

Business Model Transformation of Start-ups Towards a B2B/B2C Hybrid

Developing a Value Proposition for Low-Interest Goods for the B2B Market

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Abstract

Business model innovation has become a popular alternative for businesses to transform and react to changes in the market, compared to resource-intensive product or process innovation across industries. While researchers have shown more and more interest into this domain, it is still emerging. B2B/B2C hybrid business models can enhance the growth of start-ups in consumer goods. This is especially the case in e-commerce, as the B2B e-commerce market is expected to grow faster than its B2C counterpart.

This research concerns the integration of a B2B customer segment into the business model of an e-commerce start-up via the business model transformation towards a B2B/B2C hybrid. The problem-solving-cycle, which follows the design science research paradigm, was chosen as research methodology for various reasons. Firstly, it addresses the rigor-relevance gap, which comprises the issue of a lack of actionable insights in scientific literature. Secondly, it is possible to design concrete solutions for a business problem. This way, the research case company can be guided in its business model transformation with action steps that are tailored to the case. Thirdly, the unique combination of empirical research and theoretical grounding proved to be beneficial in a relatively young research domain where there are no overarching theories yet.

The research started by defining the business problem and exploring current industry developments (external exploration). The business problem was then analysed through customer interviews, expert interviews, and theoretical grounding. It was found that the product category which the start-up sells evokes low interest and involvement among business customers and was therefore labelled “low-interest goods”. To find a solution to the business problem, it had to be found how the start-up can build a value proposition for this product category. Two options for doing this were weighed according to case-specific criteria and a solution concept was designed for the start-up.

This research adds to existing literature on business model innovation, especially in providing actionable insights for entrepreneurs and managers. By doing this, it is making an attempt to close the rigor-relevance gap.

Glossary

Term	Definition	Page
B2B e-commerce	An electronic transaction between businesses over the internet, including intra- and extranets as well as private networks (Jennex et al., 2004).	8
B2C e-commerce	The “electronic sales of goods, services, and content to individuals” (Jennex et al., 2004)	8
B2B/B2C hybrid	Business models, that serve both organisations and end-consumers as customers, also referred to as “B2B2C” (Mingione & Leoni, 2020)	8
Business Model	A representation of an organisation’s value dimensions, namely its “value proposition, value creation, value delivery, and value capture” (Chasin et al., 2020).	10
Business problem	The problem-solving cycle is guided by a specific business problem. The business problem is chosen by a company stakeholder (van Aken & Berends, 2018).	19
Problem mess	A set of interrelated problems” (van Aken & Berends, 2018, p. 12).	19

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1. Introduction

1.1 *B2B E-Commerce Adoption for Start-Ups*

This research concerns the integration of a B2B customer segment into the business model of an e-commerce start-up via the business model transformation towards a B2B/B2C hybrid. In recent years, digital platforms and interfaces have gained importance in the business-to-business (B2B) market (Wu et al., 2022). Especially third party B2B e-commerce platforms have gained popularity, allowing access to a wider market, and relieving procurement and marketing costs (Liu et al., 2020). Still, to profit from B2B e-commerce, one does not necessarily have to take part in a platform type business model. B2B e-commerce adoption strengthens the position of small-to-medium sized companies (SMEs) in developed and developing economies (Ocloo et al., 2020).

B2B e-commerce can be defined as an electronic transaction between businesses over the internet, including intra- and extranets as well as private networks (Jennex et al., 2004). On the contrary, B2C e-commerce describes the “electronic sales of goods, services, and content to individuals” (Jennex et al., 2004). While traditionally the B2B market was dominated by larger organisations, more and more small-to-medium enterprises (SMEs) buy and sell products and services directly since the early 2000s (Jennex et al., 2004). B2B e-commerce adoption can provide SMEs with competitive advantage in several domains. Especially operational efficiency, relationships with customers and suppliers, and overall sales can benefit from inter-organisational e-commerce. Moreover, the B2B e-commerce market is expected to grow quicker than the B2C e-commerce market (Ocloo et al., 2020). On top of that, compared to a business-to-consumer (B2C) transaction, orders in B2B are typically larger in volume (Jennex et al., 2004).

The findings suggest that e-commerce start-ups can enhance their growth and overall performance by moving into the B2B domain. However, this does not mean that a firm should completely abandon their existing B2C market. There are B2B/B2C hybrid business models, that serve both organisations and end-consumers as customers, also referred to as “B2B2C”

(Mingione & Leoni, 2020) or “Mixed B2B/B2C” (Iankova et al., 2019). A mixed B2B/B2C business model can “maximize both profitability and scalability” (Suh & Chow, 2021). Hence, start-ups can benefit greatly from adopting a mixed or hybrid B2B/B2C business model approach.

1.2 The Research Case

Having found that a B2B/B2C hybrid business model can have benefits for SMEs and start-ups, it has to be explored how a company can implement the transition towards such a business model. The case company is a German e-commerce start-up retailing fresh consumer goods. Founded in 2018, the start-up has since successfully built a customer base in the B2C market.

Being a pure-online business, all sales are generated through the start-up’s online shop. Here, customers order from a choice of over 150 items. When ordering, one can choose a desired delivery date up to one day in advance. Moreover, a wish text can be indicated that is printed on a free card and added to the parcel. This way, the products are suitable for gifting to others. The products are hand-made in a centralised production facility and shipped within 24 hours before the desired delivery date. The delivery is provided by DHL throughout Germany, the Netherlands, and Belgium.

The start-up now aims to build on its existing private customer base by expanding its B2B customer base. So far, no significant effort has been put into targeting businesses as customers. However, a business client orders several times per year, meaning that more revenue is generated with one customer. Furthermore, when the products are gifted by a firm to an employee, client, or partner, the recipient can potentially be won as a private customer. Considering the importance of the B2C market, the start-up strives for a business model transformation towards a B2C/B2B hybrid e-commerce business model.

1.3 Theory on Business Model Transformation

To grow their revenue and increase profit margins, companies continuously seek to innovate products or business processes. These innovations can be extremely costly and

time-consuming, especially in terms of upfront investments, while return on investment is uncertain. Hence, businesses increasingly seek to innovate their business model instead, which is argued to be less resource-intensive (Amit & Zott, 2012).

There are many theories aiming to guide entrepreneurs in transforming and innovating their current business model. A business model is a representation of an organisation's value dimensions, being its "value proposition, value creation, value delivery, and value capture" (Chasin et al., 2020). Various conceptualisations have been developed to describe a firm's business model, which mostly centre around the afore-mentioned value dimensions (Chasin et al., 2020).

In business model innovation research, four major streams have been identified. Firstly, the phenomenon of business model innovation is highlighted with definitions and conceptualisations. This stream of research focuses on finding meaningful definitions of the term itself and the dimensions along which one can innovate the business model (Foss & Saebi, 2017). Important contributions to this research domain are the Business Model Canvas (Osterwalder & Pigneur, 2010, appendix I) and the conceptualisation by Teece (2010), which adopts a very customer-centric stance. This research stream is applied in this research, to the extent that definitions from the business model innovation domain are used for explanations.

Secondly, business model innovation is researched as outcome of an organisational change process. Here, the focus lies on the conceptualisation of new business models and certain types of such, which often emerge in a certain industry such as emerging markets (Foss & Saebi, 2017). Here, an example is the recent transition from a product-based to a service-based value offering (Stott et al., 2016). This process called servitisation has become increasingly popular since the 2000s, as the number of published studies on the topic show (Zhang & Banerji, 2017).

Thirdly, current research addresses the consequences and suggestions for performance following business model innovation. On the one hand, the direct outcomes of business model innovation are measured against performance indicators (Foss & Saebi,

2017). Currently, there are no generic performance indicators that measure the outcome of business model innovation. Rather, the organisation must select those indicators itself (Batocchio et al., 2017). On the other hand, this research stream tests different business model designs in their outcome on innovation (Foss & Saebi, 2017).

Lastly, business model innovation is researched with regards to organisational change processes. Here, the “capabilities, leadership, and learning mechanisms that are needed for successful [business model innovation]” are highlighted (Foss & Saebi, 2017), making this the research stream that is most applicable to the research case. Within this research stream, business model innovation has been described in different ways. On the one hand, researchers have focused on the different phases of the change process. Four types of change have been defined (Cavalcante et al., 2011). First, business model creation refers to the transition from an idea to its materialisation in a new venture. Second, in business model extension, activities and/or processes are added to an existing business model. Third, business model revision describes a change in which a certain part within the business model is replaced with a new process. Fourth, business model termination means ending certain processes within the business model (Cavalcante et al., 2011). In more recent research, the integration of a new business model within an existing company was added to the understanding of business model extension (Chasin et al., 2020).

On the other hand, researchers determined organisational capabilities that are needed for successful business model innovation. For example, experimental orientation, balanced resource use, and coherent leadership and company culture were identified as “critical capabilities” for “sustained value creation” (Achtenhagen et al., 2013). A key focus in this research stream lies on experimentation as a method to successfully innovate business models. One method is the lean start-up framework, according to which a prototype is built based on a business idea with the “build-measure-learn” cycle. This way, one can estimate the desirability of a product early in the development process (Mansoori & Lackéus, 2020). Some researchers aim to provide “practitioner-oriented tools” that help to manage the change

process. For example, innovation readiness levels were developed as a tool to measure to what extent an organisation is ready to implement a certain business model and how much stress this creates (Evans & Johnson, 2013).

1.4 Literature Gaps in Business Model Innovation Research

Business model innovation has shown great success in increasing a firm's performance, making it an interesting topic in the academic and corporate world. There are many layers to this area, as shown in the four research streams described in 1.3. However, more conceptual and empirical research is needed to understand this trend (Foss & Saebi, 2017). Especially, the challenges related to the value dimensions in a business model as defined in 1.3 need more consideration (Parida et al., 2019).

The "boundary conditions" in which business model innovation takes place is not taken into consideration enough in the current literature. Firms differ greatly in size, age, and industry, however, much of the current research findings have been produced in entrepreneurial firms. It is assumed that while start-ups are flexible enough to undertake business model innovation, the consequences of it are more visible in the performance of more advanced firms (Foss & Saebi, 2017). Contrary to this, other researchers call for more empirical studies in SMEs (Filser et al., 2021). Moreover, business model innovation research should adopt an "ecosystem perspective" as opposed to a "firm-centric view", to shed more light on the changes that are necessary in a firm's network when business models are transformed (Parida et al., 2019).

Overall, literature on business model innovation presents "suggestive but often ill-defined concepts", stemming from the fact that it is an emerging field (Foss & Saebi, 2017). It was found that there is "no common ground in explain the concept [business model] among researchers (Bashir & Verma, 2019) and a "broad [business model innovation] theory is needed (Filser et al., 2021). It is criticised that "scholars often impose structure on ill-structured problems". Problems are ill-defined when there are "no well-defined ends, means,

causal relations [...], objective functions". The field of business model innovation still needs more "cumulative" theory with typical problem-solving (Foss & Saebi, 2018).

Another issue arises from the fact that research on firms' performances, which is connected to business model innovation when one aims to reach a performance-related goal with the transformation, only provides limited actionable insights. It is argued that this "rigor-relevance gap" stems from the different social systems of the academic and practitioner domains. Scientific rigor can only be increased at the expense of managerial relevance, and contrariwise. "Real-world problems" are often framed along present theories. Moreover, during the course of scientific research, new problems arise to be researched and the original problems remains unanswered (Kieser & Nicolai, 2005).

1.5 Design Science Research as Methodology

Design science research increases the relevance of the research for both the academic and practitioner domain (Suh & Chow, 2021). Both "rigour" and "relevance" are addressed in the design science research methodology, such as the three cycles of design science research by Hevner (2007). Theoretical grounding and an analysis of the problem environment are applied to every research case, which eliminates the risk of losing focus on the business problem at heart. Moreover, since the definition of a business problem plays a crucial role in the design science research process, the risk of ill-defined problems, which is so present in business model innovation research, decreases significantly. Design science research is introduced in more detail in chapter 2.

1.6 The Structure of Design Science Research and Its Implementation

This research follows the problem-solving cycle by van Aken and Berends (2018) and is structured accordingly. The research methodology is described in more detail in chapter 2.2.

The cycle consists of five steps, however only the first three are completed in this project. The last two steps concern the change implementation and its evaluation. To be able to evaluate the recommended actions in a valid and reliable way, they need to be in place for a certain amount of time that exceeds the scope of this Master's thesis. Therefore, the case

organisation is advised on concrete changes to implement, so that they can be carried out by the company representative once the thesis project is finished.

The first phase is called intake and problem definition and is carried out in chapter 3. The main components are an external exploration, internal orientation, and problem selection. In the external exploration, the research topic is connected to current and relevant trends and developments in the industry. First, the industry of the client organisation is analysed to position the start-up (3.2.1). Next, relevant trends and developments in the B2B e-commerce market are described (3.2.2) and two best practice examples of the same industry as the client organisation are presented (3.2.3). In the internal orientation, the business problem is discussed with a company representative, who is the start-up's managing director in this case (3.3). To select a business problem for further research, the "problem mess" is structured by defining the relevant themes from the previous steps, organising them, and choosing a group of themes as the business problem (3.4). It was found that the managing director's expectations for the business model transformation differ from what was found in the industry developments and best practice examples. Therefore, the chosen business problem is summarised in the research question "*how can an online-pure-player e-commerce start-up of consumer goods transform its business model towards a B2B/B2C hybrid?*"

The second phase concerns the analysis and diagnosis of the business problem. In this case, the problem is a future opportunity, which leads to an adjusted diagnosis that focuses more on the various details of this opportunity, instead of a business problem's roots. The analysis and diagnosis phase starts by modelling relevant business systems and processes, which is the start-up's current offering for business clients and the ordering process for both the B2C and B2B customer segment (4.1). Next, a problem-oriented analysis is conducted, which is an iterative process of problem validation, empirical explorations, and theoretical grounding. Interviews with business clients of a company with the same business model were used to validate the needs and wishes for business clients in the market (4.2.1). Here, the products that the start-up retails were identified as goods which professional buyers want to

be buy with as little involvement as possible. The products were therefore labelled “low-interest goods” and the research sub-question “*how to develop a value proposition for low-interest products*” had to be answered. An overview of the reformulations of the business problem can be found in figure 1.

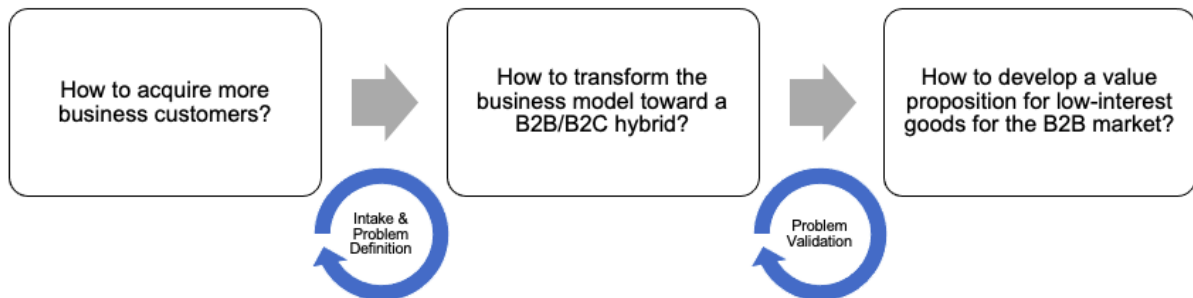


Figure 1: Feedback Loop of the Business Problem Definition.

A literature search for this low-interest product category did not deliver any search results. Hence, the empirical exploration was carried out by interviewing B2B marketing experts and entrepreneurial advisors (4.2.2), aiming to discover how the client organisation can develop a value proposition for low-interest goods and adapt its B2B business model according to the B2B customer segment. Following the expert interviews, three topics on B2B product classifications and business modelling were further defined for more clarity (4.2.3).

The insights from the problem validation and the following problem-oriented research showed that to build a value proposition for a low-interest product, one must focus on either adding products and services to enhance the overall value, or by increasing the convenience of the buying process to unburden the business customer. Furthermore, segmenting the B2B market to be able to target a certain segment can prevent the failure of a B2B/B2C hybrid business model.

Having completed the analysis and diagnosis of the business problem, the solution could be designed. Firstly, the solution design requirements (5.1) and design inputs (5.2) were defined. Next, the two options for building a value proposition for low-interest products were weighed against each other (5.3). For this, criteria were specified to evaluate to what extent they suit the client company’s goals, attract a certain B2B segment, and impact the firm’s

business model. Following this evaluation, it was found that increasing the convenience of the buying process to unburden business customers is the better option for the client company. To answer the initial research question, this solution option was detailed to fit the client organisation (5.4) and translated into a comprehensive change plan (6).

1.7 Academic Contribution

Although the generalisability of a design science research project is limited due to the focus on the client organisation, there are relevant contributions to current literature.

Firstly, no scientific literature could be found on the low-interest product category in the B2B market, let alone the value creation thereof. The literature review process in search for information on this product category can be found in appendix II. Moreover, existing classifications of B2B products mostly focus on industrial value chains, not taking into consideration the many auxiliary products that are not directly linked to the value creation process of a firm. One could argue that the low-interest products are often used for the same purpose in B2B and B2C buying situation. For example, both professional buyers and private customers might buy the start-up's products to gift them to someone else. While the buying intention might be similar, this research has shown that the interest and involvement in the buying process varies greatly between the B2B and B2C customer segments. Therefore, serving both customer segments with the same value proposition can lead to low sales, as one customer segment is greatly misunderstood.

Secondly, this research adds to the current literature on the B2B e-commerce market. Being a fast-paced landscape, latest e-commerce developments quickly become outdated. Many of the trends and developments identified in 3.2.2 could be validated during this project. One trend was the rise of B2B/B2C hybrid business models, which are expected to become more common thanks to the consumerisation of the B2B market. This research makes a relevant contribution towards research on business model transformation headed for B2B/B2C hybrids.

2. Design Science Research

Design science research is “fundamentally a problem-solving paradigm”, rooted in engineering (Hevner et al., 2004). It belongs to the “design” type of theory, meaning that it delivers prescriptive knowledge by giving instructions for design and action (Gregor & Hevner, 2013). While design science research is the leading research paradigm in medical and engineering schools, it has increasingly found its way into the business schools (van Aken & Berends, 2018, p. 10). In contrast to research focussing on exploration and/or validation of causal relationships, design science research aims to build and evaluate “means-ends relations” (Winter, 2008). This results in a major difference between the two forms of research in terms of relevance. While the former “behavioural” research assesses the accuracy of results based on statistical significance, design science research measures them according to practicality. Consequently, the results of behavioural research often show limited relevance, whereas those of design science research can vary in the level of precision with which it is carried out (Winter, 2008).

The terms ‘design science research’ and ‘design research’ are used for the same purpose in literature, which leads to uncertainty. A differentiation can be made as follows: Design science research stands for “research with design as a method of investigation”. Design research, however, is interpreted in a broader sense, “with design as a *method* of investigation *and a topic* of investigation” (Iivari, 2012, as cited in Iivari, 2015). Another explanation is that “design research” uses construction and evaluation to arrive at a solution to certain problems, while “design science” aims to create standards for the rigorous design process. However, it is argued that the term “research” entails that the found solution is generalisable to a certain extent (Winter, 2008).

Design science research can be distinguished into two strategies, (Iivari 2015). The first strategy aims to build a “meta-artifact” as a general solution concept. Here, constructive research methods are used to create the meta-artifact, which is then evaluated with empirical

studies. Furthermore, disciplinary expertise is needed to carry out the research. In the second strategy, a “concrete” artifact is constructed to solve a “specific problem”. Due to the explicit focus, a client or client organisation is usually involved in this strategy. Action (Design) Research is the main research method here and multi- or interdisciplinary expertise is needed to arrive at a conclusion (Iivari, 2015).

