” (Delaplace &
Kabouya, 2006; 183). In addition, how the companies work with regulations also comes to
influence its innovative decisions (Delaplace & Kabouya, 2006). Stewart (1981) likewise finds that
the available evidence indicates that other factors are important:

“The available empirical evidence indicates that regulation has had an appreciable negative impact
on market innovation and productivity but that the negative impact of regulation on productivity is
substantially less than that exerted by other factors, such as the changing work force composition
and erosion of incentives for capital formation” (Stewart, 1981; 1291).

In alignment with the general literature about the effect of the greater complexity both Silber (1981)
and Merton (1995) conclude that studies of how regulations affect innovation in The Financial
Services Industry must also look at the greater picture as the relationship is more complex. While
some studies find that regulations are the main force behind financial innovation (referring to
Miller, 1986 and Silber, 1983), Merton (1995) finds that regulations can indeed have a powerful
influence on regulations and the behavior of financial intermediaries. However, this is only in the
short run as regulations both shape and are shaped over time by the path of the regulations:
“Therefore, regulatory changes has a limited long-run role as an exogenous force for financial
innovation and non-transitory structural changes in financial intermediation.” (Merton, 1995; 38).
Merton (1995) also finds that efficiency from innovative intermediary products and services cannot
be obtained without the concurrent changes in the financial infrastructure that are necessary to
support those products and services. Thus, he argues that: “(...) the single most important
perspective for public policy on financial innovation is the explicit recognition of the
interdependence between product and infrastructure innovations and of the inevitable conflicts that
arise between the two.” (Merton, 1995; 36). In alignment with these findings, Silber (1981) also finds that the argument stating that regulations foster innovation is too narrow to explain the entire process. However, there is no doubt that regulations have an important role to play (Silber, 1983). Finally, Jackson (2007) adds that within The Financial Services Industry the countries are hard to compare as each jurisdiction has its own level of intensity within financial regulations (Jackson, 2007).

2.5 Conclusion on Literature Review of Regulations’ Effects on Innovation

Based on the above review of the literature addressing regulations’ effects on innovation both in general and specifically within The Financial Services Industry, we are able to answer our first research question: *What are the existing findings of how regulations affect innovation within The Financial Services Industry and which main characteristics determine these effects?* Firstly, relating to regulations’ effects on innovation we find that there are conflicting findings about how regulations affect innovation both within and outside the literature addressing The Financial Services Industry. We find that some studies argue that (some) regulations foster (some) innovations and other argue that regulations hamper innovation. However, the findings in the literature addressing The Financial Services Industry do not conflict to the same degree as other studies, as all the studies are in agreement that regulations to some degree have a positive effect on financial innovation. However, we find that very few arguments are made about the direct effects that regulations have on financial innovation, and those which do exist are missing empirical testing. The reason for this inconsistency can be found in the argument that it is not possible to generalize the findings across industries and between companies.

Based on these findings, we continued to look more in depth on what characteristics are found to be determinants of regulations’ effects on innovation in the literature. We find two characteristics which we identify as determinants of regulations’ effects on innovation: *The flexibility of the regulations influencing the innovation, and the complexity of the system behind the innovation.* Thus, we conclude that when studying regulations’ effects on innovation in The Financial Services Industry these two characteristics must be taken into account before drawing any conclusions.

Having studied the first of the two main components i.e. regulations’ effects on innovation, we now turn to the field of NPD and thus address our second research question: *What are the main topics of NPD within The Financial Services Industry?*
3 NPD in The Financial Services Industry

The above literature review represents a thorough literature review of one of the two main components of the gap between external regulations and NPD. However, as none of the existing literature addresses this thesis’s focus on regulations’ effects on innovation specifically in terms of NPD the following chapter introduces the main theoretical topics of NPD. Doing this we analyze the second main component of our identified gap in the literature and in turn answer our second identified research question: What are the main topics of NPD within The Financial Services Industry?

The chapter is structured in the following way; we start by introducing the method for how the relevant literature addressing the main topics within NPD have been selected i.e. keywords, journals searched etc. Included in this is also an overview of all the identified literature. Secondly, we present the findings about the main topics within NPD from the literature both in general and in particularly in terms of The Financial Services Industry. In the final section, we summarize our findings and thus conclude on research question two.

3.1 Method for Looking into the Main Topics of NPD

As in the literature review in Chapter 2, our initial search started by searching for relevant contributions in our MIB literature. Here we found a few articles of minor relevance for our particular study i.e. Cooper et al., (2002a), Cooper et al., (2002b), Cooper & Kleinschmidt, (1993), and Hart et al., (2003). Thus, we again continued our search and initially limited ourselves to five journals within our research field: Harvard Business Review, Research Technology Management Journal, International Journal of (Entrepreneurship &) Innovation Management, Creativity and Innovation management, and Journal of Product Innovation Management. After having done this initial search, we progressed to searching broadly in BSC i.e. a database with premium content of peer-reviewed, business related journals. Our literature search was limited to covering a specific set of keyword combinations: 1) NPD + service innovation, and 2) NPD + financial services. This gave a total of 10 relevant articles, why we widened our search to also include 3) NPD + performance. From this a total of 16 articles from 7 academic journals were found. A complete overview of the identified literature as well as the distribution of papers from each journal is available in Table 3.
<table>
<thead>
<tr>
<th>Bibliography</th>
<th>Journal</th>
<th>Main Topic</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avlonitis et al. (2001)</td>
<td>Journal of Product Innovation Management</td>
<td>Find that six clusters represent a continuum degree of innovativeness and that these six different types of innovations are associated with different development processes in terms of activities, formality, and cross-functional development, as well as performance outcome</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Bowers (1986)</td>
<td>Journal of Retail Banking</td>
<td>Finds that it is necessary to suggest a NPD model for banks which includes the two stages: Idea generation and product development and testing</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Cooper &amp; de Brentani (1991)</td>
<td>Journal of Product Innovation Management</td>
<td>Identify the key factors that discriminate between successful and unsuccessful new services, and compare these results to previous findings on manufacturing goods</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Cooper (1988)</td>
<td>Journal of Marketing Management</td>
<td>Formulates a systematic and generic NPD guide i.e. the stage-gate process which aims to be a generic model working as an aid to practitioners working with the NPD process</td>
<td>Non-financial Services Industry</td>
</tr>
<tr>
<td>Cooper et al. (1994)</td>
<td>Journal of Product Innovation Management</td>
<td>Study what separate very successful products from the ordinary successful products. Thus, the focus of the study is not success vs. failure i.e. not only project selection, but major success vs. modest success i.e. also project prioritization.</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Cowell (1988)</td>
<td>Journal of Marketing Management</td>
<td>Highlights both the similarities and the differences between NSD and NPD, and find that the area of NSD is poorly documented, why further empirical studies are required to enable more detailed and in depth comparisons with practices in NPD</td>
<td>Non-financial Services Industry</td>
</tr>
<tr>
<td>de Brentani &amp; Cooper (1992)</td>
<td>International Journal of Bank Marketing</td>
<td>Show that new service success depends largely on five key factors which in many respects are similar to those for physical products</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>de Brentani (1993)</td>
<td>Industrial Marketing Management</td>
<td>Studies how NPD in The Financial Services Industry involves both risks and opportunities and how certain factors within the NPD process can eliminate some of these risks</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Easingwood &amp; Storey (1991)</td>
<td>International Journal of Bank Marketing</td>
<td>Identify the attributes that are associated with successful new financial products and find out if these, possibly numerous, attributes cluster naturally into a smaller number of factors</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Hart et al. (2003)</td>
<td>Journal of Product Innovation Management</td>
<td>Shed light on the nature and utilization of criteria for NPD evaluation, and how these criteria vary at the different gates</td>
<td>Non-financial Services Industry</td>
</tr>
<tr>
<td>Naudé et al. (1998)</td>
<td>Creativity &amp; Innovation Management</td>
<td>Show that financial institutions should to a larger extent use real-time processes, as this will allow them to realize that the distinction between market research and NPD is blurry</td>
<td>The Financial Services Industry</td>
</tr>
<tr>
<td>Page &amp; Schirr (2008)</td>
<td>Journal of Product Innovation Management</td>
<td>Find that the number of NPD studies has grown since Journal of Product Innovation Management was launched in 1984. Thus,</td>
<td>Non-financial Services Industry</td>
</tr>
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</table>
Based on this introduction to our identified literature, we now go through the main theoretical topics of NPD both in general and specifically in terms of The Financial Services Industry.

### 3.2 Identifying Main Topics of NPD

In order to identify the main topics of NPD an ideal starting point is the extensive literature review and content analysis of 815 articles focused on NPD published in the years 1989 to 2004 by Page & Schirr (2008). They find that the study of NPD has grown since the Journal of Product Innovation Management was launched in 1984. Further, there has been a positive evolution in research topics and increased sophistication over the 16-year period, indicating that the NPD literature is becoming a mature and multidimensional discipline (Page & Schirr, 2008). From this extensive literature review we find the following key topics within the NPD literature: 1) the main focus has been and still is on a staged development process, 2) the literature only addresses a few selected success factors related to process characteristics and do therefore not address other antecedents of the outcome of NPD, 3) there is an insufficient study of service innovation, and 4) there are continuing issues about the research methodology in the individual studies. The fourth and final topic falls outside the scope of this thesis, thus in the remainder of our thesis we only continue with the three remaining topics. By utilizing the identified literature presented in Table 3 we now look in depth at the three main topics and identify whether we find support for the three topics within our specific research area i.e. The Financial Services Industry.

#### 3.2.1 Focus on a Staged Development Process

Our first identified main topic within the NPD literature is the continuous focus on a staged development process. Looking at this within the general NPD literature, we find Professor Robert G. Cooper as a relevant representative for this focus. In several works including Cooper (1988),

<table>
<thead>
<tr>
<th>Name</th>
<th>Journal/Review</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramdas et al. (2012)</td>
<td>Harvard Business Review</td>
<td>Develop a framework with four dimensions that organizations should focus on as a guide when innovating service delivery</td>
</tr>
</tbody>
</table>

Table 3: Overview of main Articles addressing NPD
Cooper & Kleinschmidt (1993), Cooper et al. (2002a), and Cooper et al. (2002b) he focuses on how the NPD process can be systematized through a staged development process. In Cooper (1988) he takes previous findings from the literature on NPD and formulates them into a guide for systematic NPD which he utilizes to create a practical aid for practitioners working with the NPD process (Cooper, 1988). Based on his research he presents the stage-gate process as a generic model which each company is required to develop into its own version to suit the specific needs and characteristics of their industry. Thus, the stage-gate process model is developed as a skeleton; a concept and a starting point for tailoring a model in all companies working with NPD (Cooper, 1988).

Within the specific area of the NPD literature covering The Financial Services Industry we likewise find support for the main topic about a focus on a staged development process from Page & Schirr (2008). An early example of a study of the NPD process in The Financial Services Industry is Bowers (1986) who finds that it is necessary to suggest a model for NPD for banks. Based on an existing model presented by Booz-Allen & Hamilton (1982) (In Bowers, 1986) he uses data from 108 randomly chosen banks and finds that the difference between the model manufacturing companies use and the one banks use is that banks do not commonly use idea generation, product development, and testing. Bowers (1986) therefore suggests a normative model for NPD in banks where these are included in the process. However, this new process does not differentiate itself particularly from the presented model for manufacturing firms (Bowers, 1986).

Extending this line of thought, Thwaites (1992) draws on existing literature as well as a panel of informed opinions from The Financial Services Industry to identify 12 characteristics of an organization that influence the effectiveness of the NPD process. He finds that three underlying factors; communication, people, and mission explains much of the variance amongst cases observed. Based on this Thwaites (1992) present two recommendations: 1) pay attention to the importance of the mission-people-communication link, and 2) pay attention to the lead time of some of the changes that this focus will entail as these changes will not occur over night (Thwaites, 1992).

Finally, a study by de Brentani (1993) supplements both of the above studies by attempting to find factors which can help eliminate some of the risks associated with NPD in The Financial Services Industry. Based on 106 new financial services (50/50 successful versus failure) she hypothesizes that the NPD process is of significant importance. Specifically, she identifies four factors which are identified as being positively and significantly linked to new product success (in
order of importance): 1) the supportive, high-involvement NPD environment, 2) formal and extensive launch program, 3) formal up-front design and evaluation, 4) and the expert-driven NPD process. Thus, already when looking at studies that primarily focus on the NPD process, we find a focus on the outcome of NPD i.e. our second identified main topic of NPD.

In summary we therefore find that there is consistency with the main topic identified by Page & Schirr (2008) and our findings both from the general NPD literature but more importantly from the NPD literature specifically addressing The Financial Services Industry i.e. there is a focus on a staged development process. In the following section we therefore go more into depth with this main topic, again first within the general literature and secondly with the literature covering The Financial Services Industry.

3.2.2 Focus on Outcome of NPD

In relation to the second identified topic from Page & Schirr (2008) stating that there has been and still is a focus on a few selected success factors related to process characteristics instead of other antecedents of the outcome of NPD, we again find support for their main topic in a number of studies. An example of this type of study is Griffin & Page (1996) who identify five independent dimensions of product success and failure: firm measures, program measures, product-level measures, financial performance, and customer acceptance measures. Griffin & Page (1996) further find that researchers have focused more on overall firm impacts of success and failure, whereas companies focus on the success and failure of individual projects. Based on these findings Griffin & Page (1996) conclude that measuring success and failure is a multidimensional and difficult task, which is why more work has to be done in order to make a recommendation comprised by a set of ‘approved’ measures (Griffin & Page, 1996).

In line with this, Hart et al. (2003) study how the evaluation criteria vary at the different gates in the NPD process. Based on previous literature, they identify 20 different evaluation criteria covering the earlier gates in the NPD process and that companies use different criteria at the different gates. Based on these findings they derive that the 20 evaluation criteria can be summarized into four overall performance dimensions; market acceptance, financial performance, product performance, and other additional indicators. Market acceptance dominates in almost all the gates, but most strongly in the short and long term evaluation. The financial dimension emerges in prominence in the business analysis gate, and then again in the short and long term evaluation gates. The product performance measures are dominant in the product and market testing gates. The
additional indicators dominate in the idea screening gate. Based on these findings, Hart et al. (2003) suggest that managers should strive to implement evaluation criteria targeted to the specific requirements of each gate of a NPD project (Hart et al., 2003).

Within the specific studies of NPD in The Financial Services Industry, we find support for the main topic indicating that there is a focus on process characteristics when studying the outcome of NPD. However, we are to a greater extent able to find studies focusing on not process related characteristics when studying the outcome of NPD. Firstly, we find support for the focus on process characteristics in Edgett & Jones (1991) who examine what makes a successful development process for a new product in The Financial Services Industry. By mapping out the development process they find that one overall factor determines the success and failure i.e. the high level of detail and depth of the development process itself (Edgett & Jones, 1991).

Secondly, in Easingwood & Storey (1991), Cooper & de Brentani (1991), de Brentani & Cooper (1992), and Cooper et al. (1994) we find that not all studies specifically within The Financial Services Industry focus on the process characteristics when studying the outcome of the NPD. These studies all conduct more in depth studies of 16 to 43 different attributes of NPD outcome (Easingwood & Storey, 1991, Cooper & de Brentani, 1991, de Brentani & Cooper, 1992, and Cooper et al., 1994). Firstly, Easingwood & Storey (1991) seek out to firstly identify what attributes are associated with successful new financial products, secondly to find if these attributes naturally cluster into a smaller number of factors, and finally if any of the attributes are particularly associated with successful financial products (Easingwood & Storey, 1991). A total of 43 attributes within 9 overall factors are identified: 1) targeting through direct mail, 2) overall quality, 3) communication strategy, 4) product fit and internal marketing, 5) use of technology, 6) intermediary support, 7) market research, 8) differentiated product, and 9) low price. Their study shows that all 43 attributes contributed to success of the products even if the contribution in some cases was limited. However, the most interesting finding was that success in financial services is rarely due to the effect of a single attribute but a combination of attributes (Easingwood & Storey, 1991).

Further, both Cooper & de Brentani (1991) and de Brentani & Cooper (1992) seek out to identify the key factors that discriminate between successful and unsuccessful new services. By studying 106 projects, they find that the five primary factors for success are: 1) synergy, 2) product/market fit, 3) quality of execution of the launch, 4) unique/superior product, and 5) quality of execution of marketing activities. Of secondary factors they identify: 1) market growth and size, 2) service expertise, 3) quality of execution of technical activities, 4) quality of service delivery, 5)
quality of execution of pre-development activities, and 6) the presence of tangible elements of the service offering (Cooper & de Brentani, 1991 and de Brentani & Cooper, 1992). Thus, these findings like the findings of Easingwood & Storey (1991) indicate that identifying the attributes defining the outcome of NPD is a more complex task.

Finally, Cooper et al. (1994) studies what separates very successful products from the ordinary successful products in The Financial Services Industry. Cooper et al. (1994) find that new product performance measures can be reduced to a subset of three underlying themes: 1) financial performance, which not surprisingly was the strongest of the three, 2) relationship enhancement, and 3) market development. They further find that there are a total of 11 different factors determining the above performance themes. In all three performance measures there is an overlap of factors which improve performance. Thus, again we find that determining the attributes defining the outcome of NPD is a more complex task than merely looking at the process characteristics (Cooper et al., 1994).

