

Barriers and Enablers for using E-commerce in a B2B Environment and their Implications for Strategy

– *A single case study at a Swedish manufacturing SME*



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Axel Gyllfors and Axel Paulsson

Abstract

As e-commerce continues to grow in the B2B industry many companies are tasked with implementing and updating their current working ways to fit the digital era. With an estimated market size value of 6.7 trillion USD in 2020 and a CAGR of 17.5% from 2020 to 2027 (Grand View Research, 2020) there is no denying that B2B e-commerce offers great opportunities to reap the benefits of the growth. However, there is limited empirical research on what makes companies successful and what either drives or impedes their efforts. This is especially the case for SMEs that are in the beginning of implementing e-commerce. Furthermore, the strategic implications of e-commerce are vague. The purpose of this study is thus to identify barriers and enablers for e-commerce at a SME and evaluate their implications for e-commerce strategy. The study is based on a single case study at TC, a Swedish SME, that manufactures industrial dishwasher for the commercial kitchen industry and the empirical data is gathered through structured interviews and a survey performed by employees at TC. A theoretical framework is formed by conducting an extensive literature review with the scope of illuminating the barriers and enablers for B2B e-commerce at SMEs. The theoretical framework consisting of eight barriers and nine enablers, was used as a basis for the survey data collection at TC. This framework can aid other companies identifying weaknesses and strengths before initiating e-commerce. Barriers and enablers specific to TC were identified from interviews and survey results, resulting in frameworks that depict the gap between theory and practice. The theoretical and empiric framework concluded in a combined framework with key barriers and enablers for e-commerce present at TC. The key barriers being: (i) Stakeholders; (ii) Offering; and (iii) IT and Technology Competence. The key enablers being: (i) Technological Solutions; (ii) Price; (iii) Strategy; and (iv) Customer Relationship. Based on the combined framework, strategic implications were concluded and illuminated.

Keywords: E-commerce, B2B, SME, Enablers, Barriers, TC, Strategy, Implications

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Abbreviations

B2B	Business-to-Business
B2C	Business-to-Consumer
C-level	Chief Level
C2C	Consumer-to-Consumer
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CCO	Chief Commercial Officer
CEO	Chief Executive Officer
CMO	Chief Marketing Officer
CRM	Customer Relationship Management
CSF	Critical Success Factor
CTO	Chief Technology Officer
DMS	Digital Marketing Specialist
E-commerce	Electronic Commerce
e-WOM	Electronic Word-of-Mouth
EUR	Currency code for Euro
GKA	Global Key Account
IS	Information System
ISM	Information System Manager
IT	Information Technology
OPEX	Operational Expenditure
R&D	Research and Development
RQ	Research Question
SCM	Supply Chain Management
SM	Sales Manager
SME	Small and Medium-sized Enterprise
TC	The Company
TCG	The Corporation Group
USD	United States Dollar
WOM	Word-of-Mouth

1 Introduction

This chapter introduces the background of this master thesis in combination with a description of the company of interest to provide context and understanding. Furthermore, the problem formulation, research purpose, and research questions will be addressed. Lastly, the focus and delimitations, the target group and the report outline will be presented. The aim of this chapter is to provide an outline of the thesis to the reader.

1.1 E-commerce in the B2B Environment

To offer and conduct e-commerce as a complement to traditional sales channels has become an increasingly growing way for businesses to evolve and expand. There are three general categories of e-commerce: (i) B2C; (ii) C2C; and (iii) B2B. The third category, B2B, is estimated to a global market size value of 6.7 trillion USD in 2020 and a CAGR of 17.5% from 2020 to 2027 (Grand View Research, 2020). The development proves that there is little to no doubt that it will continue to be valuable for companies in their pursuit of expanding and retaining competitive advantage.

B2B e-commerce acts as a link between technology and people, using information sharing to promote supplier-customer interactions (Ocloo et al., 2020). This offers benefits and growth opportunities for companies such as reduced cost, access to international markets, gains in competitive advantage, and improved productivity (Bala & Feng, 2019; Cudjoe, 2014). Furthermore, it can aid SMEs to improve operational efficiency, enhance customer-supplier relationships and increase sales and revenue (Elbeltagi et al., 2016). With this in mind, it comes as no surprise that managers of companies, not already utilizing e-commerce, see great potential in it and look to develop an e-commerce strategy to reap these benefits.

1.2 Strategy

The term strategy was first introduced in a corporate context in the 1950s and strategy, in general, had prior to that been mainly used when discussing politics and war (Kiechel, 2010). Liddell Hart defined military strategy as "The art of distributing and applying military means to fulfill the ends of policy" (The Editors of Encyclopaedia Britannica, 2021). There is no objective definition of corporate strategy in academia, but rather an array of different ones. Porter, Steiner, and Andrews are accredited for three of the most well-renowned ones. They all stem from the core subject described by Liddell Hart that strategy is, in essence, how to utilize your means to reach the ends desired (Andrews, 1987; Porter, 1996; Steiner, 1997).

Fisher et al. (2020) built on this foundation and concluded that strategy consists of three primary elements:

1. **Diagnosis Element:** Identifying and describing a challenge or opportunity confronting a business.
2. **Decide Element:** Deciding what will be done to deal with and overcome the central challenge or capture the key opportunity.
3. **Deliver Element:** Devising and implementing a coherent set of actions to deliver on key decisions.

According to Fisher et al. (2020) these three parts are all integral for the success of a strategy. It is this definition of strategy and these three elements that will be used as a foundation for understanding strategy and its inherent components to be able to analyze and provide suggestions for development.

The development of strategy is an essential concept for companies and the field is subject to large attention in academia, enabling it to grow since its introduction (Fisher et al., 2020). Despite the large attention, strategy in the B2B e-commerce environment have received less attention. A Boston Consulting Group (2021) study showed that 60% of the leading B2B companies had either little or no e-commerce capabilities when the covid-19 pandemic began. It is argued that the rapid digital development led to companies acting as firefighters instead of proactively operating to enhance and develop their digital platforms. If companies do not have or create a strategy for their e-commerce initiatives, then they will have limited possibilities to remain competitive (Robnett et al., 2021).

1.3 Company Description

The company of interest will throughout this thesis be referred to as TC, to acknowledge their preference of remaining anonymous.

TC is an international company based in Sweden and operates in the commercial kitchen equipment industry. TC is classified as an SME, as it has less than 250 employees and an annual turnover not exceeding EUR 50 million (European Commission, 2020). Furthermore, TC operates globally in six markets with their biggest market being the Nordic Region. Their organization is structured with all functions, except sales and service, situated in their headquarters office in Sweden (The Company, 2020).

TC are producers of industrial dishwashers aimed at commercial kitchens in both the public and private sector, e.g., restaurants, grocery stores, schools, and hospitals (CEO, 2020). TC's product catalog is divided into four categories: (i) Designed for cleaning large equipment such as pots, trays, and cutting boards; (ii) Designed for cleaning both large and smaller equipment such as plates, cutlery, and drinking glasses; (iii) Consumables used by the washers during the cleaning process; and (iv) Spare parts (CMO, 2020).

Today TC sell their products through resellers, which sells a wide range of kitchen equipment to the end-customers via larger projects, e.g., renovations or new kitchen installations. This means that TC's products are sold as part of an extensive set of multiple products and services, delivered by the reseller to the end-customer.

1.4 Problem Formulation

TC's only channel to market is as of now via resellers and therefore they are reliant on them for sales. A drawback of selling via resellers is that they do not prioritize selling single units from TC's product catalogue (CEO, 2020). Another disadvantage is that TC relies on the reseller to market their products when the end-customer decides on what the contracted project should include. To combat this issue TC will implement an e-commerce channel. TC want to achieve a greater control of their sales, improve relationships with end-customers and increase revenue through the introduction of e-commerce (CEO, 2020).

To understand a change process in any organization and field there has to be an underlying knowledge of what drives or impedes it, commonly referred to as barriers and enablers. An evaluation of barriers and enablers illustrates a company's opportunity to succeed with the change process. A natural proceeding in this case was to study B2B E-commerce at TC to conclude which barriers and enablers exists and their effect on TC's e-commerce strategy.

The problem formulation is based on TC's goal of achieving greater control of their sales and customer relations through implementing e-commerce. By identifying and evaluating barriers and enablers the authors found the key barriers and enablers for TC and what implications these have on e-commerce strategy at TC.

1.5 Research Purpose

The purpose of this master thesis is to identify barriers and enablers for successful e-commerce at TC and evaluate their implications for e-commerce strategy.

1.6 Research Questions

To fulfill the research purpose the authors arrived at three RQs which will be presented and their connection to the purpose and each other explained.

RQ1: *What are the barriers and enablers for successful B2B e-commerce in SMEs?*

By performing a literature study, the authors were able to create a theoretical framework consisting of barriers and enablers identified in literature. The framework summarizes the established theoretical basis on the area and answers RQ1. This framework acted as a foundation for the upcoming research where the authors used the findings to move from a theoretical perspective into the context of TC and elaborate on theoretical findings.

RQ2: *What are the key barriers and enablers for successful e-commerce at TC?*

The theoretical framework established in RQ1 was utilized to allow employees at TC to rate size and corresponding capabilities for each barrier and enabler. Furthermore, the employees were asked to name their three most important barriers and enablers for e-commerce at TC. The ratings and open answers from the interviews were then analyzed and coded, resulting in a combined framework of the key barriers and enablers for successful e-commerce specific to TC.

RQ3: *What implications do the barriers and enablers have on e-commerce strategy at TC?*

Based on the combined framework formed in RQ2 the authors took a closer look at what strategic implications the barriers and enablers featured have. This was done to further prepare TC for the Decide element and to explore what impact the barriers and enablers for TC will have when they launch their e-commerce. By taking a closer look at them proactively the authors wanted to make TC better prepared and suggest required operations and changes needed before e-commerce goes live.

1.7 Focus and Delimitation

The master thesis will be focused on identifying barriers and enablers for B2B e-commerce in SMEs and specific to TC. The learnings from these areas will then be used to evaluate what implications they have on the e-commerce strategy at TC. Therefore, the strategic implications will be specific to TC and their situation.

The master thesis is delimited to focusing on B2B e-commerce. Thus, other related areas as B2C and C2C e-commerce will not be covered.

There are many theories and models for the strategic planning process. Simplified the strategic planning process can be said to consist of six steps: (i) Mission; (ii) Objectives; (iii) Situation Analysis; (iv); Strategy formulation; (v) Implementation; and (vi) Control (Kotler & Keller, 2016; Steiner, 1997). TC has performed the first two steps of the process and therefore this study's delimitation is to focus on the next steps: (iii) Situation Analysis. This steps correspond to the first element of strategy: (i) Diagnosis Element, as presented by Fisher et al. (2020) .

1.8 Target Group

This thesis's main target group is TC, who will hopefully gain valuable insights to make them better prepared for implementing e-commerce. In addition, the thesis will provide knowledge and new insights to people interested in e-commerce within B2B and SMEs.

1.9 Report Outline

This thesis is divided into seven main chapters, which have been briefly summarized below.

Chapter 1

This chapter introduces the background of this master thesis in combination with a description of the company of interest to provide context and understanding. Furthermore, the problem formulation, research purpose, and research questions will be addressed. Lastly, the focus and delimitations, the target group and the report outline will be presented. The aim of this chapter is to provide an outline of the thesis to the reader.

Chapter 2

This chapter aims to describe and highlight the methodology utilized by the authors while performing this master thesis. Areas that are covered in this chapter is: (i) Research strategy; (ii) Research approach; (iii) Literature review; (iv) Research data collection and analysis; (v) Credibility; and lastly, (vi) Project execution. By covering and presenting these areas the aim is to provide the reader with the required understanding for the methodology that have been used and why the chosen strategy and approach is fitting for the purpose of this thesis. The chapter is ended with an overview of the methodology chosen and how it will be carried out.

Chapter 3

In this chapter the theoretical findings from the literature review on the topic of e-commerce in B2B and SMEs will be presented. Firstly, the evolution of the term e-commerce is briefly discussed. Secondly, the meaning of strategic implications and their connection to the Decide element is presented and discussed. Additionally, the impact vs effort matrix model is presented and an explanation to the model is given. Thirdly, the method and reasoning used when performing the literature search is presented. Furthermore, the number of references evaluated are presented in a table. Fourthly, an introduction to what the authors define as barriers and enablers is presented to guide the reader when reading the upcoming subchapters. Fifthly, the barriers found when performing the literature review are presented, explained and categorized according to the authors into a theoretical framework. Lastly, the enablers found when performing the literature review are presented, explained and categorized according to the authors into a theoretical framework.

Chapter 4

In this chapter, the empirical data that has been gathered from TC will be presented. Firstly, the process of data collection at TC will be presented. Secondly, the gathered qualitative data that has been coded will be presented both in tables and free text. Lastly, the quantitative data will be presented in figures.

Chapter 5

In this chapter, the authors will analyze the data gathered and presented in Chapter 4. In the first step the survey results from the interviews will be analyzed. This step has a focus on elaborating on the results, to determine their importance in the context of TC. Secondly, the barriers and enablers stated by employees will be analyzed to determine their importance. Thirdly, a combined framework existing of the most important barriers and enablers from: (i) Survey; and (ii) Interviews will be presented and accounted for. Fourthly, the gaps between theory and practice will be analyzed for generalizing conclusions. Fifthly, the strategic implications that could be seen from the combined framework will be analyzed. Lastly, the barriers and enablers in the combined framework will be placed in an impact vs effort matrix.

Chapter 6

In this chapter the conclusions to the three RQs in this thesis are presented and summarized. Additionally, the limitations to the thesis are also presented and explained.

Chapter 7

In this chapter the future research possibilities that are suitable to continue with based on this thesis are listed. Furthermore, the additional insights from the employee interviews are presented.

2 Methodology

This chapter aims to describe and highlight the methodology utilized by the authors while performing this master thesis. Areas that are covered in this chapter is: (i) Research strategy; (ii) Research approach; (iii) Literature review; (iv) Research data collection and analysis; (v) Credibility; and lastly, (vi) Project execution. By covering and presenting these areas the aim is to provide the reader with the required understanding for the methodology that have been used and why the chosen strategy and approach is fitting for the purpose of this thesis. The chapter is ended with an overview of the methodology chosen and how it will be carried out.

2.1 Research Strategy

2.1.1 Exploratory Study

The principal purpose and objective of the methodology is to form guidelines and principles for the research. The choice of methodology needs to be connected to and suitable for the study it is used for (Höst et al., 2006). This thesis aims to explore barriers and enablers for B2B e-commerce in SMEs, which is an area with limited theoretical basis. Furthermore, the study takes place in the context of TC and there is no previous theory exploring e-commerce for B2B SMEs in the industrial dishwasher industry. An exploratory study was performed since it is suitable when the aim is to deeply understand an area with limited pre-existing knowledge (Höst et al., 2006).

2.1.2 Case Study

The research method should have a clear connection to the purpose of the thesis and for exploratory studies: (i) Case study, (ii) Survey study; and (iii) Experiment, can all be suitable (Yin, 2014). Benbasat et al. (1987) suggest to consider four questions to evaluate if a case study is appropriate: (i) Can the phenomenon of interest be studied outside its natural setting?; (ii) Must the study focus on contemporary events?; (iii) Is control or manipulation of subjects or events necessary?; and (iv) Does the phenomenon of interest have an established theoretical base?. Since this study is focused on barriers and enablers for B2B e-commerce in SMEs in general, but more specifically in the context of TC the authors deemed it necessary to study the phenomenon in its natural setting. Furthermore, the theoretical basis is limited and to fulfill the purpose of the study it needs to be focused on contemporary events but will not require manipulation of subjects or events. The conclusion is that a case study was suitable for the thesis according to these requirements.

The study is well described by how Yin (2014) defines the case study research method: “as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” Furthermore, the authors used a pragmatic approach when choosing research method and to perform a case study at TC, who were interested and provided all resources necessary was a great opportunity that allowed the study to be successfully performed.

Single case study

A case study can be conducted in different manners depending on what the goal is. This master thesis was performed as a single case study which allowed for a deep dive into a B2B SMEs e-commerce initiative. Dyer and Wilkins (1991) suggests that single case studies are better when the researcher want to explore one certain phenomenon deeper which can result in better theory development. This is preferable when the circumstances of the case study are either common or very unique cases. B2B e-commerce for SMEs is a common case and therefore findings and conclusions are more easily generalizable for similar cases. However, the evidence a multiple case study generates is stronger and more reliable due to it coming from multiple sources (Baxter & Jack, 2008). An important factor is that this thesis was performed during a time restraint. A multiple case study requires a vast amount of time and resources to be performed well (Yin, 2014). To deep dive into TC required all the time at the authors disposal and performing a multiple case study during this time restraint would have inhibited the effectiveness of the study.

Unit of analysis

The unit of analysis can be a wide variety of things from individuals to relationships. It should be related to the research question and defines what will be researched in the study (Yin, 2014). These aspects were considered when choosing the thesis’s unit of analysis: barriers and enablers for e-commerce at TC.

2.2 Research Approach

There are two general approaches in research that can result in new knowledge: (i) Inductive research approach; and (ii) Deductive research approach (Hyde, 2000). The two approaches can be combined to form a third one: (iii) Abductive research approach. The approach chosen influences the viewpoint on both empirical and theoretical findings, and also the relationship between them (Kovács & Spens, 2005). This thesis utilizes the abductive approach by moving between theory and empirics. This approach was chosen since both the inductive and deductive approach did not suit the approach this thesis required.

The abductive approach was primarily manifested in the gap analysis between theory and empirics. This is reasonable since the abductive approach aims to look into the specifics of a phenomenon, and how that certain phenomenon differs from how those phenomenon appear in general (Kovács & Spens, 2005). It helps researchers to determine which aspects of a

phenomenon that are generalizable, and which that are specific to that phenomenon. Data collection and theory building can be done simultaneously and creates a loop between theory and empirical study (Kovács & Spens, 2005). The process this was executed by in this thesis can be seen in *Figure 1*.

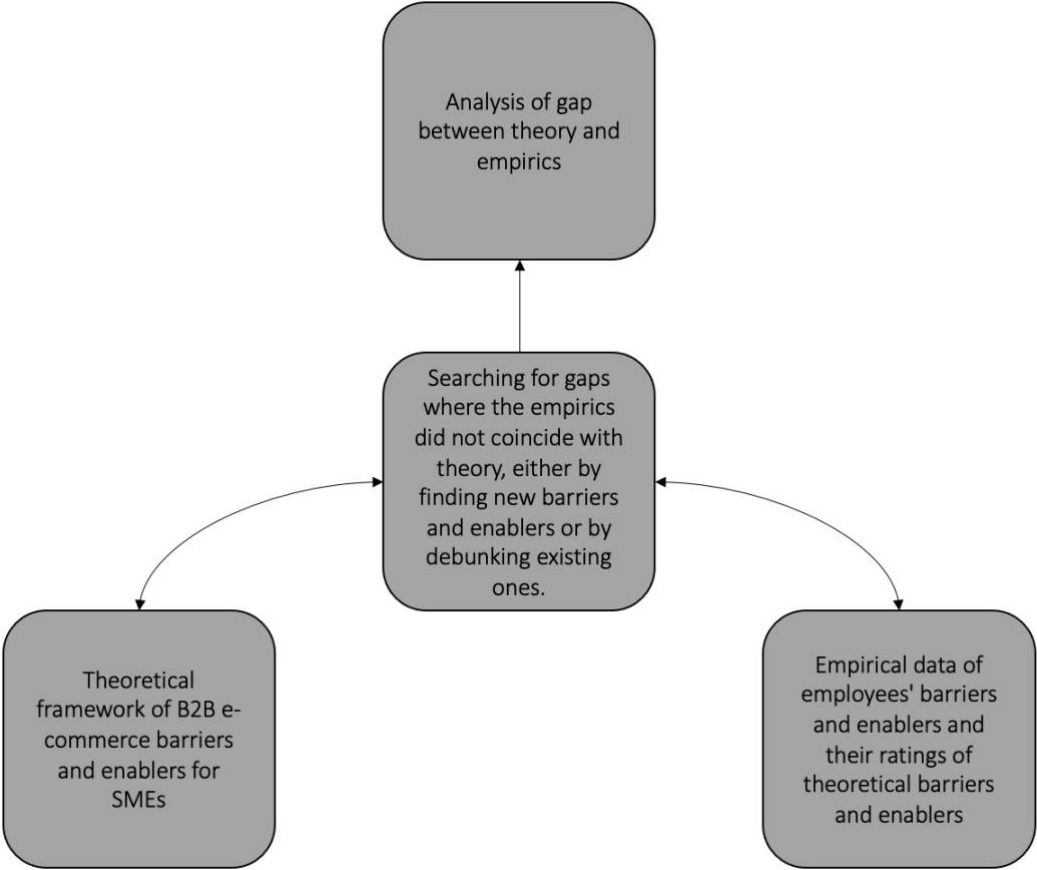


Figure 1: The abductive approach utilized when analyzing theory and empirics for gaps.

Data collection and analysis was also performed simultaneously, further showcasing the abductive approach. The answers from interviews were noted down, summarized and concentrated to main sentiments which allowed for easier analysis to find trends and congruence in the data.

These aspects follow an abductive approach while other aspects have been performed linearly. The case can therefore be made that these aspects are more similar to a deductive approach. However, the abductive approach was the best representation of the work process which can be further looked into in *Chapter 2.6* where how the project was executed is further presented.

2.3 Literature Review

A literature review is an essential aspect and cornerstone of well-founded scientific methodology. The aim of a literature review is to give an accurate and critical understanding of what is currently known about the subject (Snyder, 2019). Furthermore, it allows the independent reader to understand the thought process of the authors and provides a clear view of the foundation for future reading (Höst et al., 2006).

There are well-renowned databases containing academic research in the form of e.g., journals and articles, which the authors had access to as students at Lund University. One of these is Emerald which was chosen as the database for performing the literature search. Emerald fulfills the conditions of being managed by a governmental or academic institution, ensuring the credibility of the database (Rowley & Slack, 2004). Furthermore, Emerald has the appropriate tools for performing advanced searches and is according to Rowley and Slack (2004) a preferable database for the initial search of literature. Due to the nature of e-commerce being a constantly evolving practice and technology the authors had to take the publication date of resources into consideration. Older resources might lose their relevance as time passes (Brewerton & Millward, 2001) and the usage of e-commerce develops and progresses.

The authors used two strategies described by Rowley and Slack (2004) when performing the literature search:

- **Building blocks:** Start with the concept in a search statement, then extend it using synonyms and related terms. A thorough method that provides the researcher with a comprehensive set of documents, although being a bit slow-moving.
- **Successive fractions:** Used to reduce a large set of documents by performing internal searches within documents to eliminate those deemed less useful or relevant, making the number of documents more manageable.

A selection of keyword was chosen to act as a basis for the literature search: (i) E-commerce; (ii) Strategy; (iii) SME; (iv) B2B; (v) Barriers; (vi) Enablers; and (vii) CSF. The keywords were combined in different alterations, similar to Building blocks (Rowley & Slack, 2004) in accordance with that it is favorable to have a wide approach in the beginning of the literature search to ensure a holistic view of the literature available (Höst et al., 2006). This builds an understanding of the topic being researched and aids the researcher in determining what the most relevant resources are. In the next step the authors used the Successive fractions strategy (Rowley & Slack, 2004) a natural following step to narrow down the amount of relevant resources (Höst et al., 2006).

To gain additional insights other sources of information was, in addition to Emerald, used after the initial literature review was performed. These were: (i) Lund University Library; (ii) Websites owned by credible organizations and firms; and (iii) Other databases e.g., LUBsearch and Science Direct.

To evaluate the validity and credibility of the literature review the authors looked for peer-reviewed articles which according to Höst et al. (2006) is a way to distinguish credibility. A further description of credibility is presented in *Chapter 2.5*.