2.1 Design Science Research Cycles

Having introduced the difference between design (science) research streams above, the type of design science research that is used for this research is described as follows. Hevner (2007) examines design science research as a picture of “three closely related cycles of activities”. The three cycles need to be existing and recognisable in any design science research undertaking. This model represents how theoretical grounding and the research environment interact, which is what makes design science research a unique and innovative research approach that is especially suitable to solve business problems. An overview of the design science research cycles can be seen in figure 2.

The “Relevance Cycle” provides requirements from the environment and the “research artifacts”. It usually is the beginning of design science research as opportunities and problems in the environment need to be discovered and defined first.

The “Rigor Cycle” contributes “grounding theories and methods”. From the existing knowledge in methods and theories, a research project’s innovation can be guaranteed. Since design research is also a creative process, finding and using relevant theory can be a challenge. Focussing on grounding theory too much can even harm the design research.

In between the two, the “Design Cycle” represents the “construction and evaluation of design artifacts and processes”. It is described as “the heart of any design science research project”. Alternative designs are generated and evaluated based on design requirements drawn from the previous two cycles (Hevner, 2007).

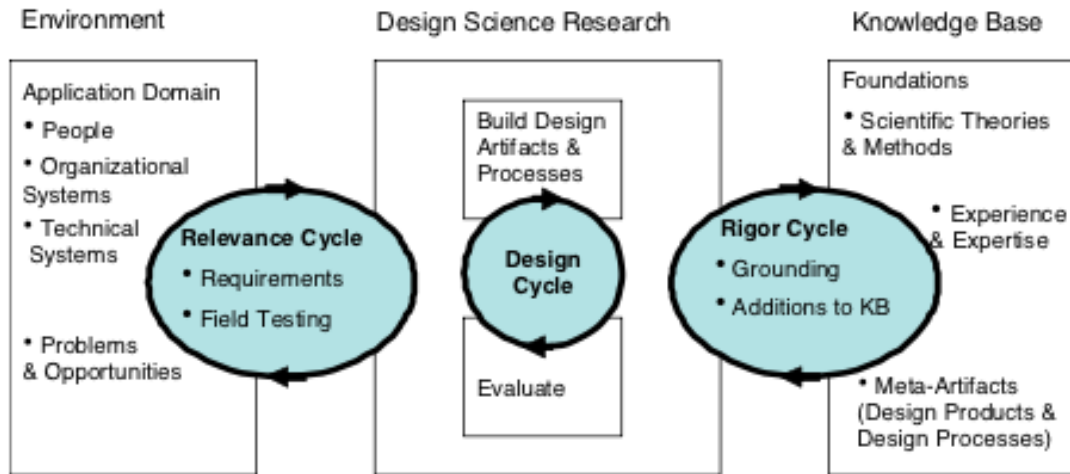


Figure 2: Three cycles of Design Science Research (Hevner, 2007).

Artifacts play a key role in the design science research process. An artifact is “a thing that has, or can be transformed into, a material existence as an artificially made object [...] or process” (Goldkuhl, 2002, as cited in Gregor & Hevner, 2013). The construction and description of artifacts lead to the development of “more comprehensive bodies of knowledge or design theories” (Gregor & Hevner, 2013).

It is criticised that design research is lacking a widely acknowledged model for reference processes and guidelines for evaluating the various types of artifacts (Winter, 2008). Moreover, it is often unclear what the contribution to knowledge and theory of design science research is and there is little guidance for design science researchers for how to indicate this. It is said that the theoretical contribution depends on the designed artifact, the state of current knowledge in the research field, the target audience, and where it is published. In a field where the solution and application domains are already quite mature, there can be no “major knowledge contributions” (Gregor & Hevner, 2013).

While the three cycles of Design Science Research represent the main components of this research paradigm and highlight the unique composition of scientific literature and empirical research, it does not provide specific guidelines for applying it in practice. Hence, the problem-solving cycle is introduced in the following and used as the guiding methodology

for this research. Here, the implications of Design Science research are translated into concrete research activities.

2.2 Problem-Solving Cycle

To follow the design science research paradigm, this research takes the problem-solving cycle described by van Aken and Berends (2018) as guiding methodology. The problem-solving cycle is guided by a specific business problem. The business problem is chosen by a company stakeholder. Usually, it is a “problem mess” consisting of a set of interrelated problems” (van Aken & Berends, 2018, p. 12). Following this approach, one can contribute to theory by developing generic solutions to a type of business problem, which is done in this research.

Figure 3 provides an overview of the different phases of the problem-solving cycle. This research strictly follows its guidelines, which is why the different phases can be recognised in the remaining chapters of this report. Completing the phases intervention as well as evaluation and learning exceeds the scope of this research. For this, a change plan as well as methods to evaluate the success of the solution are indicated in chapter 6.

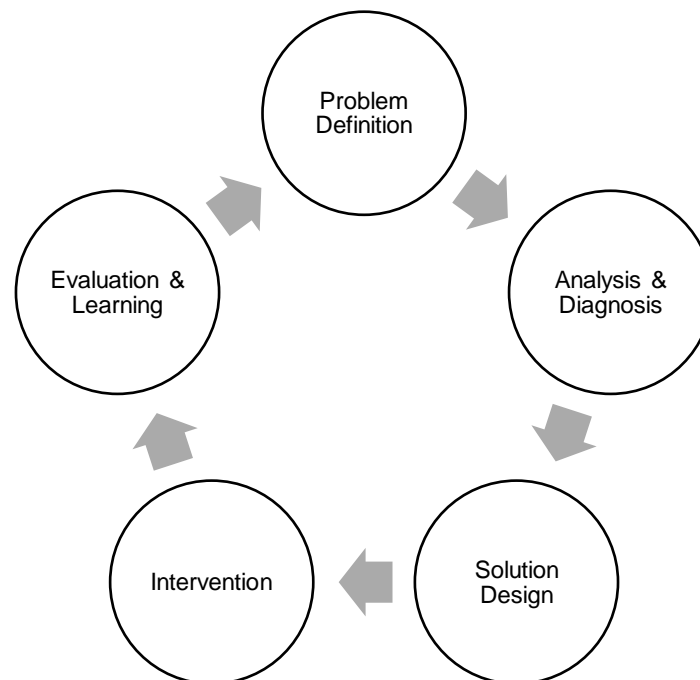


Figure 3: The Problem-Solving Cycle (van Aken & Berends, 2018).

The first phase called Intake and Problem Definition is carried out to define the business problem. Here, the business problem is discussed with a company representative and compared to its environment. For this, an external exploration is conducted through an analysis of the industry and current trends and developments. Based on the above, the “problem mess” is structured to arrive at a problem definition (van Aken & Berends, 2018).

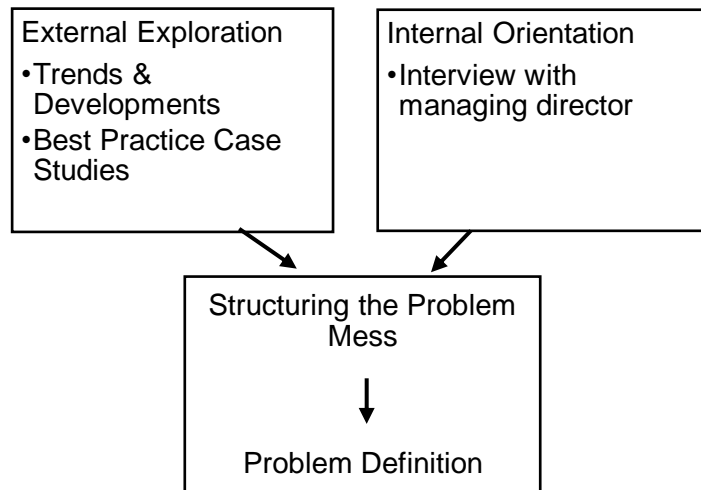


Figure 4: Intake and Problem Definition: First Phase of the Problem-Solving Cycle.

In the following step, the business problem is diagnosed and validated. As it was mentioned previously, this business problem is an opportunity that lies in the future, which is why some activities had to be adapted, following the recommendations by van Aken and Berends (2018).

The analysis and diagnosis phase begins with modelling the present business system. In this case, the ordering process of both regular and business customers is described. As the start-up aims to be a B2B/B2C hybrid, it is important to understand the differences between the ordering process for business and individual customers.

Next, a problem-oriented analysis is carried out which consists out of three components that are applied iteratively, tailored to the research.

Firstly, the business problem was validated using business customer interviews. Here, it became clear that most of the interviewed customers value a quick and efficient order process with minimal supplier contact. Based on these insights, the products which the start-up sells

were labelled *low-interest goods*, to describe the limited consideration that is put into the purchase by business clients. A literature search for an official term for this product category has not been found.

Secondly, an empirical exploration was carried out. For this, B2B marketing experts and start-up business advisors were interviewed. Following the validation and the empirical exploration, it became clear that to answer the problem question, it needs to be discovered how to build a value proposition for these low-interest goods.

Thirdly, a literature review was conducted to clarify some terms mentioned in the expert interviews. Specifically, these were B2B product classifications, the Business Model Canvas, and the Lean Canvas.

The three components mentioned above were summarised in a diagnostic story of the business problem.

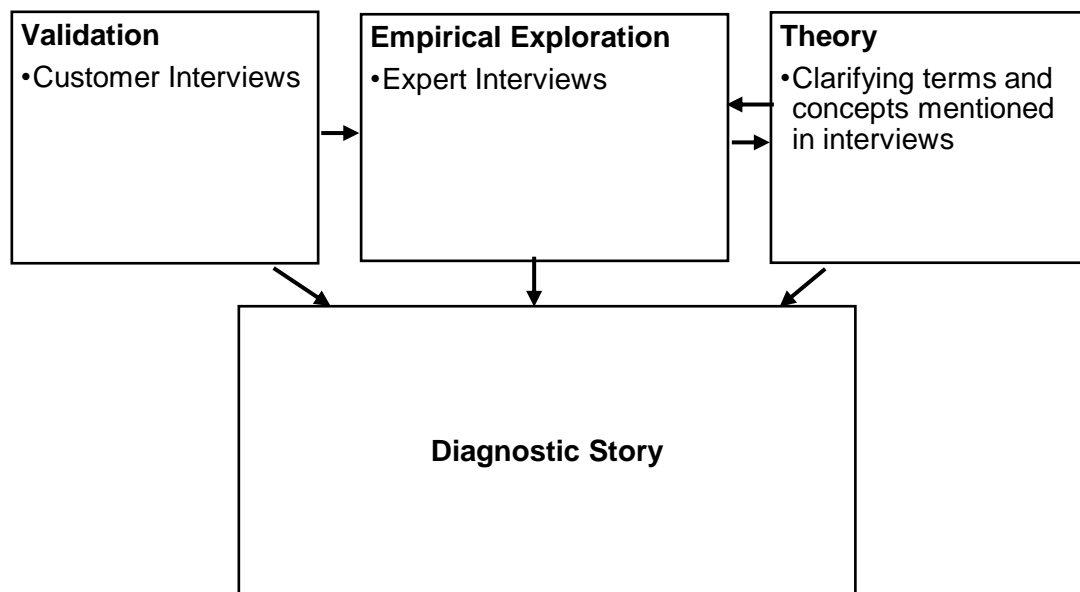


Figure 5: Analysis and Diagnosis: Second Phase of the Problem-Solving Cycle.

Based on the previous two phases, the solution design was created. Here, the first task was to create the design requirements that the solution must fulfil. Furthermore, the design inputs were summarised. With these in mind, the solution sketching was carried out based on Synthesis-Evaluation Iterations. Here, two solution concepts that emerged from the analysis and diagnosis phase were evaluated according to the design requirements.

From the evaluation, a solution concept was chosen and further detailed to fit the problem question and the company. Based on the detailed concept, a change plan was created for the start-up to help in implementing the solution.

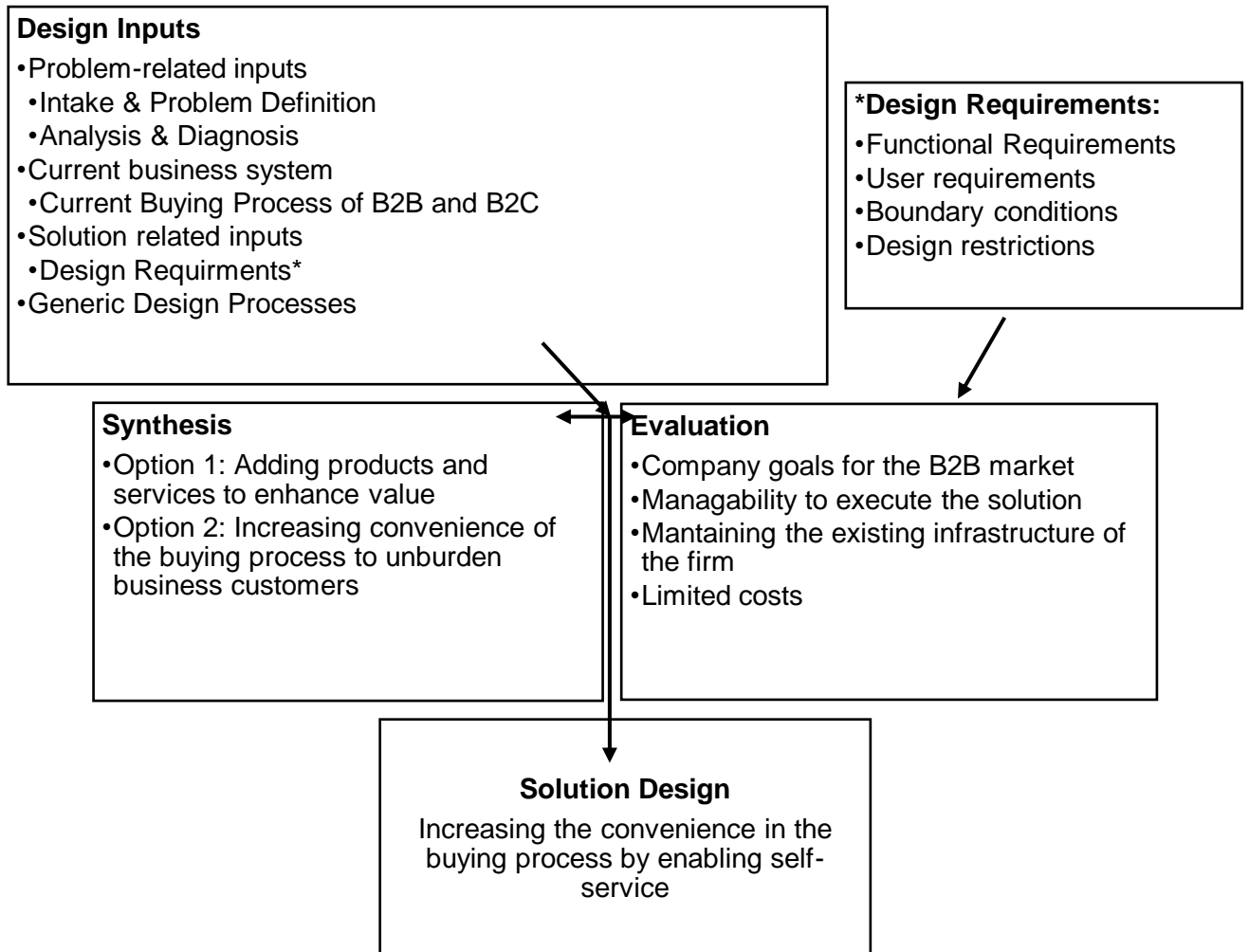


Figure 6: Solution Design: Third Phase of the Problem-Solving Cycle.

3. Intake and Problem Definition

The first phase of the problem-solving cycle leads to the problem definition through a process that is based on “intake meetings and orientation activities” (van Aken & Berends, 2018). In the following, the client organisation’s industry is examined through an analysis of recent trends and developments. Having defined the market segment that the client

organisation operates in as well as important trends, two best practice cases are presented to learn how a successful business model in this industry can be achieved.

3.1 Intake: The Business Problem Defined by the Research Organisation

The intake is the moment where the company introduces the “problem mess” (van Aken & Berends, 2018, p. 49). The client organisation aims to expand its business model by adding a business customer segment. Since being founded in 2018, the company has successfully built a client base in the B2C market. Now, acquiring business customers is seen as the next step for growing the company.

3.2 External Exploration: Studying the Industry in which the Research Case is Set

The external exploration phase establishes connections between the latest industry developments and the topic of interest for which the problem-solving cycle is carried out. This is done through desk research of public sources. The STEP-analysis procedure is recommended to explore current trends in the industry, where STEP stands for Social, Technological, Economical, and Political (van Aken & Berends, 2018). The analysis of trends and developments can be found in chapter 3.2.2, after it has been defined in which specific industry this project is set (3.2.1). In addition, best practice examples of B2C-B2B e-commerce business models are analysed (3.2.3) that serve as guidance for the business model transformation of the client organisation.

3.2.1 Investigation of the Organisation and its Industry

There is a distinction between two kinds of e-commerce, namely “business to consumer (B2C)” and “business to business (B2B)” (Shim et al., 2000). The former describes the trade in which individuals buy goods or services from businesses, whereas the latter describes transactions between two businesses (Shim et al., 2000). The B2B market can be further distinguished into (1) “end user business” (B2B), (2) “intermediate and end user business” (B2B2B), and (3) “intermediate business and end user consumer” (B2B2C) (Brotspies & Weinstein, 2019). A conceptual model is used to type B2B businesses according to two dimensions. On the one hand, these are types of end users and whether an intermediary firm

is involved, and on the other hand whether products are customised or standardised (Brotspies & Weinstein, 2019) (see table 1).

Table 1

B2B Segmentation typology

Product use by customer	Standardised products	Customised products
End user business (B2B)	B2B, standard	B2B, customised
Intermediate, end user business (B2B2B)	B2B2B, standard	B2B2B, customised
Intermediate, end user consumer (B2B2C)	B2B2C, standard	B2B2C, customised

Adapted from Brotspies & Weinstein (2019).

B2B occurs when “a business sells products to another business who uses the product themselves” (Brotspies & Weinstein, 2019). This research deals with a B2B situation, as no intermediaries are involved.

In B2B e-commerce, three operating forms can be identified (Heinemann, 2020). Firstly, B2B multi-channel suppliers are traditional manufacturers and wholesalers that operate an online shop next to their stores. Secondly, platforms and marketplaces describe third-party intermediary sites that are often interactive. Thirdly, there are B2B Pure Online Players, which are often newly founded businesses and start-ups. These ventures operate online only and often sell to both a B2C and B2B clientele, which goes in hand with the growing trend towards “consumerisation of B2B” (Heinemann, 2020). The B2B-B2C-hybrid is described as “B2B2C” (Bolz & Höhn, 2019, as cited in Heinemann, 2020).

The operating forms can be differentiated further into 6 business types, depending on whether there is a single transaction or bundled purchases, and whether there is a single customer or a wider, anonymous market. This creates the following business forms based on Heinemann (2020, p. 42):

1. A project-based business type describes multifaceted, one-time offers that require a high degree of specialisation.
2. A supplier business type describes trade with parts and semi-finished parts that are further used by manufacturers.

3. A system-based business type describes an offer consisting of several items that often build on top of each other, part of which can also be services.
4. An integration business type describes the situation where bundled purchases are happening for a single customer. Examples are subscription-based business models, but also a supplier of parts for a specific car model.
5. A product-based business separates into industrial goods and consumer goods:
 - a. Industrial goods are often standardised and can be supplied anonymously.
 - b. Consumer goods are split into four categories:
 1. “Convenience Goods” are products used daily and purchased without extensive preparation, such as food.
 2. “Shopping Goods” are more expensive than convenience goods and bought with more consideration. Examples are clothing and home furniture.
 3. “Specialty Goods” are luxury products that are especially expensive, such as designer jewellery or luxury cars.
 4. “Unsought goods” are products with very low demand, that the consumer might not even be aware of. Examples are insurances or energy providers.