In summary, we therefore find that there is inconsistency with the second main topic identified by Page & Schirr (2008) in the literature specifically addressing NPD in The Financial Services Industry. Therefore, we moderate their identified main topic by stating that there is a general focus on the outcome of the NPD and that defining the outcome is a difficult and complex task.

3.2.3 Insufficient Study of Service Innovation

We now turn to our final identified main topic within the NPD literature i.e. that there has been and still is insufficient study of service innovation. We find support for this main topic in both the general NPD literature and the literature relating to NPD in The Financial Services Industry.

In the general literature we find that the area is addressed in detail by Cowell (1988) who attempts to highlight both the similarities and the differences between NSD and NPD. However, although he identifies some distinctive aspects of services which may create somewhat special issues for service marketers, he also suggests that service marketers can benefit considerably from existing knowledge of the NPD and launch process derived from studies of consumer products and new industrial products. This is especially the case as services themselves vary considerably in terms of nature, form, processes, and delivery which make generalizations about new service delivery and launch very difficult. Like Page & Schirr (2008), he also concludes that the area of NSD is poorly documented, why further empirical studies are required to enable more detailed and
in depth comparisons within practices in NPD. Specific service sectors which needs more in depth studies are: Financial services, professional services, and leisure services (Cowell, 1988). These findings are supported by Ramdas et al. (2012) who track innovations in health care and finance for four years, and find service products rarely radically redefine the delivery of a service (Ramdas et al., 2012).

Turning to the NPD literature specifically addressing The Financial Services Industry we only find two studies which focus on innovation in The Financial Services Industry; Naudé et al. (1998) and Avlonitis et al. (2001). Naudé et al. (1998) partly addresses the innovativeness of new financial services products, and find that banks must develop products that are complex and internet-based in order to create innovative products in the current business environment (Naudé et al., 1998). Another study that focuses more in depth on innovativeness in new financial services is Avlonitis et al. (2001). Through an empirical test of product innovativeness in the development process of 84 financial companies operating in Greece, they find that the performance outcome of a new service is the result of the innovativeness of the new service, the process activities followed, the degree of process formality, and the degree cross-functional involvement. They find six clusters representing a continuum of innovativeness ranging from the most innovative: ‘New to the market services’, ‘new to the company services’, ‘new delivery processes’, ‘service modifications’, ‘service line extensions’, and finally at the lowest: ‘Service repositioning’. Further, Avlonitis et al. (2001) find that there is a specific distribution of these clusters: At the highest degree of innovativeness the new to the market services represents 15% of new products, new to the company services represents 19% of new products, new delivery processes represents 24% of new products, service modifications represents 18% of new products, service line extensions represent 14%, and finally service repositioning represents 12%. Avlonitis et al. (2001) conclude that the six different clusters of innovativeness are associated with different development processes in terms of activities, formality, cross-functional development, and performance outcome. Specifically, in regards to performance, Avlonitis et al. (2001) find that the relationship between the degree of innovativeness and the financial performance represents an inverted u-shape i.e. the higher the degree of innovativeness, the lower the chance of financial success (Avlonitis et al., 2011).

Thus in summary, we also find that there is consistency with the third main topic identified by Page & Schirr (2008) and our findings from both the general NPD literature but more importantly from the NPD literature specifically addressing The Financial Services Industry i.e. there is insufficient studies of service innovation.
3.3 Conclusion on NPD in The Financial Services Industry

Based on the above analysis of the main topics of the NPD literature both in general and specifically within The Financial Services Industry, we are now able to conclude on our second identified research question: *What are the main topics of NPD within The Financial Services Industry?* By using the existing literature addressing the comprehensive NPD research agenda specifically within The Financial Services Industry, we identify three main topics within NPD in The Financial Services Industry. The first main topic relates to a *focus on a staged development process*, the second main topic relates to a *focus on outcome of NPD*, and finally the third main topic relates to the fact *that there is an insufficient study of service innovation*. Thus, we can conclude that when studying NPD in The Financial Services Industry these three main topics must be taken into account before drawing any conclusions.

Based on this conclusion we now turn to our third research question: *How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied?* Here we combine the above three identified main topics of NPD, and the two identified main characteristics determining regulations’ effects on innovation i.e. *the flexibility of the regulations influencing the innovation and the complexity of the system behind the innovation* with the empirical findings. This combination enables us to design a case study which can explore the identified gap in terms of regulations’ effects on NPD in The Financial Services Industry.
4 Studying the Gap between Regulations and NPD

In this chapter we address our third research question: How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied? This research question is of importance as this thesis represents the first attempt to study regulations’ effects on NPD in The Financial Services Industry. To do this it is necessary to gather an extensive data set and design an appropriate case study which enables us to categorize and thus study our data and in turn achieve trustworthy and reliable academic results. In order to do this we combine the theoretical knowledge from Chapter 2 i.e. characteristics determining regulations’ effects on innovation, the main theoretical topics of NPD in The Financial Services Industry from Chapter 3, and the empirical data presented in Chapter 1. This process is important as it enables us to align the theoretical knowledge with the empirical data about the management of the NPD process within our case company. The case study design will in turn be used in Chapter 5 to answer the remaining questions of our overall problem statement: How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012?

We have structured the subsequent sections following the chronological order of how we collected the data: Firstly, we introduce and describe our secondary data including an introduction to The Danish Financial Services Industry in Denmark and our case company Nykredit. Secondly, we introduce and describe our primary data including an introduction to the department in Nykredit we have collaborated with and also to our identified sample of launched products. Thirdly, we turn to develop an appropriate case study design through a more in depth analysis of our primary data from our five qualitative interviews with Head of Product Implementation Peter Læssøe. This section identifies how to categorize our data in alignment with both our theoretical and empirical findings. Fourthly, we introduce and present our five qualitative workshops through which we have categorized the collected data using the above case study design. Next, we introduce and present our focus group interview which we have conducted to get a deeper understanding of the managerial explanations for the effects regulations have had on launched products in Nykredit. Finally, we are able to summarize our findings and conclude on research question three.
4.1 Presentation of Secondary Data

We now turn to a more detailed description of our secondary data and begin by providing a short introduction to the macro economic factors in The Danish Financial Services Industry. Following this, we give a short introduction to our case company Nykredit.

4.1.1 The Danish Financial Services Industry

In order to fully understand the context of this thesis we gathered secondary data enabling us to perform a short analysis of our chosen subject area; The Danish Financial Services Industry. The analysis is created following the lines of thought in the classical PEST analysis i.e. political, economic, social, and technological factors in the macro environment (Andersen et al., 2008). However, conducting a thorough PEST analysis is a comprehensive task, thus the following analysis of the macro environment in The Danish Financial Services Industry is a very concise version.

Firstly, as previously mentioned the political factors in Nykredit’s macro environment are characterized by an increasing level of regulations from both a national and international environment. This is anticipated by Nykredit to continue in the nearest future. The regulations cover areas such as trading policies, funding, capital requirements etc. (Appendix 4). Secondly, the economic factors affecting Nykredit can be summarized to a specific event i.e. the financial crisis. Since the collapse of the world economy, Danish financial services companies’ earnings have been under pressure mainly due to the significant cost of funding, expenses to bank rescue packages, increased loan losses, and write-downs as well as the deposit guarantee scheme which has secured depositors up to EUR 100,000 in the failed banks. The earnings are expected to remain low in the years ahead.\textsuperscript{12} Thirdly, the financial crisis since 2008 also affects the social factors as these factors to a high degree are affected by a change in consumer attitudes and opinions towards the Danish financial services companies. In an analysis from 2012 it is shown that 21\% of all bank customers are considering changing their bank, this is also the number of unsatisfied customers in Nykredit (Børsen, 2012). Thus, the industry is working hard on restoring their image. Finally, technological factors affecting Nykredit can be summarized into two areas: Digitalization and lack of instruments to protect intellectual property rights. In terms of digitalization, the industry has combined knowledge and expertise to create an efficient IT infrastructure for payments services and securities trading.\textsuperscript{13} Secondly, in terms of IPR, the latest attempt on trying to file for a patent was in 1996 where Realkredit Danmark initially succeeded in getting two patents on a mortgage product;
however due to a ruling at the European Patent Organization they lost these patents and now only have a copyright (Børsen, 2002). Thus, the industry is characterized by only using IPR’s such as trademarks and copyrights. Based on this introduction to the macroeconomic environment which Nykredit is part of, we now turn to a brief introduction to Nykredit as a company.

4.1.2 Nykredit in Brief
Nykredit is a Danish financial services provider with commercial and mortgage banking, insurance, leasing, pension, and real estate agency. Nykredit holds a market share of 42.6 % on mortgage banking and 5.2 % within commercial banking making Nykredit the largest lender in Denmark and one of the major private bond issuers in Europe. Nykredit employs approximately 4100 employees primarily in Denmark, but gradually also internationally e.g. France, Spain, and latest Sweden. Nykredit is structured in four integrated group units i.e. Customers, Products, Operations and Support which are supported by a number of specialized competence centers as well as central staff functions. The focus of this thesis is the Products unit which holds all Nykredit’s competences within product strategy, product development as well as product-specific training and advisory tools. Like the other three units, the Products unit works under Nykredit’s business concept “Financial Sustainability” to cope with the changing society especially in terms of the increasing level of regulation within which Nykredit works. Thus, the Products unit needs to develop strategies, products, training, and advisory tools that foster a sound financial enterprise and thereby secure a sustainable short and long-term financial performance. Further, the Products unit has to comply with the core values: “Insight, Commitment, Empathy and New Thinking” when adding value and creating new opportunities for customers, business partners, and investors through the developed strategies, products, training, and advisory tools (Appendix 4).

4.2 Presentation of Primary Data
In this section we give an introduction and presentation of our collected primary data. Firstly, we provide a detailed description of the department in Nykredit with whom we have collaborated i.e. The Product Implementation Department, and a detailed description of Nykredit’s NPD model which is used by The Product Implementation Department. This data represents our first set of collected primary data and was collected through semi standardized interviews with Head of Product Implementation Peter Læssøe (Appendix 6). Secondly, we introduce our identified sample
of launched products in Nykredit from 2008 to 2012 including how this sample was identified through an extensive search in Nykredit’s databases (Appendix 2). Finally, we compare our data of the increasing number of external regulations, identified and presented in Appendix 1, with the number of products launched in Nykredit, identified and presented in Appendix 2, in order to verify the relevance of our identified problem statement.

4.2.1 Department of Product Implementation

Based on our introduction to Nykredit, we find that one department within the Products unit holds a particularly important role in the development of new products in Nykredit; The Product Implementation Department. Thus, in order for us to analyze the NPD process, and hence take the knowledge of the NPD literature into account, we have delimitated our focus to this specific department. In the following section, we describe the department and how it works more in depth. This short description was created by using the information from our semi standardized interviews with Head of Product Implementation Peter Læssøe (Appendix 6).

During our interviews with Peter Læssøe he explained that the department is organizationally placed under the department Implementation of Devices & Support Tools and employs a total of 8 employees. Peter Læssøe further explained how Product Implementation is responsible for the effective management of the implementation process of new products, optimization of products, closure of existing products, and strategic implementation of projects. All these tasks are performed by the department without neglecting to obey the decisions made by the decision-making body in Products i.e. the Product Committee, and always through close collaboration with the Committee Chair and Vice Chair. Additionally Product Implementation is responsible for continuously updating and optimizing the standardized product development and product life cycle model, whose purpose is to ensure an efficient and well-documented development process (Appendix 6).

For us to understand the standardized model, Peter Læssøe described how the cycle is divided into a product development model and a portfolio management model, as illustrated below in Figure 1.
The first part of the cycle i.e. the product development model focuses on how to most effectively bring an idea for a new product in the form of an identified customer need to the market. The product development model is always driven by professional Project Managers from Product Implementation. The decision-making body in the four gates is always the Product Committee. The second part of the cycle i.e. the portfolio management model focuses on maintaining a balanced and effective product portfolio (Appendix 6). Further, Peter Læssøe provided us with a full description of the standardized model from stage 1 to stage 5 in the form of a small booklet which the department has developed for new employees in Nykredit. This booklet is available in Appendix 5.

4.2.2 Identification of Sample – 100 Launched Products

From gathering knowledge about how Nykredit and particularly The Product Implementation Department works with NPD, we continued by identifying our sample of launched products in Nykredit from 2008-2012. This was initially done using our archival strategy by going through Nykredit’s official documentary records where we were able to identify a proper sample of launched NPD projects. This was possible as we found that when an NPD project is initiated in stage 1 of the standardized model a designated folder is created containing all documentation relating to the NPD project until gate 3. We initiated the search by identifying all the launched NPD projects over a set timeframe beginning in 2008 when the financial crisis started and ending ultimo 2012 where this thesis was initiated (both years included). We choose to focus on the projects immediately before the financial crisis and the years after to be able to see how the relationship between regulations and NPD has been affected by the increasing number of externally regulations imposed by The Danish Government and The EU during this period (Appendix 1).

Specifically, we identified our sample of launched NPD projects from 2008-2012 (both included) by manually going through the contents of the above mentioned designated project folders. However, as we quickly found that Nykredit first began to have a structured documentation
of all the launched products in 2010 this was an extensive and very time consuming search in different archives. In the entire process we only identified NPD projects that have gone through stage 1 through to gate 3 in the standardized model as we only focus on the products that have been launched, thus the year identified for each product specifies the year of launch. Hence, we have not taken the start year of the NPD project into account. During this process we also identified the responsible Project Manager for the NPD project, as we would later have to conduct workshops with each Project Manager. Further, we identified the year of launch for each NPD project as this would display the development in the number of launched products over the five year period. Further, in alignment with the departments’ definitions of the different types of NPD projects, our identified sample only includes the following types of projects: Development of new products, optimization of products or processes, and business implementation projects. The projects that are not included in the data sample are: IT optimization projects, internal strategy projects, coordination projects, prototypes for product support tools projects, internal educational projects, and product closure projects. The latter types of projects are not included as The Product Implementation Department is not responsible for these types of projects (Appendix 3).

From this extensive search we ended with a total of 110 launched NPD projects in which The Product Implementation Department have been responsible for in the period 2008 until 2012 (both included). However, our final sample consist of a total of 100 NPD projects of which a complete data set was available (i.e. product name, responsible Project Manager, and year of launch). An overview of the identified products launched per year in the period 2008-2012 is available in Figure 2. A complete overview of the identified sample is available in Appendix 2.
Having identified our sample, we continued by finding out if our initial assumption that the increasing number of externally imposed regulations had affected NPD in Nykredit by comparing the two data sets. A detailed introduction to this verification is provided below.

4.2.3 Verification of Relevance of the Problem Statement

Before going deeper into our collected primary data, we wanted to verify that there is a connection between the increased level of regulations and the launched NPD projects. To do this we firstly looked at the collection of regulations available on The Danish FSA’s home page. From this collection we counted the total number of new regulations imposed on The Danish Financial Services Industry in the period 2008-2012 (both included). A complete overview of this count is available in Appendix 1. From the count it becomes evident that the total number of regulations has increased with 206%; from a total of 36 regulations in 2008 to a total of 110 in 2012 (Appendix 1).

Next, we compared our two datasets i.e. the number of externally imposed regulations in Appendix 1 and the number of launched products in Nykredit in Appendix 2. From this comparison we found that there has been an overall increase in the total number of projects launched; 9 new
products launched in 2008 to 24 new products launched in 2012 i.e. an overall increase of 167% since the financial crisis started in 2008 (Figure 2). In alignment we previously identified an increase of 206% in the total number of external regulations imposed on The Danish Financial Services Industry since 2008; 36 regulations imposed in 2008 to 110 in 2012. Looking more closely at these numbers, we find in Figure 3 that the number of products launched in Nykredit and the number of regulations imposed on the industry has followed a similar pattern:

![Figure 3 - Comparing Development in Products Launched and Imposed Regulations](image)

In the years after the financial crisis in 2008 the number of products launched in Nykredit has increased heavily from both 2008-2009 and 2009-2010; respectively 78% and 75 %. The same is evident in the number of regulations with an 83% increase both from 2008-2009, and 2009-2010. After 2010 the development in both new products launched and the number of regulations has been more or less stable. A complete overview of the development is available in Table 4.
Based on this verification, we find that our initial assumptions behind our identified problem statement are verified as Figure 3 and Table 4 suggest that there is a connection between the increased level of external regulations imposed on The Financial Services Industry in Denmark and the changes within the number of launched NPD projects in Nykredit. However, a deeper insight into the question of what effects the regulations have on the new products launched still remains to be studied in depth. Thus, we continue our quest on closing the gap about what effects the increased number of regulations has on NPD by developing an appropriate case study design within which we can categorize our sample of 100 launched products.

### 4.3 Developing Case Study Design

As described in the introduction to this chapter, we have to develop an appropriate case study design through which we can study what effects the increased level of external regulations has on NPD and why these effects occur and thus answering our fourth research question. In the following sections this case study design is developed by aligning our theoretical knowledge from Chapter 2 and 3 with the above presented empirical data. This approach of combining theoretical and empirical findings to construct a set of characteristics for further investigation is in coherence with both our methodology and our method as this approach enables us to identify the most important characteristics through social construction (Fuglsang & Olsen, 2009, Berg, 2007, Yin, 2009, and Eisenhardt, 1989).

