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Business Model Development for E-commerce Initiative

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<p>The objective of this thesis was to develop a preliminary e-commerce business model, which would provide mutual benefit for the case company and its channel partners. The need for e-commerce emerges from increased online buying, and from urgency to better serve digital native customers. However, the existing business model, which relies on distributors and channel partners generating majority of the revenue, is currently a challenge. This work strives to find an e-commerce solution where intermediaries are not disregarded, whereby the channel conflict between traditional and digital channels can be avoided.</p> <p>The thesis was conducted by using the action research method with pragmatic and iterative approach. Firstly, literature best practices regarding e-commerce and channel conflict mitigation was reviewed. It was followed by a current state analysis, where internal data were utilized, and relevant senior management interviewed. Thirdly, based on the analysis of the previous phases and on the case company's strategic intents, a development phase was carried out to combine existing and new business elements.</p> <p>An ecosystem-based model was developed to address the business challenge. The model is based on a webshop, which utilizes local channel partners in the end of customer journey. The channel partners use their existing stock and fulfill orders placed online, for those customers closest to them. A sales profit and additional commission from value-added services would be provided to the partners fulfilling the online orders, as if the webshop sold products and services on behalf of the partners. The channel conflict is thus avoided.</p>	
Keywords	Business development, business model, channel conflict, digitalization, e-commerce, strategy

Contents

List of Abbreviations

1	Introduction	1
1.1	Business Context	1
1.2	Business Challenge, Objective and Outcome	3
1.3	Scope of the Project	4
1.4	Structure of the Thesis	4
2	Project Plan	5
2.1	Project Process Chart and Timeline	6
2.2	Data Collection and Analysis Plan	8
3	Best Practices of B2B E-commerce in Literature	11
3.1	E-commerce Business Modelling	12
3.2	Types of E-commerce Models	14
3.3	Overcoming Commercial Risks in E-commerce	20
3.4	Conceptual Framework	26
4	Current State Analysis	28
4.1	Description of Current Business Model	28
4.2	Business Value Drivers	32
4.3	Conclusions of Current State Analysis	34
4.3.1	Summary of Key Value Drivers	34
4.3.2	Summary of Applicable Competences in the Current Business	35
5	E-commerce Business Model	37
5.1	Development Work	37
5.1.1	Customer Value Proposition	39
5.1.2	Profit Formula	39
5.1.3	Key Resources	41
5.1.4	Key Processes	42
5.1.5	Management of Relevant Risks	43
5.2	Business Model Proposition	44

6 Conclusions	47
6.1 Summary	47
6.2 Assessment of the Work	48
6.3 Immediate Next Steps and Recommendations	50
References	52

Appendices

Appendix 1. Interview of Head of Technical Customer Support

Appendix 2. Interview of Product Marketing Manager

Appendix 3. Interview of Vice President, Sales

Appendix 4. E-commerce Business Model Options Analysis

List of Abbreviations

ABB	Swiss-Swedish industrial corporation and the case company.
B2B	Business-to-business. Form of commercial transactions between businesses.
B2C	Business-to-consumer. Form of commercial transactions between a business and a consumer.
BU	Business unit. A segmented and independent business function as part of a company.
CSA	Current state analysis. Analysis of a company's current state of business and operations.
CVP	Customer value proposition. A company's message how it delivers business value to its customers.
LSU	Local Sales Unit. A locally established sales unit, responsible for its local business and operations management.
OEM	Original Equipment Manufacturer. A company which produces goods that may be used as a part in other companies' end-products.
PG	Product Group. A higher-level group of products consisting of various product categories.
R&D	Research and development. Activities a business conducts for innovating, improving and introducing its products and procedures.

1 Introduction

This thesis explores business model development for an e-commerce initiative. Electronic commerce, e-commerce in short, refers to online buying. It considers transactional activities conducted over the internet between two parties (Chaffey 2015). The most common activities include buying or selling products and services, as well as transactions of information. The transactional life cycle of e-commerce may involve various technologies and procedures. Ideally, electronic commerce results accelerated time to purchase, boosting incoming revenues, and cutting costs in its all forms (BCG 2017). The e-commerce in question concentrates on sales-related transactions covered electronically, and the surrounding activities before and after.

1.1 Business Context

The case company ABB Drives is part of a larger division, ABB Motion business, under ABB group. ABB Drives operates in 80 different countries and holds market leader position in variable speed drives. This work was conducted for the product group ABB Drive Products, within ABB Drives business. ABB Drive Products consist of volume type standardized products for the needs of different customers from industrial applications and utilities to infrastructure and transportation. In 2018, ABB Drives employed roughly 1,300 people in Helsinki, Finland.

A variable speed drive is an electrical device connected between the mains supply and an electric motor. It consists of hardware and software. Fundamentally, a drive optimizes the electric motor's speed and thus energy consumption by varying the supply power's frequency and voltage. The software provides different applications for improved productivity, process control, and safety, allowing the drive to intelligently control and monitor the motor. These drive products are sold directly by ABB, yet more considerably through third-party channel partners.

In December 2018, ABB announced its updated corporate strategy: a leader focused in digital industries. The world is digitalizing at a fast pace and new technologies are

surfacing constantly. This presents ABB with new opportunities to conduct business and provide superior customer experience. According to Caldwell (2018) digitalization has already affected all sectors and the focus has shifted from working efficiently to more towards working differently. Modern manufacturing's value creation is founded on ecosystems that are data-driven, cloud-enabled, and platform centered. Weill and Woerner (2018) suggest for larger companies to strive for ecosystems as a strategy, with a combination of models and buying options, allowing them to further thrive in the emerging era of digital ecosystems.

Due to emerging technologies and the new generation of buyers, customer behavior is changing. According to Forrester's (2015) research, 93% of business-to-business buyers prefer buying online if they have already made the purchase decision. Google (2015) highlights this with their research revealing that half of the B2B buyers are millennials. The millennials prefer digital means to handle processes, and insist on various choices regarding where, when, and how goods or services can be purchased.

Electronic commerce within B2B is growing rapidly and could potentially allow differentiation from the competition, providing wider geographic coverage, as well as optimizing operations and cost structures. However, due to ABB Drive Products' vast value-adding reseller network, referred to as channel partners, the decision making has been complicated. The partner channel network covers more than half of ABB Drive Products' total revenue, and thus the impact of pursuing e-commerce, a globally centralized electronic pricing and sales, could potentially cause channel conflict by bypassing intermediary partners and thus sending an unwanted message.

The value-adding partner network is a sales channel authorized by ABB, consisting of local resellers, which of most provide their customers with value-adding services alongside the products sold. These services typically include installation, maintenance, repair and engineering related offerings. The supported channel types include distributors, technical distributors, wholesalers, panel builders, and technical service providers. The strength behind this partner channel network is based on their customized services, diverse geographical coverage, quick response times, existing customer relationships, and on their profound knowledge of the local market.

1.2 Business Challenge, Objective and Outcome

In relation to ABB Drive Products' 2025 strategy, it has been studied whether ABB should be pursuing towards a B2B e-commerce business model, and what the options are. Considering how the value-adding partner network covers significant majority of ABB Drives' current revenue, the initiative towards e-commerce could pose a threat of losing channel partnerships. The e-commerce business model could bypass the reselling channel partners and reach end-customers directly. Furthermore, hasty and poorly planned strategy of such globally centralized sales and pricing system could affect the partners' business. This puts the valuable partners in an endangered position, which could jeopardize future partnerships between ABB and the channel partners, and in worst case scenario negatively affect ABB's future revenue stream.

ABB Drives has pursued towards the goal of being the most preferred supplier for different partners. Instead of considering e-commerce as a risk, this work was conducted with the objective of developing a business model for e-commerce to offer mutual value for all parties and minimize channel conflict. For instance, Porter (2001) stated that e-business should be considered as a compliment to traditional businesses. Ideally, shifting towards e-commerce could create improved foundation for future cooperation with different partners and enhance ABB's attractiveness as a supplier. Furthermore, the partners must realize that the future is digital, and B2B e-commerce may likely be one of its immediate applications. However, the implementation of such a business concept must be considered thoroughly due to the multitude of variables within it.

The objective and tangible outcome of this thesis is a proposition of preliminary e-commerce business model, a blue-print, which has the means to reduce potential channel conflict and present mutual benefit for all parties from the e-commerce initiative; to ABB, to its value-adding partner network, as well as to the end-customers. Furthermore, the proposition is to support the senior management in decision-making regarding different opportunities within e-commerce and advancement with the initiative or its possible future iterations.

1.3 Scope of the Project

The work examines electronic business models, digitalization, as well as sales channels and partnerships within the context of e-commerce. The aspect of e-commerce is considered from B2B view, with focus on solution of a larger scale entirety. More specifically, this entirety will cover research and discovery phase for the customer, sales transactions, and other service models provided online. The purpose of this work is to provide a rough framework of a business model for e-commerce initiative. A complete and explicit business model for the whole e-commerce initiation will not be provided, only a framework for catalyzing further advancement and development.

The work is conducted for ABB Drive Products. Thus, other product groups or business units are not considered. Moreover, only the cooperative view between ABB Drive Products and its value-adding resellers are examined. Thus, other viable partners and operators are not considered, nor explicitly the end-customer point of view. Due to complexity of e-commerce and business models, this work concentrates only on one sales channel, enabling the richest mutual value. Other channels and their aspect in the whole picture are not taken into account. Furthermore, due to the suggested solution's unrefined nature, planning, implementation, and operative examination of the proposed business model is excluded from this work. Finally, the suggested business model's explicit financial impact over the current business is not evaluated and the definitive decision regarding advancement with this suggestion is for ABB's senior management to make.

1.4 Structure of the Thesis

The thesis begins with an introduction to the case company and its business context, to business challenge, objectives, and to the scope of the project. Consequently, a project design is discussed in chapter two, with an illustration of a more thorough and proficient quality of the development work conducted. A project plan was presented in the form of a Gantt chart, accompanied with more detailed descriptions for each phase. Furthermore, a plan for data collection and analysis was featured with the project plan. In chapter three, the initiative is grounded on explicitly on e-commerce business models and business modelling itself. Furthermore, overcoming commercial risks in e-commerce are

studied. From the literature reviewed, a synthesis of best practices in e-commerce is presented in form of a conceptual framework.

Chapter four starts the data intensive portion of the thesis. A description of the current business model is pictured, followed with an analysis of value drivers for ABB Drive Products. A conclusion of key value drivers is provided, with a summary of existing business modules for further use. Chapter five presents a description of the solution's modelling and the actual proposition for the e-commerce initiative. Sixth and the last chapter completes this study with a summary of the thesis, as well as assessment of the work, and meeting the set objectives. The chapter ends with recommendations for immediate next steps for the proposed e-commerce business model.

2 Project Plan

This thesis work was conducted using action research methodologies. The objective of this approach is to solve an organizational business challenge, utilizing progressive problem-solving process, and collaborative work with relevant stakeholders. This approach was selected due to its empirical nature and suitability for business development in organizational environments. Specifically, this approach enables high visibility, involvement of imperative stakeholders, considerable combination of theoretical and practical methods, and enables the possibility for initiator to influence the organization (McNiff and Whitehead, 2001). Moreover, this approach supports development of concrete and applicable solutions for the business challenge on hand.

According to McNiff (2013) action research has two dimensions; action in correspondence what you do, and research in reference how one collects information about what is to be done. Furthermore, McNiff describes it as an overall process with a systematic take on research and development: formulating a question based on identification, communicating the importance, gathering data and monitoring practice, taking action, generating evidence by further gathering of data, making preliminary claim and validating it, as well as finally deciding about future actions.

The action research project was conducted from an inductive perspective, where the qualitative analysis is conducted from theory to hypothesis, to observation and reflection, to confirmation of the results. To simplify these methodologies, the approach was divided into four distinct phases (Figure 1) induced from Coghlan and Brannick's (2014) description of cyclical phases in action research:

- Constructing a plan based on objectives
- Observing, collecting and analyzing data
- Taking action
- Reflecting and evaluating the action.

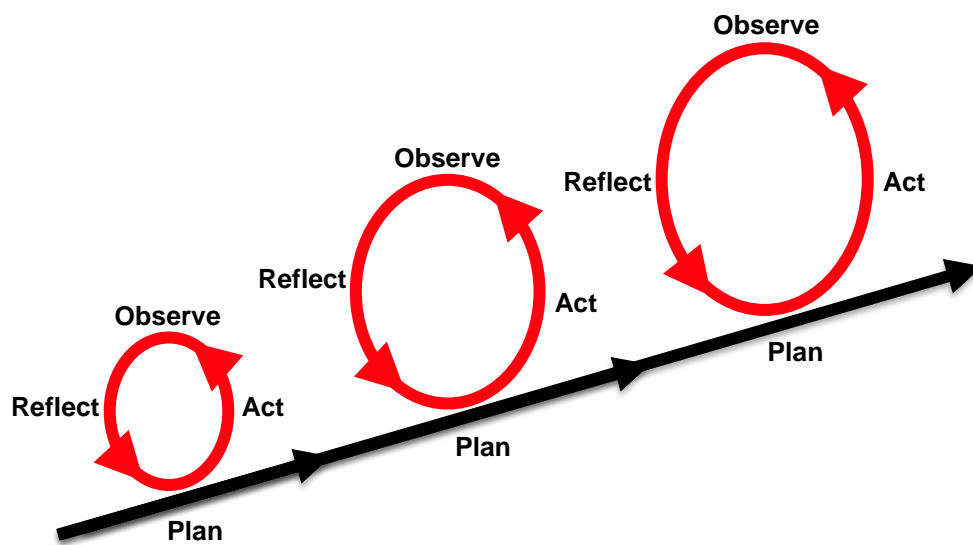


Figure 1. Cyclical development within the progressive nature of action research.

The following sub-chapters illustrate more precise narration of the actual thesis project's plan and its consecutive phases. Additionally, plans for data collection and analysis are described more in detail. With deconstruction of each phase, a depiction of the cyclical processes for each phase are described.

2.1 Project Process Chart and Timeline

The thesis project starts with determining and describing the business challenge, as well as setting clear and purposeful objectives. In order to achieve this, a rotation of background research, as well as multilateral and active communication is to be conducted

between initiator and ABB senior management. When coming to an agreement regarding the business context and challenge, an objective is to be set to develop a preliminary proposition for e-commerce business model.

The subsequent phase to determining objectives is to construct a documented project plan. Creating the project plan is a collaborative action, by initiating the underlying research of the business context and challenge at hand, as well as communication between initiator and the company stakeholders. The project plan with a set timeline is illustrated as a flowchart below (Figure 2).