2.4 Research Data Collection and Analysis

In this master thesis the data collected consists of both qualitative and quantitative data. Qualitative research focuses on gaining insights into and understanding the meaning people have constructed, i.e. how people perceive the world and their experiences from it (Merriam, 2009). While quantitative research is on the opposite side of the spectrum of qualitative research, as it focuses on findings, i.e. data that can be interpreted as numerical values (Cambridge Business English Dictionary, n.d.).

The authors collected both data types during interviews held with employees at TC. The interviewees rated findings from theory which provided quantitative data and additionally they also stated their own perspective and opinions on the subject which provided the qualitative data. By combining both data types the authors wanted to arrive at findings and results which contributed to answering **RQ2**: *What are the key barriers and enablers for successful e-commerce at TC?*. This approach led to the authors achieving additional insights on the theoretical findings as well as findings specific to TC and its situation.

2.4.1 Data collection

Interviews are a good way to collect primary data and is in its rawest form when one person asks another one questions. For this thesis it was important to develop a deep understanding of TC's situation and its employees' views on the efforts of introducing e-commerce. Barriers and enablers for B2B e-commerce in SMEs identified during the literature review will act as a foundation for the research at TC. The objective was to receive data on the findings from literature as well as identifying barriers and enablers specific to TC. This mandated the use of both open-ended and closed questions, as the authors sought both exploratory and descriptive answers (Höst et al., 2006). Open-ended questions contributed to exploring the situation, while close questions were used to receive data on previous findings from theory. The closed questions were answered by selecting between set alternatives, e.g., a seven-level Likert scale, similar to an oral survey (Höst et al., 2006; Näslund, 2020). Open-ended questions are the opposite and were answered freely by the interviewee (Näslund, 2020).

To gain the advantage of being able to interpret body language and reactions it is preferred to conduct interviews in person. Unfortunately, physical meetings were limited at the time due to the Covid-19 pandemic. Video calls are the second-best option and was used if personal meetings could not be arranged. The authors conducted the interviews together where one primarily asked questions while the other one took notes. The interview guide can be further studied in *Appendix 9.1*.

To ensure that the data collected would be useful to the study, the advice from Näslund (2020), i.e. to conduct structured interviews, was applied. If the questions are decided to be in an exact order which always is followed, that is the mark of a structured interview. An advantage with structured interviews is that the data will be easier to analyze and manage which can be of additional importance to researchers with limited experience (Näslund, 2020). In certain interviews the predetermined interview format was not fully followed. In these interviews the type can be seen as mostly structured and partly semi-structured.

14 employees at TC were asked to participate in interviews and fill out surveys. The role of each interviewee and the date the interview was held can be seen in *Table 1*. As seen the employees had different roles and position within the company, stretching from executive to operative roles, and are active in three of TC's six markets. By opting for people at different: (i) Levels within the organization; and (ii) Markets, the authors aim was to avoid biases and more specifically Elite bias and Going native. Miles et al. (2014) describe these two biases as:

- **Elite bias:** Overusing data from well-spoken, high-status and charismatic participants, excluding data from lower status and less articulate ones.
- **Going native:** Objectivity of the researcher being affected by the perception of participants with a more local and closed view.

The selection of employees at different divisions, levels and markets allowed the authors to get a holistic perspective of the matter at hand. Employees with different tasks will see the problems that are closest at hand and to avoid silo mentality it was important to achieve a cross-functional view.

Table 1: The role of each interviewee and the date the interview was executed.

Role	Date
Digital Marketing Specialist	17/3-2021
Product Manager	19/3-2021
Sales Manager	19/3-2021
Information System Manager	22/3-2021
Global Key Account Director	23/3-2021
R&D Manager	23/3-2021
After Sales and Technical Support Director	24/3-2021
Chief Commercial Officer	29/3-2021
Country Sales Manager	30/3-2021
Customer Service Manager	6/4-2021
Chief Executive Officer	6/4-2021
Chief Technology Officer	7/4-2021
Country Sales and Service Director	7/4-2021
Purchasing Manager	7/4-2021

The interviews performed at TC had a primary focus on barriers and enablers for e-commerce and how they affect TC's strategy work to accomplish successful e-commerce. The complete interview guide for employees at TC can be studied in *Appendix 9.1*.

In addition to getting the interviewees input on barriers and enablers specific to TC the authors asked them to rate the barriers and enablers presented in the theoretical framework section. They were asked to rate the size of the presented barriers and enablers in the context of TC's situation in a one to seven Likert-scale. This was followed up by them rating TC's capability in the corresponding area of the barriers and enablers according to the same rating system. The representation of each rating for both questions is presented in *Table 2*.

Table 2: The representations of each rating for barrier and enabler size and TC's capability in corresponding areas.

Rating	Barrier/Enabler size	TC's capability
1	Very small	Very weak
2	Small	Weak
3	Fairly small	Fairly weak
4	Neutral	Neutral
5	Fairly large	Fairly strong
6	Large	Strong
7	Very large	Very strong

The general process of the interview followed three steps: (i) Introduction; (ii) Main questions; and (iii) Summary, which is in line with the theory by Höst et al. (2006). The introduction of the interview consisted of basic and neutral questions that helped put the interviewee in the right context, e.g., mood, role and work tasks. The main questions did follow a logical path for the interviewee (Höst et al., 2006). By asking broader questions in the beginning of the interview and then becoming more specific as it goes on it is easier to make the interviewee more comfortable and talkative (Voss et al., 2002). The summary concluded with a short run-through of what the interview discussed and allowed the interviewee to add additional insights.

The authors tried their utmost to remain objective when collecting data from interviews. If there were any doubts the authors went back and recollected data from the participant to further strengthen the validity of the result. The authors compared their data from each interview to establish if there was a uniform understanding and impression of the data gathered. Remaining objective throughout the data collection and analysis is imperative for the validity of the findings.

2.4.2 Data Analysis

During the interviews all the open answers by the interviewees were noted down. The raw answers were found at many times to be very specific. The specifics of the answers each interviewee gave was summarized and then concentrated to main sentiments which is necessary to illustrate the trends of all the answers given. By looking for patterns in the data the researcher can categorize it to understand the collected data (Miles et al., 2014; Yin, 2014). Furthermore, it enables the relationship between variables to be illustrated and noted, which is recommended by Miles et al. (2014) to provide a deeper understanding. If choosing not to code the answers it would have resulted in a very large framework of only specific barrier and enablers, making it difficult to understand, analyze and draw conclusions from. The main sentiments were therefore coded from the answers given and represented. This clearly shows which sub-barriers and sub-enablers were mentioned often and which were not.

The quantitative data was analyzed by using the gathered data from the survey rankings to calculate a mean value of the rankings for: (i) Individual barrier and enabler size; and (ii) Corresponding capability within the barriers and enablers. The ratings of the size show if a barrier or enabler is large or small for TC, where a larger barrier or enabler is more important. A larger barrier will impede e-commerce success to a greater extent and is more difficult to overcome than a smaller rated barrier. A larger enabler is positive and shows that if achieved it would drive e-commerce success more than a smaller one. A strong capability would indicate that TC recognize themselves as performing well in that area, whereas a weak capability would indicate the opposite. Furthermore, all the raw data from rankings can be viewed in *Appendix 9.2*.

2.5 Credibility

When researching it is paramount that the conclusions that are drawn are well supported and addresses the phenomenon that is studied (Höst et al., 2006). Therefore, it is of utmost importance that credibility is ensured in this master thesis. According to Björklund and Paulsson (2012) there are three categories of credibility: (i) Validity; (ii) Reliability; and (iii) Objectivity.

2.5.1 Validity and Reliability

Validity is defined as to what extent a phenomenon is accurately measured, e.g., a survey designed to measure depression, but actually ends up measuring stress levels is not valid (Heale & Twycross, 2015; Höst et al., 2006). This thesis unit of analysis is barriers and enablers for e-commerce at TC and to ensure the validity of the study this is clearly demonstrated and accurately reflects what has been studied (Yin, 2014).

Reliability is defined as the consistency of a measure, e.g., an experiment with the same specifications performed several times should result in the same result if it has a high reliability (Heale & Twycross, 2015). To allow the reader to evaluate the reliability of the study, the way research was performed has is described in the thesis (Höst et al., 2006). Good reliability is dependent on well-performed data collection and analysis. Each interview concluded with the interviewees answers being summarized for them to certify that the interpretation the authors made was correct, reducing misinterpretation and increasing reliability (Höst et al., 2006).

The study was performed by interviewing 14 employees, the final interviews did not change the result as the trends and congruence remained the same, therefore the data can be determined to be saturated (Saunders et al., 2018). Saturated data illustrates situations fairly as it reduces variance and misrepresentation. The vast data collection contributes to increasing the validity and reliability.

2.5.2 Objectivity

Objectivity is achieved when scientific claims, methods, results and its findings have not been influenced by external factors such as personal interests and value judgements (Reiss & Sprenger, 2020; Souza et al., 2017). Objectivity is necessary for research to be credible, without

it there is no security that the research reflects what was actually studied. To ensure objectivity the sources are clearly stated, interviews were conducted in a clear manner to not influence interviewees and the language does not include emotional words that have an inherent value which could influence the reader. The authors are transparent with their choices and motivation of the study to let the reader come up with their own conclusions of the study and its objectivity (Björklund & Paulsson, 2012).

2.6 Project Execution

The authors have divided the thesis into five phases to illustrate the process of the study. Phase 1 consisted of getting a thorough understanding of the problem through introduction and discussion with TC and supervisors. This phase resulted in a well-formed purpose, RQs and methodology. The process of the study is then established and followed with the performing of it. Phase 2 begun with a literature review of the subject and finished with a theoretical framework of the barriers and enablers for successful B2B e-commerce in SMEs identified in literature. Phase 3 had the goal of collecting the data needed to develop an empirical barrier and enabler framework specific to TC. The information required to create this was collected through interviews with employees. The objective was to get TC's perspective on the framework established in Phase 2 and additionally, barriers and enablers for successful e-commerce specific to TC according to the employees. Phase 4 consisted of analyzing the data collected in Phase 3 and is followed with the development of a combined framework of barriers and enablers for successful e-commerce specific to TC. The final phase, Phase 5, begun by analyzing the employee's ratings of the theoretical framework and comparing the empirical framework to the theoretical framework to draw generalizing conclusions of B2B e-commerce for SMEs. The phase concluded with the implications the combined framework has on TC's e-commerce strategy. All phases are summarized in *Figure 2*. The phases will not be performed completely linearly, phases overlapped, and the authors worked iteratively when suitable.

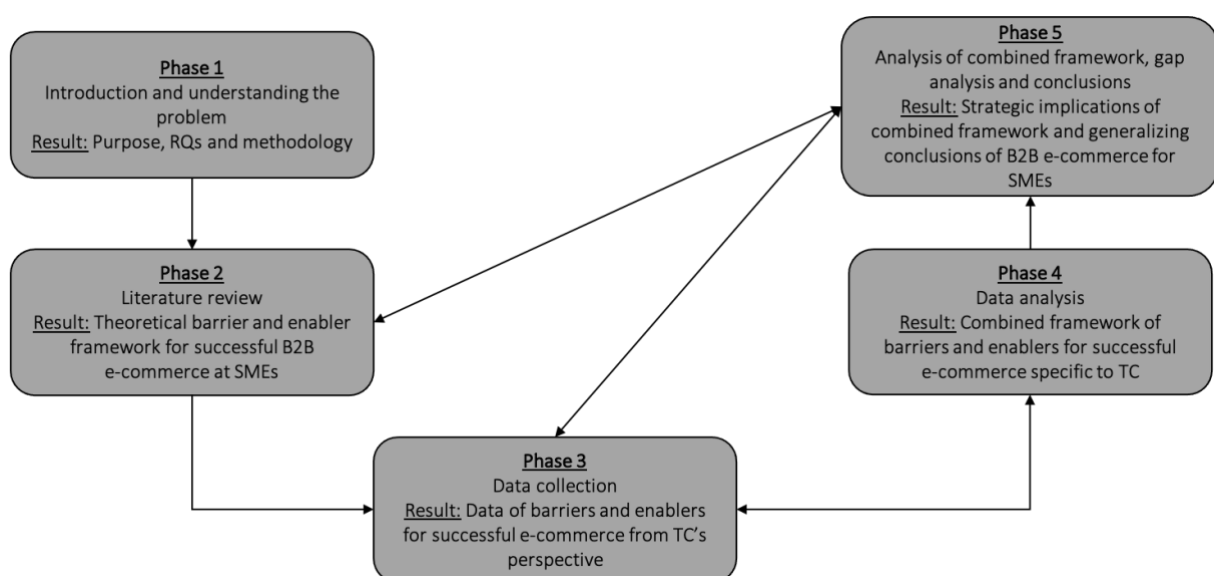


Figure 2: The thesis working process divided into five phases.

As is depicted by *Figure 2*, the work process was done iteratively at Phase 5 and Phase 4. The reason was that the authors wanted to highlight differences and similarities between theory and empirical findings. By moving back and forth it was possible to compare findings and analyze the reason behind why they differed or why the results were similar. An example is the gap analysis performed at Phase 5 which had the objective of establishing which barriers and enablers for successful e-commerce found during in the empirics that could be said to be generalizable and which could be disregarded for other companies apart from TC.

2.7 Summary of Methodology

The choices of methodology types made by the authors are summarized in *Table 3* to provide an overview of the study.

Table 3: Summary of chosen methodology types.

Methodology Components	Chosen Methodology Types
Research Strategy	Exploratory Single Case Study
Research Approach	Abductive
Data Type	Qualitative and Quantitative
Type of Interview	Structured

3 Theoretical Framework

In this chapter the theoretical findings from the literature review on the topic of e-commerce in B2B and SMEs will be presented. Firstly, the evolution of the term e-commerce is briefly discussed. Secondly, the meaning of strategic implications and their connection to the Decide element is presented and discussed. Additionally, the impact vs effort matrix model is presented and an explanation to the model is given. Thirdly, the method and reasoning used when performing the literature search is presented. Furthermore, the number of references evaluated are presented in a table. Fourthly, an introduction to what the authors define as barriers and enablers is presented to guide the reader when reading the upcoming subchapters. Fifthly, the barriers found when performing the literature review are presented, explained and categorized according to the authors into a theoretical framework. Lastly, the enablers found when performing the literature review are presented, explained and categorized according to the authors into a theoretical framework.

3.1 Definitions of E-commerce

There are different ways to define e-commerce as can be seen in *Table 4*. The earliest one by California State (1984) is accredited for coining the term e-commerce in literature. There exist companies that prior to 1984 had been offering services and goods via a telecommunications network, but it was not mentioned in literature until this. Moving forward the concept of e-commerce grew and could be extended from only focusing on the purchasing of goods and services to also involve information sharing (Kalakota & Whinston, 1996; Zwass, 1996) and maintaining business relationships (Zwass, 1996). Grandon and Pearson (2004) favors the more traditional viewpoint of e-commerce, but adds the internet as a mean for conducting the purchasing and selling. As is apparent today the internet has become the cornerstone for conducting e-commerce and the latest definition by Cambridge Advanced Learner's Dictionary & Thesaurus (2021) is a rather straightforward and simple one displaying the main focus once again on the transaction of goods and services on the internet. The lack of focus on information sharing and business relationship can be said to be due to other related concepts, e.g., e-business, which can be seen as further development of e-commerce as it grew in popularity and became staple for many customers shopping behavior (Shehata & Montash, 2019). The authors used the different definitions to complement each other, thus ensuring that a perspective relevant to B2B is captured.

Table 4: Definitions of e-commerce in literature.

Definitions of E-commerce	Author
“Electronic commercial service” or “service” means an electronic shopping system to conduct the purchase of goods and services via a telecommunications network, [...]	California State (1984)
[...] buying and selling of information, products and services via computer networks.	Kalakota & Whinston (1996, pp. 1)
Electronic commerce (E-commerce) is sharing business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks.	Zwass (1996, pp. 3)
The process of buying and selling products or services using electronic data transmission via the Internet and the www.	Grandon & Pearson (2004, pp. 197)
The business of buying and selling goods and services on the internet.	Cambridge Advanced Learner's Dictionary & Thesaurus (2021)

3.2 Strategic Implications and their Effect on the Decide Element

The definition of strategy used in this thesis is Fisher et al. (2020) three-part strategy definition. The first step is the Diagnosis element where the objective is to identify and describe a challenge or opportunity confronting a business. This is the diagnosis that the strategy should be based on and what provides a connection between the real-life situation and the strategy that is being developed. Barriers and enablers provide a diagnosis of the challenges and opportunities confronting a business and fulfills the first step’s objective. The step after barriers and enablers have been found is therefore the next step of the three-part strategy, the Decide element. The Decide elements objective is to make a decision about what to do to overcome or capture the challenges and opportunities (Fisher et al., 2020). The decisions are by definition based on the barriers and enablers that represent the challenges and opportunities. The next step is therefore to analyze the barriers and enablers to decide how to overcome or utilize them. A natural proceeding is to examine the barriers and enablers and find their strategic implications on the Decide element. *Figure 3* illustrates how the barriers and enablers fulfill the Diagnosis element. Strategic implications are then analyzed from the key barriers and enablers affecting TC. To fulfill the Decide element these need to be consolidated and decisions within TC needs to be taken, the strategic implications therefore function as a step between the Diagnosis element and Decide element, but does not fulfill the decide element.

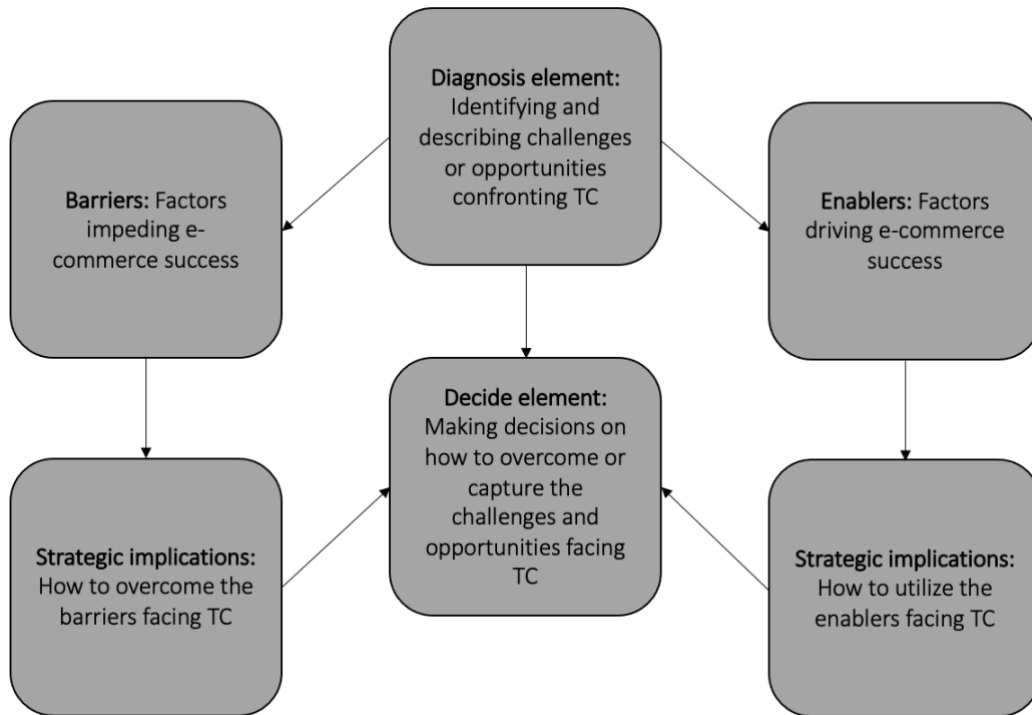


Figure 3: How barriers, enablers and their strategic implications relate to the diagnosis and decide element of strategy.

Impact vs effort matrix

The impact vs effort matrix is a model for evaluating and categorizing the expected impact and effort needed related to a project or new operation at a company. The model is illustrated in *Figure 4* and is based on the one presented by American Society for Quality (2010). The matrix has four categories, each representing a unique combination of effort and impact with a range between low and high. The categories are as follows: (i) Quick Wins, high impact and low effort; (ii) Major Projects, high impact and effort; (iii) Fill-ins, low impact and effort; and (iv) Thankless Tasks, low impact and high effort. By categorizing and positioning projects into the matrix, companies are able to determine where they can get the maximum impact out of their efforts. Additionally, it also becomes a tool for analyzing when the efforts outshine the impact, thus reducing incentives to move ahead.

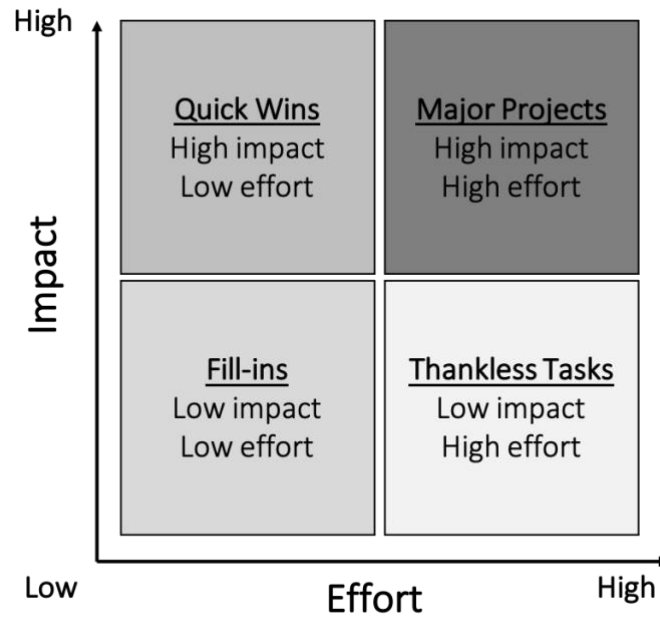


Figure 4: The impact vs effort matrix, based on the work by American Society for Quality (2010).

3.3 Literature Search

The literature search process, seen in *Table 5*, illustrates the combination of keywords and the results from the search conducted on Emerald. Synonyms for certain keywords were used to broaden the number of results, in line with building blocks technique (Rowley & Slack, 2004). In the first step the results from each search were scanned by reading the titles of the articles, sorted by Emerald according to relevance. The abstract of the articles was read to deem if they were suitable for contributing to **RQ1**: *What are the barriers and enablers for successful B2B e-commerce in SMEs?*, resulting in the amount “Chosen as relevant” in *Table 5*.

Duplicates of articles were apparent when reviewing the search results and excluded if they had already been examined to avoid any overlap in the number of resources presented in *Table 5*. The articles are then studied further and the successive fractions strategy was performed (Rowley & Slack, 2004). Additional articles were found by conducting searches within the journals and magazines found especially relevant.

Table 5: The literature search process with the search terms, results in total, number of articles scanned and chosen as relevant.

Search term	Results in total	Relevant of scanned	Chosen as relevant
"E-commerce"	13 000	11 of 150	8 of 11
"E-commerce" AND "B2B"	13 000	9 of 140	7 of 9
"E-commerce" AND "Barrier"	4000	2 of 100	2 of 2
"E-commerce" AND "Barrier" AND "B2B"	970	7 of 80	4 of 7
"E-commerce" AND "Enabler" AND "B2B"	341	3 of 90	2 of 3
"E-commerce" AND "Strategy"	11 000	3 of 100	3 of 3
"E-commerce" AND "Strategy" AND "B2B"	1000	4 of 100	1 of 4
"E-commerce" AND "Critical success factors"	6000	5 of 140	4 of 5

While performing the literature review the authors took notes on barriers or enablers that were found in the papers examined. Once all articles had been reviewed a categorization of enablers and barriers was performed, which is to be used as a theoretical framework for the continuance of the thesis. The framework will be used as a foundation for the data collection at TC.