The subsequent sections are also structured in alignment with the chronological order of how we collected the data. Firstly, we conduct an in depth analysis of our empirical findings about how Nykredit works with NPD through our five qualitative interviews with Head of Product Implementation Peter Læssøe. Based on these findings, we secondly develop an appropriate case study design for analyzing regulations’ effects on NPD by describing how to categorize our data in a manner which combines both our empirical and theoretical findings. This finally enables us to categorize each of the 100 launched products by conducting five workshops with the Project Managers responsible for each of the NPD projects.

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</thead>
<tbody>
<tr>
<td>+83%</td>
<td>+83%</td>
<td>-8%</td>
<td>-1%</td>
<td>+206%</td>
<td></td>
</tr>
<tr>
<td>Development in products</td>
<td>+78%</td>
<td>+75%</td>
<td>-18%</td>
<td>+4%</td>
<td>+167%</td>
</tr>
</tbody>
</table>

Table 4: Regulations and Products Launched: Distribution in % from year to year and in total
4.3.1 Semi Standardized Interviews - Aligning Theoretical and Empirical Findings

Through our literature review of regulations’ affects on innovation in Chapter 2, we identified two main characteristics that determine how regulations affect innovation in The Financial Services Industry: the complexity of the system behind the innovation and the flexibility of the regulations influencing the innovation. These will be clustered as NPD project design characteristics. Furthermore, from our introduction to the main topics of NPD in The Financial Services Industry in Chapter 3 we found three main topics which must be studied when addressing NPD in The Financial Services Industry: Focus on a staged development process, focus on outcome of NPD, and that there is an insufficient study of service innovation. The first topic constitutes the scope of this thesis i.e. a case study of launched products which have gone through a staged development process. The two latter main topics represent two NPD performance characteristics and by studying these closer we can ultimately find how the performance of launched products in Nykredit has been affected by the increased level of external regulations. However, in order to develop a case study design which we can use to study our data set and thus identify what effects regulations have on NPD specifically in the case of Nykredit we need to align the theoretical knowledge to the specific context of Nykredit. This alignment ensures that we take the context specific issues in the case of Nykredit into account e.g. their specific ways of managing the NPD process when studying the identified data sample.

4.3.2 Studying Regulations’ Effects on NPD - Developing Five Characteristics

In the following sections we conduct an in depth analysis of Nykredit’s management of NPD through five qualitative interviews with Head of Product Implementation Peter Læssøe. Through these interviews we seek to align the empirical findings with our theoretical knowledge from Chapter 2 and 3. We initiate each of the following sections by presenting our theoretical findings as they were presented to Peter Læssøe and next presents his responses to these theoretical findings.

4.3.2.1 Complexity of the NPD Project

Looking at the first NPD project design characteristic; the complexity of the NPD project, we find that this is an important characteristic to study when looking at regulations’ effects on NPD from a theoretical point of view. Within our theoretical findings, we find that it is difficult to generalize regulations’ effects on innovation since these effects are part of a greater context and complexity behind the innovation. Thus, the complexity must be taken into account when analyzing and
addressing regulations’ effects on a specific product innovation. This is especially addressed by Ashford et al. (1983), Delaplace & Kabouya (2006), and Stewart (1981) who all state that the complexity and context of a given regulation define how the regulations affects innovation. We therefore need to take into account the contextual dependencies behind a NPD project when analyzing what effects regulations have on NPD.

When addressing this through an empirical focus we find from our interview with Peter Læsøe that the complexity behind each launched product is also important in Nykredit in order for them to forecast the amount of resources needed. Peter Læsøe explains that: “In Product Implementation all NPD projects are divided into three different types of project profiles which indicate the resources used on the project i.e. light, medium, or high project profile” (Appendix 6). Peter Læsøe explained that a light project profile indicates that the Project Manager has spent approximately 10 hours or less per week on the project, used a minimum amount of resources, and involved few stakeholders in the project. Accordingly, a medium project profile indicates that the Project Manager has spent approximately 10-24 hours per week on the project with a medium amount of resources and stakeholders involved. Finally, a heavy project profile is a project where the Project Manager has used approximately 25 hours per week or more, and a high amount of resources, and involved many stakeholders in the project (Appendix 6). However, Peter Læsøe notes that in common for all three project profiles is that: “The longitudinal timeframe is not an important indicator of the complexity for a NPD project in Nykredit as a project which stretches over. For example, a long time period can still be light in relation to time spent per week, costs, resources, and stakeholders involved in the period.” Likewise, a heavy project can have both a short or a long timeframe as a heavy project can become heavy due to a short implementation deadline or stretched over a much longer timeframe due to many stakeholders and resources involved (Appendix 6).

Based on this, we find that the complexity behind a NPD project is also viewed as an important factor in Nykredit in order to keep track of mainly the resources needed in each project. Thus, when analyzing regulations’ effects on NPD, it will be possible for us to take this characteristic into account using Nykredit’s definition of a light, medium and heavy project. To do this we will conduct workshops with each of the Project Managers, since this data is not something which has been systematically filed in Nykredit. Next, we turn to the flexibility of the regulations influencing the NPD project.
4.3.2.2  Flexibility of the Regulations Influencing the NPD Project

Looking at the literature addressing regulations’ effects on innovation, we find the second of our NPD project design characteristics: The flexibility of the regulations influencing the NPD project. Here our theoretical findings show that both in general and when looking at The Financial Services Industry the shape and flexibility of the external financial regulations have an effect on the outcome of the financial innovation. In other words flexible regulations foster innovation and non-flexible regulations may hamper innovation (Warren, 2008, Ashford et al., 1983, and Majaumdar & Marcus, 2001). Studies such as Warren (2008), Ashford et al. (1983), and Majaumdar & Marcus (2001) find that if the regulations are well-designed i.e. have a high level of flexibility in relations to R&D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use then the regulation is more likely to improve the innovativeness of the regulated company. Contrary, when the regulations are non-flexible, they are more likely to hamper the innovativeness (Warren, 2008, Ashford et al., 1983, and Majaumdar & Marcus, 2001).

Based on this theoretical knowledge, we found through our interviews that the degree of flexibility of the regulations behind each NPD project is also important for Nykredit. Peter Læssøe noted that: “Every new product we make in Nykredit is to some extent affected by several regulations as the law gives us a strict scope which we need to take into consideration every time we create a NPD project.” (Appendix 6). Through our interviews Peter Læssøe expressed that if the NPD projects were affected by regulations with low flexibility it hampers the Project Manager’s ability to manage and shape the NPD project, contrary to those NPD projects where only highly flexible regulations affect the NPD project. Peter Læssøe exemplified the effect of low flexibility through the product ‘Aldersopsparing’ from 2012 where all the parameters of the product were given from the regulators i.e. The Danish Government and thus neither Nykredit nor the Project Manager had any flexibility to develop the product themselves.¹⁸ To this point Peter Læssøe noted that: “The point about the importance of high flexibility is very interesting, and it is something we think about a lot (...) for us I think it is more a matter of time – do we have enough time to create a good solution?” (Appendix 6). Thus, from an empirical point of view we find that high flexibility is equal to NPD projects where Nykredit has sufficient time to develop and implement the product including development of new technologies and methods to use. Contrary, low flexibility is equal to NPD projects where Nykredit have insufficient time to develop and implement the product including development of new technologies and methods to use (Appendix 6).
Based on these findings, we find that this characteristic is also relevant to apply to our case study design when analyzing regulations’ effects on NPD as we, through using Nykredit’s definitions, can categorize each launched product based on whether it was high or low flexible regulations that influenced the NPD project. To do, this we conducted workshops with each of the Project Managers, since this type of data is not something which has been systematically filed in Nykredit. Next, we turn to the two NPD performance characteristics starting with the degree of innovativeness.

4.3.2.3 Degree of Innovativeness of the Product

Through our literature review of NPD in The Financial Services Industry, we find our first NPD performance characteristic which must be studied when addressing regulations’ effects on NPD: The degree of innovativeness of the product. This characteristic must be studied due to a lack of research on the innovativeness of new financial services. The characteristic is designed using the continuum of innovativeness presented by Avlonitis et al. (2001) i.e. the six clusters ranging from; high degree of innovativeness with new to the market and new to the company; medium degree of innovativeness with new delivery processes and service modifications; to a low degree of innovativeness with service line extensions and at the lowest service repositioning. According to Avlonitis et al. (2001) the six different types of innovations are associated with different development processes in terms of activities, formality, and cross-functional development as well as performance outcome (Avlonitis et al., 2001).

When presenting this to Peter Læssøe his comment was that: “(...) we do not work with this” (Appendix 6). Thus, we find that the innovativeness of the product is not in focus within The Product Implementation Department, nor does Nykredit consider the performance of the products according to the innovative outcome. Thus, in order for us to measure regulations’ effects on the performance of the launched projects in respect to the degree of innovativeness, we need to use the theoretical definitions from Avlonitis et al. (2001) and characterize each of the products after these definitions through workshops with each of the Project Managers. In the following we turn to look at the second NPD performance characteristic: The outcome of the product after launch.

4.3.2.4 Outcome of the Product after Launch

Our fourth characteristic is the outcome of the product after launch which together with the degree of innovativeness of the product presented above makes up our two NPD performance
characteristics. Through our theoretical findings, we find several studies that have studied what outcome that is achieved through a NPD project (Schneider & Hall, 2011, Hart et al., 2003, Griffin & Page, 1996, Edgett & Jones, 1991, Easingwood & Storey, 1991, Cooper & de Brentani, 1991, de Brentani & Cooper, 1992, and Cooper et al. 1994). Thus, it is necessary to combine these many findings in order to find a manageable set of characteristics which identify regulations’ effects on the outcome of a given NPD project. This is found in the previously used study by Avlonitis et al. (2001) who summarize the 11 factors determining NPD performance in The Financial Services Industry, described by Cooper et al. (1994), into two overall factors that represent the most important measurements for the outcome of a product after launch; financial success and non-financial success (Avlonitis et al., 2001). Firstly, financial success is defined by a product that is profitable and creates a large market share. Furthermore, financial success exceeded profit, sales, and market share objectives. Secondly, non-financial success is defined by a product that creates a positive impact on the perceived image, improves the loyalty of existing customers, enhanced profitability of other products, attracts a significant number of new customers, and gives an important competitive advantage (Avlonitis et al., 2001). Further, an implicit category in all the studies is the failure category which is characterized by a product that has not achieved any of the above objectives.

Through our interviews with Peter Læssøe we found that the outcome of the product after launch is also an important NPD performance characteristic in Nykredit: “The outcome of the product after launch is also an important focus in The Financial Services Industry as this is essential for the future competitiveness and profitability of Nykredit.” (Appendix 6). However, Peter Læssøe notes that when a NPD project enters stage 2 in Nykredit’s standardized model the outcome and performance of the product after launch is no longer systematically evaluated. The NPD project is only measured again in decision point 3, where the product profitability is measured respectively 6 and 12 months after launch. The product’s profitability is measured based on its sales in units, sales in volume (e.g. DKK), and generated revenue from the product (Appendix 6). Peter Læssøe further states that: “The Product Managers are asked to report on the products sales in units, sales in volume, and generated revenue, but we only take actions on a case-by-case basis. We have no systematical regime for what happens if the numbers are unsatisfactory” (Appendix 6). Further, through our interviews with Peter Læssøe we find that some products are not evaluated according to these specific measures as they are considered as a compliance product i.e. the desired outcome of the product is solely for Nykredit to become compliant with a new external regulation (Appendix
6). We therefore find that we must categorize each product’s outcome after launch using the theoretical categories, but also adding on an outcome called compliant. To do this, we again need to conduct workshops with each of the Project Managers, since this data is not something which has been systematically filed in Nykredit.

Having introduced the four identified theoretical characteristics from Chapter 2 and 3 to Peter Læssøe we found that there was missing a NPD project design characteristic concerning the motivation for the NPD project. This missing characteristic will be introduced in the following section.

4.3.2.5 A Missing Theoretical Characteristic - Motivation for the NPD Project

From our interviews with Peter Læssøe we found that the motivation for the NPD project is an important characteristic when dealing with NPD projects in the financial services industries. However, this is not addressed in the presented theory in neither Chapter 2 nor 3.

“(…) I have a hypothesis saying that many of the products we make, we solely make due to a new external regulation, and this is alarming. An example of this type of product is ‘Aldersopsparring’ a pension product launched in 2012 following ‘Tax Reform 2012’. This product will not add any value as it simply replaces an already existing product i.e. ‘Kapitalpension’ and thus make Nykredit in compliance with the decided new tax rules from The Danish (…) However, mostly we develop products due to an identified customer need.” (Appendix 6).

Thus, we discovered that there exists an implicit hypothesis in Nykredit that an unidentified number of launched products are made entirely due to a new external regulation and thus do not add any value other than to make Nykredit in compliance with the regulation. These products we characterize as non-value adding motivations. Asking into this, we found that most products were motivated by assumptions that the product would attract new customers or ensure loyalty of existing customers. This we characterized as products motivated by value adding assumptions. Lastly, we found that some products were made due to other reasons such as a M&A where it was organizationally necessary to merge two product portfolios (Appendix 6).

In extension to these three subcategories for the motivation for a NPD project, Peter Læssøe stated that it is important to note that all the NPD projects are to some extent affected by the many regulations. It was therefore not possible to divide the products into the following two different
categories: Products based on regulations and products not based on regulations, as regulations are an inevitable condition in every product within The Financial Services Industry. Peter Læssøe noted: “Every new product we make in Nykredit is to some extent affected by several regulations as the law gives us a strict scope which we need to take into consideration every time we create a NPD project” (Appendix 6). Again, referring to the institutional perspective, we know that all companies are surrounded by regulative institutions i.e. regulations, legislations, and contracts which will come to influence a NPD project (Meyer & Rowan, 1977 and Scott, 2011). Further, as shown in Appendix 1, The Financial Services Industry is highly regulated which means that there to some extent per se must be regulations behind every single NPD project in this industry. Thus, as we found that regulations are an inevitable influence on all NPD projects in Nykredit the motivation for a NPD project may therefore help us explain the scope of the regulations behind each NPD project.

Based on this last finding, we therefore add a NPD project design characteristic: The motivation for the NPD project. As this is solely based on empirical findings we developed the definition in alignment with our findings in Nykredit. However, as this characteristic is based on a hypothesis this data is, similar to the other characteristics, not something which has been systematically filed in Nykredit. Therefore we again need to conduct workshops with each of the Project Managers to categorize each of the 100 launched products within this characteristic.

4.3.2.6 Summary of Five Characteristics of Regulations’ Effects on NPD

In summary, we have aligned our theoretical and empirical findings and thereby identified five characteristics which can be used to study how regulations affects NPD in The Financial Services Industry and particularly in Nykredit: 1) The motivation for the NPD Project, 2) The complexity of the NPD Project, 3) The flexibility of the regulations influencing NPD Project, 4) The degree of innovativeness of the product, and 5) The outcome of the product after launch. The first three characteristics define what must be taken into account when studying how regulations affect the characteristics of NPD projects in The Financial Services Industry and we therefore name these three NPD project design characteristics. The remaining two characteristics address how regulations affect the performance of a product after launch and we therefore name these NPD performance characteristics. The characteristics and the identified subcategories are summarized in Table 5 where the theoretical findings, the empirical findings, the five characteristics, and their subcategories are summarized.
### Studying Regulations’ Effects on NPD - Developing Five Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Theoretical Findings</th>
<th>Empirical Findings</th>
<th>Subcategories</th>
</tr>
</thead>
</table>
| Motivation for the NPD Project | The literature does not address the motivation for the NPD as an important characteristic when studying regulations’ effects on innovation | NPD projects in Nykredit are always motivated by either value adding, non-value adding, or other assumptions | Value adding  
Non-value adding  
Other |
| Complexity of the NPD Project | The level of complexity must be taken into account when analyzing regulations’ effects on innovation | NPD projects in Nykredit are divided into a specific project profile which indicates the resources used and stakeholders involved | Low complexity  
Medium complexity  
High complexity |
| Flexibility of the Regulations Influencing the NPD Project | The flexibility of the regulations must be taken into account when studying regulations’ effects on innovation | Flexibility in Nykredit relates to the sufficient/insufficient time to develop and implement the product including development of new technologies and methods to use | High flexibility  
Low flexibility |
| Degree of Innovativeness of the Product after Launch | The innovativeness of a product depends on the level of activities within idea generation, screening, business and market analysis, technological development, and cross-functional collaboration | Nykredit does not measure its performance of the products according to the degree of innovativeness | High degree  
- New to the market  
- New to the company  
Medium degree  
- New delivery processes  
- Service modifications  
Low degree  
- Service line extensions  
- Service repositioning |
| Outcome of the Product after Launch | NPD performance in The Financial Services Industry is clustered into three overall categories: financial success, non-financial success, and failure | Nykredit measures the performance of the product after launch on a case by case basis based on the products sales in units, sales in volume, and generated revenue. Further, based on our interviews we found that a product can also be categorized as compliant | Financial success  
Non-financial success  
Compliant  
Failure |

**Table 5: Studying Regulations’ Effects on NPD - Developing Five Characteristics**

Based on the above findings, we now turn to define the subcategories under each of the five developed characteristics which are presented in Table 5. These subcategories will be used in our workshops with each of the Project Managers. The subcategories represent a sum up of the above alignment of our theoretical and empirical findings.
4.3.3 Defining Subcategories to the Five Characteristics

The following sections present the definition of each of the five characteristics and their subcategories which have been derived by combining the above introduced combination of theoretical and empirical findings. Following this presentation, the definitions of the subcategories will be used to categorize the 100 identified launched products in Nykredit.