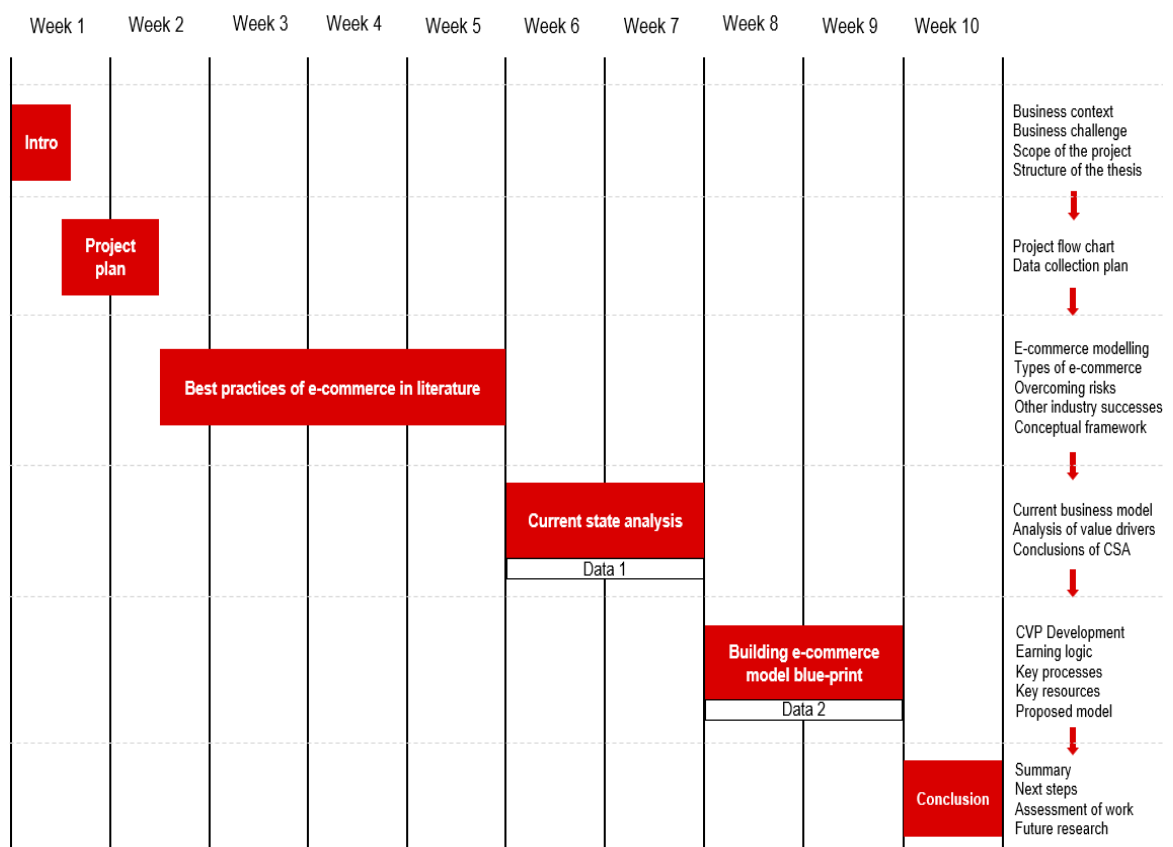


Figure 2. Project plan chart with timeline.

The next phase is to commence research for theory framework. During the project planning, an intricate set of theory-related research questions should be answered: framework for e-commerce modelling process, different types of existing B2B e-commerce business models, overcoming commercial risks in e-commerce, with a conclusion of the conceptual framework as a summary of core findings for further use during the development work.

Following phase is to take action. A description of ABB's current business model is to be crafted with the help of ABB's stakeholders and internal documentation available. This includes describing the structure of operations, sales, marketing, service, and the core competencies within these. This will follow with collection phase of Data 1. Clear illustration of current state provides considerable continuum to further analysis of the business model and its value drivers. By analyzing and discovering the key drivers behind each of the value chains, a collection of key focus points is enabled to be capitalized on. A conclusion on business value drivers for ABB is to be concluded. Furthermore, existing best practices and business modules are to be identified and applied in possible future business concept.

With an excellent foundation on theoretical framework and empirical data of current state and its key value drivers, the second to last phase is to develop preliminary e-commerce business model. This is Data 2 collection phase. Together with the stakeholders, the findings and aspirations are to be considered and iterated. After the iteration is conducted, the business modelling will be divided into four elements: customer value proposition, profit formula, key processes, and key resources. These phases are to be summarized into a final proposition of the e-commerce business model's blue-print.

Finally, the project will be concluded with finalization: communicating the initial proposition to relevant stakeholders, collecting constructive feedback, making final adjustments to the proposition accordingly, and giving recommendations for immediate next steps, future research, as well as reflecting on the action taken and assessing overall quality of the work.

2.2 Data Collection and Analysis Plan

The purpose of this data collection plan is to provide relevant information and tools for further use during the project, without wasting resources on collection of nonrelevant data. Additionally, it systematically yet briefly describes the phases and focused sequences following each gathering of information. Furthermore, it ensures that data is channeled to right stakeholders and processes. According to Scott (2007) the purpose of data collection plan (Table 1) is to make sure that the information collected is valid and purposeful. All the data is to be collected concurrently. He continues, that people in

the company familiar with the situation often play key roles in data collection. Sharma (2015) adds, that the data collection plan is critical to establish and should cover following questions based on Six Sigma project management: is the project continuous or standalone, describe the problem and operational purpose, recognize specifications and exact measures, risks and opportunities, establish the data collection plan and a template where the data will be gathered.

	Content	Source	Planned outcome
Data 1: Current State Analysis	Description of current business model Value drivers for ABB and the channels Stakeholder aspirations Strengths and weaknesses	Internal documentation: Data Management System, interviews of: <ol style="list-style-type: none"> 1. Global Business Development Manager (weekly 13.3.-30.4.2019) 2. VP of Sales (5.4.2019) 3. Head of Customer Support (26.3.2019) 4. Marketing Manager (2.4.2019) 	Understanding of current business: <ul style="list-style-type: none"> – Strengths and weaknesses of current business – Core competences, business modules – Key value drivers
Data 2: Building e-commerce model	How to adapt best practices from literature and conceptualized framework How to address weaknesses, utilize strengths and core values uncovered in current state analysis	Cross-functional iteration & interviews with stakeholders Integration of current state findings and conceptualized best practices	Development of: <ul style="list-style-type: none"> – Key development aspects & processes – Initial proposition for e-commerce model for ABB Drive Products

Table 1. Data collection plan.

The development work is based on qualitative data collection and analysis. The information collection is founded on simplified data collection plan with two initial phases, and two supporting phases: theory research on e-commerce and digital business models, current state analysis of ABB Drive Products with its partner network (Data 1), business model development (Data 2), and on feedback from the initial business model proposition. Out of the four phases, current state analysis (Data 1) and business model development (Data 2) hold the collection of new and quantified data utilized for the final proposition.

Due to the qualitative nature of the information, both the collection and analysis of data are conducted with qualitative means. The collection emphasizes interviews of ABB representatives within sales, marketing, and service. Phillips and Stawarski (2008) depict interview as undermined collection method, as it can unveil information otherwise challenging to obtain. Furthermore, participants are more likely to volunteer fundamental information to a prepared interviewer, enriching the information obtained. To capitalize on this enriched information, the interviews in question are semi-structured and open-ended, with clear instructions given beforehand why the interview is held and the context of it.

Steps in analysis planning	Content
Purpose	Process, value, best practices, risks, and opportunities information
Data available	Professional knowledge, written practices, and documentation
Amount of data needed	Core data to understand current state, liabilities, and possibilities
Measuring of data	Inductive content analysis from interview answers and documentation on hand
Collector of data	Thesis worker
Source of data	Internal documentation, ABB management, partner data
Sampling method	Qualitative measurement of entire population of data collected
Display of data	Visualization into charts, processes, and business models

Table 2. Data analysis plan.

Panter (2011) describes the purpose of data analysis plan (Table 2) as a convincement of how data will be utilized in a project, as well as how it is encapsulated and communicated. The data analysis plan must follow objectives of the project and be comprehensive yet logical. The project work's basis is on action research, a descriptive design with qualitative approach. Thus, the analysis of data is founded on inductive reasoning, where accumulated knowledge and observations are utilized to produce new models (Hayes

and Heit 2017). The inductive reasoning includes descriptive and comparing analyses. The descriptive analysis is depicted by Simpson (2015) as a description of the data collected, including range of values and findings, averages and more common categories. This information helps the conductor of data analysis to gain deeper knowledge of the sample being studied. Furthermore, familiar to action research, each phase of analysis will follow with an observation and reflection on the data collected. Realization of these methodologies will drive the next steps taken in this work.

3 Best Practices of B2B E-commerce in Literature

This chapter provides a literature's view on developing e-business, to different business models available, to overcoming risks within the e-business. These findings will be formed into a conceptual framework, to be utilized later in the development work.

Meier et al. (2009) depict information development in today's economy more impactful than the production. Thus, several organizations have taken the leap onto the web, to improve customer relationships with electronically enforced information and communication processes. This is electronic business in its core, also referred as digital business. It is commencing, organizing, and executing business processes with electronic means.

A major sub-set of e-business is electronic commerce. Chaffey (2015) describes e-commerce covering all types of transactions conducted electronically between stakeholders but is most often used to describe commercial transactions conducted online, with electronic means, between a buying and selling side. Awad (2007) adds that e-commerce involves the aspects of digital supply chain and advertising. Moreover, Kalakota and Whinston (1997) divided e-commerce into four comprehensive perspectives:

- Communications perspective. Transferring information, products, services and payments electronically.
- Business process perspective. Automating process workflow and transactions by applying and utilizing digital technologies.
- Service perspective. Cost reductions with service and quality improvements.
- Online perspective. Selling as well as buying products and information online.

Each of these perspectives are applicable to the case company and its partners, but further work places emphasis on communications and online perspectives.

3.1 E-commerce Business Modelling

According to Andreini and Bettinelli (2017), and Chaffey (2015), there is consensus on following aspects of a business model: it is a concept used to portray organization's means to dynamic business. It is seen as an essential tool for creating, capturing, as well as delivering value. Business model describes the company's revenue generation. Furthermore, Wirtz et al. (2016) add that in strategic management as well as in discovering competitive advantage, a business model should be studied from a dynamic perspective, where awareness should be especially shown toward possible needs within business development itself. This is a condition for every enterprise in the digital era.

In e-commerce business model development, Turban et al. (2010) would argue using the classic business model elements of Johnson et al. (2008). They described properties of business model to include following four elements:

- Customer value proposition. Defines target customer and how the target customer's problem is solved, and needs fulfilled.
- Key processes. What are the managerial and operational means in order to deliver value. For instance, make, deliver, and market goods.
- Key resources. a list of key resources should also be identified, and from which of these resources can be found or developed inhouse and which of these must be acquired outside.
- Profit formula. Defines how the company creates value to customers and itself.

According to Meier et al. (2009), in the context of electronic commerce and at its preliminary level of business model development, a company should first answer two questions: choosing the most suitable platform for conducting business, and who are the most suitable partners to offer supplementary services. Chaffey (2015) notes that along identifying potential partners and tactics for working with them, first organization should ground the business model development on the existing corporate strategy. Chaffey

continues, after following the symbiosis with corporate strategy, there are three perspectives (Figure 3) to consider when forming a business model for e-commerce:

1. Marketplace position perspective. Determines how the company is positioned in the market as an operator and provider for determined customers. The company has either a direct approach or intermediary position within the value chain.
2. Revenue model perspective. Describes the tactics used to generate income, whether it is direct sales, or generating revenue with a subscription-based model, providing unconventional services, or even by selling advertising space.
3. Commercial arrangement perspective. This determines how the negotiations, transactional activities, and pricing are established.

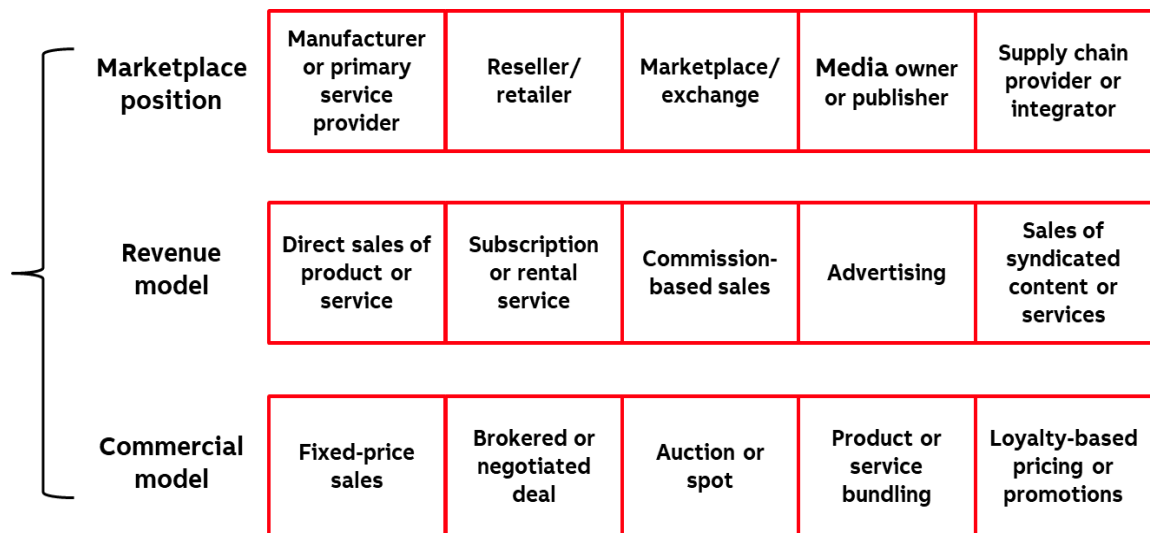


Figure 3. Alternative perspectives to choose from in forming of an e-business model (Chaffey 2015).

Lastly, in order to capture emerging business model opportunities, value creation, customer experience, and industry boundaries must be thought differently (Accenture 2017). Development of business models should involve strong consideration of the competition, as success depends heavily on how a business model interacts with other competing models. Furthermore, Bouwman et al. (2017) commend with their hypothesis that besides strategy and innovation activities, technology turbulence and thus external factors should be considered. Moreover, Casadesus-Masanell and Ricart (2011) warn that business models built with inside view only tend to end up doomed decisions.