Based on the classification above, the case company of this research can be grouped into an *online-pure-player in the consumer goods business type*. Furthermore, the research company can be categorised into the “Direct-to-Consumer (D2C)” distribution channel (Heinemann, 2020, p. 105). This means that the business sells directly to its consumers via its own online sales channel, without a third-party platform or marketplace.

3.2.2 Relevant Developments in the Industry

In the following, trends and developments in the B2B e-commerce market are explained. Since the e-commerce landscape is a fast-paced environment, it is important to recognise current developments to ensure that the final solution to business problem is relevant. The

STEP method is recommended to do a trend and development analysis, as it covers the social, technological, economic, and political domain (van Aken & Berends, 2018, p. 48). Table 2 presents a summary of the trends that are relevant for this research.

Table 2

Summary of relevant trends and developments in the e-commerce in the B2B e-commerce market.

Social T&Ds	Technological T&Ds	Economic T&Ds	Political T&Ds
Customisation	Digital infrastructure development	Increasing gap between big and small online shops	General Data Protection Regulation
Consumerisation	Omnichannel selling	Covid-10 leading to growth in overall e-commerce	Channel-neutral legislation
Value co-creation Self-service	Mobile shopping Metaverse and AR Personal content with AI		

Social Trends and Developments. Generally, the social domain of a STEP-analysis describes the societal environment, including norms, values, traditions, culture, and demographics (Retzlaff, 2020). In this research, the trends and developments related to the business consumer's behaviour is especially interesting.

There is an increasing necessity for customisation in business markets (Brotspies & Weinstein, 2019). Customisation can be applied to the product's amount, attributes, transportation, or special arrangements (Narayandas, 2005, as cited in Brotspies & Weinstein, 2019).

The "Consumerization [in] B2B" means that business customers are approached in a way that is increasingly similar to individual customers (Heinemann, 2019, pp. 23–24). The reason for this is that professional buyers often also shop privately on a platform, such as Amazon, and are therefore expecting the same service. However, only few B2B e-commerce players have recognised this need (Heinemann, 2019, p. 190). This is a chance for B2C e-commerce businesses to use their experiences and publicity to develop a B2B customer base from their existing B2C customers. For this, additional services such as supplier credits might be needed

(Heinemann, 2019, p. 23). In addition, it is stated that nowadays, customers expect “excellence-standards” and a “shopping Experience” and will otherwise only purchase from the bigger pure players (Heinemann, 2019, p. V). This again creates an opportunity for B2C players to expand into a B2B customer base and benefit from their skills in the B2C domain.

Value co-creation has been increased in the B2B market through digitalisation and digital platforms (Kim & Moon, 2021). Digital platforms such as social media are also used more and more by organisations as a tool for “sales-facilitation”, “integrated communication”, as well as employee engagement” (Cartwright et al., 2021). This can be linked to the increasing trend of consumerisation in B2B, seeing as businesses are finding ways in which they can make use of social media platforms that are otherwise used privately.

While personal service is still believed to be crucial for building a strong relationship with a business client, buyers increasingly value self-service options. To be precise, 39% of professional buyers desire a buying option where it is not necessary to speak to a sales representative (Keenan, 2021). This demands business model changes from B2B firms, as customer channels are part of a business model (Osterwalder & Pigneur, 2010).

Technological Trends and Developments. Technological influencing factors for the field of B2B e-commerce include information and communication technology, digitalisation, and technical norms and standards (Retzlaff, 2020).

The different ways of value creation with information technology require powerful electronic systems (Heinemann, 2020, pp. 21–22). A hindering factor to this could be that a powerful and extensive digital infrastructure is still far from implemented (Heinemann, 2019, p. V).

E-procurement systems, with which buyers can easily purchase equipment via their own internal IT systems, are still widely used by businesses (Heinemann, 2019, p. 23). However, this solution is only attractive to bigger players, as small-to-medium-sized firms (SMEs) can often not afford the cost and effort to implement individual interfaces and terms and conditions (Heinemann, 2019). Yet, “omnichannel selling” is increasingly viewed as “the standard” in the

B2B market. This means that customers can reach a shop through a variety of channels, allowing to access customers with varying buying preferences (Keenan, 2021). Consequently, B2B SMEs might not need an e-procurement interface anymore to become a valuable supplier to many business clients.

As it is already happening in B2C commerce, a transfer from desktop to mobile shopping is also expected for the B2B area (Lenard, 2021). It is estimated that almost 73% of e-commerce transactions were made via mobile devices in 2021 (Keenan, 2021). This streamlines the purchasing process as with mobile shopping apps, as logging in and out is often not necessary. Furthermore, this allows suppliers to notify their app users via push notifications (Lenard, 2021). With the transition towards shopping on mobile devices, it is no surprise that “social commerce”, which describes purchasing through social media platforms, is growing as well. By 2025, the sales from social commerce are expected to become three times as high (Keenan, 2021), compared to 2020 when they amounted to 560 billion USD (Statista, 2021a). This is a call to action for B2B companies to evaluate their presence on social media and potentially to innovate their usage of these channels.

Inspired by the so-called “Metaverse”, which is seen as a major influence for 2022, businesses can create a virtual space where customers can experience the products before buying. For example, an item can be tested with the help of Augmented Reality (AR) (Keenan, 2021).

Another trend related to technology is based on Artificial Intelligence (AI). While it has previously mostly been used to extract information about consumers, it is predicted that in the future, it will be developed further to help create personalised content for a company’s customers (Keenan, 2021). In line with the trend for customisation, using AI could be highly beneficial for B2B businesses.

Economic Trends and Developments. The economic domain discusses factors such as inflation, market growth, and import and export of goods. All these factors ultimately

influence the supply and demand in a market (Retzlaff, 2020). In this research, the growth of the B2B e-commerce market is most relevant.

The gap between big and small online shops is increasing (Heinemann, 2019, p. V). Especially in Europe, the B2B e-commerce market is disintegrated into many smaller niche suppliers. This paves the way for leading players such as Amazon to branch out into the B2B market with Amazon Business (Heinemann, 2019, p. 191). As mentioned above, these big players are preferred if SMEs do not live up to the high standards of business clients.

Undoubtedly, the consequences of the COVID-19 crisis have heavily impacted the e-commerce landscape in the last two years. In 2020, the European e-commerce turnover rate increased by 10%, with 12% being expected for 2021 (Lone et al., 2021). One can imagine that many consumers maintain the habit of buying online. This means that businesses that have adopted e-commerce selling as a short-term solution to prevent a harsh profit loss while the COVID-19 pandemic lasts might have to expand this area in the future. The consequences are immense for stationary and online retail alike.

Political Trends and Developments. The political dimension of a STEP-analysis describes the influence that the government has on a business. Examples are laws and regulations, tax guidelines, customs, but also general political stability (Retzlaff, 2020).

With the General Data Protection Regulation becoming effective, the identification of customers is becoming increasingly challenging. To ensure that private individuals do not pursue B2B offers, the author recommends either implementing business customer logins, or a separate B2B shop (Heinemann, 2020, pp. 197–198).

Luca Casseti, Secretary General of Ecommerce Europe, states that “online and offline commerce are often still treated separately in the EU” when it comes to regulations. He calls for a “channel-neutral and futureproof legislative framework” (Lone et al., 2021). A place where this has been put into action is Berlin, where the Senate stated that e-commerce counts to “normal retail” and therefore must be taken into consideration for urban planning (Lone et al., 2021). In line with the expectation that e-commerce is still growing, a combining legislation on

stationary and online e-commerce can be useful. People that are still hesitant to shop online, perhaps due to insecurities, might be encouraged by a rules and regulations that match the current and future state of e-commerce.

3.2.3 Best Practice Examples of B2C/B2B Business Models

Having found that the client organisation operates in the B2B e-commerce industry as an online-pure-player in the customer goods business type, two best practice case studies are analysed as examples of successful business models in this market. Moreover, it is taken into consideration how these businesses reacted to the current trends and developments that were defined. Both companies have B2B/B2C hybrid business models. As there is limited research on this business model category, learning from the best practices is valuable input for the solution design.

ROSE Digital is an award-winning e-commerce agency in Germany (ROSE Digital, n.d.-c). The company has won several prizes for its customer projects (ROSE Digital, n.d.-b). Hence, customer projects of ROSE Digital are discussed in the following as best practice examples of online-pure-players in the consumer goods business type.

Both case studies have applied some of the trends that were identified above. A convenient online shop design and self-service facilities for business customers are especially visible. Moreover, business customers and end consumers are served from the same interface, which can serve as an example of how the consumerisation of B2B can be put into practice. In light of the consumerisation of B2B, it is striking that both cases use discounts as incentives for both their business and individual customer base. In the following, the two case studies are briefly presented and analysed with regards to their online interface, with a special focus on the offerings for business customers.

Lampenwelt. A strong online-pure-player featured by ROSE Digital is Lampenwelt (ROSE Digital, n.d.). It is the most successful online retailer for lamps and lights (Lampenwelt GmbH, 2021g). The company's strong points are the big selection of 50,000 lamps and lights, as well as the easy navigation to find a certain product in the online store, which will be

examined later (Lampenwelt GmbH, 2021f). Being founded in 1999, Lampenwelt has grown to a 90 million revenue business within 10 years, with 1,5 million clients spread over 15 countries (Kalscheuer, 2019). In an interview, Lampenwelt's former IT Director Marcus Lorenz stated that following a rapid growth phase that stagnated in 2016, it was decided to "settle and stabilize" the backend platforms and strategize on the company's next steps (Kwiecien, 2019). Now, a strategic goal is "insourcing on key competencies" that are needed in e-commerce, such as "frontend development" and "data warehousing" (Kwiecien, 2019). In line with this, Lorenz claims that e-commerce pure players should focus more on the frontend and less on the backend of one's platform. This is because the revenue is generated in the frontend, which is where the customers are (Kwiecien, 2019).

A consumer-oriented product selection is one of the company's USPs (Kalscheuer, 2019). On the landing page, special offers and themes are displayed. Furthermore, the customer can easily navigate to the desired products by choosing among top categories and top rooms (Lampenwelt GmbH, 2021b). Moreover, on the top of the website, one can find 10 categories that each have up to 42 sub-categories (Lampenwelt GmbH, 2021f).

One of the 10 categories is called "corporate customers", showing that the company sells not only to B2C customers, but also targets a B2B segment. In fact, Lampenwelt's founder is planning to expand the B2B market further (Kalscheuer, 2019). The following sub-categories displayed on the B2B landing page show that Lampenwelt caters to a wide array of B2B clients:

- Office lighting
- Design and hotel lighting
- Shop lighting
- Technical lighting
- Commercial outdoor lighting
- Emergency lighting
- UVC air filtration and disinfection

Moreover, there is a sub-category labelled "worth knowing", where business clients can find reference projects as well as information on lighting design for offices and acoustic lights.

There are three striking sections in the corporate clients' category. Firstly, business customers are called to find out about their benefits. When going to the associated landing page, the first item states the main advantages for business clients at one glance with two separate buttons for registering or signing in as a business client (Lampenwelt GmbH, 2021a). Afterwards, discounts for corporate customers are advertised. On the one hand, a 15% discount is offered for any first purchase as a registered business customer. On the other hand, up to 50% discounts are offered for special conditions and big projects. Also, up to 15% discounts are offered on certain brands. Following this, a link to the professional planning service is provided. At the bottom of the landing page, business clients are again called to register as a customer (Lampenwelt GmbH, 2021a).

Secondly, there is information about professional lighting advice. The first item on the associated landing page is again briefly providing the key points of the service. Below, one can find two buttons to either ask for a consultation or to find more information (Lampenwelt GmbH, 2021c). Next, the process of developing a lighting concept with Lampenwelt is described in three simple steps with a link to a contact sheet below (Lampenwelt GmbH, 2021c). When scrolling further down, the lighting advisors of the firm are introduced, including a picture of them and contact details. Again, a link to the contact sheet is integrated, as well as a button to request a consultation (Lampenwelt GmbH, 2021c). Afterwards, four professional lighting projects that the company has carried out are presented as references. Clicking on one of the reference cases leads to a separate site on which the case is presented. For each of the cases, the customer, goals, and results are briefly described in key words. Then, more details are given regarding the starting point, implementation, and the result (Lampenwelt GmbH, 2021e). On the bottom of the landing page, information on pricing is provided for three layers of service (Lampenwelt GmbH, 2021c). It is striking that one of the three service layers, lighting consultation, is offered free of charge. Finally, another button to ask for a consultation is included.

Thirdly, a €20 discount for newsletter subscriptions is advertised. Here, customers indicate whether they are a private or a corporate customer and fill in their e-mail address (Lampenwelt GmbH, 2021d).

ESSKA.de. ESSKA.de is a leading supplier of industrial c-parts, focussing on low-cost, big variety, and personal service (ESSKA.de GmbH, 2021e). Although private customers can shop at ESSKA.de, the e-commerce business targets mostly to business clients. This can already be seen from their slogan “by professionals, for professionals” (ESSKA.de GmbH, 2021e). Moreover, there are several functions in the online shop that indicate the direction towards the B2B market. Firstly, in the search bar, customers can search by item number. Secondly, there is a banner that asks customers to see the prices including or excluding VAT. Thirdly, customers can browse the online shop through various categories and sub-categories (ESSKA.de GmbH, 2021d).

On top of the webpage, three main advantages are advertised. Firstly, it is stated that ESSKA.de is the place to buy everything from one source. Secondly, personal advice from experts is offered. This button leads to a contact form, where customers can leave their questions or remarks in a text box, fill in their contact details, and attach a document (ESSKA.de GmbH, 2021c). Thirdly, individual quotations are proposed. Clicking on this button also takes the customer to the contact form described before (ESSKA.de GmbH, 2021c).

The great focus of personal advice can also be seen from the “team” section on the website. Here, the different departments are introduced (ESSKA.de GmbH, 2021a). It is striking that not only the customer service department is presented with a phone number to reach it. Also, for the sales, accounting, and purchasing departments a phone number is stated, and it is explained in what matters these departments can help ESSKA.de’s customers. For instance, the sales department handles inquiries and offers, whereas the accounting department answers questions about invoices and payments (ESSKA.de GmbH, 2021a). This shows that a customer focus is applied to the whole organisation, and not just the customer service department.

In an interview, the Online Marketing Manager of ESSKA.de confirmed this focus and elaborated that the personal contact with customers allows the firm to actively plan the online shop and its offers. The goal is “to have the offering today, that the customer needs tomorrow” (Hoffmann, 2020). The firm’s focus lies on creating, testing, and implementing personalised offerings and the frequent development of online and offline measures. Both is done to improve the customer journey (Hoffmann, 2020), which again highlights the customer-centric approach.

When looking to the advantages that registered clients enjoy, one can find three different tiers of discounts, depending on the annual turnover of the client firm (ESSKA.de GmbH, 2021a). Furthermore, a discount of 5% is offered for first orders as a registered client. Also, a 10€ discount is offered for newsletter subscriptions (ESSKA.de GmbH, 2021b).

3.3 Internal Orientation: Exploring the Business Problem with a Company Representative

The goal of the internal orientation phase is to clearly define the field problem. A field problem describes a situation where there is a divergence between the current and the anticipated situation (van Aken & Berends, 2018, p. 53). When the latter concerns something that is expected in the future, the field problem can also be outlined as an opportunity. When this is the case, there is less stress on the problem diagnosis, but more on the solution design (van Aken & Berends, 2018, p. 54). Seeing as the adaptation to the B2B customer segment is something that the company would like to apply in the future, this research can be described as an opportunity-focused project.

The internal orientation started with an interview with the managing director where the “problem mess” was discussed. The insights were described and analysed (3.3.2 until 3.3.5). Following this, the insights were structured to select a problem to focus the remainder of this research on (3.4).

It is said that business problems are often unstructured and influenced by the opinions and perceptions of different stakeholders. This is referred to as a “problem mess” that needs

to be structured, so that one specific problem can be chosen for further research (van Aken & Berends, 2018, p. 54).

3.3.1 Data Collection Method

In the internal exploration the organisation's main stakeholders who are involved in the problem are interviewed. The nature of the interviews is exploratory, and the initial problem statement is the point of departure with further details being addressed as well. These are reasons for the problem, why it has not been solved already, what sort of solutions could work, and whether these have been tried already (van Aken & Berends, 2018). Following these recommendations, the initial exploration is designed for this research project.

The main stakeholder in this problem is the managing director of the business. Hence, an interview is carried out with him. Seeing as an exploratory interview is recommended, the semi-structured interview style suits best in this case (Saunders et al., 2019). Semi-structured interviews are characterised by a decided collection of themes and associated fundamental questions (Saunders et al., 2019). Seeing as this research follows the interpretivist philosophy, the list of key themes and questions does not have to be strictly followed but can change based on what the interviewee says (Saunders et al., 2019).

Based on the above, the following themes were addressed in the interview with the managing director:

1. The reasons for the start-up aiming to approach the B2B market now
2. Previous experience that the start-up might have had in the B2B market
3. Expectations that the managing director has for the transition towards the B2B/B2C hybrid business model

A list with the questionnaire for the internal orientation interview can be found in appendix III.

The findings from the interview are summarised below.

3.3.2 Description of the Business Problem

In its essence, the business problem is described as the expansion of the company into the B2B market. This is clarified as the acquisition of new business customers and the specialisation of the company's website (1.1). Currently, the company is focussing on the B2C market. A major difference between the B2B and the B2C market is the order quantity. It is said that while only one item is purchased on average in a B2C order, the number is a lot higher in a B2B order (1.9).

A successful combination of the two markets is difficult to achieve. The managing director claims that for this, a strict separation is necessary, especially when it comes to marketing campaigns and responsible employees (1.16). A positive example of a company that achieved a successful separation of the B2B and B2C market is Amazon, however, this differs greatly from the case company when it comes to target group and business model (1.18). A company from the same industry has yet failed in serving both market segments, to the best knowledge of the managing director (1.17).

When asked how the B2B market can be approached as a start-up also working in the B2C market, it was said that the best method is to learn from one's "own mistakes" and develop individual USPs. Despite being "a longer, more arduous path" (1.19), it has more benefits than copying an existing business model.

3.3.3 Expectations Related to the B2B Market

Regarding the expectations that the managing director of the company has for the change towards a B2B clientele, opportunities and threats are mentioned. The biggest opportunity is to increase the sales (1.13). However, it is expected that technical changes are necessary to fulfil orders successfully. Examples are links with purchasing programmes or the option to enter order numbers, or other details during the order process. These changes are claimed to be crucial to "keep up with the standard of the enquiring company" (1.13). Furthermore, financial expenses are expected in terms of software, personnel, and marketing (1.14). Lastly, the managing director predicts an overall strengthening of the brand (1.15).

3.3.4 Previous Experience in the B2B Market

The company already has some experience in the B2B market. However, all the B2B inquiries that reached the company came in organically, without any active acquisition (1.8). There was merely an information section for business clients on the website (1.8). Of the B2B orders that the company has already fulfilled, most of them “have worked very well” (1.10). One incident happened where products were supposed to be delivered outside of the EU, which caused the fresh products to rot due to the long transport. Therefore, the company is planning to only approach the German B2B market (1.10). Apart from borders and the resulting customs process, the successful delivery is only restricted by seasonal shortages of the products (1.12). When the desired products are in season, the business is fully able logistically to supply the large quantities that B2B customers order (1.12).

The timing for actively approaching the B2B market has been chosen based on what the company has achieved until now. The “foundation” to be successful has been laid in the B2C market over the past 3 years (1.4). The evidence for this is the number of sales as well as the increasing number of B2B requests reaching the company organically (1.6). However, this is only a “feeling” that the managing director has, rather than specific KPIs that have been measured (1.7).

3.3.5 Goals for the Approach of the B2B Market

Two main reasons to approach the B2B market are mentioned. Firstly, business customers order several times per year, so that many orders can be generated with just one customer (1.2). There is said to be a great demand in the B2B sector, with companies sending gifts to their employees and business contacts for birthdays, successful sales, and other occasions (1.3). Secondly, the recipients of the gifts can potentially become B2C customers when they are pleased with the product (1.2).