4.3.3.1 Motivation for the NPD Project

In our first characteristic: Motivation for the NPD project we developed three subcategories solely based on our empirical findings, as we found this characteristic is missing in the literature: Value adding motivation, non-value adding motivation, and other motivation. The first subcategory identifies a product where value adding assumptions initiated the NPD project due to an identified customer need, expectations about a future customer need, external regulations leading to an expected customer need, or due to the competitive environment. The second subcategory identifies a product initiated by non-value adding assumptions where a new regulation or the anticipation of a new regulation was the only reason for making this specific NPD project and Nykredit would therefore never have made these products was it not for a regulation. Lastly, a product is categorized as being motivated by other assumptions in instances such as an M&A where it was organizationally necessary to merge two product portfolios. An overview of the definitions applied on our case study is available in Table 6.

<table>
<thead>
<tr>
<th>Definitions Applied in our Case Study</th>
<th>Subcategories in Motivation for the NPD Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Adding Motivation</td>
<td>The NPD project is initiated by either an identified customer need, expectations about a future customer need, external regulations leading to an expected customer need, or due to the competitive environment</td>
</tr>
<tr>
<td>Non-value adding Motivation</td>
<td>The NPD project is initiated due to a new regulation or the anticipation of a new regulation which was the only reason for making this specific NPD</td>
</tr>
<tr>
<td>Other Motivation</td>
<td>The NPD project is initiated in instances such as an M&amp;A where it was organizationally necessary to merge two product portfolios</td>
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</tbody>
</table>

Table 6: Subcategories in Motivation for the NPD Project

4.3.3.2 Complexity of the NPD Project

Combining both our theoretical and empirical findings, we developed three subcategories to describe our second characteristics: The complexity of the NPD project: Low complexity, medium
complexity, and high complexity. Firstly, low complexity is a product which has few contextual dependencies, the Project Manager has spent approximately 10 hours or less per week on the project, used a minimum amount of resources, and involved few stakeholders. Secondly, medium complexity is a product which includes some contextual dependencies and the Project Manager has spent approximately 10-24 hours per week on the project with a medium amount of resources and stakeholders involved. Finally, a product was categorized as having high complexity if it involved many contextual dependencies and if the Project Manager has spent more than 25 hours per week on the project with a high amount of resources and involved many stakeholders. An overview of the definitions applied on our case study is available in Table 7.

<table>
<thead>
<tr>
<th>Subcategories in Complexity of the NPD Project</th>
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<tbody>
<tr>
<td>Low Complexity</td>
</tr>
<tr>
<td>Definitions Applied in our Case Study</td>
</tr>
<tr>
<td>A product which have few contextual dependencies, the Project Manager has spent approximately 10 hours or less per week on the project, used a minimum amount of resources, and involved few stakeholders</td>
</tr>
<tr>
<td>Medium Complexity</td>
</tr>
<tr>
<td>A product which involved some contextual dependencies, the Project Manager has spent approximately 10-24 hours per week on the project, used a medium amount of resources, and involved some stakeholders</td>
</tr>
<tr>
<td>High Complexity</td>
</tr>
<tr>
<td>A product which involved many contextual dependencies, the Project Manager has spent more than 25 hours per week on the project, used a high amount of resources, and involved many stakeholders</td>
</tr>
</tbody>
</table>

Table 7: Subcategories in Complexity of the NPD Project

4.3.3.3 Flexibility of the Regulations Influencing the NPD Project

In our third characteristic: The flexibility of the regulations influencing the NPD project, we define two subcategories: High flexibility, and low flexibility. Firstly, high flexibility is equal to a product where there is a high level of flexibility in relations to R&D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use. Thus, Nykredit has sufficient time for R&D and to develop and implement the product including development of new technologies and methods to use. Contrary, low flexibility is a situation where there is a low level of flexibility in relations to R&D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use. Thus, Nykredit has insufficient time for R&D and to develop and implement the product including development of new technologies and methods to use. We only use two subcategories to differentiate the flexibility of the regulations as it would otherwise be too difficult to differentiate and categorize correctly. An overview of the definitions applied on our case study is available in Table 8.
4.3.3.4 Degree of Innovativeness of the Product

In relation to our fourth characteristics: The degree of innovativeness of the Product we define three (six) subcategories defined by the level of detail and are solely based on our theoretical findings: High degree of innovativeness (including new to the market and new to the company), medium degree of innovativeness (including new delivery process and service modifications), and finally low degree of innovativeness (including service line extensions and service repositioning). Thus, a product with a high degree of innovativeness has an extensive amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration. Following, a product with a medium degree of innovativeness has a moderate amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration. Finally, a product with a low degree of innovativeness has a limited amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration. An overview of the definitions applied on our case study is available in Table 9.

Table 8: Subcategories in Flexibility of the Regulations Influencing the NPD Project

<table>
<thead>
<tr>
<th>DefinitionsAppliedin our Case Study</th>
<th>High Flexibility</th>
<th>Low Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>A product where there is a high level of flexibility in relations to R&amp;D resources to be used, timeframe for when product must be implemented, and which technology to use. Thus, Nykredit has sufficient time for R&amp;D and to develop and implement the product including development of new technologies and methods to use</td>
<td>A product with a low level of flexibility in relations to R&amp;D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use. Thus, Nykredit has insufficient time for R&amp;D and to develop and implement the product including development of new technologies and methods to use</td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Subcategories in Degree of Innovativeness

<table>
<thead>
<tr>
<th>DefinitionsAppliedin our Case Study</th>
<th>High Degree of Innovativeness</th>
<th>Medium Degree of Innovativeness</th>
<th>Low Degree of Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration</td>
<td>Moderate amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration</td>
<td>Limited amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration</td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Subcategories in Flexibility of the Regulations Influencing the NPD Project

Table 9: Subcategories in Degree of Innovativeness
4.3.3.5 Outcome of the Product after Launch

Our fifth and final characteristic: The outcome of the product after launch is defined by both theoretical and empirical findings which together define four subcategories: Financial success, non-financial success, compliant, and failure. A financial success is a product which is profitable and secures a large market share. Furthermore, it exceeds profit, sales, and market share objectives. Contrary, non-financial success is defined as a product which gives a positive impact on the perceived image, improves the loyalty of existing customers, enhances profitability of other products, attracts a significant number of new customers, and gives an important competitive advantage. Further, to take into account the role of external regulations, we added a third category for product performance which we simply named compliant which is defined as a product that solely makes Nykredit compliant with a new external regulation i.e. have no other benefits to the company. Finally, our fourth subcategory is failure which represents a product that has not achieved any of the other objectives. An overview of the definitions applied on our case study is available in Table 10.

<table>
<thead>
<tr>
<th>Subcategories in Outcome of the Product after Launch</th>
<th>Financial Success</th>
<th>Non-Financial Success</th>
<th>Compliant</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions Applied in our Case Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A product which is profitable and secures a large market share. Furthermore, it exceeds profit, sales, and market share objectives</td>
<td>A product which gives a positive impact on the perceived image, improves the loyalty of existing customers, enhances profitability of other products, attracts a significant number of new customers, and gives an important competitive advantage</td>
<td>A product which solely makes Nykredit compliant with a new external regulation</td>
<td>A product that have not achieved any of the other objectives</td>
<td></td>
</tr>
</tbody>
</table>

Table 10: Subcategories in Outcome of the Product after Launch

Based on the above developed definitions of the subcategories to each of our five characteristics, we are now able to commence to the categorization of our sample of 100 launched products. The following section provides an introduction to the categorization.

4.4 Workshops - Categorization of Sample

Using the developed definitions of the subcategories in each of the five characteristics we conducted a total of 5 workshops with the responsible Project Managers from Product Implementation. During these workshops we were able to categorize each of the 100 products in our identified sample of launched products in Nykredit. As some of the identified Project Managers no
longer work in Nykredit Peter Læssøe answered for them in the projects he could verify and remember. The projects which he did not know well enough were ignored in the study. The workshops were conducted as semi standardized interviews and thus carried out in a one-to-one setting which enabled us to use the previously described benefits of a semi standardized interview i.e. reorder questions, ask and answer further questions, etc. During each workshop we proceeded through a three step process: Firstly, we introduced the defined characteristics to each interviewee. Secondly, we provided them with the detailed definitions of each characteristic’s subcategories. Finally, we went through each on the Project Managers NPD projects and categorized each product according to the defined subcategories. A non-exhaustive transcription of the individual workshops is available in Appendix 7 to 11. A complete overview of the categorization of all the 100 launched products is available in Appendix 12.

After having conducted our analysis (presented in Chapter 5) of the categorized data set in Appendix 12 we lastly conducted a focus group interview in order to discuss from a managerial point of view why the identified effects (presented in Chapter 5) have occurred. The focus group interview is presented below.

4.5 Focus Group Interview – Findings from a Managerial Point of View

Based on the above categorization of our sample of 100 launched products in Nykredit we conducted our analysis of what effects regulations had on these products (presented in Chapter 5). Based on these findings, we lastly made a focus group interview again with Head of Product Implementation Peter Læssøe and Chief Project Manager Peter Froskov. The initial workshop was planned to involve three people, however due to illness only two participants were included in the focus group interview. The focus group interview was conducted as a typical focus group interview as previously described i.e. an interview style designed for a small group of individuals formed by an investigator and led in a group discussion on some particular topic or topics. We firstly introduced the defined characteristics and their subcategories in order to make the scope of the setting clear. Secondly, we introduced the results (presented in Chapter 5). Thirdly, we ensured a discussion about the presented findings by asking the participants how they, from a managerial point of view, think these effects have occurred. A non-exhaustive transcript of the focus group interview is available in Appendix 13. Based on the above, we are now able to conclude on research question three.
4.6 Conclusion on Studying the Gap between Regulations and NPD

The above presented chapter has analyzed and combined both our theoretical and empirical findings to develop an appropriate case study design for studying the launched products in Nykredit. Based on this we are able to conclude on our third research question: How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied? Answering this research question, we utilized both our theoretical findings from Chapter 2 and 3 and our empirical findings from Chapter 4. In Chapter 2 we identified two main characteristics determining how regulations affect innovation: The complexity of the system behind the innovation and the flexibility of the regulations influencing the innovation. Likewise, from Chapter 3 we found three main topics which must be studied when addressing NPD in The Financial Services Industry: Focus on a staged development process, focus on outcome of NPD, and that there is an insufficient study of service innovation.

In this chapter we combined these findings with our empirical findings in the specific context of Nykredit. This alignment ensured that we also seized the context specific issues in the case of Nykredit when studying the identified data sample. From this combination of theoretical and empirical findings we find that a focus on a staged development process constitutes the scope of this thesis i.e. a case study of launched products which have gone through a staged development process. Further, we find that in order to study the gap in terms of the increased level of external regulations’ effects on NPD in The Financial Services Industry we have to design a case study including the following five characteristics: 1) Motivation for the NPD Project, 2) Complexity of the NPD Project, 3) Flexibility of the regulations influencing NPD Project, 4) Degree of innovativeness of the product, and 5) Outcome of the product after launch. The first three characteristics define what must be taken into account when studying how regulations affect the characteristics of a NPD project in The Financial Services Industry, and we therefore name these three NPD project design characteristics. The remaining two characteristics address how regulations affect the performance of a product after launch, and we therefore name these NPD performance characteristics.

The above case study design is used in the following chapter to answer our fourth research question: What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur? In Chapter 5 we firstly present the findings from having applied the developed case study design on our identified sample. Following this, we analyze and discuss these findings.
5 Case Study of Regulations’ Effects on NPD

Based on the above identified case study design and the categorized sample of launched products in Nykredit from 2008-2012 we now turn to our fourth research question: What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur?

To answer this, we have structured the chapter as follows: We start by looking individually at each of the subcategories in the five identified characteristics and identify what effects are evident in our sample. Secondly, we turn to discuss why these effects have occurred. This discussion is divided into three separate but linked elements. We initiate the discussion of the reasons for the effects by using the data from our focus group interview and discuss from a managerial point of view why these effects have occurred. Based on this discussion, we next turn to discuss whether there are conflicting findings between the initial effects identified in our categorization of the 100 launched products and the managerial inputs about regulations’ effects on NPD. Lastly, we discuss in a greater context why the effects observed in our case study have occurred. We close the chapter by concluding on our fourth research question.

5.1 Regulations’ Effects on the Five Characteristics

As presented in Chapter 4, we have identified five characteristics to study when analyzing how regulations affect NPD and defined the subcategories in each of these characteristics. Firstly we have identified three characteristics relating to the NPD project design characteristics; the motivation for the NPD project, the complexity of the NPD project, and the flexibility of the regulations influencing the NPD project. Secondly we have identified two NPD performance characteristics; the degree of innovativeness of the product and the outcome of the product after launch. Below, we provide a detailed description of the identified effects in each characteristic obtained from our five workshops with each Project Manager in Product Implementation (Appendix 7-11).

5.1.1 Motivation for the NPD Project

In the first characteristic we investigate whether the motivation for the NPD project is based on value adding assumptions, non-value adding assumptions, or other assumptions. The following table shows an overview of the development of NPD projects within the different subcategories:
<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-value adding</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Value Adding</td>
<td>9</td>
<td>15</td>
<td>22</td>
<td>23</td>
<td>19</td>
<td>88</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>16</td>
<td>28</td>
<td>23</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 11: Distribution - Motivation for the NPD Project

From Table 11 we can derive that the number of new products which has been motivated by value adding assumptions has increased from 9 projects in 2008 to 19 projects in 2012. These products are by far the largest subcategory in our total sample with a total of 88 out of the 100 identified products launched from 2008 to 2012. Looking at the products motivated by non-value adding assumptions we find a heavy increase in the number of products from 0 projects in 2008 to 5 products in 2012. Thus, this subcategory is the second largest with 7 products in total. Finally, 5 out of the 100 products were motivated by other assumptions and we found no significant change in these products from 2008 to 2012. The distributions in percent per year for each of the three subcategories are shown in Figure 4.

![Figure 4: Motivation for the NPD Project: Distribution in % per year for each of the three Subcategories](image-url)
Looking at the distribution in Figure 4 we find that the products that were motivated by value adding assumptions show a slight decrease from 2008 to 2012. This is caused by an increase in products motivated by the two other factors. However, the category has been the predominant category in the entire period from 2008-2012; representing 88% of all new products launched. The products motivated by non-value adding assumptions have increased from 7% in 2010 to 21% in 2012, making this subcategory represent a total of 7% of all products launched in the five year period. In relation to the final subcategory, i.e. products motivated by other assumptions, we find that they represent a total of 5% of all new products launched.

Based on these results we conclude that the increased level of regulations has affected that: NPD projects motivated by non-value adding assumptions have increased with +21 percentage point (%p) from 2008 to 2012, NPD projects motivated by value adding assumptions have decreased with -21%p, and finally NPD projects motivated by other assumptions have been constant during the period i.e. a 0%p difference.

5.1.2 Complexity of the NPD Project

In our second characteristic, i.e. the complexity of the NPD project, we find that there has been an increase in the NPD projects with low complexity; from 0 in 2008, 1 in 2009, and between 7 to 8 in the year 2010 to 2012; representing a total of 24 NPD projects out of 100 products launched from 2008 to 2012. The number of NPD projects with medium complexity has had a slight increase from 8 in 2008 to 12 in 2012 where it peaked with 16 in 2010; a total of 59 NPD projects over the five year period making this by far the largest subcategory. The NPD projects with a high complexity have gone from 1 project in 2008 to 8 in 2011 and 4 in 2012; making a total of 17 NPD projects within the five years. The complete distribution is shown below in Table 12:

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Medium</td>
<td>8</td>
<td>15</td>
<td>16</td>
<td>8</td>
<td>12</td>
<td>59</td>
</tr>
<tr>
<td>High</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>16</td>
<td>28</td>
<td>23</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 12: Distribution - Complexity of the NPD Project
The distributions in percent per year for each of the three subcategories are shown below in Figure 5:

![Figure 5: Complexity of the NPD Project: Distribution in % per year for each of the three subcategories](image)

When looking at Figure 5 we find that NPD projects with a low complexity have gone from 0% in 2008 to 33% in 2012 which shows a strong increase in the projects with a low complexity. The second subcategory i.e. medium complexity makes up 89% of the NPD projects in 2008 against only 50% of the projects in 2012. This gives a 39%p decrease of NPD projects with a medium level of complexity from 2008 to 2012. Finally, the NPD projects with high complexity show a slight increase on 6%p from 2008 to 2010. However, in 2011 the number increased from 14% to 35%. This high number of high complex projects decreased in 2012 where the number of highly complex projects was 17%.