3.2 Types of E-commerce Models

This chapter describes modern literature's most common business models and value chains, which are generally applicable to the context of e-commerce. Some of these models work also as a platform for others to practice business. Structure and operative model of these platforms could affect customer experience as well as cause or prevent additional conflict with other sales channels. Thus, the platform structures are examined briefly. Example figures are based on Tapscott's (2000) business webs, pictured into figures by Meier et al. (2009).

Marketplace

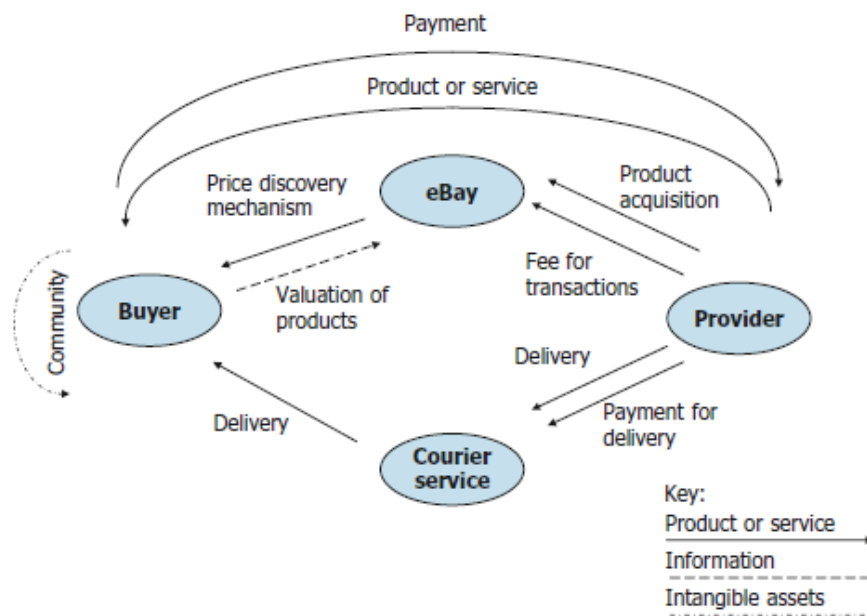


Figure 4. eBay's value chains in the marketplace model.

The marketplace model (Figure 4) is a digital platform for buyers and sellers to meet and practice trading of goods for individually determined prices. While the marketplace is an intermediary company's business model, it also works as for other customers to conduct transactions through that platform. Notable is that the pricing is dynamic, meaning that the prices are not fixed, but explicitly negotiated. Advantages of a marketplace is that it potentially covers large user base, which benefits providers. However, the marketplace does not contribute to promotion nor to distribution. These are to be conducted by users

of the marketplace individually, besides the manual transaction activities. Furthermore, the storing falls for the providers as well (Awad 2007; Meier et al. 2009).

Supermarket

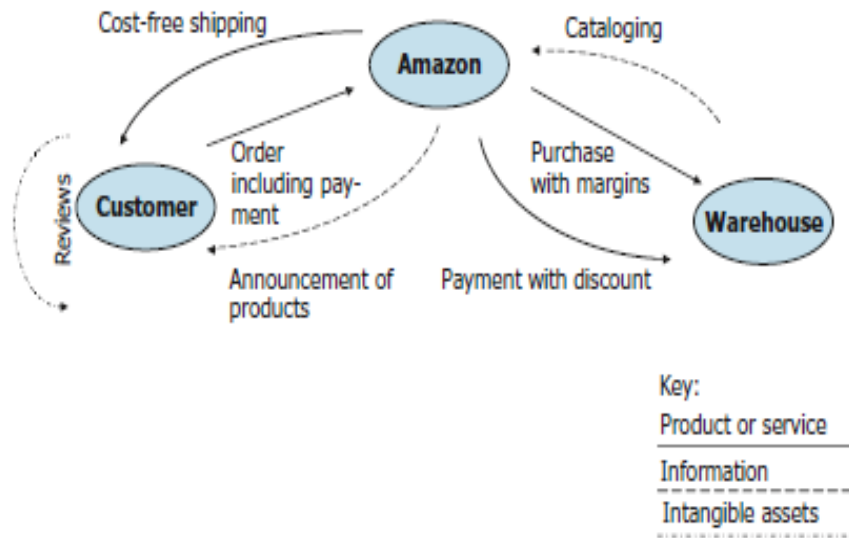


Figure 5. Flow of goods and information within Amazon's value chains.

The supermarket model (Figure 5) is an online supermarket, acting as an intermediary between buyers and providers. It works as a business model, yet as a market platform for other businesses as well. It reserves rights to choose the befitting products to be sold and services from suppliers. Moreover, it determines the operating market segments, prices, and commonly executes fulfillment of the order. The supermarket has high negotiation power over the initial purchase price and then itself determines the reselling price for end-customers, without any significant value added. It orchestrates the storing, selling, and distribution of products and services. Some of the supermarket's benefits are well structured catalogs, with standardized portfolios, product samples, and the ability to give recommendations. Additionally, the logistic costs are low due to economies of scale (Meier et al. 2009).

Integrator

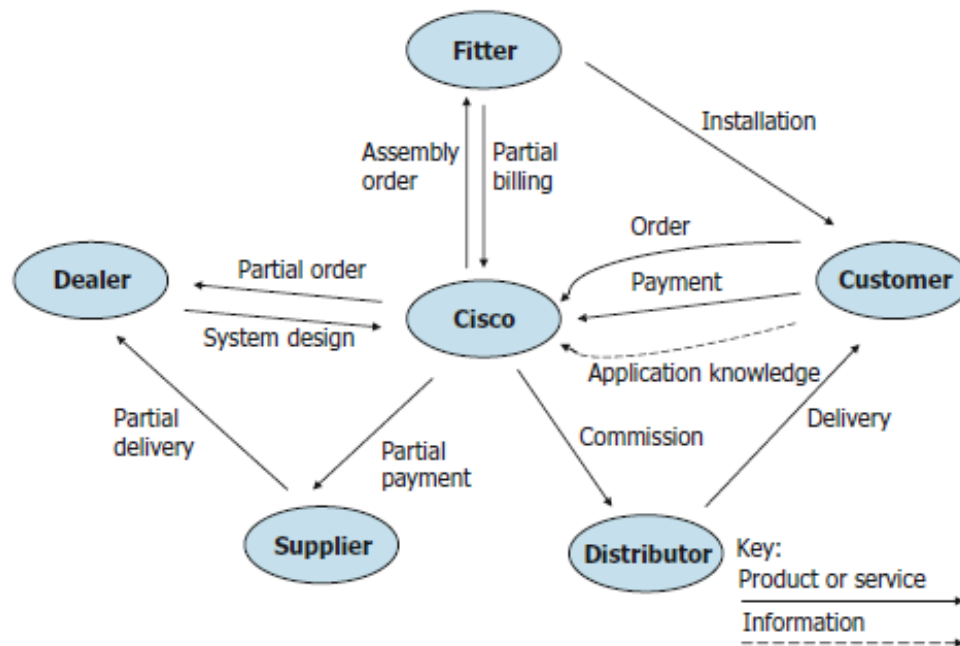


Figure 6. Integration of value chains within Cisco's business model.

Meier et al. (2009) depicts that from demand initiated by the customer, the integrator (Figure 6) combines other providers' specifications, production, deliveries, as well as supporting products and services. In specific, these could include external developers, dealers, suppliers, solution integrators, operators, and other providers. This forms a value-creating chain network between the integrator and providing links. Thus, the integrator does not produce anything itself, but combines different value sources into larger context. The integrator model is a demand-oriented value chain and the integrator acts as its general manager. The operative context can be both, mass production as well as customization. However, in Cisco's instance it operates as customized shop production with smaller volumes.

Alliance

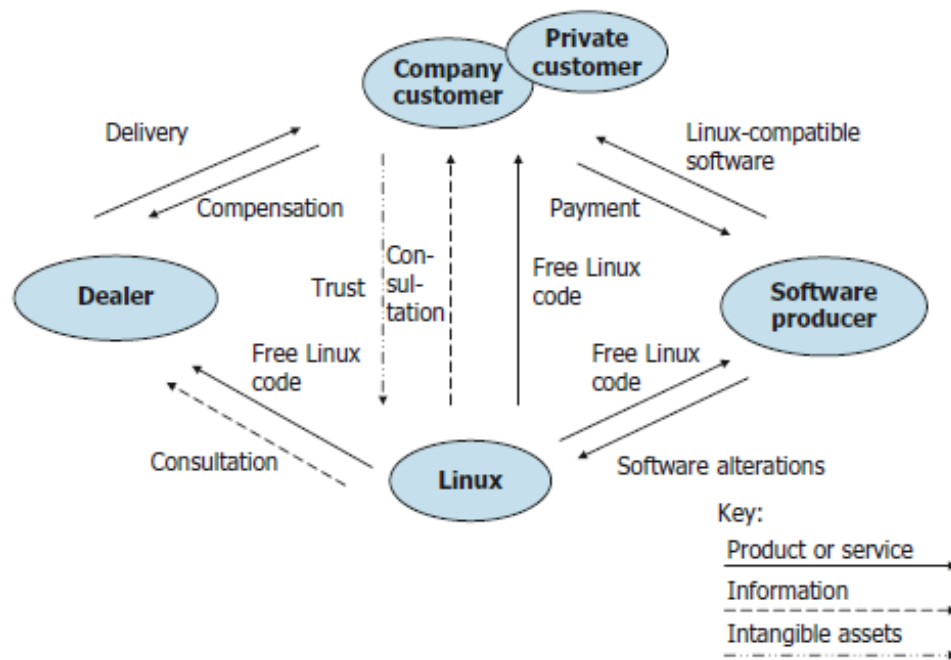


Figure 7. Linux's alliance model and value chains.

The alliance model (Figure 7) is a digital business model in which value and innovative solutions are formed with equal partners in collaboration. In the alliance model value links are combined loosely between different partner networks. This network of communities may strive for a common goal or by least for maximized mutual benefits. The individual partners provide their specific competence and knowledge for the common use and participate in development of the solution. Each partner compensates its own lack of overall competency and knowledge by participating in appropriate network of partners. In the alliance, each participant can work as both, as a consumer and as a provider. At the same time, they may be looking for a solution as well as participating in solution development. Mutual respect, voluntary, and behavioral freedom base the roots for the alliance. It is highly transfer-oriented, yet one of the most solution-driven business models (Meier et al. 2009).

Distributor

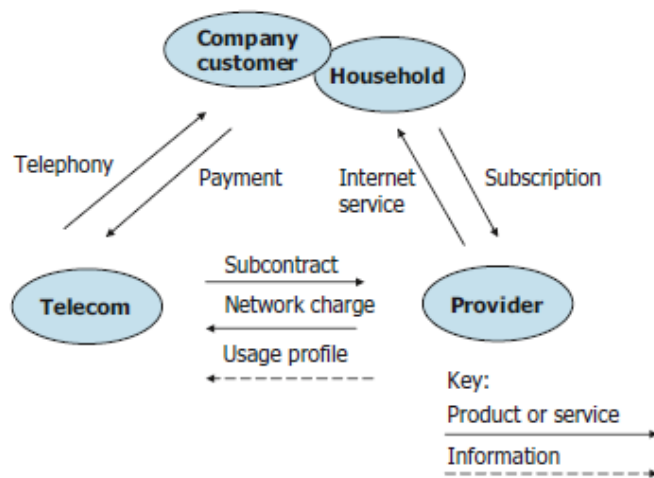


Figure 8. Telecom as a distributor in a value chain.

The distributor (Figure 8) provides transfers of products, services, and information from provider to the user. It utilizes a distribution network, where it fulfills the function of transferring. Besides the basic concept of a distributor, it can also operate as an infomediary, where it gathers, manages, and transfers information from the customers. Infomediaries operate between buyers and sellers. Furthermore, distributors may also provide services such as data protection, management of authorization services, maintenance of data, and other information related services. Thus, they are a specialized operator with highly optimized distribution processes (Awad 2007; Meier et al. 2009).

In digital business, the most successful value chains compete within both, cost strategies and differentiation strategies. The objective is to seek customer centered solutions and provide customized and service-heavy processes, instead of just mass-producing (Meier et al. 2009).

E-commerce Platforms

E-commerce business models are built on different platforms. As mentioned with the marketplace and supermarket models, while those work as individual business model for an organization (e.g. for Amazon, Alibaba, eBay) they also provide an e-commerce platform for other companies, for companies without own infrastructure and resources

(Figure 9) to conduct the electronic commerce. Platform related terminology vary, by provider to provider, but the case company considers following aspects within platforms:

- Product brand. Brand or label of the product that is being delivered.
- Shop-in-store brand. The provider who is shown to be the responsible of the order. It can be Amazon, ABB, a partner, or any other third-party entity.
- Platform brand. Brand of the e-commerce store that is visible to the end-customer. It can be the platform such as Amazon, the platform-using seller (e.g. ABB), or something completely different.
- Technical platform. The information technology architecture where the e-commerce activities are technically executed. For example, Amazon Web Services, Microsoft Azure or a company's own built servers.
- Fulfiller of the order. Conducts picking, packing and shipping to the customer. It can be the platform provider, customer using the platform, customer's partner, or courier.

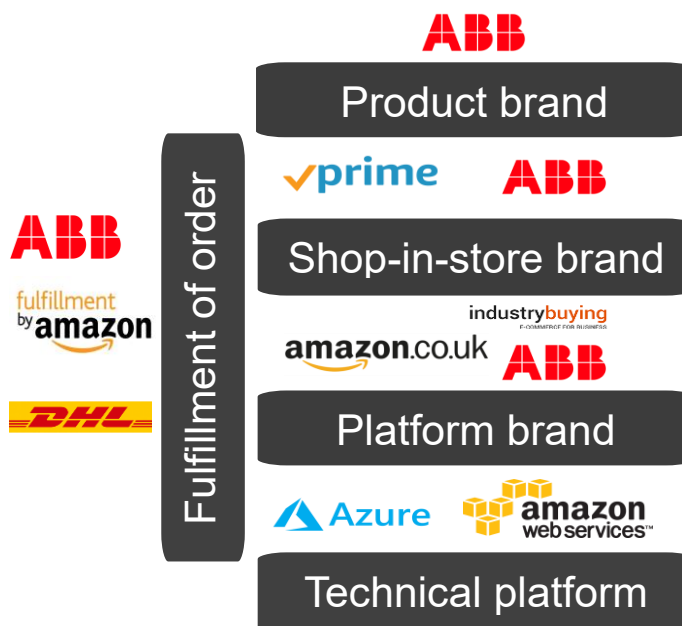


Figure 9. E-commerce platform and branding options (ABB internal documentation).