3.4 Introduction to Barriers and Enablers

The literature review was performed to understand what drives e-commerce success and what impedes it. The context is e-commerce in a B2B and SME setting, but learnings from other settings that were identified as applicable on this context were used. The authors have defined barriers as all factors that impede e-commerce success during both implementation and when utilizing e-commerce. Enablers are the opposite and are factors that drive success during both phases. The difference between an enabler and a barrier is not always clear, as certain factors could be viewed as both a barrier and an enabler depending on if it is done well or bad. The authors have used their judgement in these unclear cases. Factors that are mostly prerequisites for e-commerce success or implementation were judged as barriers, while factors that are not required but improve performance in both phases were judged as enablers.

3.5 Theoretical Barriers

The barriers that were found from the literature review has been summarized in *Table 6*. Certain barriers are formed of several sub-barriers that address more specific problems within that area. The barrier that was most common when performing the literature review was Trust and Security, as can be seen in *Table 6* where it has the most references. This is not completely surprising as it is a barrier that is general and can be applicable in many circumstances. The barrier IT and Technology Competence were found in a lot of the research and this could be due to the same reason. These two barriers will probably affect the majority of companies practicing or implementing e-commerce because of their generality. The other barriers that were heavily referenced in literature were general in the sense that they encompassed many different issues such as e.g., Business Model Fit or Strategy Development. It is not unreasonable to believe that most companies will need to address these barriers in a way specific to that company's situation. The sub-barriers are helpful as they bring up more detailed problems that can be evaluated and solved. The barriers with less references are specific and address clear issues. Researchers find barriers that are common and generalizable which means all companies should evaluate themselves for possible barriers specific to that situation as all companies do not face the same challenges.

Table 6: Summary of barriers and sub-barriers, found during the literature study, for B2B e-commerce in SMEs with corresponding references.

Barriers	Sub-barriers	References
Business Model Fit	Business model not compatible Local trading behavior Global competitiveness Not suited to customers purchasing behavior Not suited to products	Macgregor & Vrazalic, 2005; Fillis et al., 2004 Pickernell et al., 2013 Chong et al., 2011 Macgregor & Vrazalic, 2005 Fillis et al., 2004; Macgregor & Vrazalic, 2005
Financing	Financing Cost to implement	Pickernell et al., 2013 Sila & Dobni 2012
Intermediaries	Dependence on intermediaries Unnecessary intermediaries	Li & Xie, 2012 Humphreys et al., 2006
IT and Technology Competence	Lack of IT skills Lack of IS/IT infrastructures	Bornodaba-Juste et al., 2012; Torres et al., 2014; Macgregor & Vrazalic, 2005; Li & Xie, 2012; de Matos & Krielow, 2019; Böringer et al., 2019; Shehata & Montash, 2019 Shehata & Montash, 2019; Chong et al., 2011
Environmental Factors	Economic environment Institutional environment Sociocultural environment	Li & Xie, 2012 Li & Xie, 2012 Li & Xie, 2012; Chong et al., 2011
Service Quality	Customer service Website service	Torres et al., 2014; Sharma & Lijuan, 2019; Luo et al., 2012; Sharma & Lijuan, 2015; Sharma & Aggarwal, 2019
Strategy Development	Lack of strategy Lack of e-commerce knowledge Lack of balanced business development	Chibelushi & Costello, 2009; Martinsons, 2006; Pickernell et al., 2013; Alzahrani, 2019; Jackson, 2003 Jahanshani et al., 2013; Alzahrani, 2019 Martinsons, 2006; Arora et al., 2020
Trust and Security	Data security Trust	De Matos & Krielow, 2019; Sila & Dobni, 2012; Chong et al., 2011; MacGregor & Vrazalic, 2005; Jahanshani et al., 2013 Tam et al., 2019; Liu et al., 2011; Truong, 2019; Sila & Dobni, 2012; Hallikainen et al., 2019; Chong et al., 2011; Jahanshani et al., 2013; Luo et al., 2012

3.5.1 Business Model Fit

E-commerce success is dependent on if the business model of the company fits the use of e-commerce. Business model is a broad term and has been defined as “How your business runs”. A business model should answer the three questions: (i) Who is the customer?; (ii) What does the customer value?; and (iii) How do we make money? (Magretta, 2002). Therefore, a business model can be viewed as the most integral parts of how a company performs business and, in this case, how that constitutes a barrier for e-commerce.

The overarching problem is if the business model is not compatible with e-commerce (Fillis et al., 2004; MacGregor & Vrazalic, 2005). If e-commerce does not suit how the company has done business the business model will need reinventing to not become a barrier for e-commerce.

It is important to consider if e-commerce is well suited to the company’s customers. MacGregor and Vrazalic (2005) illustrate the point that customers purchasing behavior might not be accustomed to e-commerce. Then there occurs a need to influence the customers to adopt a new purchasing behavior to use e-commerce. The characteristics a company’s markets have influences e-commerce as well, according to Pickernell et al. (2013). SMEs often do a large amount of their business in a local or regional market, these enterprises often face problems when adopting e-commerce as they do not adapt their offer for a larger market (Pickernell et al., 2013). When companies put their business online, they enter a global market as e-commerce websites from all over the world can be accessed by customers. Therefore, there is a need to be competitive on the global market to succeed with e-commerce (Chong et al., 2011).

Different products have different connotations to them, and these connotations can become barriers for e-commerce due to both internal and external factors. Employees can be reluctant to the idea of selling via e-commerce as they do not see the product the company sells as suitable for this sales channel. The same reasoning can be made by customers and result in them not wanting to purchase certain products or services online (Fillis et al., 2004; MacGregor & Vrazalic, 2005).

3.5.2 Financing

Implementing and using e-commerce will require resources. Especially if it is a company without previous knowledge, experience or IT to utilize. This will be more common in SMEs as they to a higher degree have not engaged in process changes or activities involving technological aspects (Pickernell et al., 2013). Since the cost to finance e-commerce can be seen as high in these cases, owners will often not overcome the cost and disregard e-commerce as an option even before it has been carefully considered (Pickernell et al., 2013; Sila & Dobni, 2012).

3.5.3 Intermediaries

When establishing e-commerce in a firm that already uses a traditional sales channel it can cause conflict, both internally and externally (Li & Xie, 2012). This is especially true when the traditional channel involves intermediaries such as resellers. The more dependent the firm is on

intermediaries in their traditional sales channel the more conflict it can create (Humphreys et al., 2006; Li & Xie, 2012). Intermediaries that have grown unnecessary can however still create a barrier since the e-commerce sales channel will take sales from the traditional channel. Both intermediaries and employees co-operating with intermediaries can feel threatened regardless of how important the intermediaries are for the business (Humphreys et al., 2006; Li & Xie, 2012).

3.5.4 IT and Technology Competence

IT-skills and knowledge within a company is brought up as an important barrier by many researchers. This is an obvious barrier as it is so closely connected to the technological aspects of e-commerce which of course can be difficult to succeed with. Therefore, some researchers addresses the barrier but do not go deeper into describing it (Shehata & Montash, 2019; Torres et al., 2014). Bordonaba-Juste (2012) not only brings forward the strictly technological perspective, but also that firms without IT-expertise might not understand the full potential of new technologies and therefore be opposed to the risk. de Matos and Krielow (2019) contributes to the same issue, that the lack of knowledge also can result in overestimating the effects of e-commerce which can negatively affect it. Furthermore, firms that lack IT-skills will need to invest more resources into development and maintenance. It has been found that firms which require third party help often disregard e-commerce (Li & Xie, 2012). Researchers focusing on e-commerce from an SME perspective bring forward that there often is less IT-skills and knowledge in SMEs. It is commonly deemed as too difficult, thus showcasing a typical barrier for e-commerce in SMEs (de Matos & Krielow, 2019; MacGregor & Vrazalic, 2005). Böringer et al. (2019) illustrates that a large amount of expertise will make IT-skills an enabler as these advanced skills are rather enablers for greater success if implemented.

Lack of IS/IT-infrastructure have a negative influence on e-commerce success (Chong et al., 2011; Shehata & Montash, 2019). IS/IT-infrastructure is anything that will facilitate the implementation and use of new IS. It consists of both the basic and more advance infrastructures that can support e-commerce. Shehata and Montash (2019) researched in emerging markets which makes the requirements focus on the basic needs such as internet accessibility and bandwidth. If these needs are not met, the barrier for e-commerce is incredibly strong. Chong et al. (2011) however, focuses on more advance infrastructure that can improve e-commerce such as integrating IS, e.g., CRM and SCM, with the e-commerce website. The more advanced features can be considered as more of enablers than the basic ones as they are not mandatory to overcome for e-commerce success, but will help to enable it if they are in place.

3.5.5 Environmental Factors

E-commerce is affected by external factors and some have a large effect on e-commerce adoption and use. Li and Xie (2012) divides the Environmental Factors into three different parts: (i) Economic environment; (ii) Sociocultural environment; and (iii) Institutional environment.

The economic environment is defined by how well developed a country's economy is. A less developed country will often have under-developed infrastructure and a lack of support industries, such as financial and distribution which are both important for e-commerce. A further developed economic environment will have positive effects on e-commerce (Li & Xie, 2012).

Sociocultural environment has a large effect on e-commerce adoption. Open sociocultural environments will embrace new technology quickly, while more close environments will not accept it (Li & Xie, 2012). Since e-commerce has an inherently global nature many sociocultural environments need to be taken into consideration. The e-commerce might need to be customized for different markets to overcome this barrier and fit into each sociocultural environment (Chong et al., 2011).

Institutional environment describes how the legal system and government policies affect e-commerce adoption. It has a big influence on how well e-commerce is adopted, especially in SMEs. Important factors are: (i) Improvements on telecom infrastructure; (ii) Tax policy for online transactions; (iii) National e-commerce strategy; (iv) Government provided e-commerce training; and (v) Promotions of e-commerce use (Li & Xie, 2012)

3.5.6 Service Quality

Online shopping is connected with an uncertainty from customers, and customer service assumes an important role as the customers connection to the company. Torres et al. (2014) therefore, addresses customer service as a prerequisite for any e-commerce. The uncertainty is reasonable since the purchasing process is more abstract and requires trust from the customer which customer service can aid with (Luo et al., 2012; Sharma & Lijuan, 2015). Unfamiliarity with a company will increase this notion and create a distance between the company and the customer. Furthermore, it is not always possible to understand the products that are being sold, as they do not communicate well online. Both these factors of uncertainty affect the overall customer satisfaction as the customer will not be as certain of the company and the product has a higher risk of leaving the customer dissatisfied. These negative effects associated with e-commerce can be reduced by good customer service. The customer service develops affection from the customer towards the company which impacts the negative pre-purchase mood into a more positive post-purchase evaluation (Luo et al., 2012).

E-commerce customer service also requires service provided by the website in combination with traditional customer service. The website service can automate the service by integration (Sharma & Lijuan, 2015). Useful functions that a website can provide are: (i) Tracking order status; (ii) Payment alternatives; (iii) Frequently asked questions; and (iv) Price comparison (Sharma & Aggarwal, 2019). The data that can be collected from the website will also be helpful in providing better customer service in the future (Torres et al., 2014).

3.5.7 Strategy Development

A strategy is, as established in *Chapter 1.2*, central to how a company should act as the strategy should establish how a company's means should be utilized to reach the ends desired. The business strategy should be adapted to accustom for e-commerce sales, but lack of knowledge and understanding of e-commerce affect the development of a well-functioning strategy negatively (Alzahrani, 2019; Jahanshahi et al., 2013). This is especially a problem in SMEs and emerging markets where the e-commerce knowledge in general is lower (Jahanshahi et al., 2013). Chibelushi and Costello (2009) found SMEs to be reactive, rather than proactive with their strategy. Many SMEs were not deploying e-commerce strategically, but only mirrored their sales-strategy from their traditional sales channels or copied other companies strategies (Chibelushi & Costello, 2009; Pickernell et al., 2013).

Martinsons (2006) found that less than 20 percent of founders of dot-com companies had a long-term vision or a contingency plan, and less than five percent had both. The vast majority of the leaders had not engaged in any strategic thinking and those who had, often based their decisions on intuition rather than analysis. Many founders either created a company they desired, without regards of other stakeholders, and others used the "me too" approach and copied others concept (Martinsons, 2006). The successful dot-coms were the companies with a business strategy that was clearly communicated and consistent throughout the company (Jackson & Harris, 2003). These authors experience was mostly from the late 1990s before the dot com bubble when there was an excessive belief in online companies which might have been a factor in the poor strategic planning Jackson and Harris (2003), and Martinsons (2006) experienced.

When launching or developing e-commerce business it is important to not get carried away and offer too large of a product portfolio or reach too many markets too quickly. It is better to focus on the offering that will gain traction and then develop the business steady to ensure the company has the capabilities to not regress in quality or service (Arora et al., 2020; Martinsons, 2006).

3.5.8 Trust and Data Security

Trust and Data Security are barriers brought up by a large amount of the research on the subject. E-commerce is connected to an uncertainty since the business is performed online and consumers lack the possibility to assess all e-retailers integrity and dependability (Liu et al., 2017; Luo et al., 2012). The company will therefore need to evoke trust from the customers to make e-commerce a viable option for their purchasing (Chong et al., 2011; Hallikainen et al., 2019; Jahanshahi et al., 2013; Liu et al., 2017; Luo et al., 2012; Sila & Dobni, 2012; Tam et al., 2019; Truong, 2019). Trust can be defined as the willingness to accept risk based on positive expectations of the behavior of another (Liu et al., 2017). Key aspects to create trust is: (i) Competence; (ii) Integrity; and (iii) Benevolence. Competence is how well a provider can fulfill the tasks needed with an expertise of the area. Integrity is to which level the provider acts truthfully and reliably. Benevolence is how well-willing the provider is towards the customer and always acts in the customers best interest (Hallikainen et al., 2019; Tam et al., 2019). In

addition e-commerce limits the two-way contact between a customer and a company, which usually is key to building trust (Hallikainen et al., 2019; Liu et al., 2017). Hallikainen et al. (2019) found competence to be the most important aspect in B2B e-commerce and to increase perception of competence, satisfaction guarantees or referrals from satisfied customers can be used.

Data security is something seen as very important by all stakeholders using e-commerce as the information can be very sensitive and it is important to all that it is not compromised (MacGregor & Vrazalic, 2005). Especially important is that the transaction is secure, payment details cannot be leaked as it could have detrimental effects (Chong et al., 2011). If data security is good and well-communicated to the customers this will have positive effects on the trust as it is one of the key concerns of customers (de Matos & Krielow, 2019). How important customers perceive data security differs between countries and cultures. In emerging markets it was found to be one of the most important barriers while a study performed in Sweden and Australia found it to affect e-commerce, but not being one of the most important factors (Jahanshahi et al., 2013; MacGregor & Vrazalic, 2005). Sweden found it as least important, this could be due to technological development where more developed countries assume this problem to be easily solved or it could be due to more open sociocultural environments not being as sceptic. The consensus was however that data security is a barrier that negatively affects e-commerce if not solved (Chong et al., 2011; de Matos & Krielow, 2019; Jahanshahi et al., 2013; MacGregor & Vrazalic, 2005; Sila & Dobni, 2012).

3.6 Theoretical Enablers

The enablers found when performing the literature review has been summarized in *Table 7*. Most enablers are formed of several sub-enablers that address more specific issues within that area. The most common enablers are: (i) Corporate Culture; (ii) Management and Leadership; and (iii) Website Quality. As with the barriers these enablers are all applicable on e-commerce in most circumstances and should affect most companies engaging in e-commerce. The enablers referenced less in literature and with less sub-enablers address specific drivers of e-commerce success. As with barriers, researchers often found common and generalizable enablers, all companies should examine if these are applicable for them. In addition, all companies should look for ways to improve their e-commerce with enablers that fit their situation as all possible enablers are not found in theory.

Table 7: Summary of enablers and sub-enablers, found in the literature study, for B2B e-commerce in SMEs with corresponding references.

Enablers	Sub-enablers	References
Brand Strength	Brand strength	Glynn, 2012; Bendixen et al., 2004; Torres et al., 2014; Johnson, 2013; Luo et al., 2012
Competitive Environment	Pressure from competitors Pressure from customers and suppliers	Li & Xie, 2012; Sila & Dobni, 2012 Li & Xie, 2012
Corporate Culture	Corporate culture Employee attitude Firm structure Employee involvement Employees assigned ownership of tasks	Senrathna et al., 2014; Power, 2004; Fillis et al., 2004 Shehata & Montash, 2019; Fillis et al., 2004 Li & Xie, 2012; Böringer et al., 2019 Power, 2004 Arora et al., 2020
Understanding the Customer	Customer centric focus Understanding the buyers and their customer journey	Schürmann et al., 2017 Schürmann et al., 2017; Pappas et al., 2017; Lingqvist et al., 2015; Böringer et al., 2019;
Customer Relationships	Customer relationships	Chong et al., 2011; Humphreys et al., 2006
Knowledge Development	Training Hire knowledge	Schürmann et al., 2017; Böringer et al., 2019 Böringer et al., 2019
Management Leadership and Support	Top management support Perceived benefits by management	Humphreys et al., 2006; Sila & Dobni, 2012; Jackson & Harris, 2003; Chong et al., 2011; Shehata & Montash, 2019; Li & Xie, 2012 Chibelushi & Costello, 2009; Bornodoba-Juste et al., 2012
Personalized Customer Experience	Personalized customer experience	Pappas et al., 2017; Salonen & Karjaluto, 2016; Sharma & Aggarwal, 2019
Website Quality	Website quality Website appeal Information quality	Sharma & Aggarwal, 2019; Wen et al., 2014; Schürmann et al., 2017; Chen et al., 2013; Bilgihan et al., 2016 Liu et al., 2017; Sharma & Aggarwal; Wen et al., 2014 Sharma & Lijuan, 2015; Chen et al., 2013

3.6.1 Brand Strength

The strength of the brand owned by a firm or organization is argued by researcher to have a positive impact on the success of e-commerce adoption (Bendixen et al., 2004; Glynn, 2012; Johnson, 2013; Luo et al., 2012; Torres et al., 2014). The brand value is created by the customers and their perception of the totality of brand associations (Bendixen et al., 2004).

According to Glynn (2012) the value of B2B brands varies and there are large differences between how effectively firms use their brand value to promote sales and business relationships. In a B2B context the purchaser has a greater focus on the total value of the brand and its impact on the company, rather than only focusing on the price. Furthermore, brand value plays an important role in dictating the outcome of a B2B partnership, where the partnership strives to be beneficial to both parties in the long-term perspective (Glynn, 2012).

A competitive advantage from having a strong brand is that it enables the brand to be extended more easily, thus facilitating the possibility to promote it on new channels or extend the product portfolio while maintaining the strength of the brand (Bendixen et al., 2004). Industrial customers often consist of a group involved in managing larger purchases, which strengthens the need for a strong brand value as the WOM-effect will play an important role for decision-making within in the purchasing group (Bendixen et al., 2004). Firm reputation and brand value strengthen the possibility of customer retention in e-commerce, as customer will be less willing to switch between brands (Torres et al., 2014).

As was presented in *Chapter 3.4.8*, security and trust are important factors to consider and a way to navigate these is to have a strong reputation or brand which will create credibility and establish the company as a trusted one (Johnson, 2013). Brand Strength is connected to the visibility of the firm as an online retailer with high visibility is likely to be considered as trustworthy and credible. However, it also requires extensive investment of time and money. Companies already in possession of a strong brand have a competitive advantage when adopting e-commerce as customers will be familiar with the brand (Luo et al., 2012).

3.6.2 Competitive Environment

Sila and Dobni (2012) found, when researching patterns of B2B e-commerce in SMEs, that companies labelled as e-laggards experienced lower pressure from competitors compared to e-leaders. Suggesting that the competitive environment in which a company operates affects the motivation and efforts to adopt e-commerce. Li and Xie (2012) agree with this theory and claim that a more competitive external environment is directly linked to a higher adoption rate of e-commerce. In addition, Sila and Dobni (2012) found that e-laggards showed lower trust in their trading partners, i.e. suppliers and customers.

Pressure from customers and suppliers is said to affect e-commerce adoption and favor its potential to be successful (Li & Xie, 2012). Early adopters of e-commerce found that customers were slow to accept it as a means of doing business, whereas it is now more commonly accepted and used. Furthermore, supplier's adoption rate of e-commerce affects the adoption rate of the company next in the chain. Thus, showcasing a complex relationship in which the adoption rate is connected to the overall adoption level in the supply chain (Li & Xie, 2012).

3.6.3 Corporate Culture

As in the majority of change process, corporate culture plays an important role for dictating the outcome and B2B e-commerce is no exception (Shehata & Montash, 2019). Power (2004) argues that in order for the implementation, training and usage of e-commerce to be successful there has to be a culture of trust and participation among employees in the organization. The reluctance to change among employees is a barrier and will have negative impact on the overall change effort if not recognized and managed (Shehata & Montash, 2019). Companies should strive to develop a culture of participation, if not already in possession of one, as it facilitates and enables e-commerce adoption (Fillis et al., 2004; Power, 2004). Furthermore, employee involvement will be positively affected and e-commerce adoption is more likely to receive a positive reception among employees (Power, 2004). In order to obtain employee involvement Arora et al. (2020) argues to assign ownership of tasks among teams involved. This pushes the team and employees to take responsibility and be creative when creating solutions, thus making them more involved. Fillis et al. (2004) point to the entrepreneurial characteristic of SMEs as an enabler for embracing new technology, e.g., e-commerce, and seizing opportunities to achieve competitive advantage.

Companies that have adhocracy culture characteristics are according to Senarathna et al. (2014) significantly positively correlated with e-commerce adoption. While a hierarchy culture inhibits e-commerce adoption. Adhocracy culture provides a creative and entrepreneurial workplace in which people can be risk-taking and commit to experimentation and innovation (Senarathna et al., 2014). Böringer et al. (2019) suggest that in order to avoid fixed processes and ways of working, often present in B2B companies, there should exist agile and flexible teams that can drive change and accelerate digital transformations. Furthermore, SMEs often possess a flexible corporate culture and structure making them more tailored to adjust to their environment and adopt e-commerce (Li & Xie, 2012).

3.6.4 Understanding the Customer

Companies that are the most successful at performing B2B e-commerce have a common denominator; they are better than their competitors at understanding customer journeys and utilizing customer centric focus (Schürmann et al., 2017). According to Pappas et al. (2017) it is imperative to understand the factors influencing the online behavior of customers and how it affects their shopping experience. Insights from customer journeys are critical to acquire knowledge required to tailor to the factors above and deliver a good experience (Schürmann et al., 2017).

B2B customers expect the same kind of convenient, flexible and transparent experience that they have grown accustomed to from B2C shopping (Böringer et al., 2019). A way of meeting these requirements is to redesign or rethink the customer journey and focus on tailoring on the customers' needs (Böringer et al., 2019; Lingqvist et al., 2015). Doing so will facilitate and aid the company in understanding the buyer. If a company is already utilizing customer journeys they will be at an advantage for adapting them to e-commerce (Lingqvist et al., 2015).

3.6.5 Customer Relationships

Chong et al. (2011) identified developing and maintaining customer relationships as one of the pillars that make up the foundation for fruitful B2B e-commerce. More specifically, it is argued that integrating CRM and B2B e-commerce is important to manage all aspects of the relationship and the touchpoints between customer and seller. This increases customer retention, loyalty and contributes to the organization's profitability (Chong et al., 2011). Purchasers in B2B can by building a close relationship with their suppliers make their purchasing process more efficient and transform it from a transaction-oriented to a strategic focus, thus benefiting their operations (Humphreys et al., 2006).