Based on these results we conclude that the increased level of regulations has affected that: NPD projects with low complexity have increased with +33%p from 2008 to 2012, NPD projects with medium complexity have decreased with -39%p, and NPD projects with high complexity have increased with 6%p.
5.1.3 Flexibility of the Regulations Influencing the NPD Project

In our third characteristic we identified the flexibility of the regulations behind each NPD project. We find an increase in the NPD products where the regulations behind have had a high flexibility from 9 products in 2008 to 21 products in 2012. Thus, the category with high flexibility of the regulations behind each NPD project counts for 91 out of the 100 products in total. However, the products with low flexibility have increased from 0 products in 2008 to 3 products in 2012 and 9 products in total. For a complete overview of the products within each subcategory see Table 13:

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>9</td>
<td>15</td>
<td>24</td>
<td>22</td>
<td>21</td>
<td>91</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>16</td>
<td>28</td>
<td>23</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 13: Distribution - Flexibility of the Regulations Influencing the NPD Project

The distributions in percent per year for each of the three subcategories are shown in Figure 6.

Figure 6: Flexibility of the Regulations Influencing the NPD Project: Distribution in % per year for each of the two subcategories
Figure 6 shows that in total 9% of the products have regulations with low flexibility behind them. Further, we find that there has been an increase in the products with low flexibility from 0% in 2008 to 13% in 2012. NPD projects with regulations behind that exhibit high flexibility cover 91% of the total number of projects. The number has decreased from 100% in 2008 to 88% in 2012. Overall, these results show that the number of products with low flexibility is increasing.

Based on these results, we conclude that the increased level of regulations has affected that: NPD projects with high flexibility in the regulations have decreased with -22%p and NPD projects with low flexibility in the regulations have increased with +13%p from 2008 to 2012.

5.1.4 Degree of Innovativeness of the Product

Our fourth identified characteristic is the degree of innovativeness of the product. Below, in Figure 7 a complete overview of the results from our workshops with the Project Managers is shown for each of the six subcategories:

![Figure 7: Degree of Innovativeness of the Product: Distribution in % per year for each of the six subcategories](image)
To provide a better overview of the distribution, we choose to cluster the subcategories into three overall subcategories. The first describes a high degree of innovativeness including products in the categories new to the market and new to the company. The second describes new delivery process and modifications which both represent launched products with a medium degree of innovativeness. Finally, line extensions and repositioning represent launched products with a low degree of innovativeness.

Using these three subcategories we get the distribution presented in Table 1. From this overview we find that there are no significant changes within the launched products with a high or a medium degree of innovativeness. However, when looking at the products with a low degree of innovativeness we find that the total number of launched products within this subcategory increased over the years from 0 in 2008 to 12 in 2012.

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6</td>
<td>7</td>
<td>12</td>
<td>10</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>16</td>
<td>28</td>
<td>23</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1: Distribution - Degree of Innovativeness of the Product (with three overall subcategories)

Looking at the results in percent in Figure 8 we find that there has been a significant increase in products with a low degree of innovativeness; from 0% of the products in 2008 to 50% of the products in 2012. The products with a medium degree of innovativeness has had a somewhat stable development during the 5 year period with an average of 25%, however it decreased from 25% in 2010 to 9% in 2011, but then in 2012 increased back to 29%. It gets more interesting when looking at the results from the products with a high degree of innovativeness as these products have decreased from 67% in 2008 to 21% in 2012; this represents a 46%p decrease.
Based on these results, we conclude that the increased level of regulations has affected that: NPD projects with a high degree of innovativeness have decreased with -46%p from 2008 to 2012, NPD projects with a medium degree of innovativeness have decreased with -4%p, and finally NPD projects with a low degree of innovativeness have increased with +50%p.

5.1.5 Outcome of the Product after Launch

The last characteristic concerns the outcome of the product after launch, as either a financial success, a non-financial success, compliant to regulation, or failure. We find that an outcome resulting in financial success has increased from 2 products in 2008 to 15 products in 2012. Thus, this subcategory represents the second largest subcategory of the four with 41 products in total. Products achieving non-financial success count for the largest subcategory with 44 out of 100 products. The products which have made Nykredit compliant to regulations after launch and thus not giving any financial or non-financial success is the smallest category with only 5 products in total. Products turning out to be a failure after launch are the third largest category with 10 products out of 100. Table 15 presents an overview of the distribution.
Looking at the result in Figure 9 we find that financial successes have increased heavily over the years from 22% in 2008 to 63% in 2012. Contrary, non-financial success has decreased heavily over the years from being the largest category in 2008 with 78% to only 25% in 2012. The products ensuring that Nykredit is compliant to regulations have experienced a slight increase from 0% in 2008 to 13% in 2012. The same applies to products that have been a failure after launch as this subcategory has increased from 0% in 2008 to 22% in 2011. However, in 2012 none of the launched products has yet to be proven to be a failure after launch.
Based on these results we conclude that the increased level of regulations has affected that: NPD projects resulting in a financial success have increased with +41%p from 2008 to 2012, NPD projects resulting in a non-financial success have decreased with -53%p, NPD projects resulting in compliant to regulations have increased with +13%p, and finally NPD projects resulting in failure have been constant i.e. a 0%p difference.

5.1.6 Summary of Regulations’ Effects on Each Identified Characteristic

Based on the above description of regulations’ effects on each of the five identified characteristics we are now able to present an overview of our findings in Table 16. The table shows regulations’ effects in %p on each subcategory i.e. whether the total number of launched products in each subcategory has been affected towards; an increase, remained constant, or a decrease in %p based on the above presented distributions.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Subcategory</th>
<th>Effects in %p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for the NPD Project</td>
<td>Non-value adding</td>
<td>+21%p</td>
</tr>
<tr>
<td></td>
<td>Value Adding</td>
<td>-21%p</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0%</td>
</tr>
<tr>
<td>Complexity of the NPD Project</td>
<td>Low</td>
<td>+33%p</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>-39%p</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>+6%p</td>
</tr>
<tr>
<td>Flexibility of the Regulations influencing the NPD Project</td>
<td>High</td>
<td>-22%p</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>+13%p</td>
</tr>
<tr>
<td>Degree of Innovativeness of the Product</td>
<td>High</td>
<td>-46%p</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>-4%p</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>+50%p</td>
</tr>
<tr>
<td>Outcome of the Product after Launch</td>
<td>Financial Success</td>
<td>+41%p</td>
</tr>
<tr>
<td></td>
<td>Non-financial Success</td>
<td>-53%p</td>
</tr>
<tr>
<td></td>
<td>Compliant to Regulation</td>
<td>+13%p</td>
</tr>
<tr>
<td></td>
<td>Failure</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 16: Regulations Effects in %p on each Subcategory

Based on this summary, we are now able to commence to the next section of this Chapter where we turn to address the ‘why’ element of both our fifth research question and also our overall problem statement. Thus, the following section specifically aims to discuss why the effects in %p identified in Table 16 have occurred.
5.2 Discussion of Regulations’ Effects on NPD

After having identified the effects in Table 16, we now turn to the second element of our problem statement; why have the identified effects in Table 16 occurred? This question is highly relevant as we at this present state do not know with certainty why the observed effects have occurred.

We have structured the following sections in three separate but linked elements of discussion: Firstly, we discuss the reasons for the effects from a managerial point of view by using the data from our focus group interview. Based on this discussion, we secondly turn to discuss if there is conflicting findings between the effects in Table 16 and the managerial inputs. Finally, we discuss why the effects observed in our case study have occurred in a greater context. Based on this, we are able to conclude on research question five: What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur?

5.2.1 Managerial Inputs about the Identified Effects

In order to fully comprehend why the effects in %p observed in our case study of 100 launched products in Nykredit have occurred we have conducted a focus group interview with relevant participants from Nykredit which is presented in Appendix 13. Thus, the following section uses the data from this interview to discuss why the effects in %p have occurred from a managerial point of view in each of our five characteristics.

5.2.1.1 Motivation for the NPD Project

When presenting the results from Figure 4, Table 11, and Table 16 about the direct effects in %p on the three subcategories in our first characteristic to our focus group we found several explanations for the development. In general Chief Project Manager Peter Froskov noted that: “If you had asked me about this without the numbers, I would have guessed that we had reached a saturated level in our portfolio, so I am not sure there is a connection with this development and the increasing level of regulations.” (Appendix 13). In connection Peter Froskov added that: “My initial thought is that it fits very well with my feeling and experience when working with NPD in Nykredit. Today it is more a question of cost reduction than anything else.” (Appendix 13). Head of Product Implementation Peter Læsøe counter argued and added that: “I really think that this just shows how much politics we deal with in our industry.” (Appendix 13).

When discussing each of the three subcategories within motivation we also found interesting explanations for why our focus group participants believe the effects in %p have occurred. Firstly,
relating to the +21%p increase in non-value adding products Peter Læssøe commented that: “The bank packages also enforced by the politicians probably also have some effect on these results.” This again reinforces how much politics there is in The Financial Services Industry: “This really shows how much politics there is in our industry, on a country level especially.” (Appendix 13). Peter Froskov added that: “It really shows that there are both ‘must have products’ (non-value adding) and ‘nice to have products’ (value adding). So now we also have to develop a lot of ‘must have products’.” (Appendix 3). Secondly, relating to the -21%p decrease in the value adding products Peter Læssøe believed that it was positive that there actually was that high a percentage of value adding products: “(…) this shows that we are trying to become more market oriented especially with our price policy.” (Appendix 13). He further added that if we had looked at the data from several years before the financial crisis for example from 2006-2012 we would have gotten a very different picture as: “The increase also shows the shock the industry had from the financial crisis in 2008, and that since then the industry has been in some sort of shock.” (Appendix 13). To these points Peter Froskov added that: “I also think it shows something about that we are getting so big that our product portfolio is almost complete, so now we are dealing with other types of products.” (Appendix 13). He continued by explaining this with an example: “(…) before we acquired Forstædernes Bank we did not have a lot of old fashioned bank products which we now have today, because of the M&A, so our portfolio has become fully matured, so now our focus in the NPD process has shifted to deal more with reducing costs and standardization.” (Appendix 13). Finally, relating to the 0%p effect on products motivated by other assumptions Peter Læssøe explained that: “The NPD projects in the other category just represent a ‘cleaning exercise’ from when we bought Forstædernes Bank. So the effect in this category is not comparable to the increasing level of regulations.” (Appendix 13).

Thus in conclusion, we find that the effects in %p on the non-value adding and value adding subcategory can to some extent be explained by the increasing level of regulations from 2008-2012. This is caused by the simple explanation that the non-value adding products would not have been made had it not been for the regulations, and because of this the focus on value adding motivations has declined. The effects in %p on the final sub category i.e. other motivations are not connected to the increasing level of regulations, as these products simply relate to instances such as an M&A. Based on this conclusion, we now turn to our second characteristic i.e. the complexity of the NPD project.
5.2.1.2 Complexity of the NPD Project

When presenting the results from Figure 5, Table 12, and Table 16, i.e. regulations’ effects in %p on the complexity level and the three subcategories, to our focus group we again found several explanations for the development. Peter Læssøe Head of Product Implementation stated that he thought that the explanation was to be found other places than the increasing level of regulations: “I think that the picture is mostly caused by our NPD process becoming more mature and less complex, rather than having to do with the products we develop being less complex.” (Appendix 13). To this point Chief Project Manager Peter Froskov added that: “My initial thought is that if the regulations had caused these effects then the picture should be reverse of what you find in our products. As my impression clearly is that the regulations and thus the products are becoming a lot more complex.” (Appendix 13).

When discussing each of the three subcategories we also found interesting explanations for why our focus group participants believe the effects in %p have occurred. Firstly, relating to both the +33%p increase in low complexity NPD projects and the -39%p decrease in medium complexity projects Peter Froskov explained: “(…) I think that the development in the complexity can be explained by our department’s development since we started doing this [Ed. working systematically with NPD] around 2008. So what might seem like a low complexity project today was maybe a high complexity project back then.” (Appendix 13). He continued by explaining that from his point of view, the trend is shifting in 2013 and the projects are starting to become more complex again: “(…) I experience that we are starting to see that we search more corners again, but I know this is outside the scope of your project. But, it would be interesting to look into in the future.” (Appendix 13). Relating to the +6%p increase in the high complexity projects Peter Froskov explained that he would have thought this number would have been higher, but that it was probably only so high due to the Financial Crisis, which has enforced Nykredit and the industry to be very cost focused and only develop the most necessary function in the products: “(…) the high complexity projects are down scaled from the beginning, back in 2006 we went all the way to search all the opportunities we could identify in a product. This is very different today, as searching through just the regulations is a very resource draining exercise every time.” (Appendix 13).

Thus, in conclusion we find that the effects in %p on the low and medium complexity projects are, from a managerial point of view, to a high extent explained by other factors than the increasing level of regulations imposed on The Financial Services Industry. The effects in %p are more likely to have been caused by The Product Implementation Department’s increased experience and
maturity when working with NPD projects. Contrary, we find that the small increase in the high complexity projects can to some extent be explained by the increasing level of regulations, as working with regulations in a NPD project per se increases the complexity. Based on these conclusions, we turn to our third characteristic i.e. the flexibility of the regulations influencing the NPD project.

5.2.1.3 Flexibility of the Regulations Influencing the NPD Project

When presenting the results from Figure 6, Table 13, and Table 16 to our focus group about the direct effects in %p on the two subcategories from our third characteristic we again found explanations for the development. Head of Product Implementation Peter Læssøe explained that the effects in %p is from his point of view caused by the industry dynamic in The Danish Financial Services Industry: “(...) The Financial Services Industry is an industry which only focuses on copying and implementing other players’ products. So this is for me very ‘old news’ and a clear picture of the real world we operate in.” (Appendix 13).

Looking at each of the subcategories individually the two focus group participants could not explain the -22%p decrease in the high flexibility products other than to be related with the increase in the low flexibility products. Peter Froskov Chief Project Manager added that the +13%p increase in low flexibility is indeed explained by the increasing level of regulations:

“I am pretty confident that the low flexibility products probably only represent pension products and these products should probably not be considered NPD projects as these products are just a matter of implementation. We do not develop anything for these products ourselves. The premise for these products are given by the authorities as ‘Tax Reform 2012 20 is an example of.’” (Appendix 13).

In summary, we therefore conclude that the effects in %p on the flexibility of the regulations influencing the NPD projects, from a managerial point of view, to some degree can be explained by the increased level of regulations enforced on The Financial Services Industry. This is caused by the fact that the increase in low flexibility represents products that are not really NPD projects but simply products Nykredit have to implement due to a new regulation. Based on this, we turn to our third characteristic which also represents our first NPD performance characteristic.
5.2.1.4 Degree of Innovativeness of the Product

We now turn to our first NPD performance characteristics and the fourth characteristic i.e. the degree of innovativeness of the product. When presenting the results about the direct effects in %p on the three subcategories in this characteristic from Figure 7-8, Table 14, and Table 16 to our focus group we again found several explanations for the development. Chief Project Manager Peter Froskov explained that in general the numbers show that: “(...) we [Ed. Nykredit] have been focused on standardizing, closing down exiting products etc. In other words we have started managing our portfolio more than developing new innovative products.” (Appendix 13). He adds that: “(...) this, more than anything else, shows that the market and the industry is and has been in shock since 2008, more than it is caused by the increasing level of regulations.” (Appendix 13). Further, Peter Froskov also explained that the development is very much caused by the internal focus in the organization which has changed a lot during the period we are studying. Peter Læssøe Head of Product Implementation agreed with Peter Froskov, but added that he found these results very interesting and very useful, as Nykredit have never gathered this type of data before (Appendix 13).

In relation to the effects in %p on the individual subcategories they again both had interesting explanations. Peter Læssøe explained that the financial crisis was very much to blame for the decrease on -46%p in the highly innovative products: “I think that this shows, put on the line, that the industry has been making too complex products before the crisis, and now we are in a valley where we want more simple products in order to reduce our costs.” (Appendix 13). Further, in relation to the +50%p increase in the products with a low degree of innovativeness he explained that: “I actually do not think regulations in general or the increasing level at the moment creates an environment which makes it difficult to be very innovative. I just think that the regulations create a different agenda – both internally in our organization but also externally in the political circles.” (Appendix 13). He added that the increase in the low degree products is caused by one simple thing: “Right now the only thing Nykredit and everyone else [Ed. The Financial Services Industry in Denmark] are focusing on is creating products which ensure a secure and stable financial services industry.” (Appendix 13). Further, these arguments are supported by Peter Læssøe’s previous comments that, in general, The Financial Services Industry is an industry which only focuses on copying and implementing other players’ products and therefore they do not focus on creating highly innovative products (Appendix 13). As a supplement to Peter Læssøe’s comments, Peter Froskov added that he believes the tendency towards a lower degree of innovativeness in our
findings will change during the next couple of years: “(...) there is so much happening in our industry right now such as the telecommunication services companies and the super markets starting to make old fashioned bank products, as well as of course the digital development in the current era. If we do not follow these tendencies we will not survive!” (Appendix 13).