When asked for more concrete goals, it was said that firstly, major customers in the B2B area need to be acquired. Major customers were described as companies ordering more than 100 items per year (1.20). Secondly, 250 orders should be placed from B2B clients in 2022.

With an average order amount of €20, this results in an annual revenue from B2B clients of €5000 (1.20). Overall, the managing director states that in the next 5-10 years, the company should be at least in the top 5 within its field of business (1.15).

3.4 Structuring the Problem Mess and Selecting a Problem

Having discussed the problem mess with the start-up's managing director, the business problem can now be structured using the insights from the external exploration. With the goal of the internal orientation being the selection of a business problem, the "problem mess" needs to be represented. This means that the information gained in the previous phases are "conceptualized, structured, and conveniently presented" (van Aken & Berends, 2018, p. 55).

3.4.1 Significant Topics of the Trend Analysis

Firstly, the significant topics from the earlier steps are listed (van Aken & Berends, 2018, p. 55).

In the external exploration, significant trends in B2B e-commerce that were recognised were customisation, consumerisation, value co-creation, and self-service in B2B markets. Excellence standards and demands for a pleasant shopping experience are a consequence of the consumerisation of B2B. Moreover, social media is increasingly used for selling, communication, and employee engagement.

Technologically, a lack of infrastructure hinders different ways of value creation. E-procurement systems are still widely used, however, often unaffordable for SMEs. Instead, omnichannel selling is becoming the standard. As with the B2C market, mobile shopping is becoming popular in B2B as well. Increasingly, Augmented Reality and Artificial Intelligence are used to enhance the shopping experience.

Looking at economic developments, it was found that the gap between big and small e-commerce businesses is increasing. The European e-commerce landscape consists of many small niche suppliers, enabling market dominators like Amazon business to win customers with a shopping experience that they know and like. The COVID-19 pandemic has boosted the e-commerce market because of lockdowns and isolation.

Recent political aspects of the e-commerce market are stricter data protection regulations and the call for channel-neutral and future-proof legislation.

3.4.2 Significant Topics of The Best Practice Case Studies

In the best practice examples, it was found that the website design in both cases offers easy navigation through an extensive product category list and search functions tailored to business clients. It was said that the focus needs to be placed on the front end and be customer oriented. Personal service is offered, but self-service is possible. Buying incentives include mostly discounts and free services.

3.4.3 Significant Topics of The Internal Orientation

In the internal orientation, the managing director stated that a strict separation of the B2B and the B2C segments is necessary, as a successful combination of the two is difficult to achieve. The best way to move into the B2B market is by learning from one's own mistakes and developing own USPs, as opposed to copying existing business models. The motivation for serving the business customer segment is two-fold. On the one hand, several orders are generated per customer. On the other hand, the recipients of the businesses' orders can be won as B2C customers. The managing director expects an increase in sales and a strengthening of the brand when the B2B segment is served. However, technical challenges and financial expenses are also anticipated. These stem mainly from software and technology needed as well as staffing and marketing.

3.4.4 Structuring the Problem Mess

The topics listed above need to be structured. It is recommended to do this in the form of a cause-and-effect tree (van Aken & Berends, 2018, p. 56).

The tree diagram below represents the information gained in the internal orientation. The business problem evolves around the firm's expansion into the B2B market. Three main points of attention were mentioned in the interview, being the goals that shall be achieved with including a B2B customer segment, the acquisition of business clients, and the adaptations needed for the business model to serve a business customer base.

The goals that the managing director has for the move into the B2B market are an increase in sales as well as overall strengthening of the firm's brand. Sales are expected to increase since annually, several orders are generated per business customer. Moreover, the recipients of the business clients' orders can become regular B2C clients.

For the acquisition of business clients, the characteristics of this customer segments must be known. So far, it was mentioned that the order quantity is generally higher compared to the B2C customer segment.

When the B2B market should be actively targeted, there are consequences for the company's business model. The managing director mentions the strict separation of B2B and B2C, especially when it comes to marketing and personnel. This is said to be necessary to be successful in both the B2B and the B2C domain. This separation leads to financial expenses for technology, such as e-procurement systems, marketing campaigns targeted to business clients, and staff that deals with the business customers' orders and inquiries. When it comes to the most suitable growth strategy for this transition towards B2B clients, the managing director believes in slow growth that is characterised by learning from one's own mistakes and developing own USPs instead of copying existing business models. An overview of the Problem Mess is visualised in figure 7.

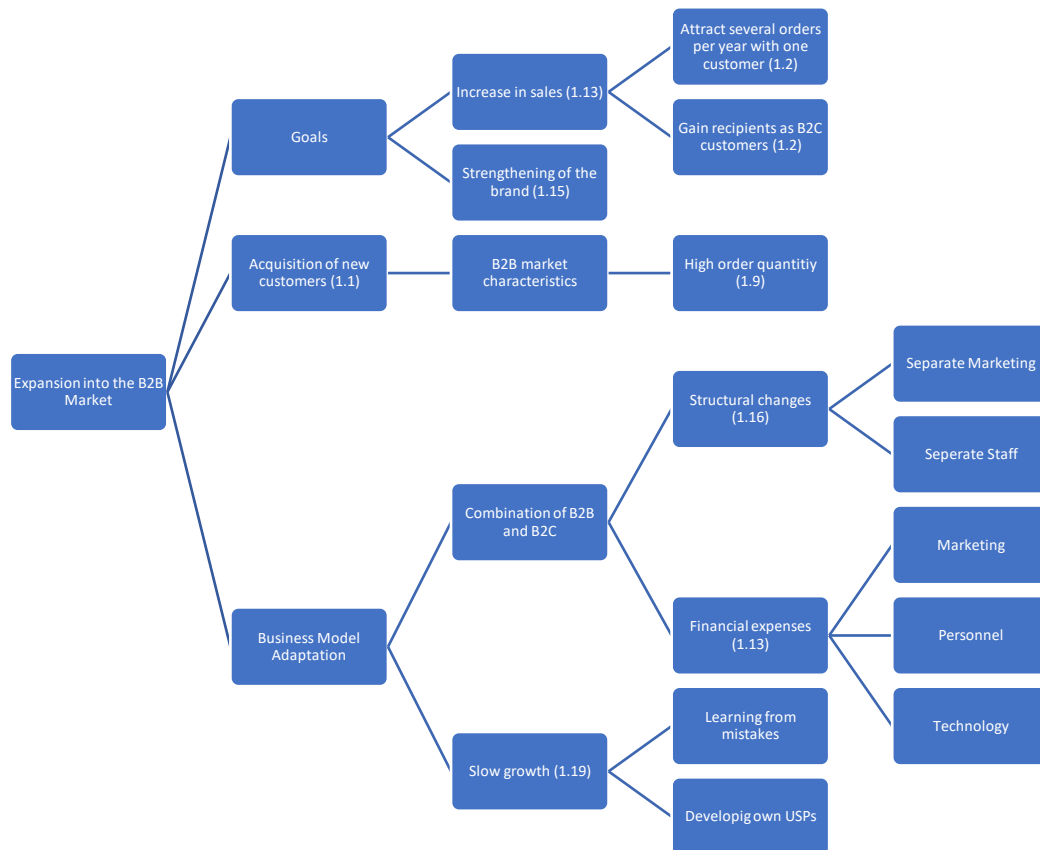


Figure 7: Overview of the Problem Mess.

3.4.5 Selecting a Business Problem

When it comes to selecting a problem to be researched further, one should consider that a problem that is far on the left-hand side of the tree diagram “increases the relevance of the study but decreases its feasibility”. On the contrary, a problem that is located on the far-right side is feasible, but likely to be less relevant (van Aken & Berends, 2018, pp. 56–57).

This research focusses on the problem “Business Model Adaptation”, to have research that is both feasible and relevant to the company. Connected to the business model adaptation, special attention will be paid to the combination of B2B and B2C customer segments in a business model.

In the orientation interview, it became clear that the company’s managing director has certain expectations about the B2B market and the related changes to the business model. It is anticipated that the B2B and B2C areas need to be strictly separated to achieve a successful combination of both in the business model. This especially applies to marketing and personnel.

While an increase in sales and a strengthening of the brand is foreseen, approaching the B2B market comes at the price of technical challenges and financial expenses. The managing director mentions that the integration of e-procurement programs is needed to satisfy the business client segment. Moreover, professional buyers might need certain options during the ordering process, such as a text bar to indicate a purchasing number. Financially, additional software, personnel, and marketing expenses might be necessary. With regards to the strategy of the business model change, the managing director believes that growing slowly is the best way. Here, essential components are learning from one's own mistakes and developing own USPs, instead of copying existing business models.

The managing director's statements regarding the B2B market were compared with the insights from the external exploration. This was done to obtain a complete picture of the "problem mess" and to be able to formulate a research question.

It was stated that slower growth including learning from own mistakes and developing own USPs was the best way to transforming the business model towards the B2B market. This speaks for an experimentation-based approach. Business experimentation focuses on implementation rather than planning by means of hypothesis testing and "getting out of the building" (Bocken & Snihur, 2020).

With business experimentation as the means to transform the firm's business model towards a business customer segment, the statements made in the internal orientation conflicting with the findings from the external exploration. Firstly, the managing director is convinced that a strict separation between the B2B and B2C areas is needed for success. This especially related to the domains of marketing and personnel. However, the recent trends and developments in the B2B e-commerce landscape suggest that a consumerisation of B2B is taking place. This means that business clients are increasingly managed in a way that is similar to individual customers. When the approach towards the B2B and B2C customers is so comparable, the question arises whether a strict separation of the two is necessary.

Secondly, it was said that financial investments will have to be made for several aspects. The first expense that the managing directors expects is related to e-procurement programs. As it was found in the external exploration, e-procurement systems are still very popular. However, being quite expensive, they are often not attainable for small businesses. With omnichannel selling becoming the new standard in B2B e-commerce, one can debate whether e-procurement systems are still worth the expense. Next, personnel that is exclusively dedicated to the business customers is claimed to be necessary. This can be doubted since self-service is demanded and used more and more by professional buyers.

Based on the above, one can say that the managing director's anticipations of the transition towards a B2B market are debatable in various areas. For the start-up to reach its goals of acquiring business customers for overall growth and increase in sales, it needs to first identify what changes need to be made to its business model. Hence, the research question arising is the following: *How can an online-pure-player e-commerce start-up of consumer goods transform its business model towards a B2B/B2C hybrid?*

4. Analysis and Diagnosis

In the previous chapter, the business problem was explored and defined. It was found that the managing director's assumptions about the B2B e-commerce market vary from what was found in a trend- and best practice analysis. The plan to strictly separate the B2B and B2C domains and to employ staff, marketing strategies, and software solutions specifically for the business clients clashes with the B2B e-commerce trend towards consumerisation, self-service, and omni-channel selling. The business problem was summarised in the question *"how can an online-pure-player e-commerce start-up of consumer goods transform its business model towards a business customer base?"*

In the following, the business problem and the related research question is analysed in more detail, aiming to explain the business problem. In this phase called "Analysis and Diagnosis", the business problem needs to be validated, its causes and consequences are

explored and validated, and first ideas for different solutions can be developed. Underlying approaches include the “modelling [of] business systems and processes”, “problem-oriented analysis”, and “theoretical grounding” (van Aken & Berends, 2018, pp. 74–76).

To create an overview of the business processes and systems, information needs to be collected and mapped (van Aken & Berends, 2018, pp. 76–79). This provides a basis for the following validation and analysis.

The validation of the business problem serves the purpose of assuring whether the business problem is not just a matter of perception or unworkable targets. To do this, one relies on “factual information”. Furthermore, validation provides more details on the characteristics of the business problem (van Aken & Berends, 2018, pp. 80–83).

For the exploration and validation of causes, empirical and theoretical analysis should be performed iteratively, using qualitative methods such as interviews to collect empirical data. The goal of this step is to provide “the basis for a full-fledged, integral explanation of the business problem”. For this, one should explore all relevant influences of the business problem (van Aken & Berends, 2018, pp. 83–84). Once the main causes of the business problem have been identified, they should be validated and valued in their relative importance.

Some business problems evolve around opportunities in the future, meaning that there are no causes to explain an already existing problem. In this case, it is recommended to detail the characteristics of the opportunity and indicate what is necessary for the realisation. The resulting diagnosis can be shorter than in a typical business problem analysis. The outcome of the analysis provides an idea for finding and designing a solution (van Aken & Berends, 2018, p. 96).

4.1 Modelling Current Business Systems and Processes

Providing an overview of the business systems and processes is important since these will most likely be changed with the designed solution. The case company is a pure e-commerce player that sells exclusively via its own website. This means that the changes to the business model mostly concern the order processes for both business and individual

customers, as the start-up strives for a B2B/B2C hybrid business model. Furthermore, the current product and service offering for business clients is described, as this is likely to be affected by the designed solution. Seeing as a business customer segment is added to the business model, this reflects on the products and services that are offered to this customer segment.

4.1.1 Current Order Process

To answer the research question *“how can an online-pure-player e-commerce start-up of consumer goods transform its business model towards a B2B/B2C hybrid?”*, the process of a business client order is modelled. This is needed to estimate the influence that a business customer segment has on the firm's business model.

When looking at the B2B customers that already purchase at the company, one can see that there are striking differences among the customers. On the one hand, business customers order via the online shop in almost the same way as private customers. Sometimes, these customers contact the shop to ask for an invoice, however, this is the only point of direct contact. On the other hand, businesses contact the shop in advance of their purchase to because they have special inquiries. These can be a specific branding of the packaging, including their give-aways in the delivery, or requesting a specific product selection based on their requirements. Therefore, different types of business clients can be identified.

The first business customer type purchases in a way that is similar to individual customers. Here, the person ordering chooses a product from the website. Once the product is selected, a personal note can be written into a text box. Next, the product is added to the shopping basket. In the checkout process, the customer enters his/her e-mail address. Now, there is the option to either order as a guest or to create a customer account. Ordering as a guest does not require a customer account. The next step is to fill in the details of the shipping address. Afterwards, the shipping method and delivery date have to be chosen. Finally, the customer has the option to indicate that the billing address differs from the shipping address and fill in the details of the billing address. The payment options for regular customers are

paying via credit card or the payment service providers PayPal or Klarna. Once, the payment details are filled in, the order can be placed.

Creating a customer account enables the customer to indicate a default billing and shipping address. Moreover, the record of past orders can be seen, and different shipping addresses can be saved. On top of that, the details of the payment methods can be saved. Overall, this allows a faster ordering process.

When the order is placed, it is processed by the firm's internal system. The products are made and packaged in the production facility one day in advance to the delivery. The backend system creates a shipping label that is added to the package.

4.1.2 Current Offer for Business Customers

Currently, the start-up is not actively targeting business customers. There is a landing page with information for business customers that can be reached when scrolling to the bottom of the website. Following a brief introduction, business customers are informed about their benefits. The main differentiating products and service lie in the payment structures, discounts, and personalised offers.

Business clients have the option to pay via invoice. However, this alternative has to be enabled by an employee of the company. Therefore, the business client has to contact the firm via e-mail or phone and ask for the option to be enabled for his/her account. Alternatively, the firm's service employees can create the business customer account entirely, with the details of the client. Once the payment via invoice is created, the business client can choose this option in the checkout. Furthermore, collective invoicing is offered which also has to be explicitly requested by the customer.

The start-up promises attractive discounts for larger order volumes. However, the discount percentage and the necessary order quantity is not specified.

When it comes to personalisation, it is stated that it is possible to change the product itself, as well as the gift card and packaging. For all of these options, a staff member of the start-up needs to communicate the details with the production. For personalised packaging

and greeting cards, very high order numbers are needed as the start-up has to request these specifically for the order.

4.2 Problem-Oriented Analysis: Examining the Business Problem

Having defined which business systems and processes are affected by the solution design to this business problem, the analysis of the problem begins. This is done by empirical qualitative data collection.

Empirical data collection and analysis in field problem solving projects differs from other research strategies. This is mainly because the business problem is guiding the research, instead of a “question, hypothesis or theory”. With the empirical analysis, one aims to validate the business problem, provide more details on its features, as well as to explore and validate its causes. The related activities can be performed simultaneously or iteratively (van Aken & Berends, 2018, p. 80).

4.2.1 Validation of the Business Problem: Insights from Business Customers

To validate the business problem, the existing business customers of the company were examined to identify their differences. Moreover, interviews with business customers were analysed to learn about their buying behaviour.

An affiliated firm with a very similar business model researched the preferences of their business customers. Interviews with five represents of different firms were conducted, all of which consume the products that the affiliated firm sells. Two out of the five interviewees answered the interviews in written form via an e-mail. The remaining three were interviewed personally in a one-to-one interview. Not all interviewees are already customers of the firm. Some of them use the product but opt for other suppliers. The questions asked in the customer interviews can be found in appendix IV and the coding table in appendix V.

Purchasing frequency. In the interviews, it was stated that the frequency of buying the firm’s products ranges between ordering flowers on a weekly basis and only three to five times per year. Two other business representatives stated to purchase once every two to three weeks, and another business client indicated to buy approximately ten times per year.

Buying purpose. The purpose for buying these products relates almost always to the company's employees, with events such as onboarding, birthdays, and rewards. Two of the interviewees work for municipalities and state that they also require the products for citizens' events, such as anniversaries, or for public holidays. Alternatively, business customers also use gift baskets or gift vouchers.

Suppliers. All but one interviewee indicated that they purchase from local suppliers. The reasons for this are the desire to support local businesses. Moreover, it was stated that the product's quality from these suppliers is convincing. One firm representative chooses a supplier that is operated by a family member because it is convenient and wanting to support the business. Three interviews state to buy from an e-commerce competitor in this field of business. Here, the quality and uncomplicated delivery is the main argument. It was also mentioned that suppliers are chosen based on their specialisation by one interviewee.

Importance of convenience. Convenience in the buying process plays a crucial role for the interviewees. One of them even claims it to be the most important factor. One client explains that local shops are preferred since he wants to have the product within ten minutes. Two interviewees order via e-mail and another prefers to order via phone. The remaining two did not indicate details of their order process. Two business clients described that the details of their order is clearly stated on the invoice. It is often mentioned that the ordering process should not be too difficult. There should be a simple way to contact the supplier and to make adjustments to the order. Furthermore, special requests, such as an early delivery, should be fulfilled. One customer says that follow-up questions are appreciated, whereas another client experiences questions about the order negatively.

Price and quality. In terms of the price and quality of the products, most customers state that the quality has almost always been satisfying. One interviewee mentioned that orders from the e-commerce supplier sometimes lack in quality. Two firm representative state to having a price range between €25 and €30. Another values having options for different budgets. Moreover, it is said that the perception of the price depends on the customer's

expectations and that good quality justifies a higher price. In terms of variety, the interviewees value different options based on occasions, seasons, and add-on products. All of them are satisfied with the variety of their current suppliers.

Overall satisfaction: Four out of five interviewees are also satisfied with the service of their current suppliers. In one case, it was mentioned that personal contact for solving a problem was perceived as especially positive. Additional services that were mentioned are subscriptions for regular deliveries and automatically scheduled deliveries.

4.2.1.1 Findings

The interviews carried out with five representatives of different firms show that there is a demand for the products that the start-up provides. These are mostly used for internal purposes related to employees, for example birthdays and welcoming gifts. The purchase frequency varies greatly, ranging from once per week up to three to five times per year. Therefore, one can conclude that the need differs significantly between firms.

What strikes is that all but one interviewee prefer to buy from local shops. This is due to it being an opportunity to support local businesses, but also due to the convenience of wanting the product immediately. On top of that, these shops often offer a delivery of products as well, so that e-commerce businesses have no advantage in this regard. However, it was mentioned that the delivery has geographical boundaries and is often not offered for addresses lying out of town.