Further work will emphasize studying platform brands and fulfillment options for the e-commerce initiative. These affect the perceived value and quality of products and services. Furthermore, with right fulfillment choices channel conflict could be reduced

(Turban et al. 2010). The remaining aspects should be considered at the implementation and operational planning phases.

3.3 Overcoming Commercial Risks in E-commerce

Porter (2001) states that while there are risks within e-business and in the age of internet, e-business should ultimately complement traditional businesses, instead of cannibalizing them. Foremost, when considering risks within e-commerce, common risk management strategies are applicable (Turban et al. 2010). First steps are risk identification and analysis of different risk sources. After this, a risk assessment and steering are to be conducted, where the possible damage is explicitly assessed and assigned with corresponding strategies. In instances of large and potential risks, a risk management plan is to be organized to manage the risk. Its purpose is to reduce the risk's chance of realization, and on the other hand minimize effects if the risk occurs (Wolke and Oldenbourg 2017).

Most obvious risks are related to information, privacy security and technology – imperative risks according to Awad (2007). However, Turban et al. (2010) argue that the most threatening risks are business related. These could include dependence on partners, competitive environment, channel conflicts, operations, legal and regulatory in global context, human resources, technology, strategic direction, cultural, and management issues. Furthermore, acquiring explicit skills and resources in IT plays crucial role in e-business (Accenture 2018). The more common and consequential commercial risks and challenges are reviewed ahead with suggestions to resolve them.

Channel Conflict

Channel conflict occurs when a new sales channel emerges to threaten existing channels by overtaking their current customers. For instance, in the case company e-commerce as a global platform, could potentially conflict with local distributors and resellers by reaching their customers directly (Laudon and Travel 2013).

Rosenbloom (2007) suggest the choice of rewarding indirect channels with commissions for other channel's successes. Laudon and Travel (2013) pointed out how one manufacturer has addressed channel conflict with a partnership model. They maintained separate

channels: direct online sales, as well as retail channel. However, due to the importance of the specific partners in question, the company presented 25 % commission of the order price, for additional services, delivering, and support provided by a local partner. Additionally, based on postal code, they paid 10 % of every order for the local partner, even if the partner did not participate in the order in any way.

Turban et al. (2010) state that channel conflict can be addressed by letting the distributors take care of the fulfillment. Buyer would have the option to either place an order online or they can be guided to distributors and resellers. Forrester (2017) accompanies this with a suggestion that e-commerce could potentially yield delivery of improved customer experience and deeper customer engagement with an intelligent inclusion of distribution partners. E-commerce should be an improved way of connecting product information and fulfillment options, creating mutual benefit. However, the customer experience and convenience of business must be key priority, and not suffer from any inclusions. Park et al. (2018) also suggest that the potential effect from integration of multiple channel touchpoints would depend on product's place in the life-cycle. In introduction and growth phase's positive effect of conflict should be more significant than its negative effect in overall. Furthermore, during the maintenance stage of a product journey or in simple sales, the online sources could become prominent.

Organizational culture, senior management's ability to conduct and communicate change management effectively, as well as to utilize innovative processes in collaborative ways, are what quantifies the success between an online channel and intermediaries. The channels must be involved in the development and implementation processes from the very first steps. Additionally, each channel must have an explicit strategy and purpose. Thus, senior management must provide clear support and communication on top and ground levels (Rosenbloom 2007 and Turban et al. 2010). Furthermore, the channels could benefit from partner portals, provided product information, discounts, online services, and from incentivizing them to reintermediate in other means. Third option is to differentiate the online product portfolio from the channels, by selling exclusive products online and providing advertising for the rest, sold by other channels. Providing only promotion and customer service online is also an option (Turban et al. 2010).

Bain & Company (2019) encourage converting stores into mini distribution centers, into centers of expertise, complementing customer journeys and digitized services. Meier et al. (2009) emphasize on extensive collaboration to drive value from specific competences and broadening opportunities. They propose to establish virtual collaboration and partnerships. Park et al. (2018) add that with collaboration, organizations can include various processes within each touchpoint. For example, customer information about buying history and preferences could be shared within channels. Saarinen et al. (2006) conclude, that it should all start with organizing clear communication flows, with formal procedures. This could involve clarifying the role of a product from a offering of the company and the market it is operating in.



Figure 10. The most important channels for goods e-business success (Accenture 2018).

Additionally, various sources speak for multichannel sales strategies within B2C e-commerce, and same implications are potentially applied to B2B. McKinsey (2018) supports Accenture's (2018) research regarding multi and omnichannel strategies (Figure 10). Omnichannel integrate different physical and digital channels. Group of executives within B2C were surveyed for e-business channels and their importance, survey shows in Figure 10. McKinsey states that to improve customer engagement, companies are required to invest in multichannel sales strategies, which are powered by intelligent digital investments. Bain (2014) concurs that omnichannel businesses are likely to gain immersive advantage over those unable to integrate physical and digital channels. Customer journey relies more and more on utilizing several channels within one purchase. This evolution has already been shown in B2C e-commerce (Bough, B. 2012). Notable is how McKinsey (2017) points that B2B has same importance for customer journey as in B2C, just the complexity of relationships should differ between the two.

In Accenture's (2018) research they discovered customers also having different needs depending whether they were first-time or repeat customers. For instance, Wieland et al. (2017) portrayed vision of a service ecosystem, where sales participate in different levels of interaction. Additionally, partner channels could be similarly imperative to function of sales, extending the portfolio of relationship and capabilities offering further customized services and solutions (Cummins, et al. 2016; Plouffe et al. 2016). To conclude this, Lapoule and Colla (2016) advice that both, internal and external sales force should concentrate more on consulting activities and less on manual order taking activities.

One aspect of relieving channel conflict is to invest in other digital capabilities, such as in advertising and promotion, suggests BCG (2017) and McKinsey (2018). Turban et al. (2009) pointed out that direct sellers tend not to have strong foundation in online capabilities. However, larger manufacturers with more excessive resources could utilize this as an incentivizing opportunity for ecosystem development.

Pricing

Pricing in electronic commerce is multilayered, challenging, and has a high probability to cause channel conflict, loss of image, and operative profit. E-commerce changes the traditional pricing strategies of products and services in several ways. Turban et al. (2010) and Saarinen et al. (2006) both depict that in e-commerce price comparison is convenient and buyers have vast access to different information, which allows them better to determine the price and thus increasing their bargaining power, diminishing the common instance where other party is more knowledgeable than the other (Iloranta and Pajunen-Muhonen 2015). Moreover, buyers can in some instances set the price alone. There are solutions such as name-your-price and auctions, where it is entirely customer's decision to determine the price. Additionally, there are instances where online and offline prices are set differently. This is paradoxical, as if online prices are set lower than the prices in other channels, this leads into channel conflict. In the other hand, overall competitiveness may be hurt by other channels in case of the same price levels (Turban et al. 2010). Thus, the channels and prices must be well managed with clear communication, for not allowing price wars to occur.

With the customer's enhanced bargaining power, Turban et al. (2010) advise countering it with adoption of intelligent pricing strategies, so that the internet can be utilized in optimizing prices with superior precision, significant agility in change of prices, and in development of means to segment customers for price differentiation. McKinsey (2017) argue that the key is customization. Pricing must be dynamic and tailored for company's business, objectives, and ways of operating.

Yield management is another option for price differentiation. In yield management one product may have several different prices set separately for each customer (Sfodera 2006). Common practice of yield management is to determine the price depending on customer class or by determining the time of order placement, considering context (e.g. buying bus tickets early). In B2B different portals, extranets, and marketplaces can be conducted to determine such customization with pages of different prices for each individual customer or customer group. The prices could base on previous contracts, buying history, and size of the customer (Turban et al. 2010).

Sfodera (2006) adds another strategy to address pricing is versioning. In versioning same product or service is sold with different prices by varying the selection and delivery options. In practice, by reducing the lead time or by bundling, the provider could ask for higher price. On contrary, by selling large batches, the buyer could receive discounts. Versioning relies on customer understanding. Additionally, Martínez-López (2014) argues that also in e-commerce customers are willing to pay more if the service level is superior to the other providers. By understanding in which occasions the customer is willing to pay more, sets foundation on versioning and price differentiation (Turban et al. 2010; Sfodera 2006). Furthermore, with the help of new technologies, time-series, and analytics, companies can manipulate how product's price actually affects demand and customer behavior (McKinsey 2017).

Technology and Implementation

Chaffey (2015) points out, that one of the major strategic risks a company can make is to make poor decisions regarding digital business investments. The impact of e-commerce and internet technologies varies by industry. The management must identify the size of impact and from there determine the scope of strategies and investments.

To have an own e-commerce storefront requires vast amount of resources and investment. It demands potentially new kind of knowledge and competence, new software and integration to current systems, hardware investments, as well as investing time and resources on planning and executing. The investment's magnitude is grand, whether these requirements are achieved by self or by outsourcing (Accenture 2018 and Awad 2007).

Accenture (2018) states that wrong technological investments and lack of required skills have a deep effect on customer experience. Poor customer experience can derive from a magnitude of reasons: website infrastructure (Figure 11) is on a weak foundation and appears as in slow and impractical solution. Security is on unsatisfactory level and on the other hand wrong use of customer data can lead to breaking privacy and thus to legal issues. Furthermore, poor system infrastructure and systems integration is likely to lead into fulfillment problems.

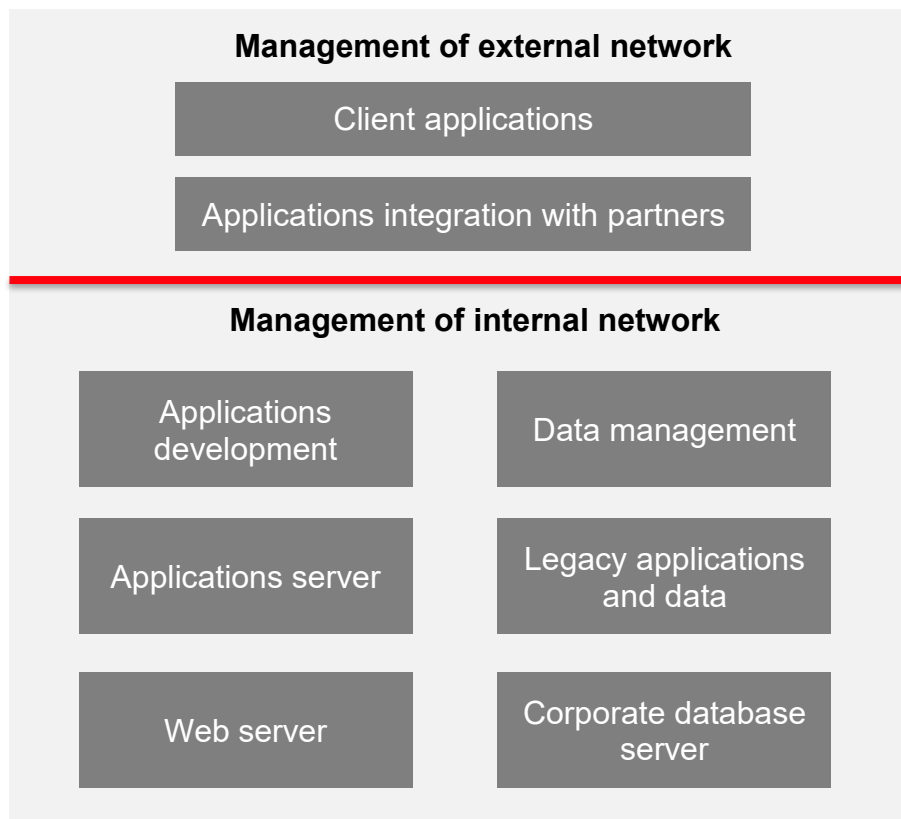


Figure 11. Digital business infrastructure and requirements (Chaffey 2015).

To overcome technological challenges, the management must start with assessment of the organization's digital capabilities. Companies have to place particular resources in planning and execution, and in selection of the correct approach to their strategies and

methodologies, in order to deliver customer excellence (Chaffey 2015). After all, customer needs, behavior, and loyalty should give insight for organizations in steering their businesses (Accenture 2018; Chaffey 2015). Beside in-house capabilities, outsourcing possibilities and new models such as born-in-the-cloud platforms and other supporting software-as-a-service solutions provide clear cost reduction to information technologies, and a fast adoption of digital resources. Furthermore, even small acquisitions can be utilized to adopt emerging technologies and competences. For example, Walmart acquired an online startup Jet.com, which provided Walmart with innovative pricing technology in e-commerce, and further established e-market penetration (Fortune 2016).

3.4 Conceptual Framework

A conceptual framework (Figure 12) was constructed based on literature's best practices. It will be further used in business model development phase. It consists of three aspects: e-business modelling, aspects to consider in platforms, and managing channel conflict.

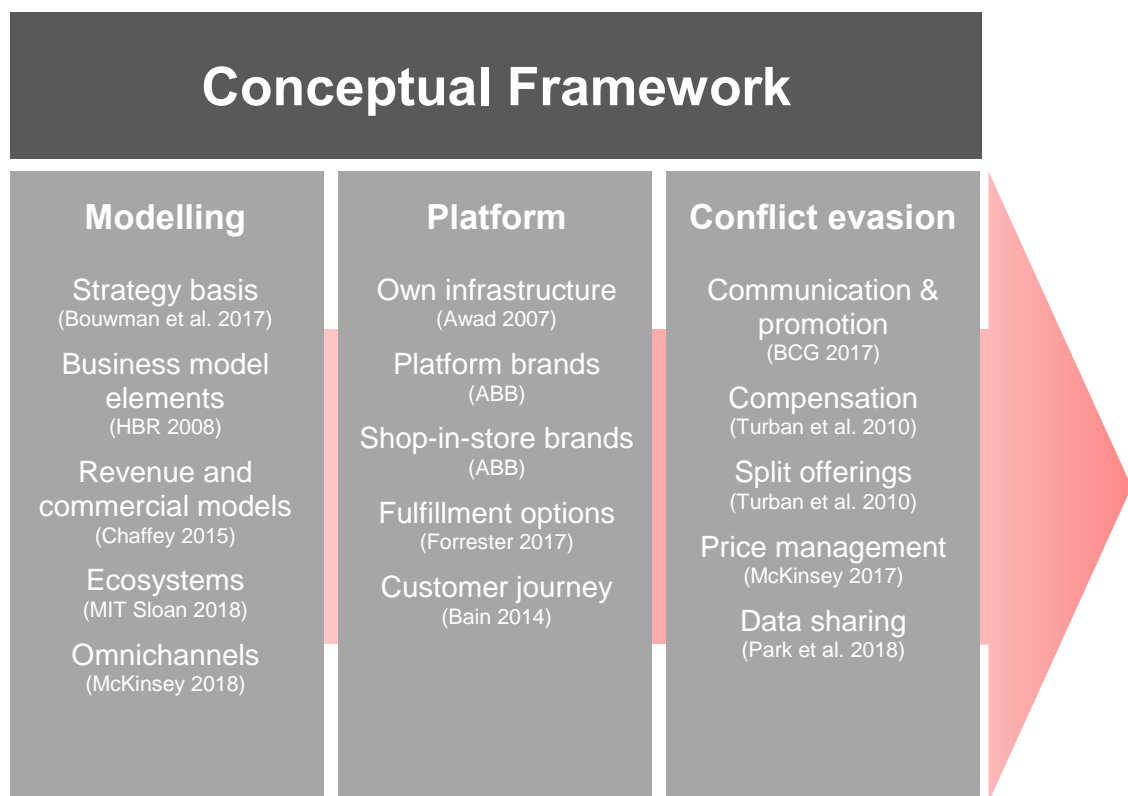


Figure 12. Conceptual framework from literature's best practices in e-commerce.