From this discussion we are able to conclude that the effects in %p on all the three subcategories from the degree of innovativeness are not, form a managerial point of view, directly explained by the increasing level of regulations enforced on The Financial Services Industry. On the other hand, the effects in %p are explained by a changing organizational focus on standardization and changing market dynamics in The Financial Services Industry caused by the financial crisis in 2008. From this we turn to our fifth and final characteristic and the second NPD performance characteristic: Outcome of the product after launch.

5.2.1.5 Outcome of Product after Launch
Turning to our fifth and final characteristic as well as the second NPD performance characteristic; the outcome of the product after launch, we again presented our results from Figure 9, Table 15, and Table 16 to our focus group. Head of Product Implementation Peter Læsøe explained that: “This is very good; this is a good development from a business point of view. So our focus on adjusting and standardizing our product portfolio has really paid off. (Appendix 13) Adding to this Chief Project Manager Peter Froskov stated that: “I do not think this [Ed. The effects in %p] has anything to do with the regulations. It more demonstrates the focus on resource reduction and optimization in both our company and in the industry as a whole.” (Appendix 13).

When discussing the individual subcategories in the characteristic neither Peter Læsøe nor Peter Froskov had any further explanations for the effects in %p on the individual subcategories i.e. a +41%p increase in financial success, a -53%p decrease in non-financial success, a 13% increase in compliant to regulation, and finally a 0% difference in failure.

We are therefore able to conclude that the effects in %p on the individual subcategories relating to the outcome of the product after launch cannot, from a managerial point of view, be explained by the increasing level of regulations imposed on The Financial Services Industry. Contrary, the increased focus on financial success and the decreased focus on non-financial success are caused by a changing internal focus as well as changing market dynamics.
### 5.2.1.6 Summary of Managerial Inputs about the Identified Effects

Based on the above description of the managerial explanations for each of the five identified characteristics, we are now able to present an overview of our findings in Table 17. The table combines the findings from Table 16 i.e. whether the effect in %p on each subcategory has increased, remained constant, or decreased during the five year period (from section 5.1), with the managerial inputs (from section 5.2).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Subcategory</th>
<th>Effects in %p</th>
<th>Managerial Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPD Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation for the NPD Project</td>
<td>Non-value adding</td>
<td>+21%p</td>
<td>Explained by the increasing level of regulations</td>
</tr>
<tr>
<td></td>
<td>Value Adding</td>
<td>-21%p</td>
<td>Explained by the increasing level of regulations</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0%p</td>
<td>Explained by other factors such as a M&amp;A</td>
</tr>
<tr>
<td>Complexity of the NPD Project</td>
<td>Low</td>
<td>+33%p</td>
<td>Explained by the Product Implementation Department’s increased experience and maturity towards NPD</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>-39%p</td>
<td>Explained by the Product Implementation Department’s increased experience and maturity towards NPD</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>+6%p</td>
<td>Explained by the increasing level of regulations</td>
</tr>
<tr>
<td>Flexibility of the Regulations influencing the NPD Project</td>
<td>High</td>
<td>-22%p</td>
<td>Explained by the increasing level of regulations</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>+13%p</td>
<td>Explained by the increasing level of regulations</td>
</tr>
<tr>
<td>Performance Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of Innovativeness</td>
<td>High</td>
<td>-46%p</td>
<td>Explained by a changing organizational focus and changing market dynamics</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>-4%p</td>
<td>Explained by a changing organizational focus and changing market dynamics</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>+50%p</td>
<td>Explained by a changing organizational focus and changing market dynamics</td>
</tr>
<tr>
<td>Outcome of the Product after Launch</td>
<td>Financial Success</td>
<td>+41%p</td>
<td>Explained by a changing internal focus as well as changing market dynamics</td>
</tr>
<tr>
<td></td>
<td>Non-financial Success</td>
<td>-53%p</td>
<td>Explained by a changing internal focus as well as changing market dynamics</td>
</tr>
<tr>
<td></td>
<td>Compliant to Regulation</td>
<td>+13%p</td>
<td>Explained by a changing internal focus as well as changing market dynamics</td>
</tr>
<tr>
<td></td>
<td>Failure</td>
<td>0%p</td>
<td>Explained by a changing internal focus as well as changing market dynamics</td>
</tr>
</tbody>
</table>

Table 17: Regulations’ Effects in %p vs. Managerial Inputs

Based on the above summary, we find that there are conflicting findings about why the effects in %p observed in Table 16 have occurred, as many of the effects, from a managerial point of view, are explained by other factors than the increased level of regulations. Thus, in the next section we discuss these conflicting findings.
5.2.2 Conflicting Findings about Regulations’ Effects on NPD

The conflicting findings from Table 17 concerns whether the effects in %p are caused by the increased level of external regulations or by other factors such as a changing organizational focus, a changing internal focus, or changing market dynamics. Thus, in the following sections we discuss the conflicting findings about regulations’ effects in %p on NPD for each of the five identified characteristics. Based on these five separate discussions we are ultimately able to summarize our findings.

5.2.2.1 Motivation for the NPD Project

From Table 17 we know that there is only a very small degree of conflict between the effects in %p of the increasing level of regulations and the managerial inputs in our first category. In relation to both the increase in non-value adding and the decrease in value adding motivation we do not find a conflict, as our focus group participants agree that these effects are caused by the increased level of external regulations. In terms of our final sub category; other motivations, we find that our focus group participants agree that this category will never be affected by the increasing level of regulations as these types of motivations solely relate to instances such as an M&A. However, as we have observed that this subcategory has been constant over our five year period, we do not find that this conflict is of importance for this project.

In conclusion, we therefore find that there is a consensus about the fact that the effects in %p in this characteristic; the motivation for the NPD project, can be explained by the increasing level of regulations.

5.2.2.2 Complexity of the NPD Project

Looking at our second characteristic we find in Table 17 that there is a conflict between the effects in %p of the increasing level of regulations and the managerial inputs. In relation to both the increase in low complexity and decrease in medium complexity, our focus group participants agreed that these effects have not been caused by the increased level of external regulations. Contrary, they believed that the effects were caused by The Product Implementation Department’s increased experience and maturity towards working with NPD. However, in the final category; being high complexity, we did not find a conflict as the focus group participants agreed that this increase was caused by the increased level of regulations, as regulations increase the complexity of a NPD project.
In conclusion, we find that there is consensus about one of three subcategories in the second characteristic developed in Chapter 4; the complexity of the NPD project. This means that we find that the increasing level of external regulations can explain the increase in highly complex NPD projects, while the explanation for the effects on low and medium complexity projects are more unclear. These unclear effects may occur since there are other factors that have affected the NPD projects. This makes it difficult to measure regulations’ direct effects on the increased level of low complexity NPD projects and decreased level of the medium complexity NPD projects.

5.2.2.3 Flexibility of the Regulations Influencing the NPD Project
In our third characteristic, we find in Table 17, that there is no conflict between the effects in %p of the increasing level of regulations and the managerial inputs. In both the cases, i.e. the decrease in the regulations with high flexibility and the increase in regulations with low flexibility, we find that our focus group participants agreed that these effects were caused by the increasing level of regulations.

In conclusion, we therefore find that there is a consensus about the fact that the characteristic developed in Chapter 4; the flexibility of the regulations influencing the NPD project, can be explained by the increasing level of regulations. Thus, the increasing level of regulations have caused more NPD projects with low flexibility, This has in turn created more NPD projects which cannot be developed freely due to low flexibility of the regulations influencing the NPD project.

5.2.2.4 Degree of Innovativeness of the Product
Relating to our fourth characteristic; the degree of innovativeness of the product, we find in Table 17 that in all three subcategories there are conflicting findings about the effects in %p of the increasing level of regulations. In other words, our focus group participants explained that both the decrease in high and medium degree of innovativeness and the increase in low degree of innovativeness were caused by other factors than the increasing level of regulations imposed on the industry. These factors were for example a changing organizational focus and changing market dynamics in an industry known to not be very innovative.

In conclusion, we therefore find that there is no clear consensus about whether the changes within the characteristic developed in Chapter 4; the degree of innovativeness of the products, is caused by the increasing level of regulations or if the changes are caused by other factors.
5.2.2.5 Outcome of Product after Launch

Turning to our final characteristic, i.e. the outcome of the product after launch, we found in Table 17 that there is a clear conflict in all three subcategories in terms of the reasons for the effects in %p and the managerial inputs. Our focus group participants explained that both the increase in financial success, the decrease in non-financial success, the increase in compliant to regulation, as well as the constant level of failures were caused by other factors than the increasing level of regulations imposed on the industry. These factors were, for example, a changing internal focus (as was the case for the degree of innovativeness) or changing market dynamics towards a clear focus on cost reduction.

In conclusion, we therefore find that there is no clear consensus about whether the changes within the characteristic developed in Chapter 4; the outcome of the product after launch, is caused by the increasing level of regulations or if these changes might also be caused by other factors. Based on the above discussion we are able to summarize our findings.

5.2.2.6 Summary of Conflicting Findings about Regulations’ Effects on NPD

In summary, we find that there is a clear consensus about the fact that the effects in %p on the motivation for a NPD project and the flexibility of the regulations influencing the NPD project can be explained by the increasing level of regulations. Contrary, we find that there is no clear consensus about whether the effects in %p found on the complexity of the NPD project, the degree of innovativeness of the product, and the outcome of the product after launch can be explained by the increased level of regulations. Contrary, we find through our focus group interview that these effects in %p may instead be explained by other factors such as a changing internal focus, a changing organizational focus, and changing market dynamics. Thus, in conclusion some of the identified effects in %p on the five characteristics are clearly caused and explained by the increasing level of external regulations, while the causes and explanations for some of the effects in %p are more unclear. Based on this conclusion we commence to the final section of this chapter where we discuss the greater context of regulations’ effects on NPD.

5.2.3 Regulations’ Effects on NPD in a Greater Context

In the above discussion, we find that, from a managerial point of view, the increased level of regulations cannot explain all the observed effects in %p from our case study. However, in the following section we aim to discuss these findings in a greater context.
If we again look at the arguments from our focus group interview we find that these arguments are in agreement with Teece (2011) who finds that companies must take a more comprehensive view of the environment in which they compete. Teece (2011) finds that companies must include other factors such as buyers and suppliers, the local market for skilled workers, universities, financial institutions, the legal system, and the domestic political situation, etc. since all these factors and their interaction make up the businesses ecosystem and thus also influence the work within NPD (Teece, 2011). However, as stated in our delimitation, we only focus on one specific external factor; external regulations, since the effects of this specific external factor represent a black box in the literature which needed to be opened.

Returning to our initial delimitation, grasped by the institutional perspective, we are able to conclude that all the observed effects in %p to some degree can be explained by the increased level of regulations. This conclusion is made possible due to the ideas of the institutional perspective that an organization’s structures and attitudes must be coherent with society’s rules in order for the organization to achieve legitimacy, resources, and stability in the environment of which they are part of (Meyer & Rowan, 1977 and Scott, 2001). Thus, even though our focus group participants, from their managerial point of view, explained that some of the effects in %p were not caused by the increased level of regulations, the arguments of the institutional perspective contradictory to this belief.

Based on the conclusion from the institutional perspective and the conflicting findings from Table 17 we take one more look at our sample of 100 categorized products. From this comprehensive look at our sample, we are able to identify that the first characteristic; the motivation for the NPD project determines how the NPD project is characterized in terms of our remaining four characteristics; complexity, flexibility, innovativeness, and outcome. In other words, we find that all the five characteristics are linked (Appendix 14-16). For example, we find that a value adding motivation most frequently results in a medium complexity, a high level of flexibility, a high degree of innovativeness, and have a non-financial success as the most frequent outcome. Further, a non-value adding motivation will, on the other hand, most frequently result in a medium complexity, a low level of flexibility, equally likely a medium or high degree of innovativeness, and result in a compliant outcome. Finally, other motivations will most likely result in a medium complexity, a high level of flexibility, a medium degree of innovativeness, and have a non-financial success as the most frequent outcome. A complete overview of the figures exemplifying the
distribution for each type of motivation including value adding, non-value adding, and other motivations are available in Appendix 14-16.

In conclusion, we find that the motivation for all NPD projects inevitably shapes the remaining NPD project design characteristics and NPD performance characteristics, and that these motivations are becoming more and more dominated by the increasing level of external regulations. Thus, even though we identified in our focus group interview that not all the effects in %p can be explained by the increasing level of regulations, we argue that all the characteristics are implicitly affected. However, the effects of the regulations are clearer in some characteristics than in others. This contextual dependency between the five characteristics and how they are affected by the regulations is illustrated in Figure 11.
As illustrated in Figure 11 we argue that all the effects in %p on the launched products observed in our case study is to some extent caused by the increasing level of regulations, as these are an inherent part of the environment of which Nykredit is part of. Thus, the general take away from this discussion is that all the five identified characteristics are connected and thus a NPD project and the subsequent launched product is continuously affected by the increasing level of regulations. Based on this discussion, we are able to commence to the conclusion on our fifth research question.
5.3 Conclusion on Case Study of Regulations’ Effects on NPD

Based on the above case study of regulations’ effects on NPD, exemplified through a case study of 100 launched products in Nykredit, we are now able to conclude on our fourth research question: *What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur?* Firstly, by looking individually at each of the subcategories in the five identified characteristics, we identify that all but two subcategories have been affected: NPD projects motivated by other assumptions and NPD projects resulting in failure have both been constant. Further, we find that the increasing level of external regulations have affected that: NPD projects motivated by non-value adding assumptions have increased, NPD projects motivated by value adding assumptions has decreased, NPD projects with low complexity have increased, NPD projects with medium complexity have decreased, NPD projects with high complexity have increased, NPD projects with high flexibility in the regulations have decreased, NPD projects with low flexibility in the regulations have increased, NPD projects with a high degree of innovativeness have decreased, NPD projects with a medium degree of innovativeness have decreased, NPD projects with a low degree of innovativeness have increased, NPD projects resulting in a financial success have increased, NPD projects resulting in a non-financial success have decreased, and finally NPD projects resulting in compliant to regulations have increased.

Secondly, based on these conclusions we turned to address the ‘why’ element of both our fifth research question and also our overall problem statement. Here we initially discussed why the effects on the individual subcategories had occurred from a managerial point of view. From this discussion we conclude that, from a managerial point of view, the increasing level of regulations cannot explain why all the effects in the individual subcategories have occurred. From a managerial point of view these effects can also be explained by factors such as a changing organizational focus, a changing internal focus, or changing market dynamics. Thus, we identify that there are conflicting findings about what effects the increasing level of regulations have had on the 100 launched products. Therefore, we commenced to the final section of this chapter where we discussed the conflicting findings and the greater context of regulations’ effects on NPD.

From this discussion, about the conflicting findings between the effects on each subcategory and the managerial inputs, we conclude that there is a clear consensus about the fact that the effects on the motivation for a NPD project and the flexibility of the regulations influencing the NPD project can be explained by the increasing level of regulations. Contrary, we conclude that there is no clear consensus about whether the effects on the complexity of the NPD project, the degree of
innovativeness of the product, and finally the outcome of the product after launch can be explained by the increased level of regulations. These may also be explained by other factors such as a changing internal focus, a changing organizational focus, and changing market dynamics. Thus, we find that some of the identified effects on the five characteristics are clearly caused and explained by the increasing level of external regulations, while the causes and explanations for some of the other effects are more unclear.

Based on this, we turned to discuss these findings in a greater context. From this discussion we conclude that, to some extent, all the effects on the launched products observed in our case study is caused by the increasing level of regulations, as these are an inherent part of the environment of which Nykredit is part of. Looking deeper into our sample, we find that the characteristic; the motivation for a NPD project shapes the remaining NPD project design characteristics and NPD performance characteristics. Furthermore, these motivations are becoming more and more dominated by the increasing level of external regulations. Thus, the general take away from this is that all the five identified characteristics are connected, and thus a NPD project and the subsequent launched product are continuously affected by the increasing level of regulations. However, the effects of the regulations are clearer in some characteristics than in others.

Following this conclusion, we turn to how our findings have contributed to both managerial practices and theory and thereby answering our fifth and final research question: What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012?
6 Managerial and Theoretical Contributions

Throughout our case study of launched products in Nykredit, we have analyzed and discussed what effects external regulations have on NPD. Doing this we aligned theoretical and empirical findings through an in depth analysis of both fields. Based on this analysis, we developed a case study design through which we categorized our sample of 100 launched products in Nykredit from 2008 to 2012 (both included). From this categorization we identified several ways in which regulations affect NPD and found that all the characteristics are connected. Thus, in the above chapters we have concluded on our overall problem statement. With this conclusion, we now turn to look at the managerial and theoretical contributions which can be drawn from these findings and thus answer our final research question: What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012?

The following chapter is structured as follows: Firstly, we discuss how our findings have contributed to the managerial practices relating to NPD projects in The Financial Services Industry during times of increasing levels of externally imposed regulations. Secondly, we discuss how our findings have contributed to the existing theoretical literature presented in Chapter 2 and 3. From these discussions we ultimately conclude on our final research question.