Convenience is a crucial requirement for the business clients. In fact, one interviewee even claimed it to be the most important factor. Generally, the customers appreciate a smooth ordering process, that usually happens via e-mail. Another detail that was mentioned is that the details of the order are clearly stated on the invoice. One can assume that it is valuable for business clients to find the complete records of their order on the invoice to be able to document them. Two other interviewees advised to not make the process too complicated, indicating that they value a simple ordering process as well.

The findings suggest that while there is a demand for the products in question, they are bought with very little interest and involvement by business customers. This signals that the start-up is retailing a very specific “low-interest” product category for the B2B market.

4.2.2 Empirical Exploration: Expert Interviews

Following the validation of the business problem, the causes can be explored. When the business problem concerns an opportunity, “there is not yet a current situation that can explain the cause of a problem”. Therefore, the diagnosis is shorter, and the analysis focuses on the characteristics and requirements of the opportunity (van Aken & Berends, 2018, p. 96). This applies to the present research, as the implementation of a B2B customer segment lies in the future of the company.

4.2.2.1 Data Collection Method

Since qualitative interviews are recommended as a data collection method in this step (van Aken & Berends, 2018, p. 83), this is what was done for this research. Research interviews can be characterised based on the “level of standardisation or structure” and the “number of participants and interview modes”. The interviews conducted for the empirical exploration are semi-structured. This means that a “predetermined list of themes” was used as an interview guide, with optional “key questions” related to the themes (Saunders et al., 2019, pp. 436–443). The themes addressed in the interviews emerged from the problem definition, as well as the validation phase and can be found below. The related questions can be found in appendix VI.

1. Start-up business model development in a B2B market
2. Consumerisation in B2B
3. Building a value proposition for a B2B customer segment
4. Low-interest products in the B2B market

Since this research follows an interpretivist research philosophy, the way in which the themes are addressed in the interview can vary and be adapted to the statements of the interviewees (Saunders et al., 2019, pp. 436–443).

Four interviews were conducted with marketing and business development experts. These individuals were chosen based on the central themes of this research being business model development and value proposition design. Therefore, non-probability, purposive sampling is applied. In this sampling technique, cases are selected based on the researcher's own judgement as to whether they can provide insights to answering the research question. This method is often applied in case study research (Saunders et al., 2019, p. 321). Although this research is not a typical case study, it does centre around one company and is therefore regarded as comparable.

Three interviews were held on a one-to-one basis via the online meeting platforms Microsoft Team and Zoom. The internet-mediated mode of interviews was chosen because restricting personal contacts was generally recommended due to the Covid-19 pandemic. The fourth interview was held in person since two interviewees took part and a discussion is easier to hold in person. A group interview involves 4 to 12 participants (Saunders et al., 2019, pp. 436–443). Therefore, it is questionable whether the interview with two experts can be labelled a group interview. Nevertheless, this interview allowed the participants to discuss the themes from different perspectives and to add on to each other's ideas.

When it comes to the interview analysis, following an interpretivist research philosophy usually results in an inductive approach (Saunders et al., 2019, p. 639). This means that the data analysis is not guided by a certain theory. A thematic analysis will be applied, meaning that the interviews are coded "to identify themes or patterns for further analysis, related to [the] research" (Saunders et al., 2019, p. 651). This is especially important due to the lack of scientific data on the topic of low-interest goods in the B2B market. When analysing the data from the interviews inductively, this can bring fragments of this topic to the surface that can be used for further analysis. Firstly, the interviews are coded, which means labelling units of data with a word or expression that represents its meaning (Saunders et al., 2019, p. 653). Next, the codes are grouped into recurring themes. In this case, the themes are derived from the

problem definition and validation phase, as these were also discussed in the interviews. An overview of the themes and the related interview codes can be found in appendix VII.

4.2.2.2 Findings

Building a value proposition for a B2B customer segment. Building a value proposition can be done following different approaches. According to one interview partner, a “business model way of thinking” can be applied, which works in the same way as for a consumer market (IP1, 07.02.22, 00:31:16). Another interviewee agrees that the process of building a value proposition is “more or less the same” for the B2B and B2C market (IP2, 08.02.22, 00:11:35). Still there is a difference in the value proposition for businesses and individual customers, mostly stemming from the reason for buying the products. Individual customers are more personally involved and make choices based on their preferences, whereas business customers want to be relieved from the order process due to higher order numbers (IP2, 08.02.22, 00:21:21; IP4, 16.02.22, 00:06:20). Other differences occur in terms of the customer channels and the relationship management, also reflected in targeting and marketing (IP1, 07.02.22, 00:10:50; IP2, 08.02.22, 00:30:47). Precisely, it is explained that in B2C, relationship management can be automated and standardised. On the contrary, in B2B, the customer needs may vary, which makes standardisation more difficult. Negotiations, discussions, and special demands often take place in a B2B setting (IP1, 07.02.22, 00:11:20). The different needs should be reflected in the value proposition (IP2, 08.02.22, 00:12:13). Although the differences between a B2B and a B2C value proposition mostly occur on the right side of a business model, the left side is also influenced when it comes to key partners (referring to the Business Model Canvas). Hence, the entire business model needs to be considered (IP1, 07.02.22, 00:11:20).

Despite the differences between business and private customers, one interviewee argues whether a different value proposition for each customer segment is needed, since the main distinction between the two is the number of orders (IP1, 07.02.22, 00:04:42).

Many of the interview partners recommend a customer-centric approach. Two state that it needs to be identified where the value of the product lies for the client (IP1, 07.02.22, 00:12:35; IP4, 16.02.22, 00:03:56). It is assumed that a business customer does not see the value in the product itself but views it as a means to strengthen a relationship when gifting it (IP4, 16.02.22, 00:03:56). This so-called “added value” is discussed in chapters 6.2.2.4 and 6.2.2.5. However only the customers themselves know about their needs and problems, so it is important to talk to the target group and ask what value the products create (IP1, 07.02.22, 00:16:52, 00:28:04, 00:30:13; IP4, 16.02.22, 00:07:00). Another interview partner also recommends talking to business customers belonging to different business customer segments (IP3, 10.02.22, 00:04:35, 00:20:51). Specifically, one should ask to what extent they are satisfied with their current suppliers and what should be done differently, as well as whether they order products online and for what reasons, who their current suppliers are, and who in the firm does the ordering (IP1, 07.02.22, 00:25:22, 00:27:36; IP3, 10.02.22, 00:11:37, 00:20:20, 00:43:54, 00:44:26). Gaining information on the purchasing process and what challenges are connected to it is especially important, claims on interview partner (IP1, 07.02.22, 00:35:00). The way in which these questions are asked also matters. Open questions can lead to not having a clear answer immediately. The interview partner therefore recommends introducing scenarios and asking targeted questions (IP3, 10.02.22, 00:42:05, 00:44:26). Furthermore, one should learn how the business customer wants to maintain the relationship to the supplier (IP1, 07.02.22, 00:12:35).

In contrast to the customer-centric stance, one interviewee claims that the resources of a supplier matter more since “you already know the need is there” (IP2, 08.02.22, 00:12:45). Rather, the focus lies on selling the start-up’s strength, possibility, and added value (IP2, 08.02.22 00:13:05). Moreover, the value proposition has to align with the firm’s mission and vision (IP3, 10.02.22, 00:30:07).

It is important for a firm to know in what ways it needs to be different from its competition (IP3, 10.02.22, 00:26:41) One interviewee considers that firms might be reluctant to work with

a nationwide supplier because they prefer to support local businesses (IP3, 10.02.22, 00:09:48) and breaking these relationships is difficult (IP3, 10.02.22, 00:21:38). Hence, one must identify the advantage that a firm has in ordering from a nationwide e-commerce business as opposed to a local supplier (IP3, 10.02.22, 00:10:06).

Competitive advantage can be created with a unique selling point (USP) (IP2, 08.02.22, 00:07:30). A USP can be identified by specifying what a company stands for, their culture and values, and what they can offer to create trust and loyalty among their customers (IP2, 08.02.22, 00:07:57, 00:09:29). Another interviewee states that to find a firm's USPs, one should look at current processes and compare them to the competition. Ordering products from competitors can lead to identifying a gap in the market. Based on this, a value proposition can be developed (IP3, 16.02.22, 00:30:25). Another suggestion is to use social media as a way to find the USP (IP3, 16.02.22, 00:27:12) or to differentiate based on sustainability, such as with limiting plastic, or special packaging (IP4, 16.02.22, 00:33:57). The identified unique aspects should be tested with real clients (IP3, 10.02.22, 00:22:20, 00:30:25, 00:32:05). An interview partner remarks that even if a USP has been identified, it is still "very difficult" to gain a place in a B2B market (IP2, 08.02.22, 00:10:35).

The interview partner introduces a program that helps business innovate their existing process in connection to building a value proposition (IP4, 16.02.22, 00:12:40). The process starts with ideation, continues with the validation of ideas, to ultimately develop a value proposition (IP4, 16.02.22, 00:14:12, 00:19:13). The interviewee describes that ideation starts with defining a playground, which is what the company is about (IP4, 16.02.22, 00:14:39). Existing business processes are outlined using the Business Model Canvas or the Lean Canvas (IP4, 16.02.22, 00:12:40). Next, it is asked how the value proposition can be changed through brainstorm sessions with the team or external actors (IP4, 16.02.22, 00:12:40). A brainstorming technique that is mentioned is SCAMPER. The idea is to start at a certain depth of the business model and discuss what can be changed. Examples are innovation in terms of revenue streams, delivery, and personalisation (IP4, 16.02.22, 00:14:39). This results in

many ideas that need to be grouped and validated in terms of whether they already exist and what competition is there and whether they are achievable for the business (IP4, 16.02.22, 00:12:40, 00:14:39, 00:18:58). A method suggested for this is the Six Thinking Hats by De Bono (IP4, 16.02.22, 00:14:39). Moreover, it is recommended to ask which option is most attractive to the customers (IP4, 16.02.22, 00:20:30). In this case, this procedure could be used to develop ideas on what could be offered to add value based on the existing infrastructure of receiving orders and sending fresh products (IP4, 16.02.22, 00:31:10).

Following the creation of a blueprint of the adjusted idea, different assumptions on the risks and impacts are assessed (IP4, 16.02.22, 00:35:28, 00:36:02). Assumptions with a high impact and high risk are considered failure factors (IP4, 16.02.22, 00:36:02). The failure factors are mapped using the Test Card by Osterwalder, which allows to quickly analyse whether an idea does or does not add something to the value proposition (IP4, 16.02.22, 00:36:50). To validate the assumptions, customer interviews or A/B testing is recommended (IP4, 16.02.22, 00:36:02). The results of the validation can be saved in a Learning Card, also by Osterwalder (IP4, 16.02.22, 00:37:43).

Characteristics of the B2B market and its differences to the B2C market. One interviewee explains that businesses and consumers operate in different ways. Interactions with individual customers are often short-term, which leads to the sellers wanting to create trust and loyalty to foster a long-term relationship. On the contrary, “with a business, the starting point is already to have a long-term relationship. The starting point of a B2B is never to have a short-term sale. So, the investment is more into the future, than it is on the moment” (IP2, 08.02.22, 00:05:45).

A B2B marketing expert states that the B2B market is usually more heterogenous compared to the B2C market. Where the purpose for buying a certain product might be clear in the B2C market, this can vary for business clients (IP1, 07.02.22, 00:02:10). However, the products in this research are considered end products and are likely used for the same purposes by business and private customers (IP1, 07.02.22, 00:03:12, 00:03:32). Therefore, in this case the needs of the B2B market in this research might be the same as the ones in

the consumer market (IP1, 07.02.22, 00:04:07). Then, only the order quantity differentiates the B2B from the B2C market and it is arguable whether a “special value proposition for B2B” is needed. Instead, the business clients can be served from the same interface as the private customers with minor adjustments such viewing the order history and receiving discounts for certain order numbers (IP1, 07.02.22, 00:05:50).

It is mentioned that there are certain segments in the B2B market that a company can research (IP3, 10.02.22, 00:20:51) and target (IP1, 07.02.22, 00:04:17). To find a niche in the market, it is recommended to find a business customer segment that uses the products frequently, for example as an essential part of their company presentation (IP1, 07.02.22, 00:06:52, 00:20:21). For these clients, more conceptualisation is needed, and they might value advice on interiors (IP1, 07.02.22, 00:06:52, 00:20:21). Attractive customer segments might also be in the social or governmental sector, which is likely to be more open to buying these products (IP1, 07.02.22, 00:29:24, 00:37:53).

Furthermore, identifying attractive customer segments needs to be combined with analysing one’s own competences and resources that are needed to “fulfil that promise” (IP1, 07.02.22, 00:07:41).

Low-interest goods in the B2B market. In the problem validation, the products that the researched start-up sells were characterised as a sort of low-interest good for B2B customers. For the lack of an official classification of these products, this is the description used in the interviews. In an interview, these products were connected to the “straight rebuy” category of a B2B product classification. Other categories are “modified rebuy” and “new task” products (IP1, 07.02.22, 00:18:35). For these low-interest goods, there usually is already a buying routine. Since buying these products takes a lot of time, one opportunity for the supplier is to “rationalise” this process and to “unburden” the buyers (IP1, 07.02.22, 00:19:04). Because the products in this case are a “periphery” or “auxiliary” product, integrating them into e-procurement systems might not be very beneficial, as these are mostly used for “operational goods” (IP1, 07.02.22, 00:26:17).

Convenience and unburdening to add value to low interest goods. One interview partner is convinced that “there are different features in the entire process that are of value to the customer” (IP1, 07.02.22, 00:13:25). It is suggested that the benefits of this firm lie in the logistics, the ordering process, and the quality (IP3, 10.02.22, 00:27:20). However, it is recommended to analyse what the competitors’ USPs are by ordering products from them.

The importance of quality is explained by the fact that when sending products as a business client, the firm’s name is associated to it (IP4, 16.02.22, 00:04:33).

The importance of convenience and the unburdening of business customers with regards to the ordering process was mentioned by several interview partners (IP1, 07.02.22, 00:16:06; IP2, 08.02.22, 00:18:40). Since buying these low interest products is “not the core business” of an organisation, convenience is likely to be the factor where the firm can differentiate itself (IP2, 08.02.22, 00:13:59; IP3, 10.02.22, 00:33:54). One interviewee describes that as an entrepreneur, going into town to buy something is getting less and less enjoyable due to long waiting times, stressing the importance of convenience that can be experienced when buying online (IP3, 10.02.22, 00:40:25). Moreover, local suppliers might not deliver outside of town, where cities are often located. This makes the logistics of a national e-commerce company an advantage (IP3, 10.02.22, 00:12:07, 00:13:16). Another interviewee claims that relieving business clients from a complicated ordering process is more important than the focus on the product itself (IP4, 16.02.22, 00:04:45). One interview partner states that “the transaction must go [...] as quick as possible” (IP1, 07.02.22, 00:27:00). However, it must be considered that for products with a low ordering volume, making the process easier might not mean much to the business customers. Therefore, it has to be found out what has a high impact (IP4, 16.02.22, 00:20:35). Furthermore, buying from existing suppliers and not having to switch is convenient because “it already runs and they don’t have to think about it” (IP2, 08.02.22, 00:14:27). This means that the challenge is to find out what the business market wants and how value can be added to this (IP4, 16.02.22, 00:22:18).

Another measure that can increase the convenience is limiting the variety of products displayed for business customers. Not having “too much choice” is “very important” (IP1, 07.02.22, 00:32:32).

Reliability is also very important for business customers. A supplier needs to deliver on time and “with not much variation” (IP1, 07.02.22, 00:37:28).

Products and services to add value to low interest goods. The added value of a product matters when it comes to creating a value proposition. As an example, it is stated that when the products are gifted to employees, the possible increase in employee satisfaction adds value (IP4, 16.02.22, 00:09:45, 00:10:38, 00:10:52). This is because businesses do not gift products for the products’ sake, but because they aim to have happy employees or customers (IP4, 16.02.22, 00:11:11). One should investigate how business clients can receive more from the act of buying the products than seeing it as a simple to-do (IP4, 16.02.22, 00:32:38). The interviewee describes a personal example of having bought a fuel card to not having to file many small receipts anymore. With this card, also the car wash and parking can be invoiced. Being able to have one invoice for several different products and services therefore adds value to the fuel card (IP4, 16.02.22, 00:08:35).

Several products and services are suggested that can add value to the existing products. Firstly, collective invoicing might be preferred by business customers since it relieves them from having to pay separately for every one of their many orders (IP1, 07.02.22, 00:27:00; IP4, 16.02.22, 00:04:40). Another innovative pricing structure is brought to mind, where a customer sets a budget at the start of year and orders products flexibly until the budget is exhausted (IP3, 10.02.22, 00:11:50). Moreover, discounts for specific order numbers can be offered (IP1, 07.02.22, 00:04:30). Secondly, subscriptions could be appreciated, especially for offices renewing the products frequently (IP3, 10.02.22, 00:06:36). These subscription packages could come at different prices for various bundles and options (IP1, 07.02.22, 00:05:27). Thirdly, services add to the overall value (IP2, 08.02.22, 00:23:54; IP3, 10.02.22, 00:29:05). A service could be the managing of birthdays and other events of employees and

offering companies to automatically send products as a gift (IP1, 07.02.22, 00:15:30; IP3, 10.02.22, 00:37:30). Another service could be to visit companies to arrange products there (IP1, 07.02.22, 00:05:13). Lastly, one could offer the business customers to personalise certain products (IP1, 07.02.22, 00:37:53).

Targeting business customers. Another challenging factor is how one approaches a business client, or “how they approach you”, especially regarding the interfaces used (IP1, 07.02.22, 00:02:49). Traditionally, business customers are gained via “hardcore sales targeting” (IP2, 08.02.22, 00:02:57). A B2B marketing expert explains that contacting business customers also depends on the market being in an e-commerce setting, as here, the “approaches and channels are very different” (IP2, 08.02.22, 00:03:48). The importance of the network and salespeople is stressed (IP2, 08.02.22, 00:03:19) and it is highlighted that sales pitches referring to the USPs of the company can be an effective method (IP2, 08.02.22, 00:09:56). It is also mentioned that a pure-online business also continues the approach to online-only customer acquisition (IP2, 08.02.22, 00:04:43). However, despite being in the e-commerce sector, “we are still not fully automated” and people “still play a role in [...] getting your product from A to B” (IP2, 08.02.22, 00:23:37). Hence, “human touchpoints” are still necessary (IP2, 08.02.22, 00:24:10).

An “essential” factor for successfully gaining business customers is to find a way into an organisation’s database (IP2, 08.02.22, 00:16:19). This is explained with a personal example, in which the interviewee describes a situation where something had to be bought professionally, and despite knowing a supplier from the US that could have provided better quality at a lower price, another supplier from the database of the workplace was chosen. The reason for this was the simpler payment process where the invoice was automatically forwarded to the finance department (IP2, 08.02.22, 00:16:26). For being able to enter a business customer’s data base, e-procurement systems could be beneficial (IP2, 08.02.22, 00:22:49).

Contacting potential business clients is often challenging and it is argued that “because it’s so difficult to approach them, it needs to be a very clear strategy on how to reach them and should fit the business model” (IP2, 08.02.22, 00:09:10). Furthermore, it is stated that especially in online marketing “visualisation is very important” since decisions upon seeing something are made within seconds (IP2, 08.02.22, 00:19:49). It is also stated that one has to stand out positively among the many messages that firms receive on a daily basis with the danger being clients perceiving the marketing efforts as advertisements or publicity (IP3, 10.02.22, 00:03:13).

Other interviewees mentioned the idea of attracting business clients via the individual customers, since some of them are likely to also purchase for their work (IP3, 10.02.22, 00:15:08). Another suggestion is to send products to the firm’s reception to gain attention (IP3, 10.02.22, 00:16:24).