Companies that can use customer information to achieve long-term relationships will be able to reap the benefits and capture more value over time than their competitors (Chong et al., 2011; Humphreys et al., 2006). Furthermore, sharing information in real-time and establishing long-term relationships make both parties more willing to make shared investments in information technology, thus reducing cost and increasing the value of the relationship for both parties (Humphreys et al., 2006).

3.6.6 Knowledge Development

To be able to utilize e-commerce to its fullest potential requires top-notch training according to Schürmann et al. (2017). Committing to performance management and education for sales representatives strengthens their knowledge and aids them to develop new digital skills. One example is moving from cold calls to warm calls based on real data and analysis of it (Schürmann et al., 2017). Böringer et al. (2019) agrees and argues that the most successful B2B e-commerce companies are best-in-class at attracting and developing digital talent. Attracting talent is viewed as an important way to challenge traditional business processes and foster innovation to see possibilities beyond existing business. Furthermore, companies focusing on minding the gap between executives and experts facilitate understanding across the organization (Böringer et al., 2019).

3.6.7 Management Leadership and Support

Senior management involvement and commitment is described as having a significant impact on the success of implementing B2B e-commerce (Chong et al., 2011; Shehata & Montash, 2019). Top management and managers view on technology and in turn their trust in it to improve performance and results impact whether the company will invest and adopt e-commerce. If they decide to do so they should strive for a trust-based corporate culture and transaction relationship (Li & Xie, 2012). Perceived benefits are mentioned as a strong

motivator for adopting new technology. Managers are more likely to consider and adopt new technologies if the benefits are perceived as higher than maintaining current technology (Bordonaba-Juste, 2012). Chibelushi and Costello (2009) states that SME managers level of education affect the speed of adopting new technology and that those with higher level education are more likely to see the benefits and adopt it.

Sila and Dobni (2012) found that SME managers need to acknowledge and embrace their role as leaders of adoption of B2B e-commerce. Moreover, they have to assess themselves and whether they are contributing enough to drive the change successfully. To do so requires an excellent understanding of what the change process will mean, its barriers and enablers (Jackson & Harris, 2003; Sila & Dobni, 2012).

Jackson and Harris (2003) argue that managers also need to recognize what type of tactics and skills that need to be adopted to drive the change and improve its success rate. Furthermore, managers need to assess the company's skills and competencies to identify whether there are weaknesses or inconsistencies (Li & Xie, 2012; Shehata & Montash, 2019). Some managers are more occupied with selling the solutions towards coworkers and other managers than actually implementing it, causing change efforts implementation to lack. Management should instead lead by example and make sure to have enough knowledge to supervise their coworkers (Jackson & Harris, 2003). Top management has to see the potential in e-commerce and understand that adopting it is more than a tool, it has to be integrated into the organization and used to re-define the way business is performed (Humphreys et al., 2006).

3.6.8 Personalized Customer Experience

Personalization refers to an e-commerce's ability to provide products or services that are tailored to the customers' preferences. Companies can e.g., realize this by using browsing patterns and data extracted from the customers when interacting with the company's different channels (Sharma & Aggarwal, 2019). Pappas et al. (2017) view personalization as a strategy within e-commerce to persuade customer to select and purchase a product or service. It could lead to higher user satisfaction, which in turns leads to repeat purchases (Pappas et al., 2017; Salonen & Karjaluoto, 2016). Furthermore, when done correctly personalization presents information regarding products, services and promotions observed as more enjoyable and fitting to the customer, thus positively impacting their shopping experience and likelihood of purchasing (Pappas et al., 2017).

There exist many ways of implementing and using personalization for e-commerce. Pappas et al. (2017) suggests that in order to be successful, companies must identify why customers visit an online store, i.e. motivation and intention. Furthermore, some customers are more reluctant than others towards personalization, showcasing a need for understanding how behavior differ between customers (Pappas et al., 2017). Sharma and Aggarwal (2019) stipulate that a website should allow customers to find and buy services or products according to their needs, thus motivating the usage of personalization.

Researchers are not unified in their views regarding the effectiveness of personalization to drive business success, according to Salonen and Karjaluo (2016). Some view it as the most effective tool, whereas others do not view it as enough to singlehandedly drive business performance related to e-commerce. Sharma and Aggarwal (2019) found personalization to have significant importance for e-commerce success and their findings are also supported by Pappas et al. (2017).

The articles in this section primarily focus on B2C e-commerce which makes it difficult to determine its effect within a B2B-context. However, as mentioned in *Chapter 3.5.4*, B2B purchasers expect a similar experience as they have when purchasing as consumers. This would then indicate that personalization is also important within B2B and could increase the possibility of influencing the behavior and shopping experience of purchasers.

3.6.9 Website Quality

The quality of the website and information available to the customer has a significant impact on the customer's view of its relationship with the company (Sharma & Lijuan, 2015; Sharma & Aggarwal, 2019). Customers now expect information to be provided as fast as possible with the requirement of it being the information they seek (Sharma & Aggarwal, 2019). It is therefore important to offer information that is e.g., accurate, tailored to the customer's needs, understandable, visually appealing, enjoyable and continuously updated (Liu et al., 2017; Sharma & Lijuan, 2015; Sharma & Aggarwal, 2019; Wen et al., 2014). Furthermore, it strengthens user satisfaction which is correlated with customer retention (Liu et al., 2017; Sharma & Aggarwal, 2019) and commitment to the company and its offerings (Sharma & Lijuan, 2015; Wen et al., 2014). Chen et al. (2013) additionally, concluded that accurate product search results are especially important in a B2B context as customers expect e-commerce to speed up their process and increase productivity. Subsequently, companies who already find themselves in possession of a website meeting these requirements are more prepared than their competitors.

The main purpose of an e-commerce website can be seen as promotion of products and driving sales. Therefore, website appeal becomes very important. Website appeal can be seen as the ability of the e-commerce website to evoke positive feelings and stimulate the emotions of the customer with respect to the company, the products and the website. Visually appealing websites influence customer's positive beliefs about the company (Liu et al., 2017). When shopping online the physical values usually used by customers to determine the quality of a product such as function and material are not present. Therefore, the extrinsic values such as visual display, price, brand, previous experience and WOM influence how customers perceive product quality. Better perceived product quality positively influences customer satisfaction (Wen et al., 2014). According to Bilgihan et al. (2016) if the customer has a compelling online and purchasing experience then the outcomes will be a higher brand engagement, positive e-WOM and WOM, thus influencing intention of repeat purchasing. Furthermore, it is stated that these are inter-related and influence each other, meaning that if the e-WOM or WOM is strong then brand engagement can benefit. To increase the extrinsic values which are important for e-

commerce, e-WOM can be included on the website through star rating systems and online reviews. Opinions from unbiased customers are more trustworthy and positively influence e-commerce success (Sharma & Aggarwal, 2019).

Schürmann et al. (2017) argue that in order to achieve the highest level of success with e-commerce there has to be seamless integration across all channels. In practice this means that the customer can move from accessing the website on e.g., their phone to their computer and still acquire the same information and experience. This contributes to user satisfaction and the perceived quality of the website, thus strengthening the customer retention.

3.7 Summary of Theoretical Findings

In *Table 8* the identified barriers, sub-barriers, enablers and sub-enablers from the literature review are summarized to a complete framework based on the current theory on B2B e-commerce in SMEs. It provides a broad picture since the literature reviewed was not delimited further. Therefore, it is necessary to contextualize the framework to find what barriers and enablers are important and which can be disregarded in each situation. The framework presents a general starting point. Furthermore, *Table 8* provides the reader with a re-cap before advancing to the empirical study of this thesis which partly will be based on this framework.

Table 8: The barriers, sub-barriers, enablers and sub-enablers identified during the literature review, forming the theoretical framework.

Barriers	Sub-barriers
Business Model Fit	Business model not compatible Local trading behavior Global competitiveness Not suited to customers purchasing behavior Not suited to products
Financing	Financing Cost to implement
Intermediaries	Dependence on intermediaries Unnecessary intermediaries
IT and Technology Competence	Lack of IT skills Lack of IS/IT infrastructures
Environmental Factors	Economic environment Institutional environment Sociocultural environment
Service Quality	Customer service Website service
Strategy Development	Lack of strategy Lack of e-commerce knowledge Lack of balanced business development
Trust and Security	Data security Trust
Enablers	Sub-enablers
Brand Strength	Brand strength
Competitive Environment	Pressure from competitors Pressure from customers and suppliers
Corporate Culture	Corporate culture Employee attitude Firm structure Employee involvement Employees assigned ownership of tasks
Understanding the Customer	Customer centric focus Understanding the buyers and their customer journey
Customer Relationships	Customer relationships
Knowledge Development	Training Hire knowledge
Management Leadership and Support	Top management support Perceived benefits by management
Personalized Customer Experience	Personalized customer experience
Website Quality	Website quality Website appeal Information quality

4 Empirical study

In this chapter, the empirical data that has been gathered from TC will be presented. Firstly, the process of data collection at TC will be presented. Secondly, the gathered qualitative data that has been coded will be presented both in tables and free text. Lastly, the quantitative data will be presented in figures.

4.1 Empirical Barriers

The employees were asked to list the three most noticeable barriers for e-commerce at TC and explain why they believe these to be barriers. The authors have compiled and categorized the mentioned barriers into *Table 9* with a following explanation.

Table 9: Empirical barriers identified and coded from interviewing personnel at TC.

Barriers	Sub-barriers	Role
Stakeholders	Conflict with stakeholders	After Sales and Technical Support Director, Product Manager, Sales Manager, Country Sales Manager, Global Key Account Director, Chief Executive Officer
	Service partner order habits	Customer Service Manager
	Market maturity	Chief Technology Officer, Country Sales and Service Director
End-customers	End-customer knowledge	After Sales and Technical Support Director, Sales Manager, Customer Service Manager, R&D Manager, Digital Marketing Specialist, Chief Technology Officer, Purchasing Manager
	Loss of personal communication	R&D Manager
	End-customer willingness	Product Manager
	Age	Country Sales Manager
	Market channel complexity	Chief Commercial Officer
	Brand strength	Purchasing Manager
Legislation	Legislation	Digital Marketing Specialist, Product Manager
Offering	Price of washers	Sales Manager, Digital Marketing Specialist, Global Key Account Director, Chief Technology Officer, Purchasing Manager, Country Sales and Service Director
	Price complexity	Chief Executive Officer
	Price and installation of washers	R&D Manager
	Service	Global Key Account Director
Security and Data	Information sharing	Information System Manager, Country Sales and Service Director
	Accurate and timely data	Information System Manager
	Trust	Country Sales Manager
Maturity and E-commerce Fit	Internal maturity	Chief Commercial Officer
	Current business model	Chief Commercial Officer
	E-commerce knowledge	Chief Executive Officer

4.1.1 Stakeholders

It is argued that opening an e-commerce channel would mean going head-to-head against resellers and service partners in the competition for end-customers (After Sales and Technical Support Director, 2021; CEO, 2021; Country Sales Manager, 2021; GKA Director, 2021; Product Manager, 2021; SM, 2021). At the moment TC is educating and co-operating with stakeholders, but an e-commerce platform could mean stealing business from them (After Sales and Technical Support Director, 2021). The way this conflict will play out depends a lot on how TC form their e-commerce strategy. If it directly competes with partners then a conflict is inevitable, but the outcome of it can be controlled to some extent (SM, 2021). The conflict does not need to be in negative terms. Partners that are not living up to expectations should not be viewed as important to cater to. If conflict arises with said partners then it does not have to be a problem as TC can instead deepen relationships with well-performing partners and end-customers (CEO, 2021). There is emphasis put on the need to define the relationship with intermediaries and ensure that there is a clear approach on how this is supposed to be dealt with to avoid conflict to best possible extent (Product Manager, 2021). It is advised to tread carefully and to initially find one strategic option that works and follow through with it before considering more options (After Sales and Technical Support Director, 2021). A suggested alternative is a public price on the web with a kickback towards resellers (Product Manager, 2021). A direct communication with more confidence in the offering that TC has would strengthen their position on the market (Country Sales Manager, 2021).

Most often service partners work at the end-customer when performing repairs and service, this means that they rely on their phones when ordering spare parts and service kits. If e-commerce is not suited to usage on phones then this will mean that the usage will become limited for service partners (Customer Service Manager, 2021).

The dishwasher industry is not digitally mature, none of the stakeholders are accustomed to purchasing these products through e-commerce (Country Sales and Service Director, 2021; CTO, 2021) . TC are a B2B company and the B2B segment is not as digitally mature as the B2C segment (Country Sales and Service Director, 2021). TC will need to show why using e-commerce is beneficial for the customers in order for them to transition from e-mails and phone calls to e-commerce (CTO, 2021).

4.1.2 End-customers

The end-customers limited knowledge will affect their possibility of ordering as they most likely would require assistance to configure the right washer for their needs (After Sales and Technical Support Director, 2021; CTO, 2021; DMS, 2021; R&D Manager, 2021; SM, 2021). The end-customer will know some basic needs such as how many washes per day, but might not know more complex issues such as if it is a hot- or cold-water washer they need. If this is not accounted for then it will lead to incorrect orders of washers (After Sales and Technical Support Director, 2021; DMS, 2021; Purchasing Manager, 2021). Incorrect orders will be detrimental to customer satisfaction in general and specifically of the e-commerce channel (CTO, 2021). One way of combating incorrect orders is for TC to ease the choice of dishwasher

by communicating with the customers about their needs and then performing the purchase online (CTO, 2021; DMS, 2021). A configurator that provides the correct products based on data provided by the customer would be a good tool for this purpose (CTO, 2021; Purchasing Manager, 2021).

The market channel is complicated, as it is hard to define who the customer of TC is. It is difficult to aim the sales channel one way when the customers can be a chef, a school, a hotel chain or a hospital (CCO, 2021). Furthermore, the global knowledge of TC's brand is viewed as limited and offering e-commerce is not deemed as enough to raise the knowledge sufficiently (Purchasing Manager, 2021).

End-customers, in general, lack sufficient knowledge to purchase, exchange spare parts and perform service. Consumables are easier as they do not require any more knowledge than basic understanding of how the machine is used (After Sales and Technical Support Director, 2021; Customer Service Manager, 2021; SM, 2021). It is hard to overcome the lack of technical competence at end-customers as it would require extensive time and money. Large end-customers does however often purchase consumables, service kits and spare parts directly from TC. This is due to them having their own engineers and service personnel with the required knowledge to perform service and repairs with spare parts (After Sales and Technical Support Director, 2021; SM, 2021). Furthermore, it is ambiguous if customers are seeing the need for e-commerce and if it is something they would actually use. People are already accustomed to using it in their private life and using it for work should not be that different, but it is uncertain (Product Manager, 2021). The loss of personal communication is also mentioned as it is assumed that many customers want help and appreciate the personal aspect, and this could be why end-customers might be hesitant to use e-commerce without personal interaction (R&D Manager, 2021). E-commerce is viewed as a millennial matter and the older generation can be a hinder as they are the ones currently in charge of procurement at many companies (Country Sales Manager, 2021).

4.1.3 Legislation

Legislation surrounding e-commerce and especially the Swedish Public Procurement Act is identified as a barrier for selling to the public sector via e-commerce (Product Manager, 2021). Legislation of returns in Sweden give permission to the buyer to return goods for 14 days. This in combination with end-customers configuring incorrect dishwashers could lead to specially configured dishwashers being returned and stored until another customer need the same configuration. This barrier stems from the complexity of the dishwashers and to overcome the returns the focus should be on solving the complexity of configuration (DMS, 2021).

4.1.4 Offering

The washers might not be suitable to sell via e-commerce for end-customers as there exists no habit of purchasing expensive products online (Country Sales and Service Director, 2021; CTO, 2021; DMS, 2021; GKA Director, 2021; R&D Manager, 2021; SM, 2021). The pricing itself is difficult to do something about as TC do not want to cut prices of the washers, and other

stakeholders dictate the pricing for service and installation (SM, 2021). This will probably become less of an issue as the markets mature (Purchasing Manager, 2021), but currently it might be better to use e-commerce to sell dishwashers to resellers (DMS, 2021). If washers are to be sold via e-commerce, then the offering should include: (i) Assistance during the configuration; (ii) Installation; (iii) Distribution; and (iv) Service. The service is viewed as most important as the set-up for making it work is critical for end-customers to be satisfied with their products (GKA Director, 2021).

The R&D Manager suggests starting by offering consumables and spare parts. There is a lot that can be improved in that area which would make the flow of goods more effective (R&D Manager, 2021). While the CTO argues that the barrier of the high price could be limited by offering other options of payment such as a leasing alternative (CTO, 2021).

As of now the pricing list at TC is complicated and not suited for e-commerce. This is due to that the pricing varies between markets and customers. Oftentimes the resellers have different discounts that are applied when purchasing washers adding to the complexity of a worldwide price list (CEO, 2021).

4.1.5 Security and Data

There is a concern with who should be able to see sensitive information such as price and stock balance. With the introduction of e-commerce this information will be more widespread and might reach the hands of the wrong people. With e-commerce the data from the ERP-system will be visible to stakeholders and it will therefore need to be accurate and updated in real-time which will pose a big challenge. If the data is not correct this will create problems and irritate customers (ISM, 2021). There is also a concern that the data will be gathered by the customers and then they will purchase the machine from resellers (Country Sales and Service Director, 2021).

To navigate these barriers, it is proposed to make clear decisions of what information should be included on the e-commerce website and who should be able to see it (ISM, 2021). The perceived trust by the user is a barrier and it might scare off people from using e-commerce. If people do not feel secure, then they will not use it (Country Sales Manager, 2021). The brand strength is reckoned as something that will create a sense of security about purchasing online from TC (DMS, 2021).

4.1.6 Maturity and E-commerce Fit

The internal maturity of both IS and culture is a barrier as people, in general, perceive more obstacles than possibilities. The way of working has been the same for a long time and changing it might be difficult. The current IS are not suited for e-commerce and there is a lack of knowledge in how to use them to complement e-commerce (CCO, 2021). Additionally, the knowledge and experience level of e-commerce is very limited at TC and there needs to be a development in these aspects (CEO, 2020).

TC current business model has meant that they have to a very limited extent sold directly to end-customers before. The change of selling directly to end-customers requires a lot of preparation for it to fit e-commerce and be successful (CCO, 2021).

4.2 Empirical Enablers

The employees were asked to list the three most noticeable enablers for e-commerce at TC and explain why they believe these to be enablers. The authors have compiled and categorized the mentioned enablers into *Table 10* with a following explanation.

Table 10: Empirical enablers identified and coded from interviewing personnel at TC.

Enablers	Sub-enablers	Role
Price	Unison pricing	Product Manager, Chief Executive Officer
	Price Transparency	Sales Manager, Purchasing Manager
	Pricing model	Chief Technology Officer
Relationship with Stakeholders	Stakeholder willingness	Information System Manager
	Maintain relationship	Global Key Account Director
	End-customer contact	Global Key Account Director
	Knowledge development	Sales Manager
Technological Solutions	Payment solutions	Digital Marketing Specialist
	An app	Country Sales Manager
	User-friendly platform	Digital Marketing Specialist, Chief Technology Officer, Purchasing Manager, Country Sales and Service Director
	Automation	Product Manager
	IoT	Customer Service Manager
	Phone compatible	Customer Service Manager
Supporting Functions	Distribution	Digital Marketing Specialist
	Service organization	Chief Executive Officer
Marketing	Marketing	Chief Commercial Officer, Sales Manager, Country Sales Manager
Strategy	Focus on resellers and service partners	After Sales and Technical Support Director, Country Sales and Service Director
	Start in small scale	R&D Manager, Chief Technology Officer, Purchasing Manager, Country Sales and Service Director
	Change process owner	R&D Manager
	Planned approach	Country Sales Manager, Chief Commercial Officer
	Master thesis	Chief Executive Officer
Internal Capabilities and Attitude	Attitude at TC	After Sales and Technical Support Director
	Customer service competence	Information System Manager
	Perceived benefits	Chief Commercial Officer

4.2.1 Price

Unison pricing is recognized as an enabler and a prerequisite for e-commerce to be the same for all stakeholders. It could set a standard price on the market and might push resellers to lower their prices (Product Manager, 2021). There is currently a taskforce that is working on creating a pricing list and corresponding strategy for each market, including e-commerce. This will allow TC to be better prepared when launching e-commerce (CEO, 2021; Purchasing Manager, 2021).

Resellers often charge high prices, sometimes even the double for consumables and spare parts (Product Manager, 2021; SM, 2021). TC have a big opportunity to push down prices by increasing price transparency towards end-customers. This will in theory make it more appealing to purchase via e-commerce for stakeholders, especially the end-customer as they will pay less for spare parts, consumables and service kits (Purchasing Manager, 2021; SM, 2021).

There could also be completely different pricing models that could enable e-commerce success. A subscription model would fit the repeat purchases of consumables well. It could be combined with the new IoT feature that is being developed where the machine could indicate and place new orders automatically (CTO, 2021).

4.2.2 Relationship with Stakeholders

Partners such as resellers and service partners that want e-commerce will drive the development forward and contribute towards a quick start (ISM, 2021). There is as an opportunity to educate the end-customer with the assistance of e-commerce and let them become more involved which would strengthen the relationship and tie them closer to TC (GKA Director, 2021; SM, 2021). A natural step to this is to start by offering spare parts and consumables as it can help develop and transform the business and are not as complicated to sell. At the same time, there is the fear of getting into conflict with dealers as they have much greater power on the market than TC. It is therefore viewed as important to maintain relationships with partners (GKA Director, 2021).

4.2.3 Technological Solutions

The platform will need to be easy to understand for both the customers and TC, it also has to work well with other IS at TC. Integrating the systems and providing the customers with sufficient information is key, the interface is another important factor in making the web shop user-friendly (Country Sales and Service Director, 2021; CTO, 2021; DMS, 2021; Purchasing Manager, 2021). The e-commerce should be as user-friendly and provide the customer with the same information as large e-marketplaces such as Amazon (Country Sales and Service Director, 2021). The payment is critical on e-commerce and it has to be easy for the customer while ensuring the same control of the purchases as TC would normally have (DMS, 2021).

There is a need for a supplier of an e-commerce platform as well as a project leader or consultant to develop the e-commerce. It is easier to purchase the competence than developing it (DMS, 2021). Automation is viewed as an important enabler as integrating e-commerce with ERP-system would mean time savings, more efficient operations and lowering the manual labor performed for each order. The integration is viewed as a crucial aspect to ensure possibility to reap benefits from the start (Product Manager, 2021).

As TC are digitalizing their washers with QR-codes and a connected website with information about washer performance there is a possibility of configuring it so that it notifies when e.g., service is needed (Customer Service Manager, 2021). Furthermore, it would be a good idea to combine it with e-commerce in an app. An app or a phone compatible e-commerce would be very useful for service partners working in the field (Country Sales Manager, 2021; Customer Service Manager, 2021). The app would tie the areas together and create a more holistic solution in the eyes of the user. At its current standing TC lose most of its' communication with end-customers after two to three years and is not followed up until the end of the lifecycle of the washer. Furthermore, knowledge is not cascading downwards in the commercial kitchen industry, meaning that people switch positions and knowledge is lost over the years. The app would enable more frequent communication and prove to be useful tool for maintaining knowledge about TC at the end-customer (Country Sales Manager, 2021).

4.2.4 Supporting Functions

Currently the distribution of spare parts works well but there is no network to deliver dishwashers to end-customers. Developing this will enable TC to maintain a high quality of their services (DMS, 2021).

In order for e-commerce to work as a channel aimed directly towards the end-customer in a global setting there is an extensive need for a service network. This has to that ensure sufficient service of products which is a must if resellers are to be excluded from the value chain (CEO, 2021).