The first stage of the conceptual framework addresses best practices in higher level e-business modelling, which will be based on ABB's current strategies and aspirations. Moreover, classic business elements of customer value proposition, profit formula, key resources, and key processes are utilized. Additionally, aspects from different revenue and commercial model options will be considered in further work. Concerning e-commerce, concepts of digital ecosystems with deeper collaboration opportunities, as well as omnichannels are considered. Omnichannels integrate multiple channels, offline and online channels, into one unified customer journey. These have potential to form a profound base for the model to expand in near future and stay relevant in the digital era.

The second stage considers decisions regarding platforms and different aspects within those, whether to have own or third-party provided platform, their selection criteria and service levels needed for each platform type, as well as possible risks associated. Furthermore, platforms are considered with their operative competences and with the potential to influence customers through them. Platforms also influence questions regarding order fulfillment and customer journey.

Lastly, the final phase aggregates ground level best practices addressing the case company's concern regarding e-commerce, the potential channel conflict with partners. Profound and comprehensive amount of information regarding management of channel conflict is conserved for further use, to best address the business challenge. This information explicitly describes how to communicate change, incentivize partners, collaborate, and support the partners with the potential change in hand.

4 Current State Analysis

This chapter provides an overview on ABB Drives' current business, and an analysis of its key competences and value drivers. These findings will be used in business model development together with the previously constructed conceptual framework. The data is collected from ABB's internal data management systems, as well as by interviewing relevant senior management.

4.1 Description of Current Business Model

ABB Drives is a manufacturer and provider of drives as a part of ABB's Motion business division. The Helsinki factory is the largest within the drives business in low voltage drive products. The further inspection concerns ABB Drive Products' business area, which focuses on smaller, standardized volume type drive technology. A certain minority of the drive products are sold directly by ABB. However, majority of the products are sold through ABB's various channel partners, which also provide pre and aftersales services, including installation, commissioning, maintenance, and engineering services.

The operation side (manufacturing and logistics) will not be discussed more in-depth, instead the focus is on structure of sales and services, which can be considered as core activities in B2B e-commerce.

An overview of the general business model of ABB Drive Products is depicted below, as a business model canvas (Figure 13). Business model canvas is a strategic management tool used to develop and describe business models (Osterwalder et al. 2010). In this instance, it is used to give a general overview on the drives business.

Key partners	Key activities	Value proposition	Customer relationship	Customer segments
ABB supply chain – key component suppliers	Software development, digitalization, R&D	Determined to improve customer performance while lowering environmental impact	Personal assistance Self-service	Comprehensive coverage of different industrial segments
Third-party assembling operations	Operations, lifecycle management	Strong technology and domain expertise with excellent track record of successful projects	Automated services Communities	Utilities Infrastructure
Key value-adding channel partners	Channel management, services		Co-creation	Transportation
Other ABB divisions and countries, organizational resources	Key resources Talented people Organizational learning, domain knowledge Infrastructure, technology Partners and service network	A global leader in motion technology – trusted brand and quality, delivering industry-high reduced energy costs	Channels Website, ads, promotion, social media Local sales units Distributors, Wholesalers, System integrators	
Costs Fixed costs: rents, licenses, utilities expenses, depreciation of assets Variable costs: R&D, operations, personnel, technology and other investments Benefits from economies of scale and product modularity		Revenue stream Drive and drive accessories sales After sales (spares and others) Service sales and solutions		

Figure 13. Business Model Canvas for ABB Drive Products.

The ABB Drives business model relies on profound business infrastructure, operations, and on accumulated competences, as well as on high level investments on technology,

talent, and R&D. Sales and marketing are the growth drivers, with customer support and service as the supporting drivers.

Operations

The organization of operations in ABB Drive Products include manufacturing and global production networks, procurement and logistics, as well as product engineering and quality. The operations has local management units in each manufactory location, as well as a global function overseeing the operations as an entirety.

ABB Motion division, including the drives business, has global distribution centers. The centers holds stock for volume type of products and has a third-party operator, which conducts warehouse operations and transportation of goods between the factories and the distribution center. Furthermore, the third-party handles fulfillment of orders, while concurrently ABB operates its own finalization, customization, and other end-production services at the distribution center. Upon receivment of a purchase order, the drive products are delivered from the center to channel partners and customers. Figure 14 below depicts a general view on the product journey from a customer perspective.

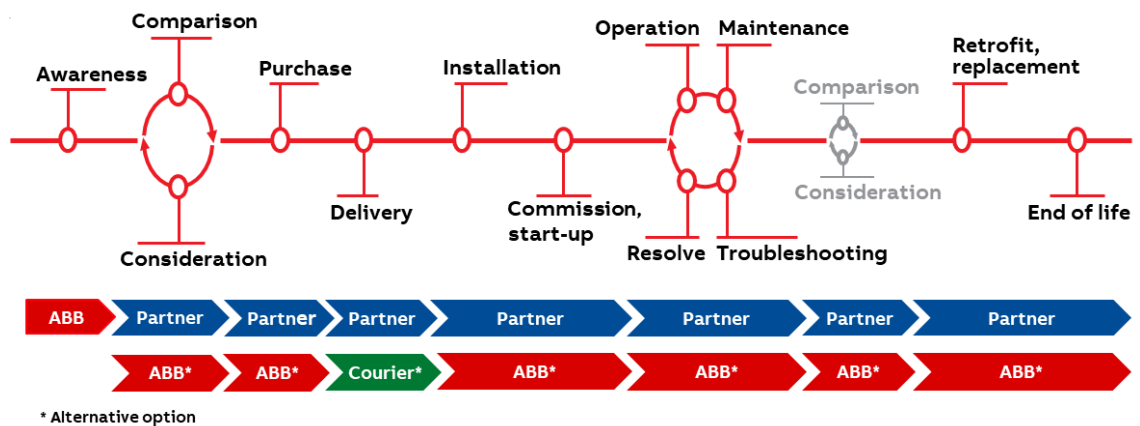


Figure 14. Customer buying journey for a drive product, including each touchpoint’s potential ownership during the process.

When ignoring the different functions and levels, in general, the customer journey from discovering a need for a drive to the actual product’s end of life may involve different interfaces, touchpoints, and channels for the customer. The most common journey would

consider ABB providing marketing and information in form of ads and catalogs. Consideration for a purchase could happen from partner's offering or by ABB's marketing and online presence. Delivery is conducted either by the partner from its stock, or by courier from ABB's factory or central stock. The installation and maintenance are likely handled by the local partner, as well as the retrofits and replacements. However, basically every touchpoint during the journey could be handled either by ABB or by a local channel partner, generating a selection of different journey options for the customer.

Sales and Service

ABB Drives sales and service is a multilayered combination of traditional and matrix organizations (Figure 15). The sales is constructed on a back-to-front type of model with three different levels: Local Sales Units, Business Unit, and Product Group. Technical customer support covers each level with corresponding support: local back-end support, regional technical customer support, as well as centers of excellence and product engineering supporting from product group level. These three levels have four main lanes to have an offer for partners and end-customers: standard products, project sales, service offering, and OEM sales. The sales and service network cover 70 countries.

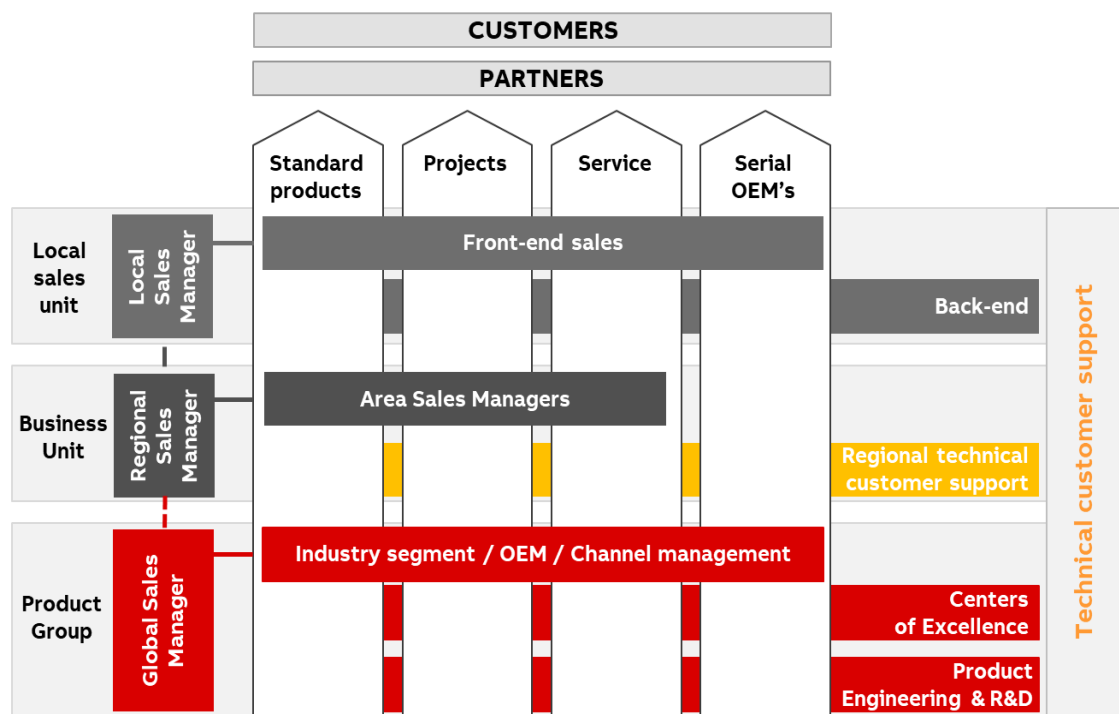


Figure 15. ABB Drive Products' global sales and service structure.

The local sales units (LSU) are locally positioned units focused on serving close customers and partners, with front-end product sales. The second level are business units (BU). These are regionally positioned sales units, covering larger areas or continents. The business units focus selling ABB offerings to global customers with scattered locations. Thus, the sales are considerable in size with different pricing and agreements. Third and the furthest level is product group (PG). For example, the Drive Products business this work is conducted for, is a product group. PG is a specific product focused back-end organization with high product specialization, providing guidance to the sales units and business units. The product group operates from the distance with end-to-end focus. For instance, PG-sales concentrates on global accounts, segments, and channels. Moreover, the product group oversees sales funnels for its correspondent products, and manages the overall sales as well as profitability for their products.

The technical support operates also within these three levels. The local sales units have their own back-end technical support. Actual customer support is scattered over different regions within business units, which all operate globally and thus enables globally available support twenty-four-seven. Like sales, the product group level has a back-end function of high specialized support. These are centers of excellence including product management, as well as product engineering and R&D, which all solve the most difficult customer challenges.

4.2 Business Value Drivers

This chapter examines value providing drivers in ABB's current business. Value driver is a controllable factor increasing value of a product, service, or company, enabled by certain entity or activity (LEK 2017). The value drivers are realized after conducting interviews with relevant ABB Drives' management: Global Business Development Manager, Vice President of Sales, Head of Technical Customer Support, and Product Marketing Manager. By understanding the value-adding activities for each stakeholder, these could be directly or indirectly utilized in the actual business model.

General drivers relevant to commerce are sales and marketing, service and customer support, as well as the business development within these. Value drivers and specific activities behind these drivers are discussed next.

Sales and Marketing

According to ABB Drive Products' vice president of sales, the most important drivers for ABB's growth are the channel partners. The coverage of ABB's channel is immersive, and it has required a vast amount of investments from all sides. Due to strong regional and local partners, ABB has made it possible to establish strong market leadership in these regions. Thus, developing and supporting the channels and the individual partners in their businesses are the most imperative value driving activities, with considerable returns on overall sales. Furthermore, with an excellent integration and collaboration with the partners, ABB creates a structure, which is hard to replicate by others.

Another major customer segment is the original equipment manufacturers (OEM). However, current measurement system is a challenge. In an instance of global OEM account, ABB's measuring system does not support a case where LSU would provide its local knowledge and support to a global sale. Furthermore, e-commerce could potentially trigger similar symptoms, where the measuring system does not support collaboration or, in worst case scenario, cause conflict and resistance.

The product marketing manager highlights that customer understanding should be in the core of everything ABB does, and this also applies to marketing. The specific needs of our customers are identified and solutions for these clearly and effectively communicated, as well as made easily accessible. Furthermore, digital marketing and data utilization is growing importance beside legacy product marketing and providing information. From potential channels, the most promising need excess focus in order to guarantee improved and efficient reach. For instance, this starts from an online marketing presence within google to more specific digital channels.

Service and Customer Support

Head of ABB Drive Products' customer support states that maintaining excellent service for our partners and customers is an imperative objective. The baseline of drivers for service and customer support consist of quality, availability, and reliability. The more acute value-driving activities involve continuous development and especially innovative, technology driven, value-adding services and solutions.

Business development is imperative in the service business. The highest value-adding activities are technology-based, solution-like offerings, such as new platforms and augmentation of products and services, establishing means to provide more value more efficiently. These technologies are highly data driven and connectivity as well as artificial intelligence are the focal points now in development of providing such added value.

High service performance and offering is imperative for ABB's customer success and is a determinant for growth. The benefits provided by ABB and partner channels include reduced downtime, improved performance, and operational efficiency. These services are improved by data collected from various customers with different applications: from drive parameters, studying and taking action after issues and trends are discovered. This is enforced with automated methods such as machine learning enabling to manage big data and to recognize issues.