B2B/B2C hybrid business models and the consumerisation of B2B. In earlier research, it was discovered that start-up businesses attempting a B2B/B2C hybrid model often fail. Interview partner 1 explains that new companies first need to be recognised by a homogenous target group. Having a hybrid business model can quickly become “confusing” as it seems to be targeting the mass market (IP1, 07.02.22, 00:09:07). It is further explained that the usual marketing process starts with segmenting and then moves on to targeting and positioning. Start-ups usually start with one segment and to only expand over time by finding new target groups (IP1, 07.07.22, 00:09:30). Hence, the reason for B2B/B2C hybrid models failing is rooted in a badly executed segmenting-targeting-positioning process (IP1, 07.02.22, 00:10:13).

In another interview, it was highlighted that “although the business is or will potentially be your client, the end user is an individual.” However, “the business is your target because they have to pay for it”. Therefore, it is recommended to not classify the two segments to be entirely different from each other and to instead focus on what the firm is offering (IP2, 08.02.22, 00:27:51). The consumerisation of the B2B market was identified as a highly relevant trend

for this research, especially since the start-up that is discussed is in the e-commerce market (IP2, 08.02.22, 00:26:47). Another interview partner described that especially in this end-product category, “the B2B customers might also think as a consumer” (IP1, 07.02.22, 00:15:04). The main differentiating factors are the order quantity and the consideration time. However, the core function of the products remains the same for business and individual customers (IP1, 07.02.22, 00:34:00).

A B2B/B2C hybrid business model can be executed by having separate areas for each customer group on the website. For B2B clients, a selected number of products and packages can be shown in this area (IP1, 07.02.22, 00:31:58). This website area needs to feel “familiar” and it must be clear that business customers receive discounts and other benefits (IP1, 07.02.22, 00:36:49).

4.2.3 Theoretical Conceptualisation

Both empirical and theoretical analysis is needed to analyse the research problem and formulate a concrete solution. The relative weight of empirical and theoretical data can differ and depends on the specific project (van Aken & Berends, 2018, p. 87).

An initial systematic literature search via Scopus, one of the largest scientific databases with search terms such as “b2b unsought goods” and “business-to-business unsought goods” did not deliver any search results. Therefore, it was decided to address the topic of creating a value proposition for low-interest goods first in the expert interviews. Following this, terms and topics addressed in the interviews that need for definition or explanation to form a diagnosis will be explored theoretically. One of the purposes for which literature can be used in the analysis is as conceptualisation. The concepts found in scientific sources can be used to “interpret empirical phenomena”. It is explained that “translating these non-theoretical factors into theoretical concepts often helps sharpen the analysis”. The authors warn that executing this conceptualisation at a later moment in the diagnosis, it cannot provide guidance for the data collection anymore (van Aken & Berends, 2018, p. 88). For this research, the theoretical

conceptualisation was intentionally chosen to provide further conceptualisation for terms already mentioned in the empirical analysis. Hence, this issue does not apply in this case.

4.2.3.1 B2B Product Classification

In an interview, it was mentioned that products in B2B markets can be classified into straight rebuy, modified rebuy, and new task categories. A Scopus search with the terms “straight w/3 rebuy AND modified w/3 rebuy AND new w/3 task” delivered five search results. Two of the results were excluded as they focussed on engineering procurement and construction companies or the advertising industry in developing countries. The three sources that were found to be relevant for this study and the related insights into B2B product classifications are explained below.

Based on scholarly literature and interviews with purchasing personnel, a “four-dimensional classification system for industrial buying situations” is proposed (Cardozo, 1980). The four distinct components of the system are labelled “(1) buyers’ familiarity with the buying task”, “(2) product type”, “(3) importance of the purchase to the buying organisation”, and “(4) principal type of uncertainty present in the purchase situation”. The author explains the composition of each dimension and related suggestions for marketing efforts. It is stated that the four components of the system can be used separately or combined.

The degree of familiarity of the purchasing party is categorised into three “buying tasks”. A “new task” is a buying situation that is entirely new to the firm. A “new task” event leads to “intensive working sessions” with potential sellers and needs a lot of negotiation between supplier and buyer. There is no existing buying routine, and the formation of one differs between organisations. Marketers are advised to include themselves at the very start of the purchasing process and can expect significant time investments. (Cardozo, 1980).

“Straight rebuy” describes the repeated purchase of items from suppliers that the company has already found suitable. Here, the buyer usually refers already existing suppliers and details the order routine in a “supply agreement”. Still, new suppliers can also be considered. Negotiations are minimised, focussing on “price, delivery [and] terms of sale”.

New suppliers should initiate contact with firms when it comes to “modified rebuy” situations (Cardozo, 1980).

“Modified rebuys” stand for a “residual category of purchases” that the buyers are accustomed to but may reconsider their suppliers or purposes. For this buying task, the firm either responds to seller’s initiatives or contacts new and existing suppliers themselves. Sales negotiations focus on “price [and] delivery”. In case of a new supplier, the buying routine is comparable to a “new task” situation, whereas with existing suppliers it is similar to a “straight rebuy” setting. Current suppliers are recommended to focus on customer satisfaction and fulfilling their needs as to decrease the likelihood of other suppliers becoming involved. On the contrary, new suppliers should convince the buyers of their advantages over existing sellers. These initiatives can be more successful when the buying firm’s trade agreements are about to be terminated (Cardozo, 1980).

The types of products in a buying situation are differentiated according to the “product use” and “degree of standardisation”. The use of a product can be sorted into (1) maintenance, repair, and operation (MRO), (2) components of finished products, (3) materials in the production process, and (4) equipment (Cardozo, 1980). The “degree of standardisation” is either (1) “custom”, describing a “unique design for a particular customer”, (2) “modular”, with standardised components being uniquely combined for a customer, or (3) “standard” (Cardozo, 1980). It is remarked that standard products are acquired with less time and consideration than custom products.

The importance of a buying situation depends on the “degree of risk [that is] believed present”, which is made up of “exposure” and “uncertainty”. Exposure relates to the cost of both the product itself and the consequences in case the product fails. Uncertainty is linked to the expected outcome. New task situations contain a higher degree of uncertainty than modified and straight rebuys. A high degree of uncertainty and high exposure increase the importance of the purchase. A buying situation with high importance “requires longer and more extensive marketing efforts”, states Cardozo (1980).

There are five types of “uncertainty in purchase situations” (Cardozo, 1980). “Need uncertainty” relates to an ambiguous description of the product and occurs mostly in “new task situations”. Suppliers should emphasise their competence in this case. “Technical uncertainty” is associated with malperformance of the product. This uncertainty can be decreased by the seller by offering “samples, test results, and reports”. “Market uncertainty” occurs across any buying situations when there are very varied product offerings. Supplier are advised to highlight the differentiating characteristics of their products and services. “Acceptance uncertainty” is present when individuals in the purchasing firm are reluctant to buy a certain product. Recommendations to sellers are similar to those for technical uncertainty. Lastly, “transaction uncertainty [...] is associated with delivery dates and terms of sale”. It can be decreased with “detailed post-purchase service agreements and testimony from previously satisfied customers” (Cardozo, 1980).

In a qualitative study the “relationship between buying classes and buying phases” is compared to “earlier work on organizational buying processes” (Doyle et al., 1979). The findings show that in straight rebuy situations, the purchase process happens in a shorter time frame and with less employees involved than in modified rebuy and new task situations. Whilst a process is usually started by the user of the product or the “purchasing agent (PA)” in straight rebuy purchase, in modified rebuys or new tasks it is done by individuals not being the PA. The reasons for a purchase can lie in “dissatisfaction with current suppliers”. For straight rebuys, depletion of stock is another frequent motivation. In contrast to this, modified rebuys and new tasks are also initiated because “customers want [...] modifications” or the firm believing that current suppliers are “incapable” to complete a project.

When it comes to negotiations, it is stated that “delivery, price, and terms of payment” are often addressed in straight rebuys. Whilst terms of payment are not associated with modified rebuys or new tasks, the performance of a product and guarantee played a more important role here. Once a purchase has been made, buyers and sellers are more likely to hold “extensive” evaluations in modified rebuys and new tasks (Doyle et al., 1979).

The constitution of the purchasing party varies in all buying situations. Furthermore, there was no significant indication whether one purchasing situation involved contacting more suppliers than another (Doyle et al., 1979).

Another way to classify B2B products and services is to make a connection between purchasing situations and the atmosphere of the relationship between buyer and seller in each situation (Leonidou, 2004). The purchasing situation is divided into straight rebuys, modified rebuys, and new tasks, while the atmosphere has three “major parts”, being “latent, manifest, and outcome”. The latent atmosphere describes “feelings and interpretations by both parties in the relationship”. Important dimensions are “dependence”, “distance”, “trust”, “understanding”, and “uncertainty”. The manifest atmosphere is connected to “what is actually done”. Central parameters are “adaptation”, “commitment”, “communication”, “conflict”, and “cooperation”. The outcome atmosphere relates to “what has been done” and centres around the satisfaction that both parties experience with regards to their expectations being met.

The findings show that there is a significant difference in the interaction between customers and suppliers in different buying situations (Leonidou, 2004). Straight rebuy situations show high degrees of dependence, trust, and understanding. New tasks however show more signs of distance and uncertainty. When it comes to the manifest atmosphere, straight rebuys score higher in all dimensions except for “conflict”, for which the hypothesis could not be supported (Leonidou, 2004). Also, the outcome atmosphere shows high degrees of both dimensions in straight rebuy situations. The author claims that based on these results, straight rebuy relationships between buyer and seller have the healthiest atmosphere. The reasons for this are the following. Firstly, a straight rebuy relationship is said to deliver “extensive experience” regarding the demands of the customer. Secondly, routine purchasing leads to stability and “reduces areas of friction”. Thirdly, the steadiness of the relationship indicates “successful coexistence”. Lastly, buyers aiming to stay with one supplier and not wanting to switch to a competitor reduces anxiety (Leonidou, 2004).

4.2.3.2 Business Model Canvas

The Business Model Canvas by Osterwalder and Pigneur (2010) was mentioned in parts or as a complete tool by several interview partners. The concept is meant to serve as a “shared language” when it comes to discussing business models. The Business Model Canvas consists of nine “building blocks”, that address a business’s customers, infrastructure, value proposition, and financial aspects. An overview of the Business Model Canvas can be found in appendix I.

At the centre of the Business Model Canvas, one finds the Value Proposition. It is described as “the bundle of products and services that create value for a specific Customer Segment”. This is done by solving and satisfying customer needs and problems (Osterwalder & Pigneur, 2010).

To the right side of the Value Proposition, one finds the customer-oriented building blocks. The Customer Segments are groups of customers that have been clustered according to “common needs, common behaviors, or other attributes”. Businesses must make an intentional choice about which customer segment to focus on. Once this has happened, the rest of the business model can be designed (Osterwalder & Pigneur, 2010, p. 20). The Customer Segments are reached through Channels. This affects the “communication, distribution, and sales” (Osterwalder & Pigneur, 2010, p. 26). Channels are a crucial part of the customer experience. The Revenue Streams describe how a firm earns money from each customer segment. They can be one-time- or recurring payments (Osterwalder & Pigneur, 2010, p. 30).

On the left side of the value proposition, one can find a firm’s Key Resources. This building block entails “the most important assets required to make a business model work” (Osterwalder & Pigneur, 2010, p. 34). Next to this, Key Activities represent the essential actions that a firm must do for success. It is stated that both Key Resources and Key Activities differ per business model type (Osterwalder & Pigneur, 2010, p. 36). Key Partnerships can be “suppliers and partners that make the business model work” (Osterwalder & Pigneur, 2010, p.

39). Finally, the Cost Structure stands for the costs that are needed to manage the business model. This building block can be outlined after having described the previous three “key” aspects of the Business Model Canvas (Osterwalder & Pigneur, 2010, p. 40).

While the right side of the Business Model Canvas represents the value of a business model, the left side shows the efficiency (Osterwalder & Pigneur, 2010, p. 49).

4.2.3.3 Lean Canvas

The Lean Canvas is a model by Maurya (2012), who based on the Business Model Canvas by Osterwalder. It can be seen in appendix VIII. The author claims that it is “the perfect format for brainstorming possible business models, prioritizing where to start, and tracking ongoing learning”.

On the far left and right side, one can find the building blocks “Problem” and “Customer Segment”. They are treated as a “pair” and the rest of the canvas depends on them. For each Customer Segment, the user of the canvas should describe up to three problems that it wants to have solved. Furthermore, one should pay attention to already existing problem solutions and other possible “user roles” (Maurya, 2012, p. 27).

In the centre of the Lean Canvas, the “Unique Value Proposition” is situated. This is the answer to the question of why a business is different and “worth [...] getting attention” (Maurya, 2012, p. 29).

Between the Problem and the Unique Value Proposition, one finds the “Solution”. Even though solution concepts are likely to be altered or replaced once more information is gathered, initial ideas can be noted once the previous three building blocks have been defined (Maurya, 2012, p. 32). Between the Unique Value Proposition and the Customer Segments, the “Channels” are positioned. Arguably, this is one of the most important part of the business model, as the primary reason for start-ups failing is not having built a “significant path to customers”. Furthermore, it is stated that Channels should be “scalable” and considered from the very beginning of the start-up (Maurya, 2012, p. 33).

At the bottom of the Lean Canvas, one finds the “Revenue Streams” and the “Cost Structure”. The former refers to the pricing of the product or service, which should be considered from the beginning. Offering the product or service at a lower price or for free to lower the barrier of customers trying it out eliminates the opportunity to validate the pricing. The cost structure represents the “operational costs” that a start-up faces in launching a product into the market (Maurya, 2012, pp. 36–38).

The “Key Metrics” are located below the Solution in the Lean Canvas. Their purpose is to measure the performance of a start-up (Maurya, 2012, p. 39). The last building block is the “Unfair Advantage”, which is positioned above the Channels. This describes the factors of the business model that cannot easily be imitated or obtained by competitors and is the most difficult building block to define (Maurya, 2012, pp. 42–43)

4.3 The Diagnostic Story: Summarising the Analysis of the Business Problem

Having validated the business problem and discussed key topics in expert interviews, the findings can be summarised in a “diagnostic story”. The diagnostic story is a short summary of the analysis and diagnosis phase (van Aken & Berends, 2018, pp. 93–94). Below, the main insights from the validation, empirical exploration, and theoretical conceptualisation are gathered.

The main insight from the validation of the business problem is that convenience in the buying process is a key desire of many business customers. The purchase frequency varies greatly between companies. What they have in common is that the products are usually gifted to employees, meaning that the firms are the buyers, but not the end users. Furthermore, they opt for local suppliers with the goal of supporting local businesses. All in all, the findings suggest that businesses generally show a low interest towards these products.

The validation showed that to become a successful B2B supplier of low-interest products, one has to discover how to create a value proposition for low-interest products. For building a value proposition, a firm’s entire business model needs to be considered. Experts recommend a customer-centric approach, focussing on unburdening the business clients to

create value. Moreover, the competitive advantage has to be analysed to define the unique selling point. Furthermore, the B2B market can be segmented, and a firm needs to find a match between its resources and the segment it caters to. Finally, to create a value proposition for a low-interest product, the supplier firm has to find a way to add value to the product that matters to the customers.

5. Solution Design

Based on the analysis and diagnosis phase, the solution to the business problem can be designed. The solution design should be “holistic and integrated” and created using an “iterative and interactive process” (van Aken & Berends, 2018, p. 99).

There are four necessary inputs for designing a solution to a business problem (van Aken and Berends, 2018, pp. 102–103). Firstly, the previous chapters of the problem definition (3.3) and problem-oriented analysis (4.2) serve as the problem-related inputs and as starting point for the solution. Secondly, the current business systems and processes (4.1) is needed for the redesign of such. Thirdly, knowledge on solution concepts, design processes, and organisational change is required to create satisfying solution for the company. Lastly, so-called “design requirements” and initial solution ideas need to be noted.

In the following, the design requirements and the design inputs are described, based on which the solution options were developed. The two solution options are (1) adding products and services to enhance the overall value offering, and (2) increasing the convenience of the buying process to unburden business customers. The options were evaluated and the chosen solution option was detailed to suit the client organisation.

5.1 Design Requirements: Defining the Conditions for the Solution

There are four main design requirements that need to be defined. Overall, the proposed solution should require minimum change to the current business system (van Aken and Berends, 2018, p. 102). “Functional requirements” dictate that executing the solution solves the business problem as well as that the benefits of the solution exceed the costs. “User

requirements” concern the members of the project organisation. The solution system should be user-friendly and the people in the firm should be able to use it without much additional training. “Boundary conditions” relate to non-negotiable factors such as legal obligations and company policies and culture. “Design restrictions” define the boundaries of time and budget.

5.1.1 Functional Requirements

There are two main components that are necessary to design a solution that solves the business problem. On the one hand, a value proposition for low-interest goods in the B2B market needs to be created. On the other hand, a B2B customer segment needs to be added to the start-ups business model.

The benefits exceeding the costs is an important requirement, especially since the resources of the start-up are limited. While the benefits are difficult to measure, this criterium is ensured by keeping the costs at a minimum.

5.1.2 User Requirements

Seeing as the managing director of the start-up is mainly responsible for the B2B market, the solution cannot involve many other members of staff. Even when another person is going to be employed in the near future, the responsibility for all tasks related to the B2B market is never the only task of one person. The start-up operates with limited personnel, which means that expanding and maintaining the B2B customer segment cannot consume too much time and effort from the staff.

5.1.3 Boundary Conditions

The proposed solution needs to comply with many legal requirements that exist for e-commerce. What influences the solution design more directly are data protection regulations for the B2B market. As it was found in the external exploration, identifying customers is increasingly challenging under new regulations. Moreover, many changes in the overall regulations for e-commerce can be expected in the future. Experts demand a “channel-neutral” legislation, bridging the gap between stationary and online retail. Therefore, the proposed solution must be future-proof and adaptable to possible changes in regulation.

Arguably more important are the boundary conditions in terms of company policies and culture. In the empirical exploration, it was stated that an e-commerce business model influences the customer channels and the approaches of targeting business customers. Specifically, it was stated that a pure-online business model leads to online-only customer acquisition. This significantly influences the solution design.

A definite boundary condition related to the start-up's supply chain. The products are made in a central production facility and delivered via DHL. The proposed solution cannot require a change in this structure.

5.1.4 Design Restrictions

Realising the opportunity by adding a business customer segment to the business model should come at as little cost as possible. As a start-up, the company cannot face big upfront investments.

In terms of realisation time, there is no official deadline for when the solution has to be implemented. However, in the internal orientation (3.2) the managing director mentioned concrete goals for the expansion of the B2B customer segment. Firstly, customers with at least 100 orders per year should be acquired. Secondly, 250 orders should be placed by business clients this year, resulting in a revenue of approximately €5000 in 2022. Lastly, the company strives for overall growth towards being one of the top 5 companies in the field within the next 5 to 10 years. These goals must be respected in the design restrictions. The solution should mainly support the generation of 250 orders in this year. For this, it is important that existing business customers are not hindered in ordering by the solution implementation. Moreover, the solution should attract more customers that ideally order several times per year.

5.2 Design Inputs: Impacts on the Solution Design

Before the solution to the business problem is created, one has to collect the necessary design inputs (van Aken & Berends, 2018, pp. 102–103).

Problem-related inputs refer to the problem definition and the analysis and diagnosis chapter. The insights from the analysis and diagnosis showed that for the start-up to

successfully integrate a B2B segment into its business model, a value proposition for low-interest products need to be created. Two main options were indicated by experts, being the addition of products and services to enhance the overall value or increasing the convenience of the buying process to unburden the customer.

The second input to the solution design is the model of present business systems and processes. This applies to chapter 4.1, where the purchasing process and current offering for business customers of the start-up is described.

The solution-related input refers to chapter 5.1, where the design requirements are defined.

Lastly, the generic design knowledge describes “knowledge on solution concepts for the type of business problem”, “design process knowledge”, or “realization knowledge on organizational change processes” (van Aken & Berends, 2018, p. 103). This problem concerns a future opportunity. When it comes to developing a solution concept to an opportunity, one can develop solution hypotheses which are either accepted as a solution, rejected, or iterated (Baaij, 2014). This process is adapted in the following synthesis-evaluation iteration.