4.2.5 Marketing

For e-commerce to work as expected marketing has to be perform well as awareness and traffic created by marketing is a prerequisite for the e-commerce success. The e-commerce should be integrated into the marketing to achieve this (CCO, 2021). It goes both ways as marketing and information benefits from achieving more attention, and e-commerce increases the possibility to push out greater amounts of marketing and information (SM, 2021). There is also an expressed need for a stronger marketing message which could be more aggressive than it is now, to convince end-customers and partners why TC's products are superior to others. As of now the knowledge about TC is lacking in certain markets and that has to improve for e-commerce to have a sufficient reach (Country Sales Manager, 2021).

4.2.6 Strategy

The choice of strategy is considered an important enabler for successful e-commerce as it can navigate conflict and contribute to improving TC's business model. It is argued that TC should start by offering the whole product portfolio towards resellers and service partners as they have the knowledge required for ordering online (After Sales and Technical Support Director, 2021; Country Sales and Service Director, 2021). It would mean a greater choice of products and more information visible to these stakeholders (After Sales and Technical Support Director, 2021).

This master thesis is viewed as an enabler for the first steps of the evaluation of initial strategic options for e-commerce at TC. It is deemed to contribute by identifying the areas in need of attention while maintaining an outside perspective (CEO, 2021).

Another strategic option that is considered an enabler is to start with e-commerce in a small scale with products that are compatible with the channel (Country Sales and Service Director, 2021; CTO, 2021; Purchasing Manager, 2021; R&D Manager, 2021). It could be smart to start by offering consumables and accessories to the dishwashers to the end-customers, this could work as a step towards more direct sales to them. Taking the process step by step will allow TC to learn from it and find the right strategy (CTO, 2021; Purchasing Manager, 2021). Furthermore, someone has to be responsible for the change process and this is viewed as requirement for it to actually be taken seriously and get the amount of attention it requires (R&D Manager, 2021). A planned approach is necessary for it all to work and come together. If it is planned correctly it would provide TC with great benefits (Country Sales Manager, 2021). Clear goals will give a clear objective for everybody to work towards. It could be combined with incentives for the employees, creating enthusiasm and uniting the workforce on this issue. This should be combined with a vision of how the e-commerce should be in the future both on a short-term and long-term perspective (CCO, 2021).

4.2.7 Internal Capabilities and Attitude

There is an underlying understanding at TC that an e-commerce would be beneficial and should be part of the future (After Sales and Technical Support Director, 2021). Perceived benefits with e-commerce will strengthen the case for it and enable enthusiasm for e-commerce within TC (CCO, 2021).

The current customer service is viewed as good and this will enable the e-commerce to thrive. It can be further improved to be more suitable, but TC is recognized as having a good foundation to continue building on (ISM, 2021).

4.3 Similarities between Empirical Barriers and Enablers

The differentiation between what is a barrier and what is an enabler is not objective. Depending on how an area is viewed it can be seen as both a barrier and an enabler. The authors determined how they would classify them during the development of the theoretical framework. This was not the case for the interviewees, as they showed a different understanding relative to each other.

This can be observed in the interview results where very similar issues were mentioned in both the barriers and the enablers. Price and Offering contained similar points, however Price was listed as a barrier while Offering was listed as an enabler. This illuminates the difficulties for conducting the analysis since the authors aimed to find trends and the explanation behind them. When similar points are brought up in different contexts it complicates the process to analyze objectively and understanding the inherent meaning of answers. This should be considered when reading the thesis as the authors did not alter the results to present them together.

When the authors coded the answers and categorized the sub-barriers and sub-enablers the goal was to represent the answers as fair as possible. An effect of this is that Stakeholders and Relationships with Stakeholders have very similar names. This can be confusing, but the alternative was to give either of them a name that misrepresented its contents which would be bad. Therefore, this alternative was chosen.

4.4 Rating of Theoretical Barrier and Enabler Size

During the interviews one section was devoted to letting the interviewees rate the barriers and enablers present in the theoretical framework, available in *Chapter 3.4* and *3.5*. The barrier and enablers were rated in two aspects, size and capability. The rating system was a one to seven Likert scale. The ratings of the size show if a barrier or enabler is large or small for TC, where a larger barrier or enabler is more important. A larger barrier will impede e-commerce success to a greater extent and is more difficult to overcome than a smaller rated barrier. A larger enabler is positive and shows that if achieved it would drive e-commerce success more than a smaller one. The barriers and enablers correspond to areas and the interviewees were asked to rate TC's capability as either strong or weak in those areas. A stronger capability in an area gives TC the ability to overcome larger barriers or capitalize on larger enablers. The rating was performed according to the interview guide in *Appendix 9.1* where a more detailed description of the interview can be found.

The average rating of barrier and enabler size is presented in *Figure 5* and *Figure 6*.

4.4.1 Average Ratings of Theoretical Barrier Size

The average rating of the barrier size by the 14 employees interviewed at TC is presented in *Figure 5*. No barrier was rated lower than two, small, or higher than six, large. The rating of the barriers shows that only one barrier is rated over five, fairly large, and that is Intermediaries. There is then a gap of one down to: (i) Business Model Fit; (ii) Strategy Development; and (iii) IT and Technology Competence. These three are rated close to four, the neutral rating. A little lower rated is Service Quality followed by Environmental Factors which have been rated above three, fairly small, but below four, neutral. Financing and Trust and Data Security were the lowest rated ones with a rating between two and three, small and fairly small.

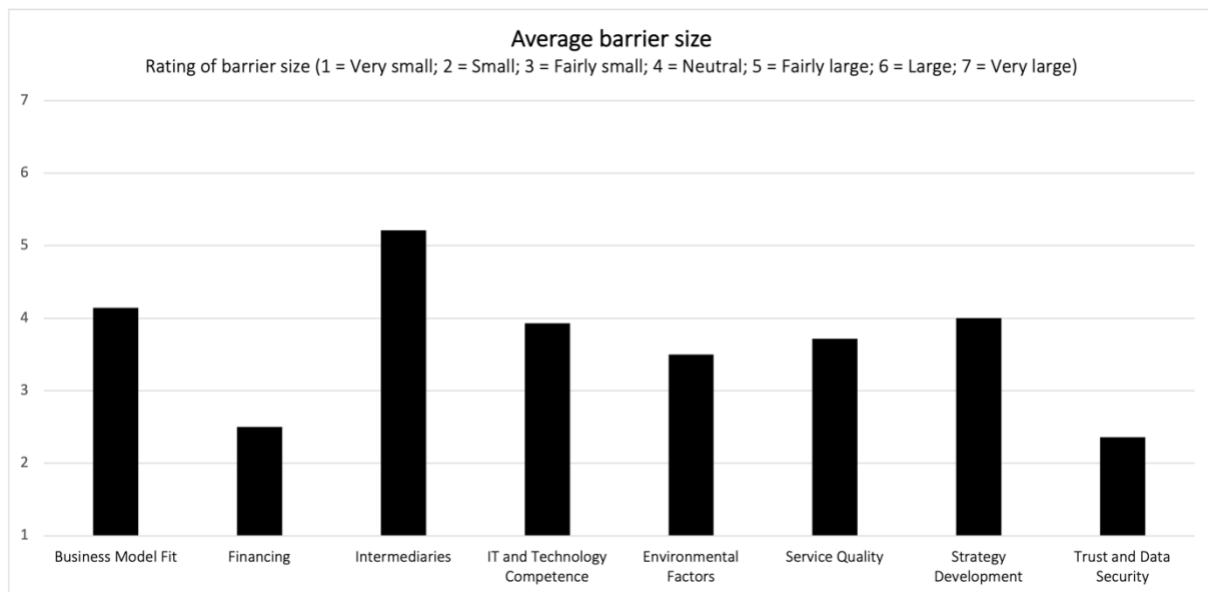


Figure 5: Average rating by employees of the size of barriers from the theoretical framework.

4.4.2 Average Ratings of Theoretical Enabler Size

The average rating of the barrier size by the 14 employees interviewed at TC is presented in *Figure 6*. No enabler was rated lower than four or received a max rating, seven. The rating shows that there is only one enabler that is rated above six, large, and that is Management Leadership and Support. Rated between five, fairly large, and six, large, are: (i) Website Quality; (ii) Customer Relationship; (iii) Knowledge Development; (iv) Personalized Customer Experience; (v) Understanding the Customer; and lastly (vi) Corporate Culture. The highest rated one out of those six are Website Quality, while the lowest out of those is Corporate Culture. Brand Strength and Competitive Environment was rated above four, neutral, but lower than five, fairly large.

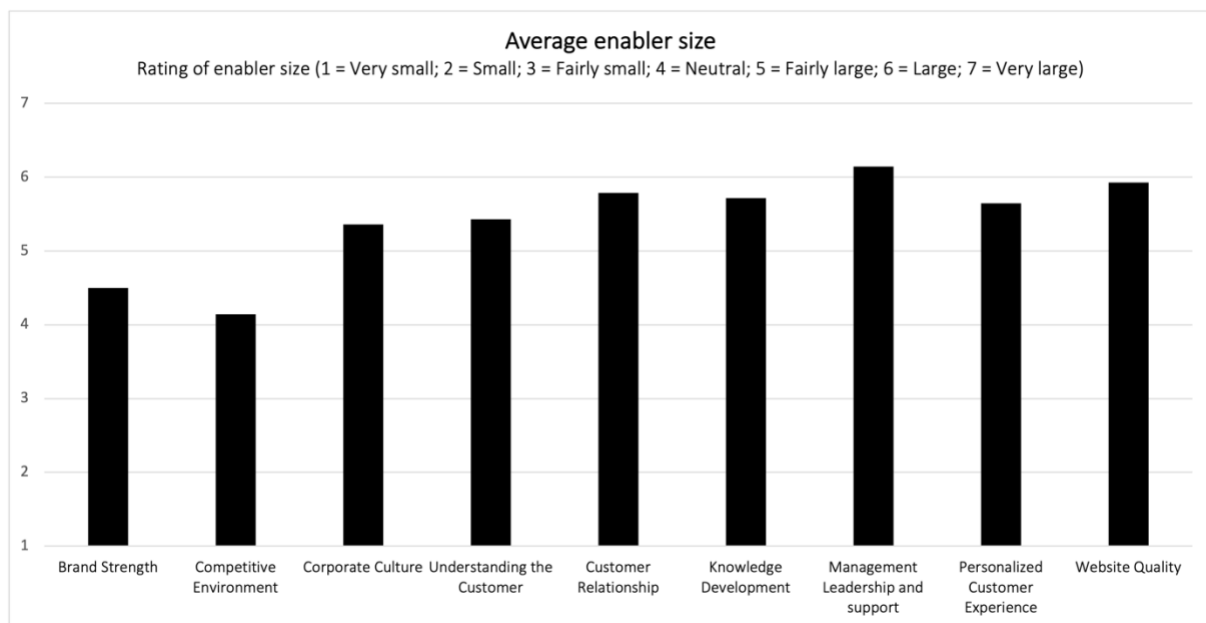


Figure 6: Average rating by employees of the size of enablers from the theoretical framework.

4.5 Ratings of TC's Capabilities

The average rating of TC's capability in the barrier and enabler areas is presented in *Figure 7* and *Figure 8*.

4.5.1 Average Ratings of TC's Capability in Theoretical Barrier Areas

The average rating by the 14 employees interviewed at TC of TC's capability within the barrier areas is presented in *Figure 7*. No capability was ranked above six, strong, and no was rated below four, neutral. The highest rated capabilities were found within Financing and Strategy Development, reaching a rating above five, fairly strong, but below six, strong. Rated between four and five, neutral and fairly strong are: (i) Trust and Data Security; (ii) Intermediaries; (iii) Business Model Fit; (iv) Service Quality; (v) Environmental Factors; and (vi) IT and Technology Competence. The highest rated out of these six are Trust and Data Security, while IT and Technology Competence is rated the closest to four.

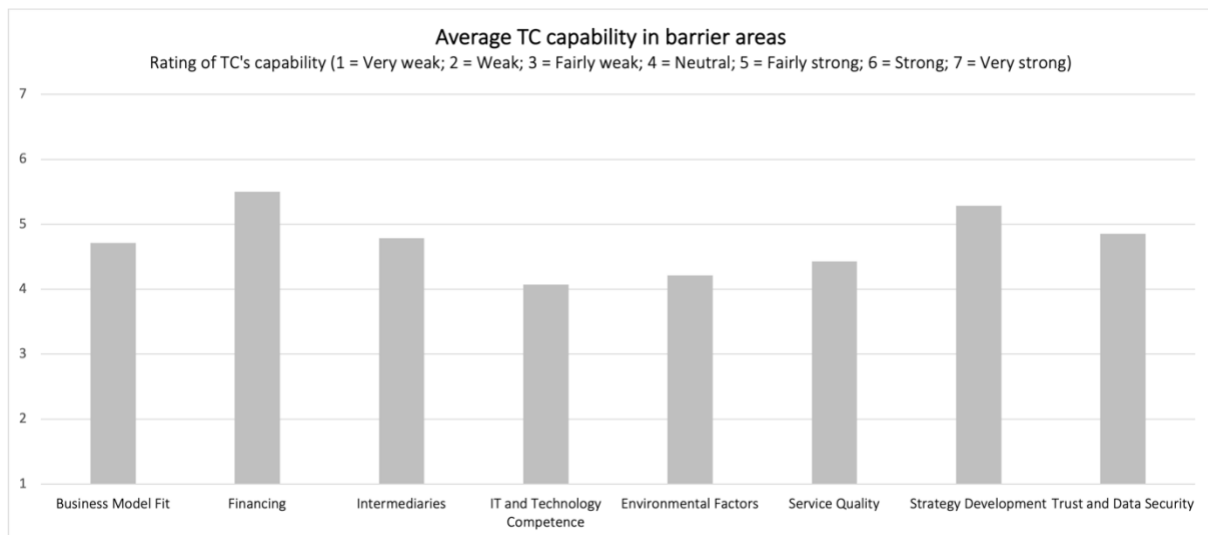


Figure 7: Average ratings by employees of TC's capability in the areas corresponding to the barriers in the theoretical framework.

4.5.2 Average Ratings of TC's Capability in Theoretical Enabler Areas

The average rating by the 14 employees interviewed at TC of TC's capability within the enabler areas is presented in *Figure 8*. No capability received the highest rating seven, very strong, and no capability was rated below four, neutral. The highest rated one was Management Leadership and Support reaching a rating above six, strong. Rated between six, strong, and five, fairly strong, were: (i) Corporate Culture; (ii) Understanding the Customer; and (iii) Knowledge Development. Corporate Culture was the highest rated out of the three and Knowledge Development the closest rated to five. The rest are rated between four and five, neutral and fairly strong. These are: (i) Website Quality; (ii) Customer Relationship; (iii) Personalized Customer Experience; (iv) Brand Strength; and (v) Competitive Environment. The highest rated out of these were Website Quality, and the lowest rated was Competitive Environment.

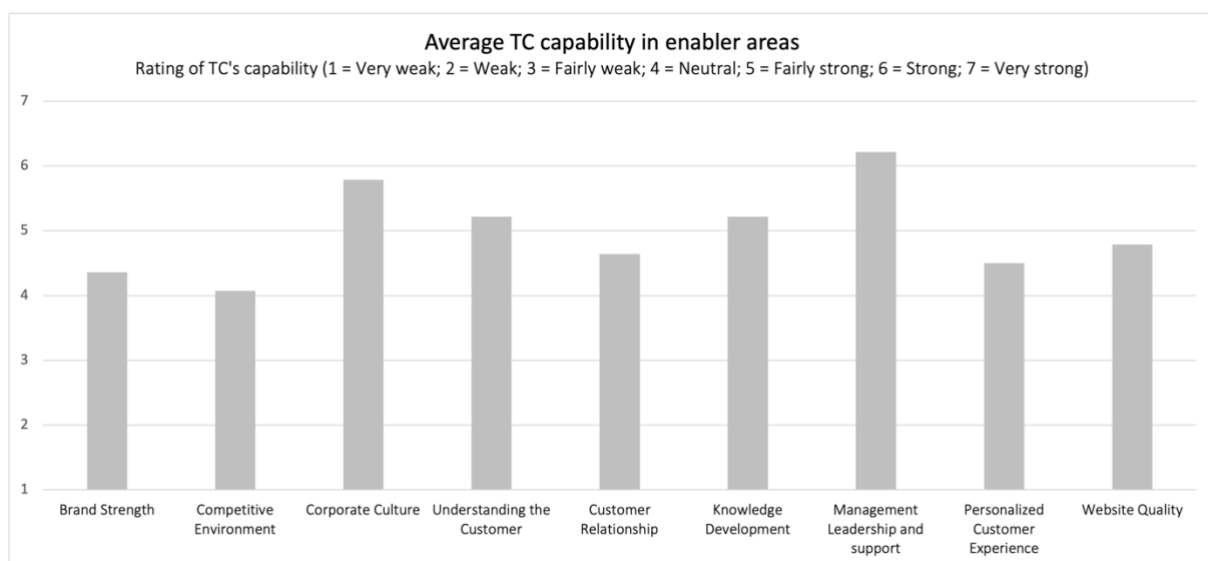


Figure 8: Average ratings by employees of TC's capability in the areas corresponding to the enablers in the theoretical framework.

5 Analysis

In this chapter, the authors will analyze the data gathered and presented in Chapter 4. In the first step the survey results from the interviews will be analyzed. This step has a focus on elaborating on the results, to determine their importance in the context of TC. Secondly, the barriers and enablers stated by employees will be analyzed to determine their importance. Thirdly, a combined framework existing of the most important barriers and enablers from: (i) Survey; and (ii) Interviews will be presented and accounted for. Fourthly, the gaps between theory and practice will be analyzed for generalizing conclusions. Fifthly, the strategic implications that could be seen from the combined framework will be analyzed. Lastly, the barriers and enablers in the combined framework will be placed in an impact vs effort matrix.

5.1 Analysis of Barrier Size and Capability Ratings

In Figure 9 the authors have combined the ratings of barrier size and TC’s capabilities within the corresponding area.

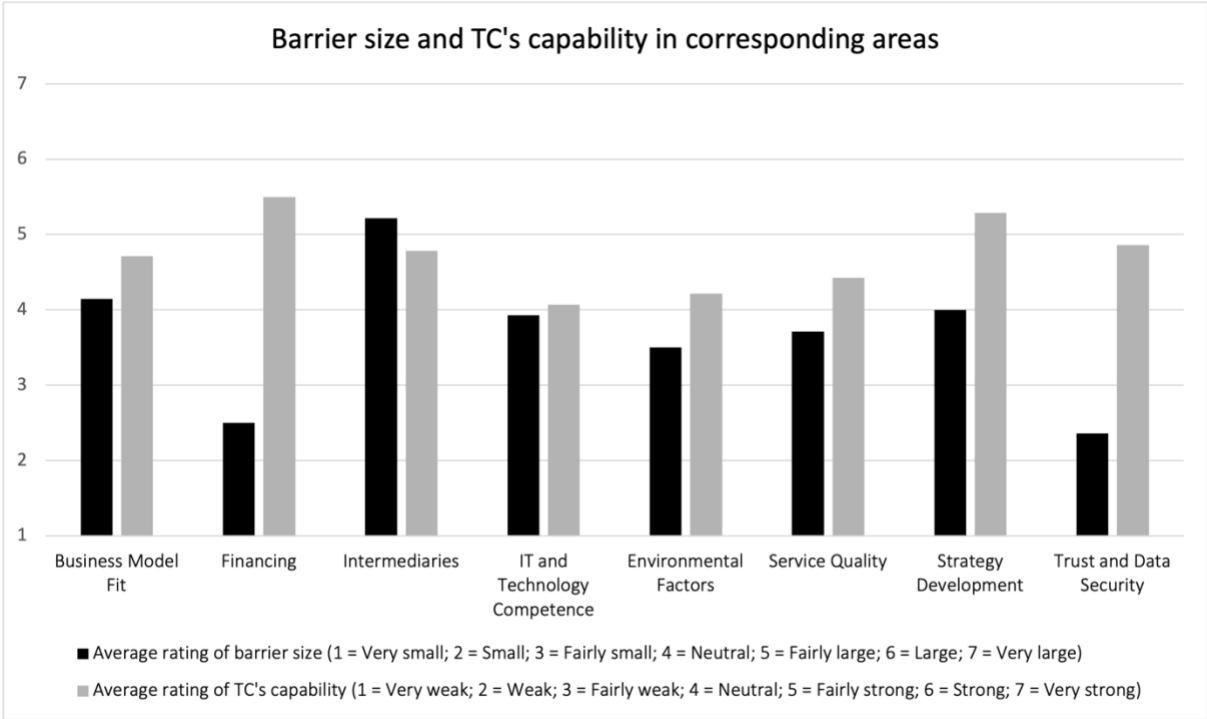


Figure 9: The average rating by employees of barrier sizes and TC’s capabilities in corresponding areas.

When analyzing the ratings of the barriers and TC’s capabilities in the corresponding areas it is clear that all but three barriers were rated lower than a four out of seven on their size which is the middle rating representing neutral size. Financing and Trust and Data Security are rated vastly lower than all other barriers and are considered as small in combination with a strong view of TC’s capability. Intermediaries stood out in the ratings as the largest barrier, and the only one where TC’s capability was also seen as insufficient compared to the size of the barrier.

This barrier is the most important one found in theory according to the employees. The rest of the barriers: (i) Business Model Fit; (ii) IT and Technology Competence (iii) Environmental Factors; (iv) Service Quality; and (v) Strategy Development is all on average rated between 3.50 and 4.15 in size with a higher rating of capability than size. This signals that the employees value these barriers very close to neutral and see these potential issues as something that can be solved quite easily with the current abilities at TC. Strategy Development differ slightly from the others as the employees rated the capability more than one point higher than the barrier size. Signaling that the capabilities vastly overperform the difficulty and size of the barrier.

The barrier out of these that has the smallest difference between capability and size of barrier is IT and Technology Competence making it more uncertain to draw clear conclusions from than the other barriers. The uncertainty was also apparent in the answers as many rated it neutral as they assumed external help would be hired to solve IT and technology issues. It is noteworthy that TC's capability was rated higher than the barrier size since if that was true the external help would not be needed.

Intermediaries was ranked slightly above five, fairly large, giving it quite a modest rating on average. The rating illustrates a barrier that will need some attention from TC to solve but will not be a detrimental factor to the development of e-commerce. The same employees brought up conflict with stakeholders which is a problem stemming from the Intermediaries barrier the second most times of all sub-barriers. This is somewhat contradictory to the ratings and during the interviews it was often talked about in a serious manner. Either the rating is correct, and the barrier is not very large, or the magnitude could be closer to the representation in the open answers. Business Model Fit is the only other barrier that was rated above four and it is connected to the intermediaries issue. Since the current business model is to sell via resellers the business model will be altered for e-commerce where the resellers will be removed from the e-commerce sales channel. However, the employees did not see the Business Model Fit as a large issue according to the rating of the barrier size and TC's capability.

To summarize, the ratings of the barriers indicate that TC will not be faced with many issues that are not manageable for them. Intermediaries is the only barrier that should trouble TC when implementing and using e-commerce, according to the ratings. IT and Technology Competence is rated low, but contains some contradictory explanations. Making it reasonable to believe it will require attention and work to overcome.

5.2 Analysis of Enabler Size and Capability Ratings

In *Figure 10* the authors have combined the ratings of enabler size and TC's capabilities within the corresponding area.