Challenges associated with these drivers are the amount of resources required, and the high quality of these actions. More explicitly, the amount of overhead required, the skillset of the personnel, as well as the high-level development resources tied to the services alone. These come with a high price but also with a complex organization and operations. The complexity of the organization and operations may affect communication in general, agility and the speed of matters, as well as distract from key objectives and opportunities.

4.3 Conclusions of Current State Analysis

This chapter summarizes the findings from current state analysis conducted, including key value drivers derived from interviews of ABB's management. Furthermore, applicable business modules are determined for further use in the development work.

4.3.1 Summary of Key Value Drivers

Based on the ABB management interviews, current state analysis, and action research conducted, this chapter summarizes the key value drivers (Table 3) and value driving activities potentially to be taken into consideration during further development phases.

Sales	Marketing	Service
Channel partners' development	Reach and new digital channels	Connectivity and rapid responses
Global OEM investments & business development	Customer understanding in communication	Platform and operations solutions
Sharing best practices, support partners as well	Customer experience in all forms, clarity	Availability & augmented services

Table 3. Key value drivers in ABB Drive Products' commerce.

These key value drivers illustrate that the core commercial domain areas for ABB are highly related to partners, customer understanding, and on driving new services and solutions not only for customers, but also for partners.

4.3.2 Summary of Applicable Competences in the Current Business

From the current state analysis, action research conducted, and input from global business development manager, the following business modules are considered applicable for future development in e-commerce: marketing, pre- and after sales, service solutions, and customer support. They are explained in more detail below Table 4.

Marketing	Pre- and aftersales	Service solutions & customer support
Product information and customer engagement	Inspections and accessories	Life cycle management
Customer journey, clarity	Technical consulting	Customer support (human and service bots)
Awareness and digital marketing competences	Spare parts and accessories	Care agreements and monitoring solutions

Table 4. Applicable business modules from existing business to apply into e-commerce.

Marketing. While online shop marketing and the visibility in the actual research phase may require some further competences from ABB, there is also several existing competences to adapt into e-commerce. These include the product information, its clarity, and appealing value propositions provided already through ABB's existing marketing material and website.

Pre- and aftersales. The current pre- and aftersales provided by ABB and the partner channels are also a business module applicable to the instance of e-commerce. The preliminary sales or services could include ABB's or a partner's providence of inspections, consulting, dimensioning, and engineering. Furthermore, providing some of these free of charge could have the potential to better engage prospects, and thus improve relationship building and overall sales.

Service solutions and customer support. ABB and its partner channels both have extensive portfolio of services and competences to be provided also via e-commerce. From life cycle management to installation and commissioning, to reconditioning, preventive drive care agreements, on-site repairs and monitoring, to drive retrofits, upgrades, and disposals. Furthermore, the customer support is also highly substantial as-is business module to integrate into e-commerce. These could include technical support (human and service bot), response time agreements, training, and digitalized remote assistance.

These findings of key value drivers and applicable business modules will create a great base for commercial competences to be utilized in the business modelling phase. This modelling phase will be carried out next.

5 E-commerce Business Model

This chapter covers business model development and the results. It starts with an analysis of directions available, continued with development of core business model elements. Additionally, relevant risks are assessed. The chapter concludes with a preliminary e-commerce business model proposition, based on ABB's strategies, the conceptual framework, and the current state analysis.

5.1 Development Work

The development work focuses on two of ABB's renewed strategies: to be future leader in digital industries, and to be the industry's most preferred supplier to channel partners. First, potential directions for the initiative are to be analyzed. Further development is based on Johnson et al. (2008) business model elements: customer value proposition, profit formula, key resources, and key processes. The development of these elements is founded on the conceptual framework and current state analysis. Additionally, an overall risk assessment is performed.

Before the development of the business model elements, an analysis matrix (Figure 16) was created to determine potential directions for the initiative. The matrix is based on two of the case company's most imperative questions regarding e-commerce: partner involvement and platform ownership. The level of partner involvement affects the level of realized channel conflict, with higher partner involvement leading into lesser potential for conflict. The platform ownership determines the level of investment and resources needed, and thus also the level of risks regarding investment. These questions are transformed into an analysis matrix with generic business models described at certain locations within the matrix. Moreover, different fulfillment options are included in the analysis, as according to Turban et al. (2010) having channel partners conducting the fulfillment may help reduce channel conflict.

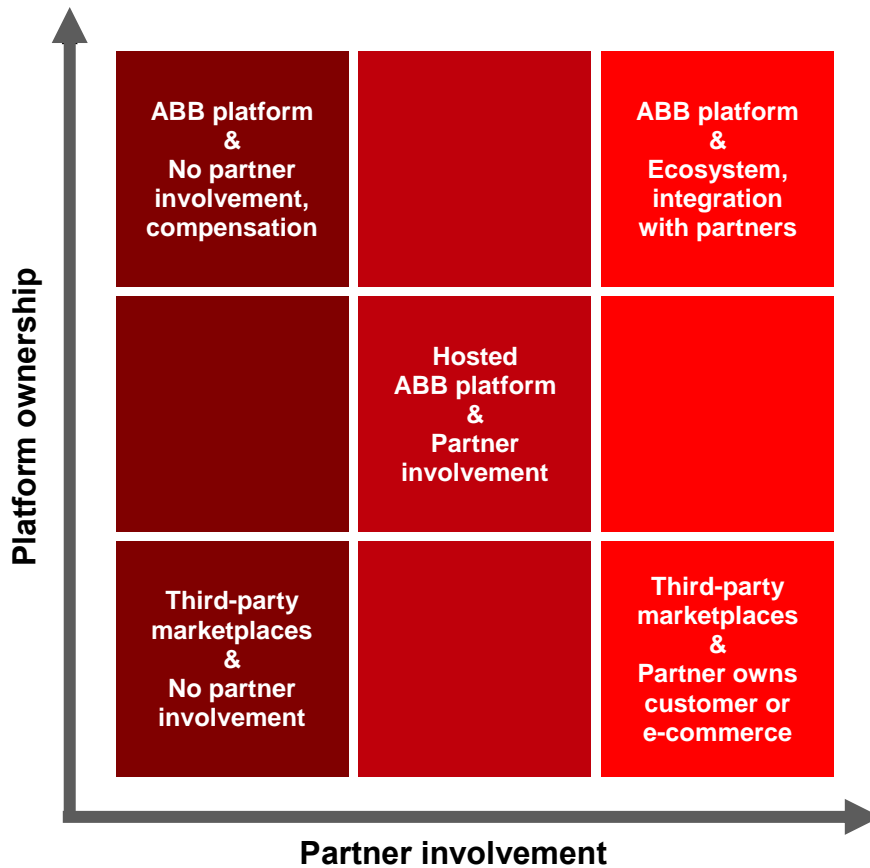


Figure 16. Analysis matrix for different e-commerce directions available.

Within the analysis matrix several of the depicted models can be run concurrently. For example, hypothetically ABB could have its own or hosted e-commerce platform with high partner involvement, while utilizing other third-party marketplaces to increase overall coverage. Different business model options with more explicit descriptions and illustrations are covered in Appendix 4.

Due to ABB's explicit strategy on enforcing its business with partners, and suggestions from the management during the interviews, as well as the literature's view on collaborating with channel partners, it was determined to pursue further development in the middle–top of right side in the analysis matrix (Figure 16). This direction requires larger investments from the initiative, but also guarantees higher potential in e-commerce with partners involved, and thus eliminating channel conflict. Furthermore, the views presented in literature, as well as by the vice president of sales on involving partners in fulfillment of online orders are taken into further examination. Next, the business elements (Johnson et al. 2008) are developed based on the chosen initiative direction.

5.1.1 Customer Value Proposition

The e-commerce initiative's target customers are smaller buyers who need standardized products. Larger projects and accounts require more front-end technical support and consulting, and essentially should not use ABB webshop as an ordering platform.

Due to digitalized world and increased customer presence online, ABB wants to enhance its customer excellence and strengthen its digital presence, by providing additional means to conduct business with the company. The additional means include online ordering and transactions, allowing more accessible, convenient, efficient, and user-friendly customer experience. Additionally, the new digital opportunities provide ABB ways to better serve its end-customers in operational aspect. The e-commerce model could address questions such as improved delivery times and availability of services.

Furthermore, not only do these actions concern ABB's image in the eyes of the end-customers, in addition to considerable value proposed to these customers, the value proposition also applies to the channel partners. ABB wants to streamline the business and provide added value for both, for end-customers and the channel partners. This includes generating the partners with more customer traffic, leads, and other service inquiries – deepening the collaboration with ABB.

To outline, the value proposition for end-customers is elevated customer experience. ABB webshop improves global availability, with the industry's most accessible online shop, enabling convenient and efficient ways of placing orders for products and services, as well as bundling ABB offering with local partner expertise into one consistent customer journey.

5.1.2 Profit Formula

First, to answer the business challenge, the business model's profit formula (Johnson et al. 2008) has to base on the three following determinants: it must increase customer experience, provide additional profit to ABB, as well as either directly or indirectly benefit the channel partners.

Development of the e-commerce initiative's profit formula was based on the conceptual framework's business modelling aspects of revenue and commercial models (Chaffey 2015), followed with a more explicit look on cost structures and profitability.

ABB's marketplace position in e-commerce business would be apparent; a manufacturer leveraging digital webshop. However, the revenue model can be built on several income channels. The main revenue source is direct sales of products, with possible additional services. The supporting revenue could be obtained in form of subscription-based services. For example, from monitoring and remote support related services. Furthermore, as illustrated in Appendix 4, Omnichannels could be utilized in the form of commissions, after partner refers a customer to the ABB webshop, for products or services the certain partner is not able to satisfy the customer with.

Secondly, commercial model will be grounded on main aspect of having fixed-price sales online. These are real-time transactions conducted through the platform, using third-party transactions providers. The fixed-price sales could be complemented with product and service bundling, providing additional value from one stop experience. Furthermore, loyalty or partner-specific discounts could be implemented. However, only the fixed-price sales will be included in the model at this stage, to streamline the operations of an already complex organization, as well as due to nature of the project scope.

To provide profit for partners, benefits from the online sales should be directed to a local partner, either in form of a considerable commission or margins from the commercial online prices. Thus, ABB webshop would work as an intermediating platform for partner-stocked products, generating income from margins, and additional value-added services, in addition to providing digitalized and enhanced customer journey.

The initiative's cost structure can be divided into two aspects: the initial investment cost and the operational fixed costs. These accumulate mainly from the initiative's key resources. Development and implementation of the e-commerce initiative will have significant investment costs, which the profit formula must cover after reasonable time as a return on investment. The initial costs generally include development and engineering resources, hardware and software infrastructure and integration of these, which will be outsourced to technical platform providers and consultants. The operational fixed costs

consist of additional IT and e-commerce dedicated personnel, beside existing competences in marketing, services, and distribution. Additional operational costs occur from partner agreements and management, as well as from servers, data management, and potential license payments for the technical platform suppliers.

The margin model follows the existing revenue logic, with a slight increase from infrastructure costs but a significant reduction in overhead, with more throughput by efficiency of processes. However, if the business model is to give partners a considerable profit and commissions from online placed orders (fulfilled by the partners), it must be ensured that the volume of online sales cover the fixed costs of e-commerce.

5.1.3 Key Resources

Many of the business value drivers depicted in the current state analysis can be utilized in the e-commerce initiative. These include marketing and especially product marketing, as well as developing partners, and sharing them with information and best practices in terms of e-commerce, as well as forming an ecosystem for better customer excellence and mutual benefits.

Marketing in a context of customer research and discovery aspects has already existing competences within ABB. These include digital marketing and product marketing. However, the context of search engine optimization in a webshop, as well as the actual customer journey and content marketing may require extended resources. ABB web site and webshop would share a lot in common. Still, the marketing would require additional resources in platform marketing, timing, as well as in monitoring and measuring. The platform should be able to categorize customers and have a personalized message to an extent, and offering the right products, accessories, services, and information to the customer. Nevertheless, high expertise of the existing product marketing is essential resource in transition into e-commerce, providing exceptional customer experience through comprehensive yet captivating product information.

Secondly, extensive customer service is required from the webshop, as the variable speed drives are more complicated than the average product. The existing technical support organization and its regionally scattered teams would be perfect fit with

additional resources. They would provide services ranging from choosing right products to more technical details. Furthermore, the business value driver in augmented services (applications and platforms) could be utilized in ecommerce, either as offerings or as supporting services. These could include chat bots and drive dimensioning applications.

Forrester (2017) survey shows that delivery time is an imperative factor for customer experience in e-commerce. However, ABB has no considerable own resources nor competence in shipping. Thus, delivering will be outsourced to reliable third-party providers. Furthermore, in-depth IT-infrastructure development will be outsourced to commendable third-party providers as well, as it does not belong to ABB's core competences.

5.1.4 Key Processes

The key processes in e-commerce would be within customer journey, after prospective customer's successful research and discovery phase: user interface (platform), customer service, order fulfillment, and delivery. Additionally, transactions and managing mutual resources could be considered key processes in e-commerce.

After a successful research and discovery to ABB's webshop, the first key process is digital: navigating through the platform. This process must be as convenient as possible. With ABB's sizable portfolio of different products and variants, convenience needs even further scrutinizing.

As mentioned in the key resources sub-chapter, existing ABB customer support is applicable to e-commerce. Due to the highly technical nature of the variable speed drives, knowledgeable, and agile customer service is important, unlike in B2C e-commerce, where most of the customer challenges can be resolved by a bot. The existing regionally scattered technical support infrastructure could be extended to also solve customer challenges emerging through the webshop, ensuring service and availability around the clock, with product expertise. Moreover, excess inquiries concerning navigating through webshop can be avoided with convenient design, as well with excellent search function.

Convenient transactions as well as a range of transaction options needs to be provided. Moreover, the transaction processes must be fast and especially safe. Transactional

processes cover also internal exchanges. The transactional aspect also includes the sub-processes within these. For example, how a received order is processed in systems, (checking order integrity, resolving issues, entering, extracting, and sending information, to forwarding for warehouse processing). Payment methods in general are not within ABB's list of competences, and thus are outsourced to reliable third-party providers.