6.1 Managerial Contributions

Throughout our case study we found that it is not only in the theoretical world that external regulations’ effects on NPD are a field in need of further studies. We also found that in the managerial practices external regulations’ effects on NPD are something which is not systematically looked at or analyzed as an integrated part of the management of NPD. However, external regulations are something which influence every single NPD project and which is implicitly taken into consideration in the motivation for the NPD project; when management thinks of a NPD project as being value adding, non-value adding, or other.

In the following sections we go through the three overall ways in which this thesis contributes to the managerial practices within The Financial Services Industry. Firstly, we describe how our case study has clarified how regulations affect NPD. Secondly, we identify three general types of NPD projects depending on whether the NPD project is motivated by value adding assumptions, non-value adding assumptions, or other assumptions. Finally, we develop four guidelines. The first two guidelines describe how to achieve financial or non-financial success and how these are linked.
to a specific degree of innovativeness. The last two guidelines describe how to either obtain or avoid a compliant outcome or avoid a failing outcome and again how these are linked to a specific degree of innovativeness. We now go through each of the three overall managerial contributions individually.

### 6.1.1 Clarifying the Importance of Regulations’ Effects on NPD

First and foremost we find that this project sheds light on the importance of considering external regulations’ effects on NPD both in terms of the specific *NPD project design characteristics* and *NPD performance characteristics*. This is exemplified in our findings which indicate that the increased level of regulations have effects on all the different characteristics categorized in this case study. Furthermore, referring to Figure 4-9, this thesis contributes to managerial practices through clarifying how the increased level of regulations has different effects on NPD.

In relation to the *NPD project design characteristics* we find three changes caused by the increasing level of external regulations: 1) the non-value adding motivation is increasing, thus managers are making products which have no value for the customers. 2) There is a decreasing level of complexity behind the NPD projects in terms of resources used, thus each NPD project will be less extensive to manage. 3) More NPD projects are influenced by regulations with a low flexibility, thus the company cannot shape the technology behind the product and they have insufficient time to develop and implement it. Looking at the *NPD performance characteristics* we find three changes: 1) Products with a low degree of innovativeness is increasing. 2) Products with a financially successful outcome are increasing. 3) Products with a compliant outcome after launch are increasing. These three latter changes are affected by the former three identified changes in the *NPD project design characteristics*, and thus are indirectly caused by the increasing level of external regulations. Having identified our first managerial contribution, we now turn to our second managerial contribution addressing the management of different types of NPD projects.

### 6.1.2 Developing Three General Types of NPD Projects

Looking at regulations’ effects on NPD in our sample in depth, we find in Appendix 14-16 that, depending on the combination of the *NPD project design characteristics* and the *NPD performance characteristics*, the NPD and hence the launched product will be shaped differently. From these findings we identify and develop three general types of NPD projects which most frequently occur depending on whether a NPD project is based on value adding, non-value adding, or other
We now go through these three general types of NPD projects by referring back to our findings presented in Appendix 14-16.

6.1.2.1 Highly Innovative Medium Complexity Customer Oriented NPD Project
Looking at the model in Appendix 14 we find that in the sample of 100 launched products 88% have a value adding motivation for the NPD project. Looking at these products, there is a 39% chance that the NPD project will involve a medium complexity. Following this, there is a 98% change that this level of complexity will involve regulations which have a high level of flexibility. From this, there is a 49% chance that it will have a high degree of innovativeness, and of these products, 80% will have non-financial success.

Based on our definitions of the individual characteristics in Chapter 4, we can define the first general type of NPD project and thus what the managers most likely can expect that this type of NPD project will be shaped in the following way: It is motivated by an identified customer need or the expectations about a future customer need. Further, it involves some contextual dependencies; the Project Managers spend approximately 10-24 hours per week on the project, uses a medium amount of resources, and involves some stakeholders. Likewise, there is a high level of flexibility in relations to R&D resources to be used, timeframe for when the product must be implemented, and which technology to use, and thus, Nykredit has sufficient time for R&D and to develop and implement the product including development of new technologies and methods to use. Further, there is an extensive amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration. Finally, it will result in a product which gives a positive impact on the perceived image, improves the loyalty of existing customers, enhances profitability of other products, attracts a significant number of new customers, and gives an important competitive advantage (Table 6-10). We define the first general type of NPD project as the highly innovative medium complexity customer oriented NPD project.

6.1.2.2 Enforced Resource Draining Compliance Oriented NPD Project
Looking at the findings in Appendix 15 we find that in the sample of 100 launched products, 7% have a non-value adding motivation for the product. Of these products, there is a 43% chance that the NPD project will involve a medium complexity and in 67% of the cases the flexibility of the regulations influencing the NPD projects will be low. The degree of innovativeness will be either a medium or high degree (50% in each) and in all cases the outcome will be compliant (100%).
Based on our definitions of the individual characteristics in Chapter 4, we can define the second general type of NPD project and thus what the managers most likely can expect that this type of NPD project will be shaped in the following way: It is solely motivated by a new regulation or the anticipation about a new regulation. Further, it involves some contextual dependencies; the Project Managers spends approximately 10-24 hours per week on the project, uses a medium amount of resources, and involves some stakeholders. Finally, there is a low level of flexibility in relations to R&D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use. Thus, Nykredit has insufficient time for R&D and for developing and implementing the product including development of new technologies and methods to use. Further, there is either an extensive or moderate amount of activities within idea generation and screening, business and market analysis, technological development, and cross-functional collaboration. Finally, the product only achieves compliance and no other objectives (Table 6-10). We define the second general type of NPD project as the enforced resource draining compliance oriented NPD projects.

6.1.2.3 Essential Image Improving NPD Project

Finally, looking at the findings in Appendix 16 we find that in the sample of 100 launched products there is a 5% chance that the motivation for the product will be other assumptions. Of these products, there is 80% chance that the NPD project will involve a medium complexity and in 75% of the cases, the flexibility of the regulations influencing the NPD project will be high. The degree of innovativeness will with 100% chance be medium and, in all cases, the outcome will be non-financial success (100%).

Based on our definitions of the individual characteristics in Chapter 4, we can define the third general type of NPD project and thus what the managers most likely can expect that this type of NPD project will be shaped in the following way: It is motivated by other needs such as a M&A where it is organizationally necessary to merge two product portfolios. As with the two other types, it involves some contextual dependencies; the Project Managers spends approximately 10-24 hours per week on the project, uses a medium amount of resources, and involves some stakeholders. Further, there is a high level of flexibility in relations to R&D resources to be used, timeframe for when the regulated product must be implemented, and which technology to use. Thus, Nykredit has sufficient time for R&D and to develop and implement the product including development of new technologies and methods to use. Further, there is a moderate amount of activities within idea
generation and screening, business and market analysis, technological development, and cross-functional collaboration. Finally, the outcome ensures a positive impact on the perceived image, improves the loyalty of existing customers, enhances profitability of other products, attracts a significant number of new customers, and gives an important competitive advantage (Table 6-10). Based on this we define our third and final general type of NPD project as the essential image improving NPD project.

Having identified the three general types of NPD projects i.e. our second managerial contribution, we now turn to our third managerial contribution where we develop four guidelines for how to achieve and avoid a specific NPD performance.

6.1.3 Providing a Guideline to Achieve and Avoid a Specific NPD Performance

Our third and final contribution to the managerial practices is four general models for how to achieve one of the four possible outcomes in an environment with an increased level of external regulations. These models are developed by firstly dividing each of the 100 launched products according to their outcome and how they are characterized within the different characteristics i.e. innovativeness, motivation, complexity, and flexibility. This enables us to find how the products with a specific outcome are shaped within the different characteristics. The models can be used as a tool for how to best shape a NPD project in terms of motivation, complexity, and flexibility in order to have the highest chance of achieving financial or non-financial success together with a specific degree of innovativeness of the product. Further, it can be used as a tool for how to obtain or avoid an undesirable outcome i.e. compliant to regulation or failure together with a specific degree of innovativeness of the product. In the following sections we present each model and describe what the managerial practice can use these findings for. Firstly, we look at how to achieve financial or non-financial success, and next we address how to obtain or avoid an undesirable outcome i.e. compliant to regulation or failure.
6.1.3.1 Guide to Achieve Financial Success

The design of the different NPD projects which resulted in products that were a financial success after launch is displayed in Figure 12.

Looking at this figure, we find that products have a 41% chance of achieving financial success. By diving into the numbers and percentage, we find that to best achieve financial success managers must aim to develop a product with a low degree of innovativeness, based on value adding assumptions, has a low level of complexity, and involves highly flexible regulations.
6.1.3.2 **Guide to Achieve Non-Financial Success**

The design of the different NPD projects which resulted in non-financial success after launch is displayed in Figure 13.

![Diagram](image)

Figure 13: Guide to Achieve Non-Financial Success

In Figure 13 we find that products have a 44% chance of non-financial success after launch. By diving into the numbers and percentage, we find that to best achieve non-financial success managers must aim to develop a product with a medium degree of innovativeness, based on value adding assumptions, has a medium level of complexity, and has a high level of flexibility in the regulations influencing the NPD project.
6.1.3.3 Guide to Obtain or Avoid Compliance

The design of the different NPD projects which resulted in products that were compliant to regulations after launch is displayed in Figure 14.

Figure 14: Guide to Obtain or Avoid Compliant to Regulation

Looking at the findings in this model we find that 5% of products’ outcome solely makes it compliant to a regulation. Further, depending on managers attitudes toward an outcome which is only compliant to regulation, managers should either aim towards or avoid a NPD project with a high degree of innovativeness, motivated by non-value adding assumptions, has a low or high complexity, and a low level of flexibility in the regulations influencing the NPD project.
6.1.3.4 Guide to Avoid Failure

The design of the different NPD projects which resulted in products that failed after launch is displayed in Figure 15:

Looking at this figure, we find that products have a 10% risk of failure. Further, by diving into the numbers and percentage, we find that managers should most likely avoid NPD projects that have a medium degree of innovativeness, motivated by value adding assumptions, has a medium or low complexity, and has a high flexibility in the regulations influencing the product.

Based on the above three presented managerial contributions, we now turn to how our findings in this thesis contribute to the existing studies presented in Chapter 2 and 3.
6.2 Theoretical Contributions

In the following sections we discuss how the findings from this study contribute to the existing literature presented in Chapter 2 and 3. Doing this we address the last part of our fifth research question concerning what theoretical contributions there can be derived from the case study of products launched in Nykredit from 2008-2012.

In the following section, we firstly look at how our findings in an overall perspective have contributed to the gap between external regulations and NPD. Next, based on the first theoretical contribution and our findings, we look in depth at how our findings contribute to strengthening the existing literature about regulations’ effects on innovation.

6.2.1 Closing the Gap between External Regulations and NPD

Throughout this thesis we have opened a black box looking into the gap between external regulations and NPD in The Financial Services Industry. We initially dived into this gap by asking what effects the increased number of external regulations have on NPD in The Financial Services Industry and why these occurred, exemplified through a case study of launched products in Nykredit from 2008-2012. Studying this gap we found that regulations to some extend have affected both our three identified NPD project design characteristics and two NPD performance characteristics.

In the three NPD project design characteristics, we found that regulations’ effects on the motivation for a NPD project is clear as the increasing level of regulations has given an increase of products motivated by non-value adding assumptions. There is also a clear effect on the flexibility of the regulations influencing the NPD projects, as the number of NPD projects influenced by low flexible regulations are increasing. Implicitly, we find that regulations have had an effect on the changes within the complexity of NPD projects, especially within the increased level of high complexity projects. The increased level of regulations has also implicitly effected the changes we find within the subcategories of the two NPD performance characteristics: The financial successful products and the products compliant to regulations are increasing while the degree of innovativeness is decreasing. Overall these findings clearly indicate that the increasing level of regulations has a negative effect on NPD. However, as discussed in Chapter 5, regulations are only one of many factors which influence both NPD project design characteristics and NPD performance characteristics, and it is therefore very difficult to identify the direct effects of the increasing level of regulations imposed on The Financial Services Industry.
As no other study looks so thoroughly into external regulations’ effects on The Financial Services Industry we are therefore the first to document the effects that regulations have on NPD within The Financial Services Industry. Furthermore, we are the first to document which characteristics to study when analyzing the gap between regulations and NPD within The Financial Services Industry. We are therefore also the first to find that regulations are an important factor to take into account when studying NPD in The Financial Services Industry, as none of the existing studies addressing NPD in The Financial Services Industry refer to external regulations.

In the following we look more in depth into how these findings have contributed to the existing literature addressing regulations’ effects on innovation (presented in Chapter 2). This is firstly done through a general discussion of how our findings strengthen the knowledge of regulations’ effects on innovation. Secondly, we look at how our findings in relations to the two main characteristics identified in the literature review; the greater complexity of the system behind the innovation and the flexibility behind the regulations, can contribute to the literature.

6.2.2 Strengthening the Knowledge of Regulations’ Effects on Innovation

Looking at the literature addressing regulations’ effects on innovation, we find that when looking at this relationship there are many conflicting findings to whether regulations hamper or foster innovation. In the literature review of regulations’ effects on innovation in Chapter 2, we find that there is no clear consensus in the literature about the positive/negative effects that regulations have on innovation. However, one of the leading hypotheses is given by Porter (1991) who argues that external regulations foster innovation and creates a win-win situation for both the company and the society (Porter, 1991 in Jaffe & Palmer, 1997). Many studies find the same conclusion, but equally as many find the opposite when addressing other industries than The Financial Services Industry (Ashford et al. 1983, Cetindamar, 2001, Delaplace & Kabouya, 2006, Jaffe & Palmer, 1997, Majumdar & Marcus, 2001, Olin & Wickenberg, 2001, Pilkington & Dyerson, 2006, Priefer, 2002, Reich, 2009, Stewart, 1981, Stewart, 2010, and Taylor et al. 2005). We further find in our literature review that very few arguments are made about the direct effect that regulations have on financial innovation, and those who address this subject are missing empirical testing. The studies addressing The Financial Services Industry to some extent agree that regulations have a positive effect on financial innovation (Frame & White, 2004, Jackson, 2007, Jagtiani et al. 1995, Mention & Torkkeli, 2012, Merton, 1995, Miller, 1986, Rossignoli & Arnaboldi, 2009, Silber, 1983, Smet, 2012, and Warren, 2008).
In conclusion, our findings support the fact that regulations indirectly foster innovation when measured by the number of products launched. But, when looking into the degree of innovativeness we find that the products with a high degree of innovativeness have declined during the period of increasing regulations and the products with a low degree of innovativeness have increased. Looking further into this, we found that to study this we needed to include the greater complexity and the flexibility behind the regulations, as highly flexible regulations foster innovation and low flexible regulations hamper innovation. In the following, we look more in depth on our theoretical findings within these two individual characteristics.

6.2.2.1 Verifying the Importance of Studying the whole Complexity

Again referring to our literature review and study of the main theoretical topics of NPD we found that regulations are simply one of many external stimuli that affect a company’s NPD projects. Therefore, it is generally agreed that it is necessary to take other elements into account when looking at regulations’ effects on innovation (Ashford et al, 1983, Delaplace & Kabouya, 2006, Stewart, 1981, Silber, 1981, and Merton, 1995). Our findings support this argument, as we find in Chapter 5 that regulations are only one of many factors affecting NPD. Looking at the NPD literature, Page & Schirr (2008), Griffin & Page (1996), Hart et al, (2003), Edgett & Jones (1991), Cooper & de Brentani, 1991, de Brentani & Cooper 1992, Cooper et al., (1994), and Easingwood & Storey, (1991) all conduct in depth studies of up to 43 different attributes and factors affecting the outcome of NPD. Here the most interesting finding is that success in financial services is rarely due to the effect of a single attribute but is due to a combination of attributes (Easingwood & Storey, 1991, Cooper & de Brentani, 1991, de Brentani & Cooper, 1992, and Cooper et al., 1994). However, within these different attributes affecting the outcome of NPD we find that external regulations are not listed in any of the studies. In fact not even the studies looking specifically at The Financial Services Industry consider external regulations’ effects on the outcome of NPD, even though we find a clear connection between these two.

In conclusion, we therefore state that our findings have contributed to the existing areas of theory, by supporting the arguments made in the literature addressing the importance of looking at the whole complexity when studying either regulations effects on innovation or NPD within The Financial Services Industry.
6.2.2.2 Verifying the Importance of Studying the Flexibility of the Regulations

Relating to the characteristic concerning the flexibility of the regulations influencing the innovation, we found in the literature review that it is important that the regulations are flexible in order for them to create innovations which are rapidly adapted and enhance productivity. Contrary, inflexible regulations hamper the innovativeness and productivity, and thus the performance of the product (Ashford, et al., 1983, Majumdar & Marcus, 2001, Stewart, 2010, Olin & Wickenberg, 2001, and Warren, 2008, and Merton, 1995). We find support for these conclusions as we find that NPD projects influenced by low flexible regulations are most frequently connected to non-value adding motivations and a compliant outcome. In contrast, NPD projects influenced by highly flexible regulations will most likely result in a value adding motivation and either an outcome resulting in financial or non-financial success. However, we do not find support for the argument that low flexibility most likely results in a lower level of innovativeness and has a higher risk of failure. Contrary, our findings indicate that non-value adding NPD projects with low flexibility have low risk of failure and will most likely result in a high or medium degree of innovativeness (Figure 12-14 & Appendix 14-16).