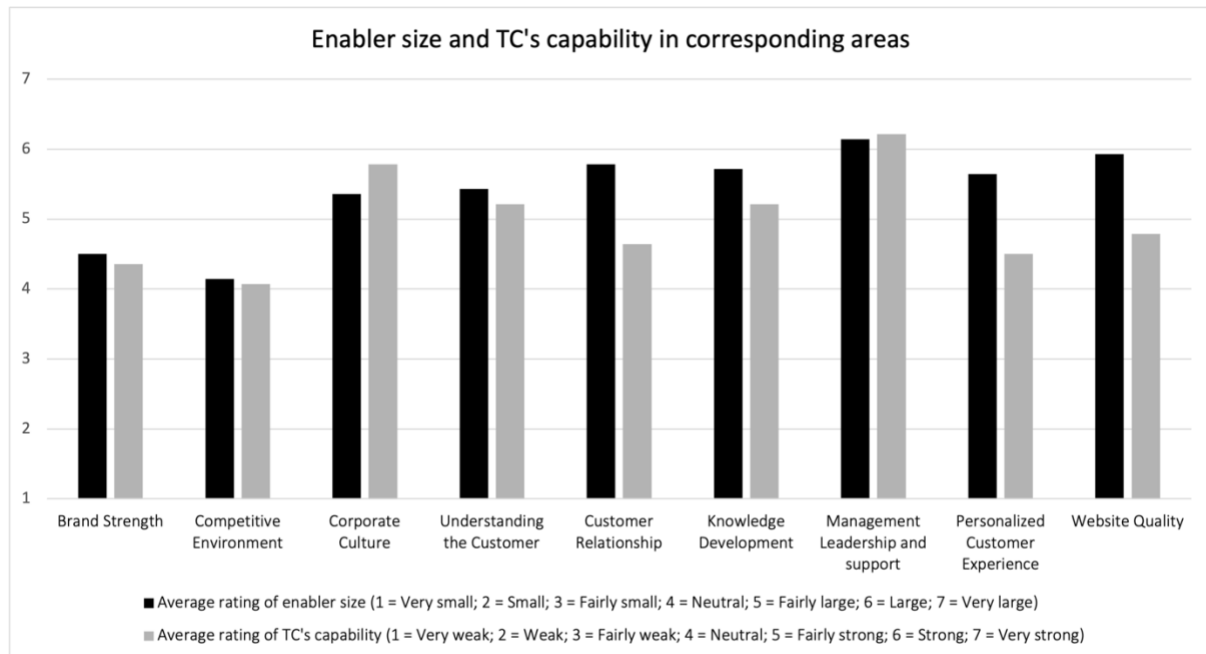


Figure 10: The average rating by employees of enabler sizes and TC's capabilities in corresponding areas.

When analyzing the ranking of enablers by employees at TC, it is apparent that all of them were rated above neutral in terms of their size. Additionally, the employees at TC were more generous with the rating of TC's capabilities in these areas when comparing to the barriers. This would imply that employees view it as that TC have a solid foundation while still seeing room for improvements. The highest rated one was Management Leadership and Support with employees viewing it as the most important enabler for e-commerce with a ranking above six, large. Furthermore, employees also view TC to have the highest capability, above the size of the enabler, in this area showcasing that they view management as highly functional in its current state.

There are six enablers ranked higher than five, fairly large, in terms of the size of the enabler: (i) Corporate Culture; (ii) Understanding the Customer; (iii) Customer Relationship; (iv) Knowledge Development; (v) Personalized Customer Experience; and (vi) Website Quality. What is noticeable is the fact that all but one of these, Corporate Culture, was ranked higher in terms of being an enabler than employee's ranked TC's capabilities, showcasing a gap between importance and organizational performance within the areas. Understanding the Customer and Knowledge Development had a gap smaller than one between size and capability, which would indicate that employees' view them as important and that TC are performing relatively close to the appropriate level. Customer Relationship, Personalized Customer Experience and Website Quality all have a gap larger than one between size and capability. Website Quality was the

highest rated one of these in terms of size, but the ranking of TC's capabilities in this area was viewed as being lower than five, fairly strong. This could be due to the fact that TC currently do not have an e-commerce and thus the rating of the capability is understandably lower. Customer Relationship is viewed as something that can be improved and this is closely linked to the fact that TC sell most of their washers via resellers, thus losing out on the relationship with the end-customer in most cases. Personalized Customer Experience could be linked to the same area as TC have limited control over how resellers actually market and tailor the experience for end-customers when offering TC's products.

Brand Strength and Competitive Environment were ranked lower than five, fairly large, but higher than four, neutral, both in terms of size and capability. These were also rated lower in terms of capability than in terms of size, but with a relatively small gap. Furthermore, Brand Strength was noticeably lower rated than Customer Relationship which is interesting as Brand Strength is viewed by employees as something that would aid developing better customer relationships. If the end-customer have a greater knowledge and trust in TC's brand, then they are more likely to showcase interest in developing and maintaining long-term relationships. Competitive Environment was the lowest rated enabler, and this could be due to the fact that it is the only one being out of direct control for TC as it includes e.g., external pressure from competitors.

To summarize the rating of enablers, employees at TC are more generous with their rating and all but two enablers were viewed as being larger than TC's capability.

5.3 Analysis of Empirical Barriers and Enablers

During the interviews all the answers by the interviewees were noted down. The raw answers were often very specific and the specifics of the answers each interviewee gave is presented in the text provided for each barrier and enabler. The answers were then concentrated to a main sentiment which is necessary to illustrate the trends of all the answers given. To not code the answers would result in a very large framework of only specific barrier and enablers, making it difficult to understand, analyze and draw conclusions from. The main sentiments were therefore coded from the answers given and represented, clearly showing which sub-barriers and sub-enablers were mentioned often and which were not. To further understand which broader areas that are barriers and enablers for TC, the sub-barriers and sub-enablers were categorized into the barriers and enablers seen in *Table 9* and *Table 10* in *Chapter 4.1* and *4.2*. This illustrates which key areas of barriers and enablers exist at TC and which of these have been mentioned more or less frequently. It is therefore possible to identify key areas in broad terms and then focus in on the specific details the interviewees brought up during the interviews.

5.3.1 Barriers

The result of the coding concluded in six barriers for TC as is illustrated in *Table 11* where it is also possible to study the number of mentions each sub-barrier had and the total mentions of the coded barrier.

Table 11: The coded barriers from empirical data, their total mentions and the number of mentions for each sub-barrier.

Barriers	Sub-barriers	Number of Mentions
Stakeholders	Conflict with stakeholders	6
	Service partner order habits	1
	Market maturity	2
		<hr/> 9
End-customers	End-customer knowledge	7
	Loss of personal communication	1
	End-customer willingness	1
	Age	1
	Market channel complexity	1
	Brand strength	1
		<hr/> 12
Legislation	Legislation	2
		<hr/> 2
Offering	Price of washers	7
	Price complexity	1
	Price and installation of washers	1
	Service	1
		<hr/> 10
Security and Data	Information sharing	2
	Accurate and timely data	1
	Trust	1
	<hr/> 4	
Maturity and E-commerce Fit	Internal maturity	1
	Current business model	1
	E-commerce knowledge	1
	<hr/> 3	

The ones that were mentioned the most were: (i) Stakeholders; (ii) End-customers; (iii) and Offering. These barriers were brought up nine, twelve and ten times respectively. The three other barriers: (i) Legislation; (ii) Security and Data; and (iii) Maturity and E-commerce Fit were mentioned two, four and three times respectively which shows the clear gap in how often the employees mentioned different barriers. Furthermore, there were three sub-barriers that were the most frequently mentioned ones. Conflict with stakeholders a sub-barrier to Stakeholders was mentioned six times. End-customer knowledge a sub-barrier to End-customers was mentioned seven times. Price of washers a sub-barrier to Offering was mentioned seven times.

The most pressing barriers for TC can therefore be concluded to be: (i) Stakeholders; (ii) End-customers; and (iii) Offering. These are three key areas heavily affected by e-commerce. Since TC has not sold directly to end-customers before there is a lack of knowledge from the end-customers about TC and their products. Additionally, TC has a small understanding of how the end-customers will perceive e-commerce and how they should cater the e-commerce towards the end-customer. This is closely connected to the other pressing issue of Offering. TC will need to form an offering on their e-commerce and there is a concern at TC that the price of the washers might be too high to be suitable for e-commerce. To offer the products directly to end-customers also means that TC has to alter their complex and dynamic pricing strategy. Furthermore, TC will pass by the resellers in their sales channel, but not the service partners. Service is still necessary to be performed by service partners as TC do not plan to offer service themselves. Thus, showcasing a need for a service network fit to the purpose of selling washer directly to end-customers. The last critical barrier is the Stakeholders. Building on the last point the relations with the stakeholders, mainly service partners and resellers, will heavily change due to offering e-commerce in addition to the traditional sales channel. There can be conflict with stakeholders that need to be taken care of as it is their primary source of sales and the service partners are as mentioned very important thus requiring consideration. There is also a fear that the market is too digitally immature for e-commerce to be successful in the near future.

5.3.2 Enablers

The coding of the interview answers resulted in seven enablers as is illustrated in *Table 12* where it is also possible to study the number of mentions each sub-enabler had and the total mentions of the coded enabler.

Table 12: The coded enablers from empirical data, their total mentions and the number of mentions for each sub-enabler.

Enablers	Sub-enablers	Number of Mentions
Price	Unison pricing Price Transparency Pricing model	2 2 1 <hr/> 5
Relationship with Stakeholders	Stakeholder willingness Maintain relationship End-customer contact Knowledge development	1 1 1 1 <hr/> 4
Technological Solutions	Payment solutions An app User-friendly platform Automation IoT Phone compatible	1 1 4 1 1 1 <hr/> 9
Supporting Functions	Distribution Service organization	1 1 <hr/> 2
Marketing	Marketing	3 <hr/> 3
Strategy	Focus on resellers and service partners Start in small scale Change process owner Planned approach Master thesis	2 4 1 2 1 <hr/> 10
Internal Capabilities and Attitude	Attitude at TC Customer service competence Perceived benefits	1 1 1 <hr/> 3

The three most frequently mentioned enablers were: (i) Price; (ii) Technological Solutions; and (iii) Strategy. These enablers were mentioned five, nine and ten times respectively. The four other enablers: (i) Relationship with Stakeholders; (ii) Supporting Functions; (iii) Marketing; and (iv) Internal Capabilities and attitude were expressed four, two, three and three times respectively. The two enablers Technological solutions and Strategy were by far the most frequently mentioned enablers, while Price was the third most mentioned one but only by a margin of one. Focusing on the more specific sub-enablers, the three most popular ones were: (i) User-friendly platform; (ii) Start in small scale; and (iii) Marketing. User-friendly Platform a sub-enabler to Technological Solutions was brought up four times, as was also Start in small-scale a sub-enabler to Strategy. Marketing was brought up three times and differs from the other two sub-enablers as it is a part of the enabler Marketing which is not one of the three most frequently mentioned enablers. Price's two most frequently mentioned sub-enablers: (i) Unison pricing; and (ii) Price transparency was both mentioned twice.

The most critical enablers for TC can therefore concluded to be: (i) Price; (ii) Technological Solutions; and (iii) Strategy, while the most critical sub-enablers are: (i) User-friendly Platform; (ii) Start in Small Scale; and (iii) Marketing. It shows that there are two clear broad areas that are more important to the employees in Technological Solutions and Strategy. These two enablers also contain the two most mentioned specific sub-enablers in User-friendly Platform and Start in Small Scale. Price, the third most mentioned enabler, is a broader area of importance to the employee and was also heavily brought up as important in the barrier Offering. It does however not contain one of the most important sub-enablers and therefore the entire price area can be seen as the important part and it cannot be connected to one more specific issue. The opposite can be said about Marketing which is an enabler formed of only one sub-enabler. The critical area is marketing of the e-commerce.

The three most important enablers illustrate three key areas for e-commerce to be a success at TC. Pricing is a complex matter as TC currently have long intricate pricing lists that are not shown to customers. To alter this pricing model to a unison price and being transparent with it is an important step for e-commerce success. TC does not have a lot of experience with technological solutions. The e-commerce initiative is a venture that needs technological solutions and the employees have identified many that would enable e-commerce. Most of the sub-enablers are specific solutions or functions they deem as good such as: (i) Payment solutions; (ii) An app; (iii) Automation; (iv) IoT; and (v) Phone compatible. The most important sub-enabler focuses on the core aspect which is a User-friendly platform. Reasonably Strategy was seen as critical for TC to succeed. Strategy will always be an important factor and the employees both mentioned aspects that will be important for the strategy to succeed and also clear strategic choices they saw as important. Important aspects for the strategy were: (i) Master thesis; (ii) Change process owner and (iii) Planned approach. The more specific strategy choice is to start on a small scale with a focus on resellers and service partners as this will not cause conflict.

5.4 Combined Framework of Barriers and Enablers from Empirical and Theoretical Data

In order to answer **RQ2**: *What are the key barriers and enablers for successful e-commerce at TC?*, the authors have chosen to construct a combined framework with the most significant barriers and enablers found in both theory and during interviews at TC. This framework can be seen in *Figure 11* and aims to provide TC with a clear view of what the most distinguished barriers and enablers are for their e-commerce initiative.

5.4.1 Chosen Barriers

The barriers chosen as most distinguished and important to TC are: (i) Stakeholders; (ii) End-customers; (iii) Offering; (iv) Intermediaries; and (v) IT and Technology Competence.

Theoretical barriers

The ratings of the barriers presented in the theoretical framework showed that the employees only saw Intermediaries as a barrier. IT and Technology Competence were rated neutrally, but contained contradictory explanations that strengthens the case of it being a barrier for TC.

The Intermediaries barrier showed that opening a direct e-commerce channel can cause problems since intermediaries, in this case resellers, can react negatively since they will be excluded. The employees working closely with resellers may also react as their current way of working can be threatened. This barrier was so strong at TC that it was in addition to the high rating also brought up many times in the open answers, where interviewees expressed their fear of the resellers reacting negatively which could affect TC's only sales channel of washers. Since it was brought up many times in the open answers and these mentions were categorized as the sub-barrier Conflict with stakeholders the Intermediaries barrier can be seen as included in the Stakeholder barrier from interviews.

IT and Technology Competence has the smallest difference in rating between the size of the barrier and the capability. This barrier has to be acknowledged since many of the employees mentioned that the knowledge to develop and use an e-commerce website does not exist at TC. Knowledge will need to be brought in externally by e.g., hiring a consultancy firm to help TC. This shows that IT and Technology Competence is an area where TC is currently lacking. The ratings by employees were made on assumptions of external help which in addition to the small difference between capability and barrier shows that IT and Technology Competence is something TC needs to be concerned with. Several of the enablers rated as important: (i) Technological Solutions; (ii) Website Quality; and (iii) Personalized Customer Experience are rooted in technology and to achieve these enablers IT and Technology Competence needs to improve.

Empirical barriers

When reviewing the qualitative answers from the interviews three barriers stood out: (i) Stakeholders; (ii) End-customers; and (iii) Offering.

Stakeholders foremost sub-barrier was Conflict with stakeholders. This is the core of the Intermediaries barrier and also what inspired employees to rate Intermediaries as the largest barrier of the presented ones. The Stakeholder barrier is represented in literature, rated highly and mentioned frequently cementing it as one of the most important barriers for TC in their e-commerce initiative. Certain employees work with these partners on a daily basis and moving away from them will be a step towards a new business model creating uncertainty among personnel. Furthermore, the employees do not have clear incentives to accept this transformation could change or complicate their work. The other sub-barriers in Stakeholders are not as important according to the data. The second most important one is Market maturity which is a barrier outside of TC's control that will have large effects on possible adoption rates from partners and customers. It is a traditional industry, and this barrier comes with the possibility to become a pioneer and lead the change. Therefore, the immature market presents an opportunity for TC while it increases the risk of failure. The sub-barrier service partner order habits illuminate the importance of catering to the service partners but is only mentioned once and is not seen as critical. TC currently does all its business through resellers and service through service partners.

At the core of the End-customers barrier is the issue that the employees believe that end-customers are not able to order correct washers due to their lack of knowledge of the more technical specifications. This was brought up frequently and will need to be solved if sales of washers to end-customers via e-commerce should be a possibility. It is therefore very important, but it is in the control of TC. It is possible to develop a solution that provides the end-customer with the assistance required to order washers correctly. Furthermore, there are five other sub-barriers that were mentioned one time each and are all connected to the end-customer issue. Since TC has not consistently sold to end-customers before this is reasonable. These sub-barriers by themselves do not show the critical problems TC needs to solve to succeed with e-commerce. It shows that TC need to develop an understanding of their end-customers and cater their business more towards them.

The Offering barrier is mostly focused on different issues with price. The most frequently brought up sub-barrier is that the price of the washers is too high for the end-customer to be comfortable to order it through e-commerce. The price of the washers is not intended to be reduced, therefore this barrier will need to be overcome in another way. This notion of uncertainty about the price is connected to the feeling that the market is not digitally mature and therefore end-customers will be reluctant to purchase expensive products. As the previous barrier this is the result of e-commerce altering how TC will reshape the offer as the target is end-customers.

5.4.2 Chosen Enablers

The enablers chosen as most distinguished and important to TC are: (i) Technological solutions; (ii) Strategy; (iii) Price; (iv) Customer Relationship; (v) Website Quality; and (vi) Personalized Customer Experience.

Theoretical enablers

When determining which enablers from literature that would be most important for TC the authors chose to focus on how large the perceived size of the enablers is and also the gap between the size and capability. This illustrates where TC would gain the most from improving in the corresponding enabler area. By applying this method of analysis three enablers stood out as more important than the others: (i) Customer Relationship; (ii) Website Quality; and (iii) Personalized Customer Experience.

Customer Relationship was viewed by employees as a very important enabler and this relates to the fact that TC loses out on their communication with the end-customer during the life-cycle of the washer. Due to the loss of contact with the end-customer the capability was considered lower than the size of the enabler. Resellers are not as interested in communicating with the end-customer throughout the lifetime of the washers due to their more extensive product portfolio and larger customer base. E-commerce and customer relationships are argued by employees to benefit each other. E-commerce provides a direct link to the end-customer improving the communication between the parties throughout the washer's lifetime. Having a better relationship with end-customers would enable them to use e-commerce to a greater extent which then would deepen the relationship further by tying the end-customer closer to TC. This would explain why Customer Relationship is ranked as a large enabler, while TC's capability is lower and needs improvement to reap the benefits.

Website Quality is directly linked to the performance of e-commerce and it needs to be appealing to its user if they are to adopt it. The user has to be able to find the appropriate information and navigate the website in an effortless manner. Customers expect to find information they seek as fast as possible. Additionally, B2B-customers are more demanding as they expect e-commerce to speed up their processes and increase productivity. A high website quality also benefits the user satisfaction and customer retention which is highly important if users are to continue using e-commerce. Employees at TC are aware that their current website quality is not sufficient for e-commerce, which is expected as they do not offer it yet. The importance of improving the quality and evaluating how this should be done is an important step and if done correctly would prove to be an enabler highly beneficial for TC.

Personalized Customer Experience was viewed by employees as a large enabler for e-commerce, while showcasing a lower capability at TC. Personalization is related to the Website Quality and Technological Solutions in the way that it uses data and previous interactions to tailor the offering to individual customers. This is a commonly used marketing method by companies within B2C, but it is also applicable for companies within B2B and has been found to have a significant impact on e-commerce success. It is viewed as a strategy to persuade

customers to select a product or service. This ties together with the fact that e-commerce should allow customers to find and purchase products according to their needs. TC could use personalization to tailor offering of e.g., spare parts specific to a washer that is owned by the customer ordering via e-commerce. By doing so it would facilitate the ordering for the purchaser and ensure that they receive suggestions that are of interest to them. This impacts customer experience and makes it more enjoyable for the purchaser to use e-commerce.

Empirical enablers

When reviewing the answers from interviews there are three enablers that stand out: (i) Technological solutions; (ii) Strategy; and (iii) Price.

The Technological Solution has its foundation in that it has to be easy to use for stakeholders and TC. This is rather self-explanatory as stakeholders will not change their current way of performing business with TC if they do not see a significant upside with e-commerce. By offering the right technological solutions it would facilitate a smoother transition for stakeholders and receive a warmer welcome.

The most commonly brought up sub-enabler was to have a User-friendly platform. This is a general enabler that depends on the user as the name suggests. Therefore, to achieve the enabler the website has to be developed with the intended users in mind. Doing this will aid in the perceived website quality. Tailoring the technological solution to suit all stakeholders and their purchasing habits is demanding and its importance should not be neglected. End-customers, service partners and resellers all differ when comparing their purchasing habits and needs. For example, service partners and resellers purchase products more frequently and have a greater knowledge of TC's product portfolio than end-customers. The end-customer will thus require a different technical solution aimed at providing them with relevant information to be able to feel comfortable with purchasing directly from TC via e-commerce. While resellers and service partners would be more interested in being able to purchase without the need of a computer as they often work remotely. An app could therefore be highly appreciated by service partners and resellers, as they often make their purchasing decisions when visiting end-customers, showcasing a need for a phone compatible solution. Another area of interest is the payment aspect and the need for different solutions to ensure that stakeholders feel comfortable with purchasing and that TC feel the same control over the financial transaction as they currently do.

Strategy will naturally play an important role when implementing and offering e-commerce as it decides the approach TC will take. The main point of discussion is whether TC should start by offering their entire product catalogue or start with consumables, spare parts and service kits. The reason why this is so important is since the choice of strategy affects the potential conflict with stakeholders. As this is a decision of highest significance for the future of e-commerce at TC it needs to be very carefully examined and a well-formulated short- and long-term strategy will pave the way for successful e-commerce. Lacking a clear strategy will entail numerous problems and become a breeding ground for skepticism among employees. Thus, Strategy is viewed as a highly important enabler for e-commerce. This would help combatting potential silo mentality which always should be considered during a change process.

Price was chosen as one of the most distinguished enablers due to the complex pricing structure at TC. Prices vary across markets and between stakeholders, while e-commerce in the B2C-context is built on the foundation that all customers pay the same amount for a product or service regardless of who the customer is. When offering e-commerce, it is a necessity for price to be visible when browsing products or services. This enables the purchaser or potential customer to get an understanding of how much and what they are charged for. Adapting prices for e-commerce will facilitate it and allow TC to review their prices and increase the transparency, especially towards the end-customer. Furthermore, this is viewed as an important step in developing a new pricing strategy which have been in the works during the past year.

5.4.3 The Combined Framework

The most important barriers and enablers in the context of TC from both literature and interviews held at TC are presented in *Table 13*. The barriers and enablers that are presented in *Table 13* were then reviewed further and clear connections between some of them were observed. This allowed for further categorization as shown in *Figure 11*, the combined framework.

Intermediaries and Stakeholders is an example where the content of Intermediaries was already included in the Stakeholders barrier and as shown in *Figure 11*, Intermediaries therefore stems from Stakeholders in the combined framework. End-customers is not a part of the content in the Stakeholders barrier, but end-customers are one of TC's stakeholders. Since End-customers are stakeholders they are also presented as a part of the Stakeholders barrier in the framework in *Figure 11*.

There are three enablers that are similar as they all derive from a technological perspective: (i) Website Quality; (ii) Personalized Customer Experience; and (iii) Technological Solutions. Technological Solutions is a broad term that was chosen after interview answers were coded. Personalized Customer Experience and Website Quality are technological solutions and therefore stem from Technological Solutions in the framework in *Figure 11*. Stakeholders and Technological Solutions are however not only a category for other barriers and enablers but have as specific and detailed content as the other barriers and enablers stemming from them.

Table 13: The most important barriers and enablers for e-commerce at TC.

Barriers
Stakeholders
End-customers
Offering
IT and Technology Competence
Intermediaries
Enablers
Technological Solutions
Strategy
Price
Customer Relationship
Website Quality
Personalized Customer Experience



Figure 11: The combined framework consisting of the most important barriers and enablers for e-commerce at TC.

5.5 Gap Between Theory and Empirics

The thesis has included a study of both the theory on B2B e-commerce for SMEs and TC's specific situation. Therefore, gaps between theory and practice have become apparent. This subchapter aims to illuminate the gaps where theory did not correspond to practice, either by not including or misrepresenting areas as important when they were not.