The final key processes are order fulfillment and delivery. These consist of digital and physical processes. Currently fulfillment and delivery are outsourced to partnering courier, as these are not ABB's core competences. With the e-commerce initiative, deliveries would be handled by the partnering courier. However, the fulfillment would be outsourced to channel partners. Channel partner would fulfill an order, which was placed to be delivered to a local nearby customer. This globally scattered fulfillment would not need extraordinary fulfillment investments from either side, due to smaller time to time orders. The partners already hold stock and thus are used to fulfill their self-sold orders. Thus, the fulfillment and delivery competences already exist. Furthermore, to guarantee globally excellent service levels, ABB should take more leadership in communicating the importance of stocks, or even taking steps in managing the partners' stock levels.

5.1.5 Management of Relevant Risks

Based on the literature review regarding the consideration of risks in e-commerce, the most relevant risks were further examined, and the following were determined for further assessment: loss of partnerships, technical integration and implementation, sales volumes do not cover fixed costs, partners' service levels do not deliver desired results in e-commerce, and lack of knowledge in e-commerce operations.

The most imperative risk is loss of partnerships due to channel conflict. However, by giving orders placed in the webshop to channel partners, the risk of channel conflict can be avoided.

Technical integration and implementation can always be a challenge, especially for large and complex companies. The risks of faulted technical implementation can be mitigated with clear appointment of project ownership, with meticulous planning before acting, and with addition of using outsourced competences and consultants.

Thirdly, should a considerable margin from the webshop sales be granted to channel partners, it must be first assessed if the estimated sales volumes cover the costs, in other words if the margin model covers fixed costs of the e-commerce platform and resources associated. Before actual implementation, the margins and compensations can be adjusted. Furthermore, by outsourcing resources to IT-suppliers, concerning the technical platform, and outsourcing fulfillment resources to partners, the overall resources needed could be shifted significantly.

If the partners are to fulfill the online orders, ABB must ensure that the service levels are on commendable level. In e-commerce, the delivery times are one of the success factors (Forrester 2017). This may imply the need for ABB to take greater responsibility in partner operations, more explicitly in common communication, and in monitoring their fulfillment operations, as well as their stock levels.

Lastly, the lack of knowledge in e-commerce operations and in front-line implementation should be addressed with strong and dedicated leadership. Top management must be committed for the project and grant clear ownership for the initiative. This appointment could be from inside the company, from other ABB divisions (for example from digital or electrification business) with more experience in e-commerce, or from outside the company with strong experience in industrial e-commerce.

5.2 Business Model Proposition

The developed business model (Figure 17) is based on ABB's renewed partner enforced strategy, on literature's best practices regarding value chains and distribution solutions, as well as on the interviewed management's implications for partner involvement. The developed model utilizes existing ABB and channel partner competences, forming an ecosystem of integrated value chains. ABB webshop would sell its products from partner inventories, with the local partners conducting order fulfillment for nearby online customers. ABB webshop would work as a digital platform for new and existing customers, easing their transactions with ABB and channel partners. The webshop works as any other online webshop, with product information, services, transactions, and ordering possibilities. However, the fulfillment and operational structure differ from the industry norm.

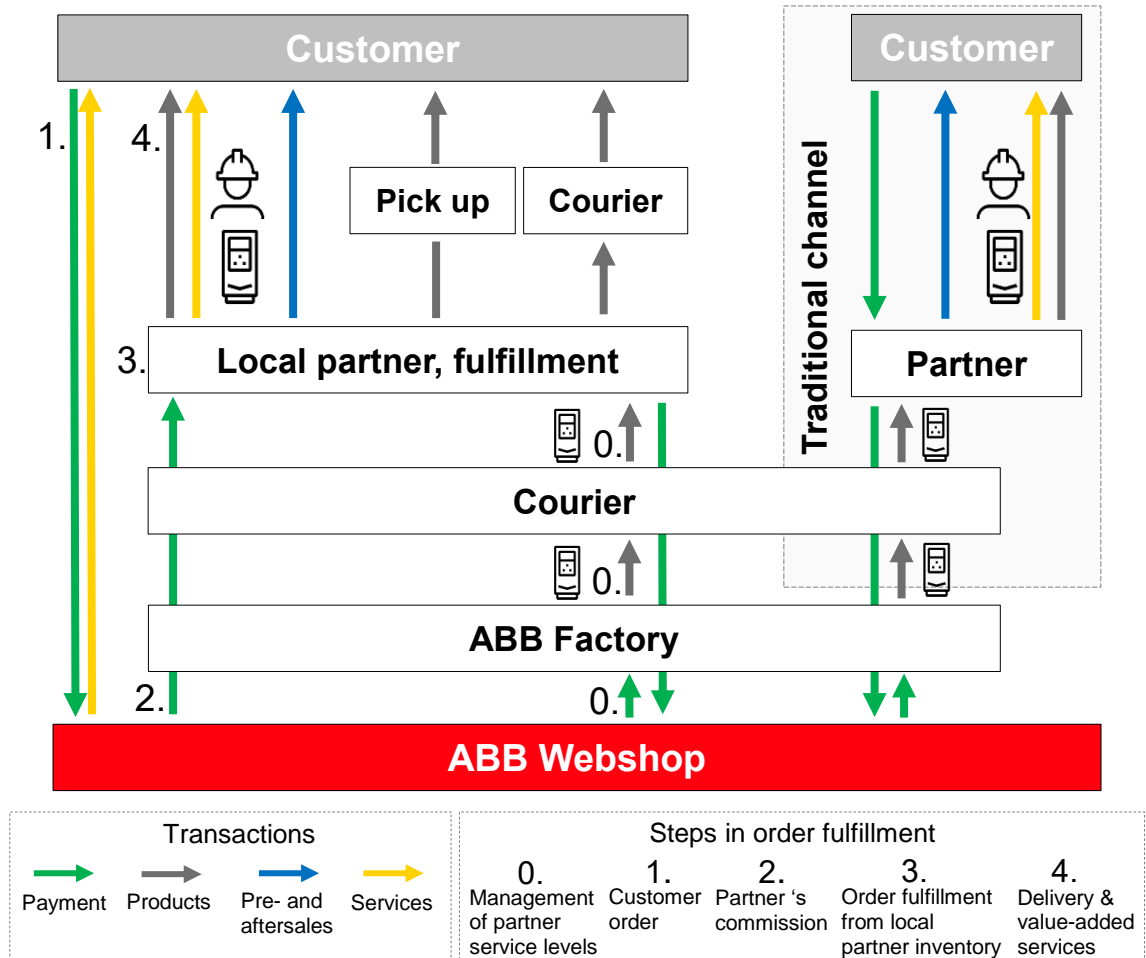


Figure 17. E-commerce business model proposition.

ABB would ensure its channel partners have stock to maintain desirable service levels. After customer determines to place an order for specific product, additional partner provided value-adding services would be offered by the webshop. Based on similar postal codes, the closest channel partner would be determined for the customer, whom the partner would provide the potential services as well as the order fulfillment. The fulfillment is carried out from the channel partner's inventory, to the nearby customer. With this fulfillment and distribution model, lead time could be reduced, from placing an order, to receiving it, to having additional installation, commissioning, and engineering services.

With the value chain integrations, additional system level integrations should be considered, at least with key channel partners. The main purpose of this would be to maintain partner inventories and desirable service levels. However, in special cases, ABB would be able to fulfill an order as well, by using its existing resources.

Partners make profit for the products sold online, for the orders they fulfill, as if it was an order conducted by them in traditional (offline) means. Moreover, the webshop would promote additional value-added services provided by the fulfilling partner and grant the partners considerable commission for the services provided to the customer. This is partners' key profit source. Both parties would have set margins for the products sold, as well as the benefits from additional services sold, and customer relationships acquired.

The global pricing presents a challenge. The prices cannot be too high nor too low. Whether the channel partners are either granted with significant discount for their purchases from ABB, or considerable commission from fulfilled online orders and services provided, ABB must ensure that margins of the products are on healthy levels for both parties. This means that with determined pricing formula, the margins cover e-commerce's fixed costs as well as provides overall profit.

Additionally, partners could use the ABB webshop as a platform to conduct their concurring orders, having the repetitive orders confirmed with a simple renewal procedure. Ideally, the renewal could be executed as a simply as a "single button" procedure. Moreover, partners would have individual discount codes. This ideology is illustrated in Figure 17, as the traditional channel transacting via the ABB webshop.

Granted, this model may not maximize ABB's initial margins in e-commerce, but it does generate mutual value for both parties, and minimizes the worst-case scenario of causing channel conflict. Thus, this model is more likely to yield long-term profits. The model would ideally provide both parties with increased sales, more efficient processes, and improving the end-customer experience through convenient digital journey.

Finally, ABB could consider additional e-commerce channels for itself and its partners. For example, pursuing agreements with leading third-party marketplaces to increase global coverage and benefit from their excellent fulfillment and delivery capabilities. However, to avoid channel conflict, ABB's offering sold through these third-party marketplaces must be differentiated from the offering sold by the channel partners. Furthermore, ABB could provide support to its channel partners for pursuing their own e-commerce initiatives within different channels and marketplaces.

With this proposal, the development work comes to an end. The next chapter will conclude the work with an overview on the thesis, as well as giving recommendations for further advancements.

6 Conclusions

This final chapter will conclude the work with a summary of the thesis, assessment of the work conducted, and managerial implications for immediate next steps with recommendations.

6.1 Summary

The objective of the thesis was to develop a framework for an e-commerce business model, which would provide mutual value to the case company as well as to its supporting channel partners. The challenge in the initiative was the competition for customers between the webshop and the channel partners, as traditionally a webshop would disregard intermediaries and reach end-customers directly. This is likely to cause channel conflict and possibly future losses from eradication of the existing partnerships.

After clear targets were set, a project plan was formed. The project was divided into explicit phases with a strict timeline. The work was determined to utilize action research with participation from senior management in the development work. Furthermore, a data collection plan as well as a data analysis plan were structured, to support the quality of data gathered and utilized in the work.

The next phase was to collect best practices of B2B e-commerce from literature. Various sources were reviewed, from distinguished researchers and publications to quantitative studies of consultancy companies. Common e-commerce models were pictured and the frameworks for forming one was described. Moreover, overcoming commercial risks in channel conflicts, pricing, and technology were addressed. Finally, a conceptual framework for best practices was derived for further use during the project.

With the gained understanding of the e-commerce business and the challenge at hand, an analysis of current state of the case company was conducted. This phase started with a description of the company's current business model, including a basic overview on its operations, structure of sales, and the current customer journey. With the help of internal data and interviews with ABB's senior management, a set of business value drivers were derived. The value drivers concerned partner development, customer understanding and reach, as well as availability and service solutions. From these, a summary was formed with a conceptualization of existing business modules and competences to further utilize in the e-commerce initiative. These modules included domain expertise of product marketing, pre- and aftersales possibilities, as well as service offerings from both ABB and the partner side.

After the analysis of current state and combined with the literature best practices in e-commerce, a business modelling phase was carried. The aspirations, value drivers, opportunities and constraints were considered. For the business model, an ABB webshop and digital value chain integration with channel partners was proposed. The aspiration is to develop an ecosystem where the ABB webshop generates increased sales volumes for partners, and thus for ABB. Furthermore, the model enables partners to interact with end-customers and offer value-adding services. This is proposed with a model where orders are placed on the ABB webshop, but partners perform order fulfillment as local distributors and value-added service providers. Partners receive a sales profit from the online sales they fulfill, with commission from additional services provided. Both parties would gain own margins as in existing business, with additional indirect benefits. Thus, both parties benefit from the electronically conducted business, and customers have a new and convenient digital channel for ordering.

6.2 Assessment of the Work

This chapter addresses the work's reliability and validity. In the literature review, a comprehensive and established list of sources were used to ensure a reliable and rich framework. ABB's data management system and e-library, as well as management interviews were used to conduct a current state analysis; hence the variation of data sources and especially subjective opinions may have impacted the findings.

Regardless of who conducted the work, interviews and data analysis would have provided similar findings. However, the thesis author was under a contract in the case company, which provided considerable insight to the interviews, and to the company as well as to its business. To increase the reliability, information was depicted as clearly as possible. Nevertheless, some of the information was not able to be enclosed due to confidentiality concerns.

The validity in general is on preferable level. It was strengthened by using triangulated data; by combining different sources and methodologies, where information gathered from the literature and data systems were enforced with the management interviews. The combination of recorded information and several personal views established a cohesive understanding on the business challenge and how to potentially address it.

Furthermore, due to the initiative's large size and early stage of planning, the action research provided a suitable and pragmatic approach for the development work. However, this work lacks concrete input from the partners and end-customers, due to limited availability and resources, and due to different nature of partners in different regions. These deficiencies may affect validity, as generalizing assumptions were made based on previous experiences, management's existing knowledge, and information at hand.

Customer understanding regarding e-commerce was generalized from the growing trend of online buying, and from recurrently quantified data of the convenience e-commerce provides in other industries. Thus, with the availability of existing data and resources, an additional customer needs analysis in this context was not conducted.

Finally, the objective of the thesis was met. A preliminary e-commerce business model was developed, which would allow ABB to conduct e-commerce without causing channel conflict with its existing channel partners. The model potentially increases both parties' product sales as well as service sales. Furthermore, it could potentially be one of the first significant large-scale e-commerce initiatives within the variable speed drives industry, improving ABB's availability globally and allowing the customers to have an effective and cohesive online journey from research to fulfillment.

6.3 Immediate Next Steps and Recommendations

Further considerations should regard more specific development of the model, its technical and resource requirements, as well as its financials and margin models. The platform decision needs also meticulous planning. Moreover, partners should be strongly involved in the process and the development should be kept transparent. Additionally, the utilization rate, costs, fulfillment options, and forecasted sales volumes should be analyzed, determining benefits for different solutions and whether own competences could compete with outsourced services. Thus, after further planning and clear determination, negotiations with technical platform providers and integrators should be initiated.

Should the e-commerce initiative be launched, first a dedicated cross-functional team should be appointed to address the proposed applications and conduct more profound work on integration of customer and partner values. Finally, this should be followed by the proposed initiation of partner and platform provider negotiations, as well as the implementation.

In the potential establishment of e-commerce and its platforms, future implications and opportunities within data utilization, emerging technologies, and possible system integration with key partners should be considered. Other aspects include user experience and purchase decisions, analytics, artificial intelligence, and other emerging technology trends. It should be determined how these technologies and other systems could be utilized in an ecosystem environment. Furthermore, opportunities for augmented ecosystems should be also given long-term consideration.

Besides the multichannel approach, the case company should consider investing in omnichannel opportunities. Several of the mentioned resources were promoting the importance of integrating different channels, online and offline, into one cohesive customer journey.

Furthermore, decisions made regarding the e-commerce and its platforms should take into consideration the incorporation of future applications in the form of different revenue models. For example, how would the e-commerce platform support a new shift towards

subscription and service-based business, where customer would be billed a recurring fee for maintenance of continuous and efficient operations.