5.3 Solution Sketching: Synthesis-Evaluation Iteration to Select a Solution Concept

Having defined the design requirements, the next step is “sketching and choosing a solution concept” (van Aken & Berends, 2018, p. 100). Sketching refers to “synthesis-evaluation iterations”, which is the key activity in designing a solution concept. The synthesis includes a “creative leap” in developing a solution idea. These ideas can stem from sources such as the client organisation, the business problem, or literature. The evaluation step examines the performance of the solution concept. Usually, multiple criteria play into the assessment of a solution. These can be summarised into composite criteria. However, for a business problem it is recommended to weigh different options based on their “holistic images” (van Aken & Berends, 2018, p. 107).

A business problem solution usually evolves around redesigning a business system (van Aken & Berends, 2018, p. 103). As explained above, this research concerns a future

opportunity. In contrast to a solution to a business problem, the “result gap” of a business opportunity and its outcome cannot be measured (Baaij, 2014).

5.3.1 Evaluation Criteria

The evaluation serves to assess the “expected performance of the redesigned business system or the contribution of the new tool to the business system” (van Aken & Berends, 2018, pp. 105–107). Since in this case not a business problem is analysed but an opportunity, this is adapted by assessing the different options of how the start-up can best seize it. The evaluation should be based on several criteria that are specified for the case company. Therefore, a list of criteria is created based on the start-up and its goals for the B2B market, as well as the expert interviews on adding a B2B customer segment to the business model.

5.3.1.1 Company Goals for the B2B Market

The first two criteria relate to the managing director’s goals for the B2B market. On the one hand, several orders per year can be generated with one customer. On the other hand, when a company gifts the products to an employee or client, those recipients can potentially become customers as well. Hence, the solution should help in attracting several orders per customer and becoming an attractive supplier for companies looking to gift the products.

5.3.1.2 Finding the Best B2B Customer Segment

In the expert interviews, it became clear that in contrast to the consumer market, the B2B market is more heterogenous. Different segments can be identified that differ greatly from each other. Two main segments have been identified, based on the customer and expert interviews, and are described below.

On the one hand, there are business customers who use the products mainly as gifts to their employees, clients, and partners. These customers mostly view the ordering process as a chore that needs to be completed in a quick and efficient way. The personal involvement of the buyer is very low, and too many questions or remarks from the supplier are perceived as annoying. The products do not add value in a direct way to the customers’ business and

therefore should take as little time as possible. On top of that, the end users are the gift recipients, meaning that the buying customer often does not even see the product.

On the other hand, there are businesses that use the products to create value. Often this has to do with the company presentation, which the products are a part of. They are displayed in offices or lobbies to create a certain atmosphere. In this case, the buying customers are also the end users. Furthermore, a lot more consideration is going into the buying process, as the products are sought to represent the company image.

It was stated by the experts that the start-up must choose a B2B segment carefully, based on its resources and capabilities. Insufficient completion of the segmenting-targeting-positioning process can lead to failure in the B2B market. One expert even reasoned that this explains why many B2B/B2C hybrid start-ups fail.

5.3.1.3 Impact on the Business Model

Even though the product in this case is a consumer product for both the B2B and B2C market, there are differences that influence the start-up's business model. The biggest influence of a B2B customer segment can be seen in the Customer Channels and the Relationship Management. However, also the key partners can be impacted. To find a suitable solution, the impact on these business model building blocks is assessed. The solution which has least influence on the business model is favoured, as this the start-up aims for a B2B/B2C hybrid and too severe changes might damage its place in the B2C market.

5.3.2 The Outline Design

In the empirical analysis, two main opportunities to creating a value proposition for a low interest product were suggested. One the one hand, products and services can be added to the low-interest product to enhance the overall value for the business customer. On the other hand, the ordering process can be rationalised to make it as convenient as possible and to unburden the business customer.

5.3.2.1 Option 1: Adding Products and Services to the Overall Value Offering

The goal is to elevate the gifting of the products to employees from a simple to-do to something that is valued more. This can be done by adding products that are also suitable gifts for employees. In the validation, business customers mentioned that they also like to send gift baskets or vouchers. Similar products could be added to the variety, such as delicacies that one usually finds in a gift basket.

Alternatively, services could be added to the overall offer for business customers. In the expert interviews, examples of these were mentioned, such as subscription services including several bundles and price points. For companies sending gifts for employee's birthdays frequently, a management service could be created where company representatives indicate the dates and gifts are sent out automatically. Furthermore, visiting companies to arrange products on site could be an interesting offer for businesses who use the products themselves instead of gifting them.

Another idea to add value to low-interest goods is to offer dynamic pricing structures. Here, one idea is to offer collective invoicing for companies who order several times per month. A different suggestion made by an expert is to set a certain budget that is paid in advance by the business customer. Then, products can be ordered flexibly until the budget has been exhausted.

Personalisation can add value to a low-interest product as well, and possibly make it more interesting. The offer could include adjustments to the product itself, the packaging, and other give-aways that are added to the package.

5.3.2.2 Option 2: Increasing Convenience to Unburden Business Customers

The importance of convenience when purchasing products belonging to the low-interest category was mentioned not only by business representatives in the validation, but also by several experts in the empirical analysis. The reason for this is that buying these products is not the core business of a company but can still take a lot of time. Moreover, the buyers are not the end users and often do not even see the product. One suggestion to increase the

convenience of the purchasing process is to design the transaction in a very efficient way. Furthermore, limiting the choice of products can serve as a means to unburden the business customers.

In the validation, it was found that some business representatives value having as little contact as possible for these orders. This hints towards the B2B trend of self-service. Drawing inspiration from the best practices that were analysed, one can create a self-service process that facilitates easy and quick ordering as a business client.

5.3.3 Evaluation

To evaluate the degree to which the solution options support the company goals, they are evaluated on the two dimensions described above.

Both options are likely to increase the overall number of orders. Adding products and service to increase the overall value of a low-interest product can make the bundle of products and services more attractive to business customers. However, here it is crucial that the value offering is unique compared to competitors. Otherwise, the sole purpose of increasing interest is not fulfilled, and other ways are needed to develop competitive advantage. Increasing the convenience in the buying process was mentioned as a key means to increase interest for the products by experts. Since switching suppliers is undesirable for businesses when it comes to low-interest products, once customer satisfaction is maintained, many orders are generated over time from one customer.

Targeting the gift recipients as private customers can best be achieved with option 2. Option 1 could serve this purpose with added products, however many of the suggested services, such as subscriptions or arranging the products on-site, mostly apply to business purchasing for themselves. Option 2 relates most to companies gifting the products to employees, clients, or partners, as here the products are not related to the one's core business and convenience is valued highly.

Two main business customer segments have been identified. Companies that purchase mainly to gift the products to employees, clients, or partners might value the added products

that can be also gifted in option 1. However, most of the service offerings are not applicable to this customer segment as buying company is not the end user. Still, the invoicing and payment services as well as the birthday management can increase the overall value for these companies. Option 2 increases the perceived value for this customer segment as it is unburdened from the buying process and more time can be spent on activities that concern the core business of the company.

A business customer segment that buys the start-ups product to add to their own value creation is likely to value products and services that enhance the overall value of the product. Especially subscriptions and on-site arranging could be an attractive offer. However, products that are added to increase the value as gifts are not applicable to a customer segment that uses it themselves. Hence, various bundles of products and services would have to be created to suit this type of customer segment. Option 2 is not relevant to this customer segment. In the analysis, one expert remarked that when there is a lower order volume, making the ordering process more convenient does not add much value for the customer. Since the focus lies more on the product specifically and less on conveniently sending many gifts out as efficiently as possible, unburdening is not necessary for this segment.

The chosen solution should impact the overall business model as little as possible. This was decided to firstly not overburden start-up in the light of its limited resources, and secondly to not drive the business model too far away from the profitable individual customer segment.

The Channels to reach the Customer Segments are not heavily impacted by either option. The start-up can still use its existing direct channels.

The relationship management involves significantly more effort for Option 1. Because the business customers require the products for their own value creation, many negotiations and special requests can be expected. This means that the start-up probably needs to make significant investments in personnel to react to the requests coming from the business customers. Furthermore, there is probably going to be more discussion and negotiation with one client until their first purchase is made. Since the switching costs to another supplier are

lower for this customer segment, the customer satisfaction plays a crucial role and can lead to high efforts and investments. Option 2 requires less relationship management. In fact, some business customers mentioned that they value as little communication as possible. Initially, some discussion is needed to identify the most convenient way of purchasing for each business client. However, self-service can be a way to unburden the customers. Once this is put in place, less relationship management is needed.

One key partner is the delivery service DHL, with which all parcels of the start-up are delivered. Option 2 does not require additional partners, as the existing logistic structures can be maintained. Option 1 might need additional partnerships with suppliers of other goods that can be gifted. This could be delicacy shops, which are often small and individual companies. Consequently, many individual partnerships would have to be established and fit into the existing logistic structure.

Table 3

Two solution options compared.

	Option 1	Option 2
Company goals for the B2B market		
Increasing the overall number of orders	+	+
Targeting recipients as individual customers	+/-	+
Business Customer Segments		
Products bought mainly for gifting purposes	+/-	+
Products bought mainly for value creation purposes	+/-	-
Impact on the business model		
Customer Channels	+	+
Relationship Management	-	+
Key Partners	-	+

5.4 Detailing the Outline Design

In the previous step, the solution idea synthesis and evaluation, two solution options were compared based on three criteria. Option 2 clearly outweighs Option 1 on almost all criteria, and it therefore chosen as the best solution to the business problem.

Option 2 focusses on increasing the convenience throughout the buying process aiming to unburden business customers. The insights on self-service as a B2B trend help in designing a solution for the business clients.

According to the expert interviews, a separate website area for B2B clients is not necessary, as the products serve a similar purpose for individual and corporate clients. Therefore, the solution means that the B2B landing page will be changed to communicate the value offering.

As a business, customers can already pay via invoice. This option must be enabled by an employee, to prevent regular customers from choosing this option at check-out. After creating a customer account, the customer can send an e-mail to the company's customer service to ask for a business account. On the landing page, it is also already indicated to collective invoicing can be provided. The payment structure of setting a budget for a customer, who can then order until it is exploited is not considered. This would mean that an employee of the start-up would have to check frequently how much of the budget is left, as this cannot be automated, and is therefore too much effort.

To increase the purchasing convenience, a field where business customers indicate their internal order number can help them when filing invoices. Moreover, it was found that the person ordering is often employed as a secretary or in the HR department. However, the invoices are handled by the finance department. Currently, customers can only indicate one e-mail address that receives the order confirmation, shipping tracking, and the invoice. Saving a second e-mail address in the customer account would be a technical challenge, however it would contribute significantly to the buying convenience.

To facilitate a high level of self-service, the start-up should include detailed instructions of the order process in the B2B landing page. They should explain the way in which one can create a customer account and how to order products to be sent to employees or other recipients.

As mentioned by experts, limiting the choice for business customers can increase the convenience of the buying process. To offer a reduced selection of products, a catalogue can be created and offered as a PDF download on the B2B landing page. The catalogue should be created with products of different price points that are popular among the existing business customers.

A trend that has been recognised for the B2B market is customisation. This was also mentioned by experts to enhance the overall value of low-interest goods. Even though this was one element of solution option 1, it can still be realised in parts for this solution design. One way in which a business customer can ask for a personalised product is to contact the start-up's customer service. Then, the details of the customisation can be discussed, and the product has to be included in the system manually by a start-up employee. An alternative that allows a degree of customisation without lengthy discussions and manually including the order in the system would be to offer a product where the customer can choose two or three colours out of a certain colour selection. The product is created based on these colours, however, certain parameters cannot be chosen.

The importance of defining a USP has been made clear by many of the interviewed experts. In one interview, it was analysed that the start-up's USP lies in its logistic structure. A centralised production facility where the products are handmade allows for consistent quality. The closeness of the production to the office enables frequent quality control. Shipping the products with DHL means that the whole country can be reached at the same price, regardless of the distance to the production facility. Especially for businesses that are located outside of town, this can be a significant advantage compared to local businesses, which are often preferred as suppliers. Moreover, companies wanting to gift something to employees that are spread over the country can do this easily. The USP should be clearly communicated on the B2B landing page under the section "highlights for business customers.

As it was mentioned in an expert interview, acquiring business customers is very difficult for a start-up, even when the USP is clearly defined. A way to evoke interest for the products

among corporate clients that was mentioned in an interview is to send samples to businesses. In theory, it was learned that sending samples can reduce some types of uncertainty in new task buying situation. Therefore, it could be beneficial for customer acquisition. Sending out product to business customers without prior contact comes at a risk that the customers are still not interested in the products at all and might not even have a need for them. Instead, the start-up could place a button on the B2B landing page through which business customers could request a sample delivery. A way to control whether the person requesting it actually orders for a business could be an indication of the VAT number or exclusively sending it to company addresses. This way, there is a first interest from the customer side and the business is more likely to become a customer. Moreover, the start-up reduces the number of products sent out with potentially no following orders.

Providing discounts for business customers was suggested by experts, but also found in both best practice examples. Specifically, both Lampenwelt and ESSKA.de mention specific numbers of discount percentages in two or three tiers, depending on the order volume. Currently, the start-up only promises attractive price advantages for bigger order numbers, without specifying this further.

6. Change Plan

The chosen solution design is translated into concrete changes for the case company. The time that it takes to implement these changes is based on experience values from working in the company for several months.

The designed solution leads to many changes of the B2B landing page. Firstly, the product catalogue needs to be created. This can be done by the managing director with assistance of the marketing coordinator to create an appealing layout and design. Discussing, creating and integrating the product catalogue in the website takes about one working day. Moreover, the managing director can create the instructions for ordering as a business client, as he is most familiar with the process. This is estimated to take half a working day.

The overall information on the B2B landing page needs to be revised. Any information that is no longer applicable can be deleted. Furthermore, the USPs should be included in the text of advantages or highlights of business clients. Specifically, the ensured quality provided with a central production facility and the nationwide delivery with DHL for the same price should be highlighted. The texts can be revised and written by either the managing director or the marketing coordinator. Revising and writing the text takes approximately half a working day up to one working day.

To offer sample deliveries, a button needs to be created for the website. This is done by coding a button, that leads to an e-mail template that is automatically filled out to be sent to the start-up's customer service. The business client can fill in the requirements needed to complete the order, such as the company address and VAT number. Creating this template and the button on the website takes about half a working day.

The field to indicate the client company's order number and the option to add a second e-mail address need to be configured by the IT contractor that the start-up works with. Estimating the time needed for this is difficult, since frequent discussion with between the managing director and the IT contractor are needed. It is likely to take several working days. However, there should not be a strict deadline set, as many obstacles in the programming can occur.

The start-up needs to be able to control whether the suggested solution design has delivered the expected results. For this, an A/B test is recommended, which is described as "an experiment that compares two versions (A and B) of a webpage" (Petz & Greiner, 2014). Here, the start-up has two options. On the one hand, the changes to the landing page and online shop are implemented at the same time. On the other hand, they can be implemented after each other, to be able to test the impact of each fragment individually.

The metrics to be tested are the following:

- The number of orders from business clients
- The number of customers accounts created by business clients and requests to pay via invoice

- The number of sample deliveries requested
 - o The number of orders from companies who have received a sample delivery

To receive reliable and valid data from the A/B test, each version of the B2B landing page should be tested for three months. Furthermore, the start-up needs to take into consideration that holidays such as Christmas, Mother's Day, and International Women's Day influence the number of B2B orders.

7. Conclusion

This research explored the business model transformation of an e-commerce start-up in consumer goods towards a B2B/B2C hybrid. Adopting a B2B/B2C business model can be very beneficial for smaller businesses. Digital e-commerce interfaces have gained importance in the B2B market, as many firms have discovered ways in which this can increase their competitive advantage. This has also caused the B2B e-commerce market to grow quicker than its B2C counterpart, meaning that start-ups can boost their growth by stepping foot into the B2B market.

Literature on business model innovation is often not clearly defined and provides only limited actionable insights for practitioners. This is identified as rigour-relevance gap. The design science research approach was chosen as it addresses both the academic and practitioner domain. With this methodology, the focus on a generic or specific field problem ensures that solution attempts do not get lost in discussions between researchers. Moreover, the findings from the design science research are translated into actionable insights for practitioners.

When reflecting on the research process, the problem definition played a crucial role. Initially, the start-up's managing director formulated the business problem around B2B customer acquisition. However, thanks to performing the external exploration and internal orientation, it became clear that there is a discrepancy between his expectations and plans

and current industry developments. The business problem was therefore refocused into discovering how to adapt the start-up's business model towards the B2B/B2C hybrid. When analysing the business customer interviews, it became clear that it first needed to be determined how one can build a value proposition for the low-interest product category. Without the problem-solving cycle as guiding methodology of this research, this reformulation would arguably not have happened.

The low-interest product category holds great potential especially for start-ups. Current B2B product classifications focus mostly on the industrial value chain. However, the employees working in a firm use several products daily that seem to be forgotten by researchers. Examples could be stationary, food and beverages, office hardware, and even office furniture. In 2016, the office stationery and supplies B2B market alone was worth 86.63 billion USD and is forecasted to increase by more than 2 billion USD until 2021 (Statista, 2021b). Simply grouping this product category as consumer products can lead to severe misunderstandings of the target segment, as this study showed that businesses and end consumers can have an extremely different perception of the same product category. This calls for more studies on this product category. It would be especially interesting to explore how the COVID-19 pandemic and the related increase in working-from-home-options influence firms' use of these products. In 2021, 66% of business leaders claimed to be considering a redesign of office space to enable hybrid work (Statista, 2022).

Not only can start-ups that are retailing consumer goods benefit from a B2B/B2C hybrid business model. With innovative ideas and business models that unburden business customers or add value to the low-interest product category, start-ups can win other companies as customers and increase their revenue significantly. The resistance to switching suppliers means that once a business customer is acquired and is satisfied, a start-up can have a forecastable revenue.

While design science research is a useful method to develop a solution concept for a specific business problem, there are limits to its generalisability. A firm with the same business

problem can find inspiration from the problem-solving cycle and the related research activities. However, the solution was specifically designed for this research case. The design requirements were formulated based on the internal orientation. The problem definition also roots partly in the internal orientation and since this defines the remaining research activities, they are also tailored specifically to the research case.

The research is further limited due to the low number of interviews used to validate the research problem. Since the interviewees were questioned about the specific product that the case company retails, the findings are relevant for this research, but cannot necessarily be translated to other products in the low-interest category.

The design science research paradigm needs to become more common in present research. The more it is applied, the more researchers can agree on general practices and accept methodologies following design science research as valid and reliable.

Future research is also needed to further explore the low-interest goods category. The findings of this research claim that there are two major ways to building a value proposition for this product category. However, it is likely that there are more ways to successfully sell low-interest goods in a B2B market.

Moreover, this research focused on a start-up in the e-commerce sector. Future research should explore different industries in the B2B market, and more mature companies, as they likely have a different reputation and more resources that could influence their ability to interest other companies in low-interest products.

Another field that needs more research is the trend concerning the consumerisation of B2B. The future professional buyers are going to be digital natives, which means that their purchasing behaviour is likely to change even more towards the online world. Companies that do not adapt quickly enough might lose their place in the market.