5.5.1 Theory not Applicable to TC

Since TC's employees rated barriers and enablers from theory there is quantitative data on the employees' opinion of them. Therefore, it is easy to see where employees believed the theory did not coincide with TC's situation. In this case the employees view of TC's capability is not relevant, but the focus is on the employees' view of the barrier and enabler sizes. Since the rating of four corresponds to neutral, any rating of or above four shows that the employees view the barrier or enabler as at least neutral and therefore they should not be disregarded. If average ratings are below four, they are however smaller than neutral and will be examined for generalizable gaps.

What is of note is that all enablers were rated above four, neutral, in terms of both size and TC's capability. Therefore, none of them can be seen as invalid as the employees recognize them as existing enablers. The same case cannot be made for the barriers, as employees rated them substantially lower.

Trust and Data Security and Financing were both rated between two and three, small and fairly small. These two barriers from theory can in the case of TC be discarded. Furthermore, Trust and Data Security was the most common barrier in theory and the lowest rated barrier by employees, portraying the gap between theory and empirics to be large. Financing is a barrier which is very dependent on the company in context. TC has a financially strong owner that trusts and supports them in their decision-making. Therefore, Financing is not a large barrier, but this is situational and not generalizable for all B2B SMEs. Trust and Data Security is however not as situational, and more dependent on environmental factors. TC is a Swedish company and Swedish culture is trusting and digitally mature. This reduces the barrier of Trust and Data Security. This can be generalizable to environments that fits this description, but in other cultures and environments it can prove to be a larger barrier.

Environmental Factors, Service Quality and IT Technology and Competence were all rated between three and four, fairly small and neutral. In Sweden there is a strong IT infrastructure, the supporting industries are well-functioning, and the culture embraces e-commerce. Overall, it is a positive environment for e-commerce and this barrier can generally be overseen by companies in similar environments. Service Quality was mostly rated low by employees due to well-functioning customer service at TC and cannot be seen as a generalizable conclusion that can be drawn. IT and Technology Competence is chosen as one of the most important barriers since the employees explained their low ratings with the reason being that TC would need to bring in external help. It is unreasonable to assume all issues in this area will be solved by

acquiring external help. Employees will need to develop an understanding of e-commerce if TC are to be successful. Therefore, IT and Technology Competence should be included in the framework.

5.5.2 Empirical Findings Underrepresented in Theory

To determine if the literature examined missed barriers and enablers that were important to TC, the empirical framework can be compared to the theoretical framework to look for noticeable gaps. The result can be seen in *Table 14* where all empirical barriers and enablers have been compared to the theoretical framework. Most empirical barriers and enablers were represented in theory, but some were not. These are the ones without representation in the far-right category in *Table 14*. The barriers and enablers that were not represented in the theoretical framework will be examined to see if they are generalizable and in what circumstances. Furthermore, barriers and enablers that were represented in theory, but not to an adequate level will also be studied as gaps can exist even though some representation in theory exists.

Table 14: Empirical barriers and enablers, and which theoretical barrier or enabler they are represented in.

Barriers	Sub-barriers	Represented in Barrier/Enabler from the Theoretical Framework
Stakeholders	Conflict with stakeholders Service partner order habits Market maturity	Intermediaries
End-customers	End-customer knowledge Loss of personal communication End-customer willingness Age Market channel complexity Brand strength	Understanding the Customer Customer Relationships
Legislation	Legislation	Environmental Factors
Offering	Price of washers Price complexity Price and installation of washers Service	
Security and Data	Information sharing Accurate and timely data Trust	Trust and Security
Maturity and E-commerce fit	Internal maturity Current business model E-commerce knowledge	Business Model Fit Strategy Development
Enablers	Sub-enablers	Represented in Barrier/Enabler from the Theoretical Framework
Price	Unison pricing Price transparency Pricing model	
Relationship with Stakeholders	Stakeholder willingness Maintain relationship End-customer contact Knowledge development	Customer Relationships
Technological solutions	Payment solutions An app User-friendly platform Automation IoT Phone compatible	Personalized Customer Experience Website Quality It and Technology Competence
Supporting functions	Distribution Service organization	
Marketing	Marketing	
Strategy	Focus on resellers and service partners Start in small scale Change process owner Planned approach Master thesis	Strategy Development
Internal Capabilities and Attitude	Attitude at TC Customer service competence Perceived benefits	Corporate Culture

The Intermediaries barrier was only brought up in literature twice, however this is undoubtedly one of the most important barriers for TC. For companies that sell via resellers and currently depend heavily on stakeholders that will become redundant for e-commerce sales, this barrier is generalizable, significant and needs to be presented in theory as such.

Offering is an important barrier for TC as they sell expensive washers, have a complex pricing structure that varies for each customer and they do not control the price the resellers set. Furthermore, the washers require service and there is uncertainty regarding how that should be included in the offer. The complex pricing structure is not viable for an e-commerce website and this is not brought up in theory. The fear of expensive products not being suitable for e-commerce can be related to the theoretical barrier Business Model Fit and its sub-barrier Not suited to products. The aspect of the price not being suitable is however not brought and therefore this is lacking in the theory. These two sub-barriers are generalizable for companies that sell expensive products and use complex pricing lists. Furthermore, the service aspect is not brought up and this should be included in theory as it will be a generalizable barrier for companies that sell products requiring service.

Price is an important barrier that is similar to Offering and it is also not brought up in theory. They share the fact that TC have an offer and pricing structure fit for selling to resellers and this enabler is generalizable for companies in the same situation.

Marketing was the third most popular sub-enabler and was not represented as important in theory. This is a general enabler for all companies that aim to add e-commerce to their business and should be represented in theory.

Supporting functions was only brought up by two employees and was not selected for the combined framework. The barrier illuminates that TC do not have their own service organization and that their distribution set-up is not sufficient to sell washers directly to end-customers. Since TC has relied on resellers to fulfill these tasks and e-commerce removes resellers, the responsibility will shift to TC. These specific supporting functions will not be present as enablers in general. However, for companies that have not sold directly to end-customers it is generalizable to say that supporting functions specific to them will be enablers for e-commerce.

5.6 Strategic Implications

TC have already decided on: (i) Mission; and (ii) Objectives, of the desired outcome of e-commerce. This section aims to answer the next step: (iii) Situation Analysis (Kotler & Keller, 2016; Steiner, 1997). It is linked to the first element of strategy, Diagnosis Element, which entails identifying and describing a challenge or opportunity confronting a business (Fisher et al., 2020). The authors have used these definitions to guide and form the analysis of the strategic implications.

In order to answer **RQ3: *What implications do the barriers and enablers have on e-commerce strategy at TC?***, the authors have chosen to focus on the barriers and enablers presented in the combined framework. Strategy is a complicated area which entails a lot of consideration. Due to the time constraint of this thesis, it will not be possible to cover strategic implications for all barriers and enablers included in the thesis. This was also why the authors choose to develop the combined framework as it would guide and provide insights on which barriers and enablers that are most important to TC and thus in most need of attention from a strategic standpoint. Naturally other barriers and enablers not covered in the combined framework might, and probably will, prove to have strategic implications. However, the magnitude of these strategic implications is deemed at the time of the thesis to be smaller than the ones from the combined framework.

5.6.1 Strategic Implications of Barriers from the Combined Framework on E-commerce Strategy at TC

Stakeholders

Stakeholders and Intermediaries are areas of highest concern for TC due to the effect that e-commerce is expected to have on current relationships, mainly with intermediaries. Both employees cooperating with intermediaries and the intermediaries can feel threatened by e-commerce, regardless of how important the intermediaries are for current and future business. By moving away from cooperating, TC is put in a vulnerable position where they are dependent on the external parties, end-customers and service partners, and internal capabilities and knowledge. This embodies an important strategic decision to be made on whether: (i) TC should offer their washers directly to end-customers, by-passing resellers; or (ii) Retain current sales set-up with resellers, but offer spare parts and consumables directly to end-customers. Recognizing the objective of e-commerce, that is to achieve a greater control of the sales channel and challenge the current sales set-up (CEO, 2020) it would point to the route of offering washers directly to end-customers. There is a great opportunity for TC to become less dependent of intermediaries and more self-sustaining, but there has to be a clear roadmap for what decisions should be made and at what time the outcome of the decisions should be implemented. According to the data gathered and opinions expressed by employees, it is not the best strategic choice to offer washers to end-customers initially. This is due to the high barrier and risk of causing conflict with the main source of sales. Comparatively the risk of offering spare parts and consumables is low and is less of a threat to service partners and resellers. Keeping in mind that TC also do not recognize themselves to have sufficient capabilities or knowledge to take on this challenge just yet. The end-goal is to offer the complete product catalogue towards all stakeholders, but TC have to become better at the basics of e-commerce and fully understand this situation before this can become reality.

End-customers are related to the stakeholders, but in this context, it is more related to their specific knowledge, willingness and preferences of purchasing. If the end-customers are not interested in changing their purchasing behavior TC will find themselves in a difficult situation. This is not to say that TC are not able to influence and alter the behavior of end-customers, it depends on how well the offering and platform is tailored to their needs. As the knowledge of

both TC and their products is deemed to be low at end-customers, TC should focus on learning from and develop closer relationship with end-customers. By doing so it would allow TC to be better prepared and offer e-commerce suited for their end-customers. E-commerce is a learning process and the mindset at TC has to remain with this in consideration to recognize the opportunity of continuous improvement.

Offering

As offering relates to the total value of the washer to its user, it is closely related to end-customers and if they are prepared to make these types of purchases via e-commerce. The employees believe the current price is too high for e-commerce to be suitable. A strategic implication is that TC should aim to present the price and the offering in way that reduces the barrier of the price through e.g., different payment models. This is an area where TC has to perform more research and cooperate with end-customers to make sure the offering is what they expect and ensure at least the same level of service as when purchasing from resellers. If the offering can outperform the one from resellers, then there will be a much higher chance that end-customers will switch to e-commerce. In order for this to be the case service partners also have to be involved as TC will rely on them to perform the installation and service instead of resellers. A close collaboration with service partners and extension of the current service network will thus be highly beneficial for TC.

IT and Technology Competence

This area was argued by employees to be improved by external knowledge from suppliers or consultants which specializes in the technological aspect of e-commerce. The viewpoint of the employees is understandable, but at the same time they are the ones that are supposed to work with it in the day-to-day operations and their competences will thus affect e-commerce to a high degree. If the employees are not able to use it as intended, then the benefits of more efficient order handling and better utilization of customer service could be reduced. The integration of ERP, other IS and e-commerce is crucial for the benefits to be realized and would most definitely require assistance during implementation and training for the employees that will be working with it. There is an opportunity to improve the long-term IT and technological competence by expanding the current division with additional employees to be better prepared and avoid future knowledge gaps. This would increase the cost of e-commerce, but on the flipside, it would also ensure a higher chance of a quicker and smoother transition from current working ways to e-commerce.

5.6.2 Strategic Implications of Enablers from the Combined Framework on E-commerce Strategy at TC

Technological Solutions

The area of technological solutions is linked together with the barrier IT and Technology Competence, but in this context the technological solutions relate to what is sought after by the user of e-commerce and not the actual knowledge of how to implement and use it.

In the majority of cases the first impression of a website defines how the user experiences it. Moreover, if they feel like it is e.g.: (i) User-friendly; (ii) Providing the necessary and correct information; and (iii) Visually appealing. All of the above are factors that motivates a user to be more satisfied with their experience, thus increasing the chance of using it repeatedly. The website quality is thus important and if lacking it could lead to user avoiding it, regardless of if they appreciate the products that TC offers. However, if the quality of the website is considered to be of a high standard then it will prove very useful for engaging them to alter their current purchasing methods. To use this to TC's advantage entails close communication and understanding of the end-user and what they expect. This will include trial and error since end-users will have varying opinions and expectations. However, a set of common features should be decided upon, with regards to the homogeneity of the products and end-customers. To further build on this, personalization can be used to tailor certain features depending on the end-user. Furthermore, as TC have three different categories of buyers: (i) Resellers; (ii) End-customers; and (iii) Service partners, with divergent needs there is a strong case for personalization to be used. By doing so each customer within said category could have their own personal site with products tailored to their needs. For example, a school could have a log-in which will direct them to their own personal site with features and offers tailored to their needs. As time progresses it will be easier to become better at tailoring features, due the magnification of data that can be stored and used, but at the moment TC would have to set a lower bar in the beginning since e-commerce has not been launched or tried yet.

Price

Pricing is an area that TC have chosen to put a lot effort into to be better prepared for e-commerce. Since resellers have been in charge of selling to end-customers there exists different price lists at each reseller. This results in that end-customers in different regions and markets pay varying amounts for the same products and services. TC has acted similarly with a dynamic pricing strategy that differ for each stakeholder and it is not suitable for e-commerce. The employees understand that it is too complex and a unison pricing strategy that suits e-commerce will need to be developed. To choose a unison price is not a complex task in itself but it is a big leap to go from hidden and complex pricing to transparent and unison. By having unison pricing it would increase the price transparency towards end-customers and increase the visibility of where resellers overcharge. If the end-customer will be able to pay less for the same product by using e-commerce, then it is a big incentive for them to use it. The challenge here is once again the resellers as they would most certainly not like this approach from TC and could choose to devalue the relationship with TC. At the same time, the resellers will still make sales to end-customers that: (i) Do not feel comfortable with buying via e-commerce; or (ii) Buy larger projects including a greater amount of kitchen tools and thus want to consolidate their purchases from a single source.

Another interesting area is the payment models that are currently being developed at TC. Leasing and subscription-based usage are two examples of pricing strategies for washers that are argued by employees to be more suitable for e-commerce and end-customers. These lower the CAPEX for the end-customer, making it a less capital-intensive initial investment and instead increasing the OPEX over the lifetime of the product. It would be compelling to study

if this would be preferred by end-customers, but since they are yet to make the market it is not possible at this moment. These payment models could prove useful to overcome the price barrier as they change how the price is observed. Furthermore, TC are also planning to release additional washers that are priced at a cheaper level and better suited to the smaller commercial kitchen segment. This could open up a new way to reach the end-customer in which TC have no previous agreements with resellers.

Strategy

The strategic road map for e-commerce and its contents affects almost every area described in this section. There are different viewpoints among employees of how the strategy should take form. The main difference being the initial step of e-commerce and which stakeholder should be offered to purchase what products. This is viewed by the authors as the key diagnosis element because of its interconnection with all the surrounding areas previously discussed. This all ties back to the potential conflict with resellers, if opting to offer the entire product portfolio towards end-customers. The majority of employees argue that TC should start in small scale and not offer washers to end-customer from the get-go. This should instead come at a later stage. Furthermore, the choice of strategy will undoubtedly meet resistance and questions by employees regardless of its design. The employees' viewpoints differ due to silo mentality. All employees do not recognize the overall issues, but instead see the problems closely connected to their position and work. This form of understanding can lead to optimization of smaller areas, but suboptimizing the overall solution and performance. C-level executives focus is on the holistic and future perspective due to their responsibility for initiating and capitalizing on change that will push the company forward. It is their task to recognize and acknowledge the issues illuminated by the employees and align a strategy best fit with the objectives in mind.

TC are faced with a great task of deciding when they want to start doing so as it is viewed as necessity to achieve greater control of the sales channel. It is important for TC to develop a road map for the coming future as to not get lost in the process change and lose the holistic perspective. Assigning a change process owner and putting together a supporting team with clear roles and responsibilities would facilitate the change to achieve a greater result. Simultaneously, there has to be clear communication from C-level executives to employees about what is being done at each step and motivation to why it is done.

Customer Relationship

Having long-term relationships with customers is beneficial regardless of the industry as it ensures a more tenable business with a higher degree of customer engagement and in the end increased profitability. TC is poor at maintaining communication with the end-customer throughout the lifetime of the washers, e-commerce is identified as a possibility to improve it. Furthermore, the customer relationship is especially important for a company that aims to take more control of their sales towards the end-customer. TC should therefore focus on improving the relationships with their end-customers, not only to benefit e-commerce, but to benefit the entire business and to fulfill objectives. This has strategic implications as it would require an extensive amount of time and attention from TC. If TC are successful with lowering the time spent on order handling with e-commerce, there is a real opportunity to make use of the saved time and allocate it on customer relationship.

It is common knowledge that retaining current customers are considerably cheaper and offers a higher ROI on marketing spend. The counterpart, customer acquisition, gaining new customers involves attracting prospects and a higher amount of time spent persuading them to purchase products or services. If a higher customer retention is achieved, it implies that the customers are satisfied and thus they are more inclined to engage in positive WOM. WOM is a form of organic marketing requiring little to no spend while being an effective advertising method. This implies that TC should put a larger focus on relationships with current customers rather than attracting new ones.

5.7 Impact vs. Effort Evaluation

To illustrate the effort required to overcome barriers or sustain advantage from enablers and the impact they would have on TC the authors have created a matrix, seen in *Figure 12*. The matrix is based on the one presented by American Society for Quality (2010) in *Chapter 3.2*. It has four categories, each representing a unique combination of effort and impact with a range between low and high. The categories are as follows: (i) Quick Wins, high impact and low effort; (ii) Major Projects, high impact and effort; (iii) Fill-ins, low impact and effort; and (iv) Thankless Tasks, low impact and high effort. The barriers and enablers positioned in the matrix are the ones included in the combined framework since they have been deemed as most critical. The positioning has been made by the authors based on the findings and learnings acquired from studying TC. The placements identify what activities TC should focus on to get the most impact out of their resources and time spent. A quick prioritization of the areas can be achieved due to the categorization.

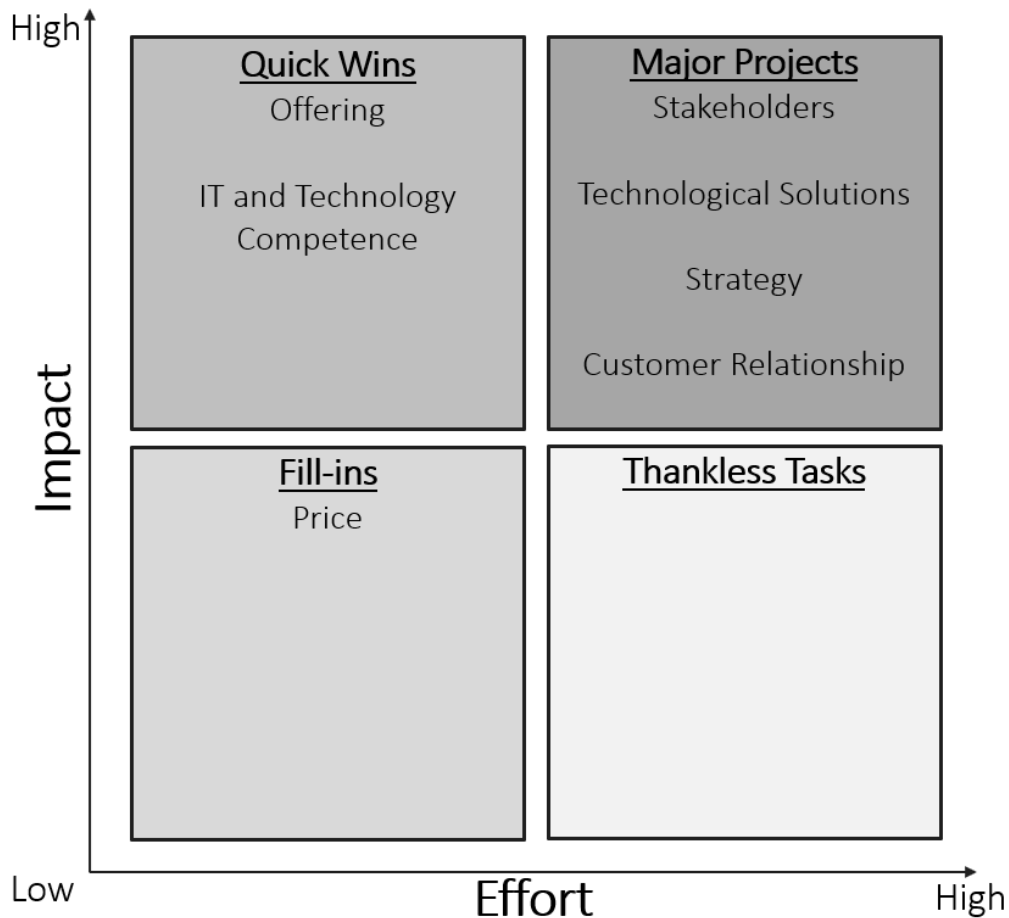


Figure 12: Barriers and enablers from the combined framework categorized into an impact vs. effort matrix.

In the first category, Quick Wins, the authors have placed: (i) Offering; and (ii) IT and Technology Competence. These two have been recognized as something that TC have either begun to research and develop or have a great possibility of managing with an effort considered as low. IT and Technology Competence can be acquired by external help or by hiring competent personnel. Deciding on how to form the e-commerce offer is a choice this thesis has helped exploring. It is certainly a decision with great effects for TC, but the choice is fairly limited and there are initial offerings that do not disturb the current business. These areas are expected to have a high impact, due to their importance for e-commerce at TC.

In the second category, Major Projects, the authors have placed: (i) Technological solutions; (ii) Stakeholders; (iii) Strategy; and (iv) Customer Relationship. These four are expected to have a high impact, while they will require TC to put a high amount of effort into to make sure they are performed in the best possible way. The Technological Solutions need to be developed and will require a large amount of effort to achieve the desired result of integration, quality and user-friendliness. The Stakeholders barrier is an uncertain area depending on the actions of all TC's resellers, service partners and end-customers. There is a vast number of stakeholders to understand on both a national and global level which shows the effort it will need. Strategy is an overarching plan that needs effort which is shown by the fact that this thesis is one element

of strategy and the other two needs completing. To improve customer relationships is a long-term project and TC have performed inadequate previously. It needs effort during a long period of time to improve this area. These are efforts closely connected to the performance of e-commerce and even though they will require a lot of effort the impact will also be great.

In the third category, Fill-ins, the authors have placed Price. Price is as mentioned, already in the works and thus most of the effort have already been made. Furthermore, standard prices for each product exist and could be displayed on the e-commerce website currently. The impact could be viewed between high and low depending on how the area is perceived. The price is necessary and if a unison price is not displayed this would have detrimental effects but the impact of optimizing the price even further compared to displaying their current position cannot be seen as large. Furthermore, price transparency might not be enough to convey a high impact. Payment models might have a higher impact and be more of a selling point to attract users for e-commerce and new products. The overall view of Price is therefore a Fill-in.

The fourth category, Thankless Tasks, includes none of the barriers or enablers from the combined framework. This is reasonable as the barriers and enablers presented in the combined framework have been chosen as the most important ones out of the 30 that has been presented throughout the thesis.

The categorizations of the barriers and enablers provide a guideline for TC of what to expect from them with regards to effort and impact. It is easy to prioritize Quick Wins as the most efficient use of resources and then focus on the Major Projects and Fill-ins. What has to be taken into consideration is that the barriers and enablers cannot be focused on in any order, e.g., Strategy is an area that needs to be considered early as it provides a guideline of their decision-making. The chronology that is reasonable still needs to be taken into consideration.

6 Conclusion

In this chapter the conclusions to the three RQs in this thesis are presented and summarized. Additionally, the limitations to the thesis are also presented and explained.

6.1 Summary of Findings

This thesis has included an extensive literature review, structured interviews and survey data gathered at TC, in combination with expert guidance from Näslund at Lund University and CEO and CMO at TC. This has contributed to a conclusion to this study.

To answer **RQ1**: *What are the barriers and enablers for successful B2B e-commerce in SMEs?*, the authors created a theoretical framework consisting of eight barriers and nine enablers. The framework is split into two tables and are as shown in *Table 15* and *Table 16*.

Table 15: The eight barriers for B2B e-commerce in SMEs identified during the literature review.