In conclusion, we therefore state that our findings have contributed to the existing theoretical areas covered in this project by stating that the flexibility of the regulations influencing a NPD project is a necessary factor to take into account when studying the gap between regulations and NPD in The Financial Services Industry, as this characteristic strongly influences the effects that regulations have on NPD. Based on the above theoretical contributions we conclude on Chapter 6.

6.3 Conclusion on Managerial and Theoretical Contributions

The above discussion about what contributions our case study of products launched in Nykredit from 2008-2012 have given to firstly management practice and secondly existing theory enables us to answer our fifth and final identified research question: What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012? Studying this, we initially find that this thesis contributes to the managerial practices in three ways: Firstly, we find that our case study clarifies how regulations affect NPD in The Financial Services Industry. Secondly, we are develop three general types of NPD projects depending on whether the NPD project is motivated by either value adding assumptions, non-value adding assumptions, or other assumptions and describe what managers most frequently can expect within each type of NPD project. Finally, we develop four guidelines where the first two describe how to achieve financial or
non-financial success and how these are linked to a specific degree of innovativeness. The last two guidelines describe how to either obtain or avoid a compliant outcome or avoid a failing outcome, and again how these are linked to a specific degree of innovativeness.

Secondly, we turn to address how our studies contribute to existing theory. Initially, we conclude that we are the first to document the effects that regulations have on NPD, as no other studies before us address regulations’ effects on innovation specifically within NPD in The Financial Services Industry. Furthermore, as we go into an unknown area we are also the first to develop and document which characteristics to study when analyzing the gap between regulations and NPD within The Financial Services Industry. We are therefore also the first to find that regulations are an important factor to take into account when studying NPD in The Financial Services Industry. Furthermore, our findings support the fact that regulations indirectly foster innovation when measured by the number of products launched. But, when looking into the degree of innovativeness, we find that the products with a high degree of innovativeness have declined during the period of increasing regulations and the products with a low degree of innovativeness have increased. Finally, we contribute to the existing theory by supporting the arguments made in the literature about the importance of taking into account the whole complexity and the flexibility of the regulations influencing a NPD project. These are both necessary factors to take into account when studying the gap between regulations and NPD in The Financial Services Industry. In conclusion, this thesis takes the first humble steps towards addressing and uncovering an unknown area being the gap between external regulations and NPD in The Financial Services Industry. However, as we find in Chapter 2 and 3 that no other existing studies address this exact relationship, we conclude that more research is needed to further develop the knowledge and fill in the gap in this area.

Based on the above thesis and sub conclusions, we now turn to our final conclusion summarizing our results and thereby answering our overall problem statement: *How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012?*
7 Conclusion

In the following Chapter we combine all the above sub conclusions and thereby conclude on our overall problem statement: How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012? Following this, we reflect on the validity of our results and the opportunities for further research which arises from these results.

7.1 Summary of Findings

From our introduction to this thesis we find two key market dynamics which strongly influence The Financial Services Industry in Denmark: Firstly, we find that since 2008 there has been a significant increase in the number of external regulations imposed on the industry. Secondly, we find that NPD has become a key component in both the government’s and scientists’ views when addressing the contemporary economy. However, we also find that this link between externally imposed regulations and NPD in The Financial Services Industry is yet to be studied. Based on this we therefore proceeded to explore this gap through a case study of products launched in Nykredit from 2008 to 2012 (both included). Our thesis was continuously guided by the following problem statement: How can the gap in terms of the increased level of external regulations and their effects on NPD be studied within The Financial Services Industry, what are these effects, and why do they occur, exemplified through a case study of products launched in Nykredit from 2008-2012? To answer this overall problem statement we developed five research questions which have worked as the structure for this thesis. Having answered each of these five questions individually we are now able to answer our overall problem statement by summarizing our findings throughout this thesis.

As earlier stated, we find that no existing studies directly address regulations effects on NPD neither within The Financial Services Industry nor in general. Through an in depth literature review in Chapter 2, we therefore addressed how regulations affect innovation. Thereby this chapter addressed the first of the two main theoretical components of the identified gap between the increased level of external regulations and NPD. This enabled us to answer our first research question: What are the existing findings of how regulations affect innovation within The Financial Services Industry and which main characteristics determine these effects? Relating to regulations’ effects on innovation we find that there are conflicting findings about how regulations affect
innovation in both the literature from other industries than the financial services industries and studies in The Financial Services Industry. We find that some studies argue that (some) regulations foster (some) innovations and other argue that regulations hamper innovation. However, the findings in the literature addressing The Financial Services Industry do not conflict in the same degree as within studies of for example environmental and health regulations as all the studies are in agreement that regulations to some degree have a positive effect on financial innovation. However, we find that very few arguments are made about the direct effects that regulations have on financial innovation and those which do exist are missing empirical testing. The reason for this inconsistency can be found in the argument that it is not possible to generalize the findings across industries and between companies. Based on these findings, we continued to look more in depth on what characteristics are found to be determinants of regulations’ effects on innovation in the literature. We found two characteristics identified as determinants of regulations’ effects on innovation: The flexibility of the regulations influencing the innovation, and the complexity of the system behind the innovation. Thus, when studying regulations’ effects on innovation in The Financial Services Industry we find that these two characteristics must be taken into account before drawing any conclusions.

After having conducted a literature review of the existing literature addressing regulations’ effects on innovation, we turned to the second main theoretical component of this thesis’s focus being NPD. Thus, Chapter 3 introduced the main theoretical topics of NPD and answered our second identified research question: What are the main topics of NPD within The Financial Services Industry? By using the existing literature addressing the comprehensive NPD research agenda specifically within The Financial Services Industry we were able to identify three main topics within NPD in The Financial Services Industry. The first main topic relates to a focus on a staged development process, the second main topic relates to a focus on outcome of NPD, and finally the third main topic relates to the fact that there is an insufficient study of service innovation. Thus, we conclude that when studying NPD in The Financial Services Industry these three main topics must be taken into account before drawing any conclusions.

Following these two descriptive chapters, we continued to Chapter 4 where we addressed how the gap, in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry, can be studied. As this thesis represents the first attempt to study regulations’ effects on NPD in The Financial Services Industry we found it necessary to gather an extensive data set and design an appropriate case study which enabled us to categorize and thus
study our data and in turn achieve trustworthy and reliable academic results. In turn this enabled us to answer our third research question: How can the gap in terms of the increased level of external regulations and their effects on NPD in The Financial Services Industry be studied? To answer this question we combined the theoretical knowledge from Chapter 2; being the characteristics determining regulations’ effects on innovation i.e. the flexibility of the regulations influencing the innovation and the complexity of the system behind the innovation, the main theoretical topics of NPD in The Financial Services Industry from Chapter 3; focus on a staged development process, focus on outcome of NPD, and focus on service innovation, and the empirical data presented in Chapter 1 in the specific context of Nykredit. From this combination of theoretical and empirical findings we find that a focus on a staged development process and a focus on outcome of NPD constitute the scope of this thesis i.e. a case study of launched products which have gone through a staged development process. Further, we find that in order to study the gap in terms of the increased level of external regulations’ effects on NPD in The Financial Services Industry we have to design a case study including the following five characteristics: 1) Motivation for the NPD Project, 2) Complexity of the NPD Project, 3) Flexibility of the regulations influencing NPD Project, 4) Degree of innovativeness of the product, and 5) Outcome of the product after launch. The first three characteristics define what must be taken into account when studying how regulations affect the characteristics of a NPD project in The Financial Services Industry and we therefore name these three NPD project design characteristics. The remaining two characteristics address how regulations affect the performance of a product after launch and we therefore name these NPD performance characteristics.

Based on the above identified case study design and the categorized sample of launched products in Nykredit from 2008-2012 we turned to Chapter 5 and thus our fourth research question: What are the effects of the increased number of external regulations on products launched in Nykredit from 2008-2012 and why do these effects occur? By looking individually at each of the subcategories in the five identified characteristics from Chapter 4 we identify that all but two subcategories have been affected: NPD projects motivated by other assumptions and NPD projects resulting in failure have both been constant. Further, we find that the increasing level of external regulations’ have affected that: NPD projects motivated by non-value adding assumptions have increased, NPD projects motivated by value adding assumptions has decreased, NPD projects with low complexity have increased, NPD projects with medium complexity have decreased, NPD projects with high complexity have increased, NPD projects with high flexibility in the regulations
have decreased, NPD projects with low flexibility in the regulations have increased, NPD projects with a high degree of innovativeness have decreased, NPD projects with a medium degree of innovativeness have decreased, NPD projects with a low degree of innovativeness have increased, NPD projects resulting in a financial success have increased, NPD projects resulting in a non-financial success have decreased, and finally NPD projects resulting in compliant to regulations have increased.

Based on these conclusions we proceeded with Chapter 5 by addressing the ‘why’ element of both our fifth research question and also our overall problem statement. Here we initially discussed why the effects on the individual subcategories had occurred from a managerial point of view. From this discussion we conclude that, from a managerial point of view, the increasing level of regulations cannot explain why all the effects in the individual subcategories have occurred. These effects could also be explained by factors such as a changing organizational focus, a changing internal focus, or changing market dynamics. Thus, we identify that there are conflicting findings about what effects the increasing level of regulations have had on the 100 launched products. Therefore, we commenced to the final section of this Chapter where we discussed the conflicting findings and the greater context of regulations’ effects on NPD. From this discussion we conclude that there is a clear consensus about the fact that the effects on the motivation for the NPD project and the flexibility of the regulations influencing the NPD Project can be explained by the increasing level of regulations. Contrary, we conclude that there is no clear consensus about whether the effects on the complexity of the NPD project, the degree of innovativeness of the product, and finally the outcome of the product after launch can be explained by the increased level of regulations. These may also be explained by other factors such a changing internal focus, a changing organizational focus, and changing market dynamics. Thus, we find that some of the identified effects on the five characteristics are clearly caused and explained by the increasing level of external regulations, while the causes and explanations for some of the other effects are more unclear.

In the end of Chapter 5, we were finally able to discuss our findings in a greater context. From this discussion we conclude that to some extent all the effects on the launched products observed in our case study is caused by the increasing level of regulations, as these are an inherent part of the environment of which Nykredit is part of. Looking deeper into our sample, we find that the characteristic; the motivation for a NPD project shaped the remaining NPD project design characteristics and NPD performance characteristics, and that these motivations are becoming
more and more dominated by the increasing level of external regulations. Thus, the general take away from this discussion is that all the five identified characteristics are connected and thus a NPD project and the subsequent launched product are continuously affected by the increasing level of regulations. However, the effects of the regulations are clearer in some characteristics than in others.

Following these conclusions, we turned to Chapter 6 and our fifth and final research question relating to how our findings have contributed to both managerial practices and theory: What managerial and theoretical contributions can be derived from the case study of products launched in Nykredit from 2008-2012? We initially conclude that our findings contribute to the managerial practices in three ways: 1) Our case study clarifies how regulations affect NPD in The Financial Services Industry, 2) We develop three general types of NPD projects depending on whether the NPD project is motivated by either value adding assumptions, non-value adding assumptions, or other assumptions and describe what managers most frequently can expect within each type of NPD project, and 3) We develop four guidelines where the first two describe how to achieve financial or non-financial success and how these are linked to a specific degree of innovativeness. The last two guidelines describe how to either obtain or avoid a compliant outcome or avoid a failing outcome, and again how these are linked to a specific degree of innovativeness.

Turning the second part of research question five, we addressed how our studies contribute to existing theory. Initially, we conclude that we are the first to document the effects that regulations have on NPD in The Financial Services Industry, as no other studies before us address regulations’ effects on innovation specifically within NPD in The Financial Services Industry. Furthermore, as we go into an unknown area, we are also the first to develop and document which characteristics to study when analyzing the gap between regulations and NPD in The Financial Services Industry. We are therefore also the first to find that regulations are an important factor to take into account when studying NPD in The Financial Services Industry. Furthermore, our findings support the fact that regulations indirectly foster innovation when measured on the number of products launched. But, when looking into the degree of innovativeness we find that the products with a high degree of innovativeness have declined during the period of increasing regulations and the products with a low degree of innovativeness have increased. Finally, we contribute to the existing theory by supporting the arguments made in the literature about the importance of taking into account the whole complexity and the flexibility of the regulations influencing a NPD project, as these are both
necessary factors to take into account when studying the gap between regulations and NPD in The Financial Services Industry.

As a closing remark, this thesis takes the first humble steps towards addressing and uncovering an unknown area being the gap between external regulations and NPD in The Financial Services Industry. However, as no other existing studies address this exact relationship, we conclude that more research is needed to further develop the knowledge and fill in the gap in this area. This statement is developed upon below where we reflect on our findings and look at opportunities for future research.

7.2 Reflections and Further Research

To close our project we shortly reflect on the generalizability of our findings and look into the opportunities for future research arising from our findings relating to the gap between external regulations and NPD in The Financial Services Industry.

Based on our knowledge from our literature review in Chapter 2, we know that there is problems when generalizing the findings within regulations’ effects on innovation as there is a big difference across countries in terms of external regulations, a greater complexity behind each individual NPD project, and that there is a diversity within each company and their individual management of external regulations. To bypass this problem the above study has been achieved through a conscious choice of methodology, method, empirical data, and literature which has ensured that we have achieved in depth and valid research of our identified problem statement. However, we are aware that these choices can affect our achieved results and thus the generalizability of these. Specifically, we have identified four central areas from which our results may have been affected; the question of objectivity of our case study, our empirical data, our chosen theoretical standpoint, and finally our method.

Firstly, the question of objectivity of our case study may have affected our results, as it can be argued that our choices regarding how to progress with our case study or how to design the study may be based on subjective decisions. However, as stated by Berg (2007), the question of objectivity of our results: “(…) rests on the ability of an investigator to articulate what the procedures are so that others can repeat the research if they so choose.” (Berg, 2007; 295). Thus, throughout our study we have clearly articulated and documented our procedures, gathered empirical data, etc. Hence, we are not in doubt of other researcher’s ability to duplicate our case
study on a different case i.e. another Danish financial services company, or even a financial services company in another geographical location.

In connection with the above central area, we find that our empirical data constitutes the second identified area in which our results may have affected. In relation to our secondary data; publicly available data and non-publicly available data produced by Nykredit, our results may have been influenced as we have not had full control over the production of this data, thus the subjective opinions and perceptions of the creators, being Nykredit or another part, may have influenced the data. On the other hand, this is exactly why we did not only rely on secondary data, but used an extensive amount of time gathering primary data. However, as much of our primary data is collected based on interviews with the Project Managers and Head of Product Implementation Peter Læssøe and through a focus group interview many of our results are based on their subjective ability to recall and repeat correctly how the different NPD projects were formed in relation to our identified characteristics. During this process there could of course have been misunderstandings of the characteristics, wrong anticipation about the NPD project, etc. which have affected our results. Therefore, in the perfect world we would have used more time recording and documenting our data throughout the whole data collecting process.

The third central area from which our results may have been affected is our chosen theoretical standpoint. We have primarily focused on literature within the areas of regulations effect on innovation and NPD in The Financial Services Industry. Had we chosen to draw on literature from other areas of our research field such as Idea Management, Portfolio Management, etc. we could have achieved other results. This means that our analysis ultimately could have identified different conclusions as to what effects the increased number of external regulations has had on the launched products in Nykredit.

Our last identified area in which our result may have affected is our chosen method, as it can be argued that our method of one instrumental and explanatory case study may hamper our ability to generalize to other cases. However, as stated by Berg (2007) this is not a major concern, as there is a clear scientific value to gain from investigating a single category through a case study. This argument is supported by the Bogdan & Biklen (1992): “It is the task of the researcher to determine what it is he or she is studying; that is, of what is this a case?” (Bogdan & Biklen, 1992; 66). This statement by Bogdan & Biklen (1992) is grounded in the fact that a necessary assumption for all research of human behavior is that human behavior is predictable to some degree (Bogdan & Biklen, 1992). Thus, as we base our study on an extensive data set covering 100 launched products
in Nykredit from 2008-2012, and the fact that all companies in The Financial Services Industry in Denmark are affected by the same high level of regulations, we argue that a generalization within this specific industry in Denmark is to some extent possible. Had we instead chosen to focus on a few of the launched products our ability to generalize our findings would have been hampered. Therefore, due to this large sample our assumption is that we can predict what findings another case study of regulations’ effects on NPD in The Financial Services Industry would find.

In conclusion, we therefore argue that we have bypassed the question of generalizability and argue that the findings, results, and contributions of this thesis can be generalized to some extent within The Financial Services Industry in Denmark and can therefore be used in further studies. However, as this thesis humbly takes the first steps towards opening up the black box addressing the gap between external regulations and NPD in The Financial Services Industry, it is important to continue to study this link and thus the above contributions more in depth. When having answered these initial questions more in depth it becomes important and very interesting to address this subject from an additional perspective asking more in depth why we can derive these findings. However, even though it is tempting to continue with these studies right away these studies are; firstly outside the scope of this thesis and secondly outside the scope for upcoming studies in the near future until the research area is better uncovered.
8 Bibliography

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17. http://www.nykredit.com/aboutnykredit/info/company/core-values.xml
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