Literature

- Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of Business Models – Strategizing, Critical Capabilities and Activities for Sustained Value Creation. *Long Range Planning*, 46(6), 427–442. <https://doi.org/10.1016/j.lrp.2013.04.002>
- Amit, R., & Zott, C. (2012). Creating Value Through Business Model Innovation. *MIT Sloan Management Review*, 53, 36–44.
- Baaij, M. G. (2014). *An Introduction to Management Consultancy*. SAGE.
- Bashir, M., & Verma, R. (2019). Internal factors & consequences of business model innovation. *Management Decision*, 57(1), 262–290. <https://doi.org/10.1108/MD-11-2016-0784>
- Batocchio, A., Ferraz Minatogawa, V. L., & Anholon, R. (2017). Proposal for a Method for Business Model Performance Assessment: Toward an Experimentation Tool for Business Model Innovation. *Journal of Technology Management & Innovation*, 12(1), 61–70. <https://doi.org/10.4067/S0718-27242017000100007>
- Bocken, N., & Snihur, Y. (2020). Lean Startup and the business model: Experimenting for novelty and impact. *Long Range Planning*, 53(4), 101953. <https://doi.org/10.1016/j.lrp.2019.101953>
- Brotspies, H., & Weinstein, A. (2019). Rethinking business segmentation: a conceptual model and strategic insights. *Journal of Strategic Marketing*, 27(2), 164–176. <https://doi.org/10.1080/0965254X.2017.1384750>
- Cardozo, R. N. (1980). Situational Segmentation of Industrial Markets. *European Journal of Marketing*, 14(5/6), 264–276. <https://doi.org/10.1108/EUM0000000004905>
- Cartwright, S., Liu, H., & Raddats, C. (2021). Strategic use of social media within business-to-business (B2B) marketing: A systematic literature review. *Industrial Marketing Management*, 97, 35–58. <https://doi.org/10.1016/j.indmarman.2021.06.005>

- Cavalcante, S., Kesting, P., & Ulhøi, J. (2011). Business model dynamics and innovation: (re)establishing the missing linkages. *Management Decision*, 49(8), 1327–1342. <https://doi.org/10.1108/00251741111163142>
- Chasin, F., Paukstadt, U., Gollhardt, T., & Becker, J. (2020). Smart energy driven business model innovation: An analysis of existing business models and implications for business model change in the energy sector. *Journal of Cleaner Production*, 269, 122083. <https://doi.org/10.1016/j.jclepro.2020.122083>
- Doyle, P., Woodside, A. G., & Michell, P. (1979). Organizations Buying in New Task and Rebuy Situations. *Industrial Marketing Management*, 8, 7–11.
- Evans, J. D., & Johnson, R. O. (2013). Tools for Managing Early-Stage Business Model Innovation. *Research-Technology Management*, 56(5), 52–56. <https://doi.org/10.5437/08956308X5605007>
- Filser, M., Kraus, S., Breier, M., Nenova, I., & Puumalainen, K. (2021). Business model innovation: Identifying foundations and trajectories. *Business Strategy and the Environment*, 30(2), 891–907. <https://doi.org/10.1002/bse.2660>
- Foss, N. J., & Saebi, T. (2017). Fifteen Years of Research on Business Model Innovation. *Journal of Management*, 43(1), 200–227. <https://doi.org/10.1177/0149206316675927>
- Foss, N. J., & Saebi, T. (2018). Business models and business model innovation: Between wicked and paradigmatic problems. *Long Range Planning*, 51(1), 9–21. <https://doi.org/10.1016/j.lrp.2017.07.006>
- Gregor, S., & Hevner, A. R. (2013). Positioning and Presenting Design Science Research for Maximum Impact. *MIS Quarterly*, 37(2), 337–355.
- Heinemann, G. (2019). *Der neue Online-Handel*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-23686-1>
- Heinemann, G. (2020). *B2B eCommerce*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-658-27367-5>

- Hevner, A. R. (2007). A Three Cycle View of Design Science Research. *Scandinavian Journal of Information Systems*, 19(2).
- Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004). Design Science in Information Systems Research. *MIS Quarterly*, 28(1), 75–105.
- Iankova, S., Davies, I., Archer-Brown, C., Marder, B., & Yau, A. (2019). A comparison of social media marketing between B2B, B2C and mixed business models. *Industrial Marketing Management*, 81, 169–179. <https://doi.org/10.1016/j.indmarman.2018.01.001>
- Iivari, J. (2015). Distinguishing and contrasting two strategies for design science research. *European Journal of Information Systems*, 24(1), 107–115. <https://doi.org/10.1057/ejis.2013.35>
- Jennex, M. E., Amoroso, & Adalakun, O. (2004). E-Commerce Infrastructure Success Factors for Small Companies in Developing Economies. *Electronic Commerce Research*, 4, 263–286.
- Kalscheuer, R. (2019, February 5). *Wie es leuchtet*. HANDELSBLATT MEDIA GROUP GmbH.
- Keenan, M. (2021, December 6). *The B2B Ecommerce Trends and Statistics to Follow in 2022*. Shopify. <https://www.shopify.com/enterprise/b2b-ecommerce-trends-statistics>
- Kieser, A., & Nicolai, A. T. (2005). Success Factor Research. *Journal of Management Inquiry*, 14(3), 275–279. <https://doi.org/10.1177/1056492605279098>
- Kwiecien, A. (2019, August 19). *Marcus Lorenz on Lampenwelt's journey from a startup to a global leader with the headless approach*. Divante. <https://www.divante.com/blog/marcus-lorenz-on-lampenwelts-journey-from-a-startup-to-a-global-leader-with-the-headless-approach>
- Lampenwelt GmbH. (2021a). *B2B Vorteile*. <https://www.lampenwelt.de/b2b-vorteile/>
- Lampenwelt GmbH. (2021b). *Lampenwelt.de*. <https://www.lampenwelt.de/>
- Lampenwelt GmbH. (2021c). *Lichtplanung und Lichtkonzepte*. <https://www.lampenwelt.de/lichtplanung-und-lichtkonzepte.html>

- Lampenwelt GmbH. (2021d). *Newsletter*.
<https://www.lampenwelt.de/unternehmen/newsletter.html>
- Lampenwelt GmbH. (2021e). *Referenzprojekte von Lampenwelt Professional*.
<https://www.lampenwelt.de/referenzen.html>
- Lampenwelt GmbH. (2021f). *Unser Markenzeichen: Mit wenigen Klicks zur passenden Leuchte*.
<https://www.lampenwelt.de/unternehmen/wir-ueber-uns/unser-markenzeichen.html>
- Lampenwelt GmbH. (2021g). *Wir über uns*. <https://www.lampenwelt.de/unternehmen/wir-ueber-uns.html>
- Leonidou, L. C. (2004). Industrial manufacturer–customer relationships: The discriminating role of the buying situation. *Industrial Marketing Management*, 33(8), 731–742.
<https://doi.org/10.1016/j.indmarman.2004.01.004>
- Liu, Y., Chen, D. Q., & Gao, W. (2020). How does customer orientation (in)congruence affect B2B electronic commerce platform firms' performance? *Industrial Marketing Management*, 87, 18–30. <https://doi.org/10.1016/j.indmarman.2020.02.027>
- Lone, S., Harboul, N., & Weltevreden, J. W. J. (2021). *2021 European E-Commerce Report*.
- Mansoori, Y., & Lackéus, M. (2020). Comparing effectuation to discovery-driven planning, prescriptive entrepreneurship, business planning, lean startup, and design thinking. *Small Business Economics*, 54(3). <https://doi.org/10.1007/s11187-019-00153-w>
- Maurya, A. (2012). *Running Lean - Iterate from Plan A to a Plan That Works* (M. Treseler, Ed.; 2nd ed.). O'Reilly Media, Inc.
- Mingione, M., & Leoni, L. (2020). Blurring B2C and B2B boundaries: corporate brand value co-creation in B2B2C markets. *Journal of Marketing Management*, 36(1–2), 72–99.
<https://doi.org/10.1080/0267257X.2019.1694566>
- Ocloo, C. E., Xuhua, H., Akaba, S., Shi, J., & Worwui-Brown, D. K. (2020). The Determinant Factors of Business to Business (B2B) E-Commerce Adoption in Small- and Medium-

- Sized Manufacturing Enterprises. *Journal of Global Information Technology Management*, 23(3), 191–216. <https://doi.org/10.1080/1097198X.2020.1792229>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation*. John Wiley & Sons, Inc.
- Parida, V., Sjödin, D., & Reim, W. (2019). Reviewing Literature on Digitalization, Business Model Innovation, and Sustainable Industry: Past Achievements and Future Promises. *Sustainability*, 11(2), 391. <https://doi.org/10.3390/su11020391>
- Petz, G., & Greiner, A. (2014, June). First in search—how to optimize search results in e-commerce web shops. *International Conference on HCI in Business*.
- ROSE Digital. (n.d.). *Referenzen*. Retrieved December 9, 2021, from <https://kommerz.eu/referenzen>
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods of Business Students* (8th ed.). Pearson Education Limited.
- Shim, S. S. Y., Pendyala, V. S., Sundaram, M., & Gao, J. Z. (2000). Business-to-business e-commerce frameworks. *Computer*, 33(10), 40–47. <https://doi.org/10.1109/2.876291>
- Statista. (2021a). *Value of social commerce sales worldwide from 2020 to 2026 (in billion U.S. dollars)*.
- Statista. (2021b, November 1). *Office stationery and supplies B2B market size in the United States in 2016 and a forecast for 2021*. Statista. <https://www-statista-com.ezproxy2.utwente.nl/statistics/864176/office-stationery-and-supplies-b2b-market-size-us/>
- Statista. (2022, March 24). *Anticipated hybrid work changes for employers and employees post COVID-19 in 2021*. Statista. <https://www-statista-com.ezproxy2.utwente.nl/statistics/1226730/global-hybrid-work-trends-employee-employer-post-pandemic/>
- Stott, R. N., Stone, M., & Fae, J. (2016). Business models in the business-to-business and business-to-consumer worlds – what can each world learn from the other? *Journal of*

Business & Industrial Marketing, 31(8), 943–954. <https://doi.org/10.1108/JBIM-10-2016-267>

Suh, T., & Chow, T. E. (2021). Developing a digital marketing tool for ethnic ventures' mixed business model and market-shaping: A design scientific approach of web demographics. *Industrial Marketing Management*, 93, 10–21. <https://doi.org/10.1016/j.indmarman.2020.12.014>

Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Long Range Planning*, 43(2–3). <https://doi.org/10.1016/j.lrp.2009.07.003>

van Aken, J. E., & Berends, H. (2018). *Problem Solving in Organizations* (3rd ed.). Cambridge University Press. <https://doi.org/10.1017/9781108236164>

Winter, R. (2008). Design science research in Europe. *European Journal of Information Systems*, 17(5), 470–475. <https://doi.org/10.1057/ejis.2008.44>

Wu, M., Liu, Y., Chung, H. F. L., & Guo, S. (2022). When and how mobile payment platform complementors matter in cross-border B2B e-commerce ecosystems? An integration of process and modularization analysis. *Journal of Business Research*, 139, 843–854. <https://doi.org/10.1016/j.jbusres.2021.10.019>

Zhang, W., & Banerji, S. (2017). Challenges of servitization: A systematic literature review. *Industrial Marketing Management*, 65, 217–227. <https://doi.org/10.1016/j.indmarman.2017.06.003>

Appendix

Appendix I: Business Model Canvas



The Business Model Canvas (Osterwalder & Pigneur, 2010).

Appendix II: Systematic Literature Review on Low-Interest Goods in the B2B Market

To find a classification that the products of the star-up fall under, a systematic literature review for the related B2B product classification was performed. As data base, Scopus was chosen as it is one of the largest data bases for the social sciences. The search terms “low w/3 interest w/3 goods AND b2b” and “low w/3 interest w/3 products AND b2b” were used. The terms were separated with the code “W/3” to ensure that the search results delivered articles that featured the terms and not separate words. This search delivered no results. The same search was performed in the database Web of Science, where one result was delivered. However, this article did not feature the search terms in its title or abstract.

Drawing inspiration from the consumer goods literature, where such a product category exists, the search terms “unsought products” and “unsought goods” were used in Scopus. The search results were limited to only showing articles with a final publication stage, which were published in journals. This delivered 13 results, of which the abstract was scanned to see if

they were relevant. All 13 articles were found to be irrelevant, because some had no mention of unsought goods in the abstract or key words, they focused on religion, insurance, convenience goods, or nanotechnology.

Appendix III: Internal Orientation Interview Questionnaire

General questions:

1. Please describe the central problem that this research is focussing on.

Reasons to approach the B2B market:

1. Why do you want to move into the B2B market?
 - a. Why now?
 - b. What goals are you trying to achieve with a presence in the B2B market?

Previous experience in the B2B market:

1. Have you already made some advancements into the B2B market?
 - c. If not: why have you not tried to approach the B2B market earlier?
 - d. If yes: what worked well and what did not work out?

Expectations for the business model transition towards the B2B market:

1. What expectations do you have about going into the B2B market?
2. What changes are you expecting to make to be successful in the B2B market

Appendix IV: Business Customer Interview Questionnaire

1. How often does your firm purchase the product?
2. What is the motivation to purchasing this product?
3. What are alternatives that you choose instead of this product?
4. Who are the suppliers of this product?
5. Do you know of any other suppliers of this product?
6. How did you contact this supplier?
7. For what reasons did you choose this supplier?
8. How are you experiencing the communication with the supplier?

9. What is your opinion on the price/quality relation of the products?
10. What is your opinion on the variety of the products?
11. How do you experience the service of the supplier?
12. Would you wish for other products or services?
13. Can you suggest any points of improvement?

Appendix V: Coding Scheme Customer Interviews

Topics	Interview Partner 1	Interview Partner 2	Interview Partner 3	Interview Partner 4	Interview Partner 5
Purchasing frequency	1.1	2.1	3.1	4.1, 4.9	
Buying purpose	1.2	2.2	3.2	4.2, 4.3, 4.4	5.1
Suppliers	1.3	2.3, 2.4, 2.5	3.3, 3.4, 3.5	4.5	5.2, 5.3
Convenience	1.4, 1.9, 1.10	2.10, 2.11	3.6, 3.11, 3.12	4.6, 4.7, 4.8, 4.10, 4.11	5.6
Price and quality	1.5, 1.6	2.6, 2.8, 2.9	3.8, 3.9	4.12, 4.13, 4.14	5.4, 5.5
Overall satisfaction	1.7, 1.8	2.7	3.7, 3.10		

Appendix VI: B2B Marketing Experts and Start-Up advisor Interview Questionnaire

1. Start-up business model development in a B2B market
 - a. What are challenges when it comes to start-ups approaching the B2B market?
 - b. What are challenges resulting from a B2B/B2C hybrid business model?
2. Consumerisation in B2B
3. Building a value proposition for a B2B customer segment
 - a. How can you build and test a value proposition?
4. Low-interest products in the B2B market
 - a. How can a firm develop a value proposition for these products?

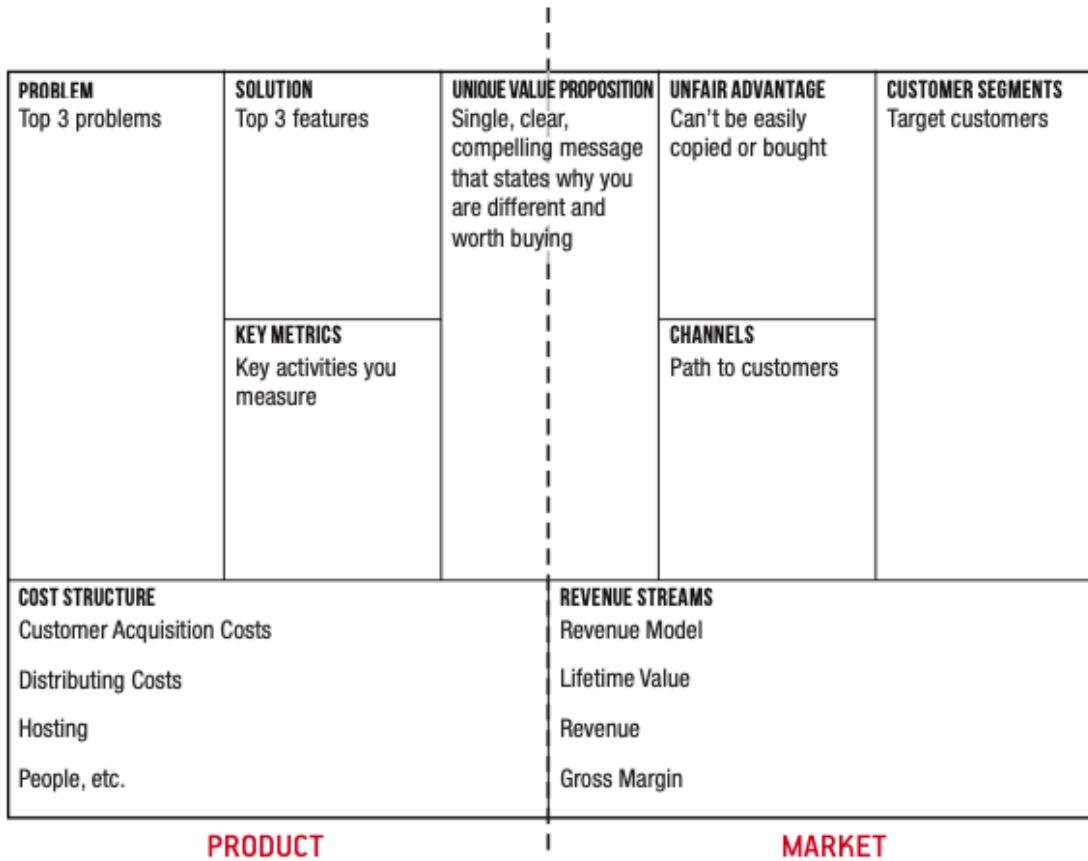
Appendix VII: Coding Scheme of Expert Interviews

Topics	Interview Partner 1	Interview Partner 2	Interview Partner 3	Interview Partner 4
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Building a value proposition for a B2B customer segment	00:04:42	00:07:30	00:04:35	00:03:56
	00:10:50	00:09:29	00:09:48	00:06:20
	00:11:20	00:10:35	00:10:06	00:07:00
	00:12:35	00:11:35	00:11:37	00:12:40
	00:16:52	00:12:13	00:20:23	00:14:12
	00:25:22	00:12:45	00:20:51	00:14:39
	00:27:36	00:13:05	00:21:38	00:18:58
	00:28:04	00:21:21	00:22:20	00:19:13
	00:30:13	00:30:47	00:26:41	00:20:30
	00:31:16		00:26:54	00:31:10
	00:35:00		00:27:12	00:33:57
			00:30:07	00:35:28
			00:30:25	00:36:02
			00:32:05	00:36:50
		00:42:05	00:37:43	
		00:43:54		
		00:44:26		
Characteristics of the B2B market and its differences to the B2C market	00:02:10	00:05:45	00:20:51	
	00:03:12			
	00:03:32			
	00:04:07			
	00:04:17			
	00:05:50			
	00:06:52			
	00:07:41			
	00:20:21			
	00:29:24			
00:37:53				
Low-interest goods in a B2B market	00:18:35			
	00:19:04			
	00:26:17			
Convenience and unburdening to add value to low-interest goods	00:13:25	00:13:59	00:12:07	00:04:33
	00:16:06	00:14:27	00:13:16	00:04:45
	00:27:00	00:18:40	00:27:20	00:20:35
	00:32:32		00:33:54	00:22:18
	00:37:28		00:40:25	
Products and services to add value to low-interest goods	00:04:30	00:23:54	00:06:36	00:04:40
	00:05:13		00:11:50	00:08:35
	00:05:27		00:29:05	00:09:45
	00:15:30		00:37:30	00:10:38
	00:27:00			00:10:52
	00:37:53			00:11:11
			00:32:38	
Targeting business customers	00:02:49	00:02:57	00:03:13	
		00:03:19	00:15:08	
		00:03:48	00:16:24	
		00:04:43		
		00:09:10		
		00:09:56		
		00:16:19		
		00:16:26		
		00:19:49		
		00:22:49		
		00:23:37		
	00:24:10			

B2B/B2C hybrid business models and the consumerisation of B2B	00:09:07	00:26:47
	00:09:30	00:27:51
	00:10:13	
	00:15:04	
	00:31:58	
	00:34:00	
	00:36:49	

Appendix VIII: The Lean Canvas



Lean Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Un-ported License.

The Lean Canvas (Maurya, 2012).