Barriers	Sub-barriers
Business model fit	Business model not compatible Local trading behavior Global competitiveness Not suited to customers purchasing behavior Not suited to products
Financing	Financing Cost to implement
Intermediaries	Dependence on intermediaries Unnecessary intermediaries
IT and technology competence	Lack of IT skills Lack of IS/IT infrastructures
Environmental factors	Economic environment Institutional environment Sociocultural environment
Service quality	Customer service Website service
Strategy development	Lack of strategy Lack of e-commerce knowledge Lack of balanced business development
Trust and Security	Data security Trust

Table 16: The nine enablers for B2B e-commerce in SMEs identified during the literature review.

Enablers	Sub-enablers
Brand Strength	Brand strength
Competitive environment	Pressure from competitors Pressure from customers and suppliers
Corporate culture	Corporate culture Employee attitude Firm structure Employee involvement Employees assigned ownership of tasks
Understanding the customer	Customer centric focus Understanding the buyers and their customer journey
Customer relationships	Customer relationships
Knowledge development	Training Hire knowledge
Management leadership and support	Top management support Perceived benefits by management
Personalized customer experience	Personalized customer experience
Website quality	Website quality Website appeal Information quality

The theoretical framework was then utilized to allow employees at TC rank their size and evaluate the corresponding capabilities. Furthermore, the employees were asked to name their three most important barriers and enablers for e-commerce at TC. The rankings and open answers from the interviews were then analyzed and coded, resulting in a combined framework of barriers and enablers specific to e-commerce at TC to answer **RQ2: What are the key barriers and enablers for successful e-commerce at TC?**, presented in Table 13 and Figure 11. The framework consists of three barriers and four enablers. Based on this framework the authors evaluated the strategic implications of the barriers and enablers to answer **RQ3: What implications do the barriers and enablers have on e-commerce strategy at TC?**.

The most important barriers and enablers, with no ranking of importance between them, for e-commerce at TC and their key strategic implications can be seen in *Table 17*. How to best address the strategic implications have been provided by the authors in the cases where it is possible to provide guidelines based on findings and learnings during the writing of this thesis. In other areas, more research is needed to evaluate and contribute more specific guidance.

Table 17: The most important barriers and enablers for e-commerce at TC and their key strategic implications.

Barriers	Sub-barriers	Key Strategic Implications
Stakeholders	Intermediaries End-customers	Relationship with resellers and end-customers will change, outcome depending on choice of strategy. Develop a deeper understanding of e-commerce and stakeholders to contribute to a road-map for upcoming future.
Offering		Explore what end-customers expect from e-commerce, and if the offering can be better tailored to avoid the barrier of high CAPEX. Form deeper relationships with service partners.
IT and Technology Competence		Utilize external expertise to make integration of e-commerce and existing IT/IS. Grow internal knowledge and capabilities within this area.
Enablers	Sub-enablers	Key Strategic Implications
Technological solutions	Website Quality Personalized Customer Experience	Communication and collaboration with stakeholders to form the e-commerce platform. Extend the platform as time progresses.
Price		Continue developing a unison pricing strategy. Establish new payment models and test their viability for end-customers and new products.
Strategy		Closely evaluate strategic choices and when to execute them, majority of employees root for starting in small scale and focus on resellers and service partners. Assign a change process owner.
Customer relationship		Use time saved from more efficient order handling to focus on closer communication with end-customers.

6.2 Research Approach Reflection

The authors chose to adopt an abductive approach for this thesis do it being reasoned as the most fitting of the ones available. The reader might not experience the thesis as having an abductive approach and this is due to the structure of the report. The structure would imply that the authors developed a framework and then tested it, implying it being deductive, which is not the case. The authors did do a lot of iterative work, going back and forth between theory and practical findings to come to a conclusion for the RQs. By first establishing a theoretical

framework then allowing employees to review it and then provide their own opinions a basis was built for the analysis. The authors then went back and compared the literature to the open answers by employees to reveal gaps and specific areas not covered by either party. Thus, showcasing an aspect of the iterative work process in this thesis. It is hard to fully understand the iterative work without understanding the full process behind it. Furthermore, it would be even more difficult to understand the actual contents of thesis if the authors were to include every step and detail.

6.3 Limitations

The analysis has been done objectively on the data collected from literature, interviews and surveys. During the work, realizations and thoughts about the result have risen that would be of note to the thesis and the reader. These thoughts will be brought up here to aid the reader in interpreting the complete process that has been followed during the thesis.

6.3.1 Skewed Ratings

The employee ratings of the barriers and enablers are skewed towards high ratings of enabler size and lower ratings of barrier size. The average rating of barrier size was 3.7, while for enablers it was 5.4, where neutral is represented by four. The employees illustrate a picture of TC that shows that there are almost no issues and endless opportunities. Either the results are accurate and a correct representation of reality, or the employees have overrated the enablers and underrated the barriers. This could be an effect of the interviewees wanting to portray themselves as positively inclined and not wanting to be perceived as negative. It could also be a result of the corporate culture at TC have developed a corporate culture of working agile, not limiting themselves and seeing opportunities to be able to achieve their goals of growing. To be a part of the culture the employees might have adopted that view and therefore rated the barriers low and the enablers high.

The result of the ratings is that the only barrier the employees see as important is Intermediaries which they rated as five, fairly large, with a lower capability than necessary. All other barriers should according to them be overcome with current capability. IT and Technology Competence was included in the framework because of the small difference between barrier size and capability as well as many employees stressing the fact that external help is a must. If external help is a must then the current capability should reasonably not be very high. However, it exceeds neutral and TC should according to that rating be averagely good even though they have limited experience of it. Intermediaries is furthermore brought up by many employees as an important barrier in the open answers, but still the rating is not higher than fairly large. This shows the inconsistencies between ratings and how the employees describe the situation. Since the employees view the situation differently than they rate it, there might not be a collective skewness of the understanding of the situation, but of the ratings. Perhaps the interviewers influenced how they answered, or they wanted to portray a picture of positivity towards the authors and management. This remains unclear, but it should be considered by the reader.

This is important for TC to realize, as a company that cannot view situations objectively will not take informed decisions that consider all factors. If a subjectivity towards opportunities and positivity exists, TC will not see all risks connected to their decisions which can have detrimental effects.

6.3.2 Biases

During the thesis the authors have tried to remain objective and unaffected by biases that can influence the research. After evaluating the research process it is possible that the researchers have been influenced by the Holistic fallacy bias listed in methodology.

The authors have remained objective to the data provided in survey ratings and interviews. The coding of the qualitative data into sub-barriers, sub-enablers and then categorizations of barriers and enablers requires simplification of the data. The holistic fallacy occurs when researchers find the data to be explained by congruence and trends more than it is. Since the data has been simplified to be categorized there is a risk that it could have become overly simplified. The open answers provided with the tables have been coded and simplified less, granting the reader the possibility to evaluate the situation themselves.

7 Future Research and Additional Insights

In this chapter the future research possibilities that are suitable to continue with based on this thesis are listed. Furthermore, the additional insights from the employee interviews are presented.

7.1 Introduction to Future Research

There is a great opportunity for future research at TC, more specifically, to dive deeper into the strategic options that TC are faced with. This thesis provides the Diagnosis element of strategy and a start to the Deliver element according to the definition by Fisher et al. (2020) and therefore both the Decide Element and the Deliver Element is left to be fulfilled and are future possible theses to continue with.

When performing the interviews, there was a connected discussion with the interviewees about areas related to e-commerce e.g., business opportunities, pros, cons and general opinions. The authors have chosen to include the most important takeaways from these discussions to further explain and build on the answers to the research questions. This gives a complementary understanding of the areas related to the barriers and enablers. However, due to the scope of the thesis and the time constraint the authors did not have sufficient time to be able to analyze these areas. However, this research has been used to further bolster the suggestions and work the authors will present for TC.

7.2 Future Research

The next step in the research would be to complete Decide Element where the e-commerce strategy is designed based on the research provided in this thesis. Further research will need to be conducted to cover all necessary areas for a holistic perspective of the situation before the strategic decisions are made. When the Decide Element is finished the focus will be on implementation, the Deliver Element. This thesis has provided a start to this initiative by TC, but a majority of this initiative is still left for future research.

During the thesis certain areas have been found as more complex and in need of more research before conclusive decisions can be made. The Stakeholders barrier is one of these areas. The employees are very averse to the possible conflict e-commerce could create with their stakeholders, primarily their resellers. The employees base this on TC's dependence on the resellers for sales and the detrimental effect it would have on TC. E-commerce would pass the resellers by and it is possible they would act on the possible conflict as the resellers do not depend as much on TC as TC do on the resellers. This is however not certain as the resellers will not benefit by removing TC from their offering or reduce their marketing of TC. Further research needs to be conducted on this area to gain a deeper understanding of how the stakeholders will act and how TC should act in their own best interest. Furthermore,

generalizable research on the complex relationship between resellers and their suppliers would be of great interest. It is very interesting as the resellers are very close partners but also competitors to the suppliers and research on how to manage this relationship would be helpful.

The other areas that need research before the strategy is decided, is on how TC's stakeholders will want the e-commerce offering and the website to be designed. Research and work preferably in cooperation with the users should be done in these areas to ensure the end-result will be tailored to their preferences. These areas are not as complex as Stakeholders as it is in the interest of the users to help create an offering and website they desire. The work is however still in need of doing and not less important as a customer-centric offering and website are great assets.

7.3 Additional Insights

The opinions of the employees on the questions related to e-commerce but not completely connected to the aim of the thesis are provided. For future research on deciding a strategy for TC these answers should be analyzed and coded further as they contain valuable information. The answers that are summarized here either come from the questions in the conclusion part in the structured interview guide found in *Appendix 9.1* or from times when the interviewee gave insights that were not completely within the scope of the thesis.

7.3.1 Business Development

Some argue that TC should not start by offering the entire product portfolio towards stakeholders, instead they should start with easier products such as consumables, spare parts and service kits. This is an area where there are obvious opportunities for improvement, e.g., increased sales and more efficient order handling (CCO, 2021; Country Sales and Service Director, 2021; Country Sales Manager, 2021; CTO, 2021; Customer Service Manager, 2021; Product Manager, 2021; R&D Manager, 2021). TC could get feedback from the users to develop the concept and then open it up to more users. Furthermore, by achieving easy wins in the start it would prove why e-commerce is the way forward and strengthen the case for it (CCO, 2021).

E-commerce would free up resources from customer service that can be allocated elsewhere. They can focus on larger deals instead of performing smaller tasks like handling orders of spare parts. The same logic can be applied to technical support and the sales division, they can shift focus to areas of more strategic value to TC. It would lead to a cheaper and more efficient flow of orders (R&D Manager, 2021). The e-commerce has to be user-friendly and provide the user with relevant information to facilitate their purchasing (CTO, 2021; Customer Service Manager, 2021). Furthermore, there could be an opportunity to tailor the e-commerce with a feature that lets users type in the serial number of the washer which would direct them to e.g., spare parts for said washer model. This would facilitate the ordering and ensure that the right products are available to the customer (CTO, 2021).

Everything should be available on the platform to allow experimenting with the configuration of products and detect the product assortment in new ways (After Sales and Technical Support Director, 2021; R&D Manager, 2021). Furthermore, it will be easier to order and the 24/7 availability will lead to a higher level of service. If the channel is performing well it will lead to increased WOM which would strengthen the brand (Customer Service Manager, 2021; R&D Manager, 2021).

E-commerce would ease the purchasing process of products such as consumables and service kits for end-customers (After Sales and Technical Support Director, 2021; Product Manager, 2021). Furthermore, resellers often overcharge the end-customers when purchasing these products (SM, 2021). To improve the offer on the e-commerce website, additional products from other actors on the market could be included. It contributes to a larger marketplace hopefully driving more traffic (CCO, 2021).

By launching e-commerce there is a wish to challenge the current business model and transform it to perform better. TC is currently putting their fate in the hands of the resellers and many of them do not have TC's best interest in mind. TC wants to grow, and status quo is not sufficient. It is not desirable to go into conflict with well-performing partners with which a functioning partnership exists. These partners can benefit from e-commerce as TC can provide them with more leads and sales, making it easier to do business with TC. However, partners that show less willingness in partnering and selling TC's products are not deemed as likely important and avoiding conflict is not the primary objective. By deepening the relationships with well-performing partners and directly targeting the end-customer where partners are not performing TC hope to acquire greater control of the market and the future (CEO, 2021).

There are also new washers being developed that the resellers do not have a history of selling. Therefore, it would not create as large of a conflict between the TC and the resellers if these were to be sold directly to the end-customers (CCO, 2021; CTO, 2021; Purchasing Manager, 2021). It could be possible to test this in segments or markets where TC have no agreement with resellers. By doing so it allows TC to perform a trial and error without damaging relationships with current resellers (CTO, 2021). The new products are also argued to be better suitable for e-commerce as the price and payment options makes it not as big of an initial investment for end-customer (CTO, 2021; Customer Service Manager, 2021; Purchasing Manager, 2021). If TC wants to still involve the reseller when launching new washers then they could be incorporated and be provided a kick-back for managing the closing of the deal. TC would still need service partners when selling directly to the end-customer and the service network is considered essential for this to function (CEO, 2021).

Another idea is to focus on creating a partner portal where resellers, service partners and sales representatives are able to access the portal and put an order straight into the ERP-system which is translated to an order in production or retrieving of goods in stock. The entire product catalogue should be included in the portal (ISM, 2021).

It is possible to strengthen the bond with resellers and service partners initially by letting them put their orders in online which will automate order handling. The resellers and service partner might want an app since they often are out with the customers and then it could be a convenient sales tool (DMS, 2021).

7.3.2 Concerns

There is a risk of TC becoming impersonal and lose the feeling of premium from the customers. TC has built a lot of its success on personal service and connections throughout the industry. This aspect should not be neglected as stakeholders work together and hold each other's back which makes it harder to innovate and be disruptive (CCO, 2021).

If e-commerce is opened the possibility to get quotations would increase a lot. The concern is that this will put the power in the hands of the purchaser as they more easily can compare and negotiate down prices. The profit margins could be reduced because of this (Country Sales and Service Director, 2021).

E-commerce is a large project, and it requires a global approach. There is a need for e-commerce to be implemented, younger people are more interested and open to these types of solutions. At the same time, not all markets will have the same initial eagerness, but if it exists on one market it should exist on all to not hinder potential development (GKA Director, 2021).

There is a lot of uncertainty regarding e-commerce and a clear case for it would be helpful to resolve the uncertainty. A workshop would be a good way to ensure everybody is onboard (CCO, 2021). This should be combined with a vision of how the e-commerce should be in the future both on a short-term and long-term perspective (CCO, 2021; CTO, 2021).

7.3.3 Supporting Projects

TC is working towards connecting all machines to the IoT. With this in place it could open up new sales possibilities that would work well with e-commerce. The machine could for example suggest if it needs service or new consumables and propose an order for the customer. The critical aspect is focusing on the problem that it solves for the end-customer and make the offer attractive for them (CCO, 2021; CTO, 2021).

7.3.4 Customer Relationship

A large benefit with e-commerce is viewed to be the direct communication with both current and potential end-customers (CCO, 2021; Country Sales Manager, 2021; DMS, 2021; GKA Director, 2021). Currently the end-customer contact is lost after two or three years after purchasing the product and it is not reengaged until it is time to replace the old washer (Country Sales Manager, 2021; DMS, 2021). It is easier to offer e-commerce on the main market as the knowledge about TC is greater there and the marketing message would probably be better. In certain markets the dealers are the well-known brands while TC is unknown, partly because of the lack of contact (Country Sales Manager, 2021; DMS, 2021; GKA Director, 2021). At the same time, it could end up becoming a barrier for someone interested in buying a washer from TC as they may not want to buy it via e-commerce (Country Sales Manager, 2021).

Dealers are not as interested as TC in communicating with end-customer throughout the life cycle of the product proving it to be a complex situation. An alternative to going into conflict with dealers is to only offer washers exclusively to them. This way TC can put more effort into deepening the relationship with them and learn how to communicate with them in the best possible way. If end-customers approach TC with the intention to buy a washer then they could direct them to suitable dealers which would strengthen both parties (Country Sales Manager, 2021).

7.3.5 Pioneer

By being proactive and innovative TC can use e-commerce to promote their brand and be viewed as a pioneer for the digital wave in this industry (CCO, 2021; CEO, 2021; Customer Service Manager, 2021; Product Manager, 2021; SM, 2021). Others view e-commerce as a must for the future, especially if TC want to expand on the global scene (CCO, 2021; DMS, 2021). It can be a tool for differentiation and set TC apart from its competitors (CEO, 2021). The awareness of e-commerce is the first issue to solve as it is a prerequisite for it to work (DMS, 2021). E-commerce in B2C is so widespread and the trend is apparent for B2B as a whole as well (Customer Service Manager, 2021; SM, 2021). It needs to be great if people are to use it and therefore it will require a lot of time and effort. If TC decide to go forward with e-commerce it needs to be done correctly and there can be no negligence when problem arises (SM, 2021).

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9 Appendices

9.1 Interview Guide for Employees at TC

Introduction

1. Present ourselves and provide a shorter background to the purpose of the master thesis
 - a. A pre-study done to evaluate business possibilities with e-commerce at TC and identify barriers and enablers.
2. Introduction to the interview and presentation of the parts that will be covered. Explain the interview structure and length (approx. 45 – 60 minutes incl. a survey).
3. Explain that all data collection will be anonymous.

Role at TC

4. Could you tell us a little about your role at TC?

Barriers and Enablers for TC

5. Which do you think are the three most important barriers for e-commerce at TC?
 - a. What do you see as important to navigate these barriers?
6. Which do you think are the three most important enablers for e-commerce at TC?
 - a. What do you see as important to sustain and profit from these enablers?
7. What do you think is the biggest benefit with e-commerce at TC?
8. What do you think is the biggest disadvantage with e-commerce at TC?

Survey and ranking

9. Present the framework from literature study.
 - a. Explain the barriers and enablers clearly.
 - b. Choose alternatives based on the presented information and ask if there is something that is unclear which has to be further explained. If the person wants to add things there will be time for this later.
10. Explain how the ranking is done, performed in two steps:
 - a. In the first step the person ranks the size of barriers and enablers for e-commerce at TC according to them.
 - i. 1 – Very small
 - ii. 2 – Small
 - iii. 3 – Fairly small
 - iv. 4 – Neutral
 - v. 5 – Fairly large
 - vi. 6 – Large
 - vii. 7 – Very large
 - b. In the second step the person ranks TC's capabilities in the areas covered by barriers and enablers.
 - i. 1 – Very weak
 - ii. 2 – Weak

- iii. 3 – Fairly weak
- iv. 4 – Neutral
- v. 5 – Fairly strong
- vi. 6 – Strong
- vii. 7 – Very strong

Conclusion

11. Summarize the contents and the answers of the interview.
12. What is your attitude towards e-commerce at TC?
 - a. If positive/negative, why?
13. Which business opportunities do you identify with e-commerce?
14. Is it anything else concerning TC and e-commerce you would like to add?
15. Thank you for your participation, the master thesis will be available to read when it is finished and as mentioned you will be anonymous.

9.2 Raw Data of Survey Ratings

9.2.1 Individual answer, average and median ratings from survey for size of barriers

Name	Business Model Fit	Financing	Intermediaries	IT and Technology Competence	Environmental Factors	Service Quality	Strategy Development	Trust and Data Security
Person 1	5	5	6	7	6	2	7	1
Person 2	2	2	5	6	5	6	4	2
Person 3	3	1	5	3	1	5	2	2
Person 4	5	6	3	3	5	6	6	3
Person 5	5	1	6	1	1	3	3	1
Person 6	3	1	5	2	2	2	5	2
Person 7	5	1	6	6	3	2	2	2
Person 8	5	2	6	3	3	6	2	2
Person 9	3	2	6	3	4	1	2	3
Person 10	4	3	5	5	5	3	3	3
Person 11	2	2	5	3	3	2	2	2
Person 12	6	2	7	5	4	2	5	2
Person 13	5	1	2	3	1	7	6	2
Person 14	5	6	6	5	6	5	7	6
Average	4,14	2,50	5,21	3,93	3,50	3,71	4,00	2,36
Median	5,00	2,00	5,50	3,00	3,50	3,00	3,50	2,00

9.2.2 Individual answer, average and median ratings from survey for size of enablers

Name	Brand Strength	Competitive Environment	Corporate Culture	Understanding the Customer	Customer Relationship	Knowledge Development	Management Leadership and support	Personalized Customer Experience	Website Quality
Person 1	7	6	7	7	7	7	7	7	7
Person 2	6	3	5	2	6	7	7	7	7
Person 3	2	3	5	5	7	5	7	4	6
Person 4	4	5	4	5	6	6	5	6	5
Person 5	3	4	6	6	5	6	6	7	7
Person 6	6	6	7	5	6	5	6	5	5
Person 7	4	3	5	6	4	5	6	5	3
Person 8	7	6	5	6	6	5	7	6	6
Person 9	2	4	6	5	5	4	6	4	6
Person 10	6	5	7	6	7	6	7	6	7
Person 11	3	3	5	5	5	5	5	4	5
Person 12	3	2	6	4	3	5	6	5	5
Person 13	3	4	2	7	7	7	5	7	7
Person 14	7	4	5	7	7	7	6	6	7
Average	4,50	4,14	5,36	5,43	5,79	5,71	6,14	5,64	5,93
Median	4,00	4,00	5,00	5,50	6,00	5,50	6,00	6,00	6,00

9.2.3 Individual answer, average and median ratings from survey for capability within barriers

Name	Business Model Fit	Financing	Intermediaries	IT and Technology Competence	Environmental Factors	Service Quality	Strategy Development	Trust and Data Security
Person 1	4	5	5	1	4	7	3	6
Person 2	6	5	7	5	5	4	6	5
Person 3	2	7	2	4	3	2	5	5
Person 4	5	7	4	4	3	6	5	4
Person 5	3	5	7	5	6	2	5	7
Person 6	5	7	5	6	5	5	5	6
Person 7	6	5	5	2	2	4	7	6
Person 8	6	7	5	2	4	4	7	3
Person 9	6	6	5	6	4	6	5	5
Person 10	5	5	5	4	4	4	6	5
Person 11	6	6	4	4	4	5	6	5
Person 12	6	7	5	6	5	5	5	7
Person 13	4	3	5	4	6	4	7	3
Person 14	2	2	3	4	4	4	2	1
Average	4,71	5,50	4,79	4,07	4,21	4,43	5,29	4,86
Median	5,00	5,50	5,00	4,00	4,00	4,00	5,00	5,00

9.2.4 Individual answer, average and median ratings from survey for capability within enablers

Name	Brand Strength	Competitive Environment	Corporate Culture	Understanding the Customer	Customer Relationship	Knowledge Development	Management Leadership and support	Personalized Customer Experience	Website Quality
Person 1	7	6	7	6	4	7	7	6	4
Person 2	5	5	6	3	5	4	6	4	5
Person 3	1	2	6	6	3	5	7	2	4
Person 4	4	3	4	6	6	4	5	5	5
Person 5	6	4	6	5	4	6	6	6	6
Person 6	6	5	7	5	5	6	6	5	3
Person 7	4	2	6	6	3	4	7	4	6
Person 8	6	4	6	6	5	6	7	4	6
Person 9	4	5	5	6	5	6	6	5	3
Person 10	5	5	7	5	5	6	6	3	5
Person 11	5	5	6	6	6	5	6	5	5
Person 12	4	6	7	5	4	5	6	6	6
Person 13	2	2	4	4	6	3	6	4	5
Person 14	2	3	4	4	4	6	6	4	4
Average	4,36	4,07	5,79	5,21	4,64	5,21	6,21	4,50	4,79
Median	4,50	4,50	6,00	5,50	5,00	5,50	6,00	4,50	5,00