Decision-making regarding the e-commerce is for the senior management. However, the customer should be in the center of business, followed by partners and external forces. However, Siilasmaa (2018) stated that at turning point of the company, Nokia suffered compared to its competition from allowing distributors' opinions hinder their development. To conclude, not only internal, but also the external environment, as well as different aspects and scenarios should be reviewed, followed by a clear determination for strategy. This includes making decision based on different options, involvement of relevant stakeholders and partners, as well as answering questions what, how, and why the strategy is to be implemented. Moreover, the initiative should be followed with relentless commitment, resources, and execution.

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- Majority of the skilled workforce is retiring generating a gap in available work force as well as in knowledge. Information and emerging technologies could answer these at some extent.
- Performance improvement. Training and high-level personal support by ABB to its partners, which then reflects to the end-customers.
- Increasing level of support and value-added services

What initiatives are under work and take on future outlook?

Augmented maintenance, and augmented additive products (virtual manuals, dimensioning, calculations, etc.), AI customer service bot... Future of service and support is technology and data driven.

Challenges?

How we can develop our business more toward platform business for our partners, which would aid them better serve the end-customer. Couple successful initiatives are fleet management platform, and remote express service for our partners. Furthermore, increasing cooperation and integration is a question.

Thoughts on e-commerce?

Intriguing topic and I believe that it is the way forward. Especially first for smaller volumes with fast deliveries. Moreover, serving our partners. Another question is how automating purchases between e-commerce and partners would conflict and change the local sales units, or can those numbers be channeled to these individual units. Furthermore, e-commerce will surely have several applications in service business.

Interview of Product Marketing Manager

INTERVIEW	Product Marketing Manager	2.4.2019
		10.00-10.45

Short description of ABB Drive Product's product marketing

Whereas Marcom (marketing & communications) emphasize on ABB's marketing and on the offerings in general as a larger context, the product marketing is focused on providing marketing material for specific products under each Product Group. In this case under Drive Products and its product management.

As mentioned product marketing is under product management and our product marketing managers collaborate actively with the product managers, as well as with PG-sales (back-end sales). It is very product focused work, but also work towards our key segments via different publications, fairs, social media, local campaigns, etc.

Product Marketing's value drivers and key activities?

Drive Products has vast offering of products for different segments and applications. It is important to make sure potential customers are made well aware and interested of these specialized products for their individual needs. Also, the products hold a lot of information, which has to be communicated, but it must be in a clear and logical way. Furthermore, we should be able to create certain images for our products.

We must be able to position ourselves into customer's place, understand their business and needs, and effectively communicate solutions for these needs with quantified means.

Future outlook and challenges?

The presence of new technologies and platforms create new opportunities and challenges. We are still lacking when it comes to digital marketing and effective use of new technologies and data. E-commerce is one of these implications speaking for new and

digital marketing channels and means in these. Moreover, I think we should be more visible to the end-customers as well.

Thoughts on e-commerce and product marketing's role?

I definitely see e-commerce as a relevant initiation. Actually, ABB first talked of going to e-commerce about 20 years ago, but at that time there were a lot more issues regarding the implementation of things and now we can see as well that the markets were not as ready for e-commerce as they are now.

The marketing concerning channels and use of technologies will change further into digital, but the actual product marketing content itself won't. Key objectives are to provide relevant and comprehensive information – clearly. Considering the “user experience” in this regard as well.

When we take a look to B2C behavior within e-commerce, I see similar transition happening in B2B as well. I for myself do not like shopping so I buy my clothes etc. online and furthermore, I'm not fond of doing groceries and I am about to give online grocery shopping a try as well. In such instances it is about execution of the solution, whether I determine to continue using such providers.

Interview of Vice President, Sales

INTERVIEW

Vice President, Sales

5.4.2019

10.00-11.00

Short description of Drive Products Sales

The whole business model is under construction after the December 2018 announcement of organization structure revamp. However, at the moment there are three levels in Drives sales business: local sales units (LSU), Business Unit sales (BU), and Product Group sales (PG). LSUs are locally based units, which take care of local demand in a whole. In our case this also applies bundling our drives into larger solution offerings, with motors etc. Business Units are division level sales, covering again larger ABB offering on a global scale. They are responsible for sales as a whole but also for sales development. Moreover, they are now going to be also profit and loss responsible. PG, in this case Drive Products, then again has end-to-end responsibility, focusing on profitability and how much is being sold in the whole sales funnel, and if needed, has the last call in sales or negotiations.

Drive's journey and channels to the end-customer?

So, from the factory the drives are sold by local sales units. Nothing is sold directly from the factory. The LSU's then sell the drives as single units or as a part of solution or bundling to different partners: to system integrators, technical distributors, wholesalers, original equipment manufacturers, or panel builders. Also, the LSUs make small portion of the sales directly to the customer or as an internal sale.

ABB Drive Products value drivers and key activities behind these?

From the sales aspect, the key drivers are partner channel development and support. After that developing our OEM business, which is quite complicatedly structured but has

potential. One problem is that our measuring system does not support the LSUs giving support for global accounts. Global OEM accounts would need dedicated service and teams.

What initiatives are under work and future outlook?

The whole structure of sales and the business model is under revamp with the removal of matrix organization. The OEM sales are probably going to take a shift into addition of dedicated global OEM sales, and into better division-level cooperation and measuring.

Challenges?

Beside the organizational challenges and serving OEMs, the challenge within e-commerce is finding the win-win situation for all. We must provide added value for our partners, but then again, our system infrastructure is very old and poor, and it surfaces problems when trying to integrate that with e-commerce and our partners. Then again, such efforts have potential to better serve our partners.

Furthermore, we have to consider wider aspects in all of things. Whether it is partners doing e-commerce (they provide other products as well) or using third-party platforms (what are all the things making an effect in the partnership, good and bad). It is a lot to take in and it is imperative to consider the importance of our partners in this matter.

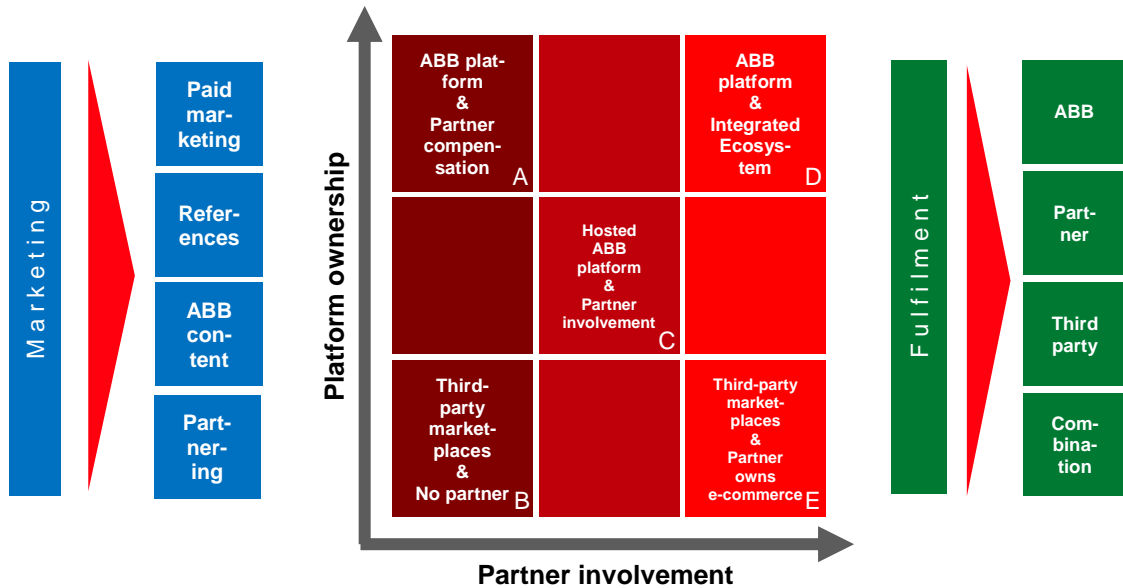
Thoughts on e-commerce?

It will become a significant part of the business and its importance grows by the hour. However, we need to consider that Drive Products has developed its partner channel for 20 years and we would not last without the support it currently brings to our business. The solution has to be a win-win-win for us, to our partners and to the end-customers.

Bulk products are to be sold in webstore and we should consider partner deliveries ownership a sense where the sales funnels end portion is handled by the partners. Whatever are the roles, we need to keep those roles strict. But first, the common goals and targets must be set for the e-commerce.

E-commerce Business Model Options Analysis

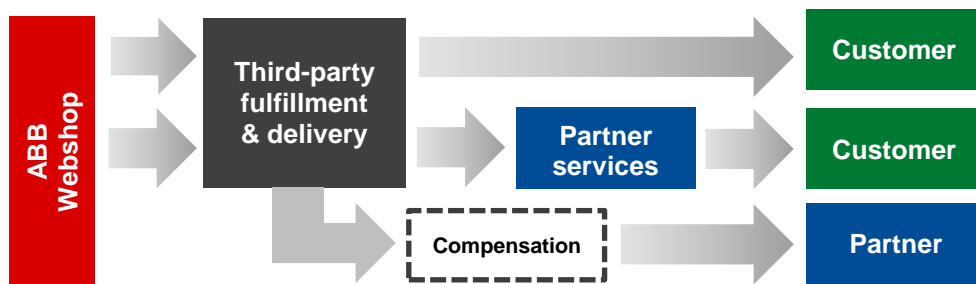
Analysis framework for different e-commerce models (A-E):



Five positions were selected from the matrix for business model analysis. These models are illustrated with marks A-E in the matrix. These are only directional models and not definite for the specific position given in the matrix. Moreover, these models can be mixed and matched, as well as run concurrently. Next, the chosen different models (A-E) are further analyzed.

Model A – ABB platform & compensation model

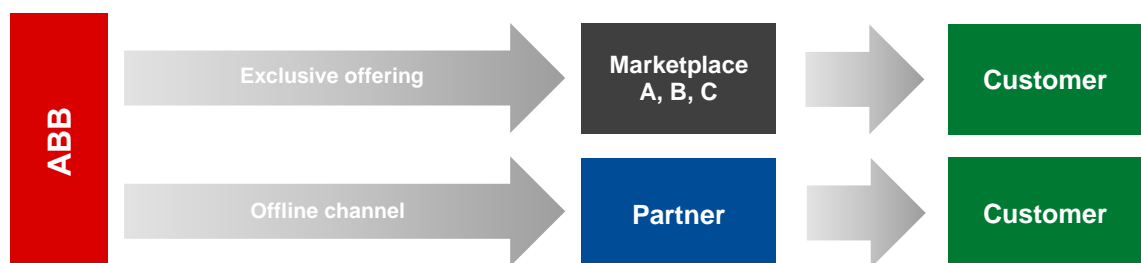
Independent option would be to have own ABB webshop and offer compensation for partners for every sold product at their local region, even if they did not contribute to the order. For example, each product sold in the partner's respective area, based on postal code, 5-10% of the order price would be paid to the partner as compensation. ABB could handle the processes through the webshop and use partner services as an additional resource. For example, ABB names the prices for products and services, and could pay partners considerable portion of the price (e.g. additional 25%) for providing additional value-adding services. The fulfillment and delivery would be conducted by third-party, as these are not core competences for ABB nor for partners. The webshop could also have promotions of local partners.



Pros +	Cons -
Strong ownership over the eCommerce and directions to have with it	Requires heavy IT-infrastructure investments
Own technologies and applications are more likely to be utilized / integrated	No existing competences, and slow initiation / market entry
Full ownership of data and gathering it	Requires additional overhead in e-operations, fulfillment, marketing
Most streamlined customer journey with good availability of ABB services	High chance for channel conflict / minimal benefits for partners (promotion & small compensations max)

Model B – Total outsourcing & offering differentiation

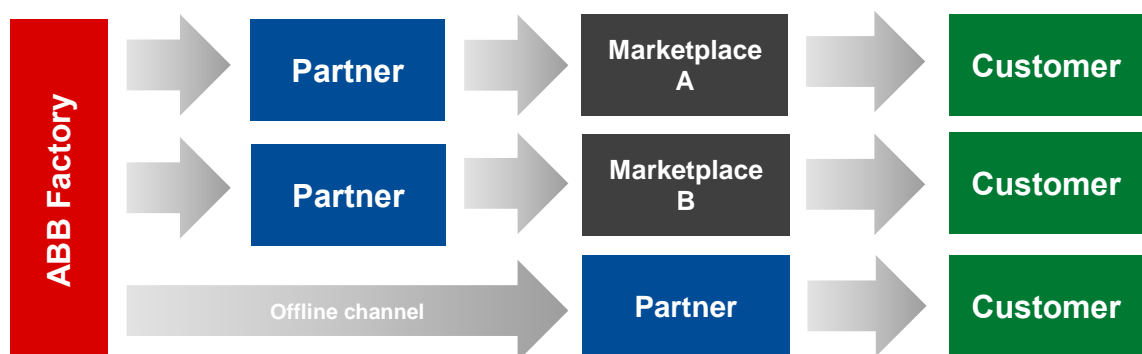
Model B proposes entirely outsourcing e-commerce to third-party marketplaces, to several of them (Marketplaces A, B, C in the figure below). ABB would differentiate products sold online from the channel partners, with exclusive offering for these e-commerce marketplaces, and with the most standardized products sold online. This eliminates channel conflict (Turban et al. 2010 and Forrester 2017). Risks and fixed costs are transferred to third-party providers, who own and hold the inventory, conduct fulfillment of the order, as well as take responsibility of marketing. No initial infrastructure investments are required nor significant resources.



Pros +	Cons -
No initial investments required	Smaller offering available to be offered online, and thus low utility
No requirements for resources, except for agreements and monitoring	Smaller profit also due to marketplace cut
Excellent fulfillment and delivery capabilities	No benefits for partners
Large players are easily accessible (e.g. Amazon & Alibaba)	No strong leadership for the direction of eCommerce nor on further development
Risks are transferred to the third-party (they own and store the product)	Bad customer service due to different channels for products and services

Model E – Partner e-commerce through third-party platforms

Model E suggests outsourcing e-commerce to partners. The conducting their own e-commerce ventures and sharing best practices and competences with partners. ABB has no regime over partners to forbid conducting their own e-commerce. Thus, ABB should support the channel partners by providing guidance, master data, customer engagement, as well as leads and other services. This not only commends to overall ABB product sales, but ensures quality of the partner initiatives, maintaining ABB's high brand image throughout different channels.

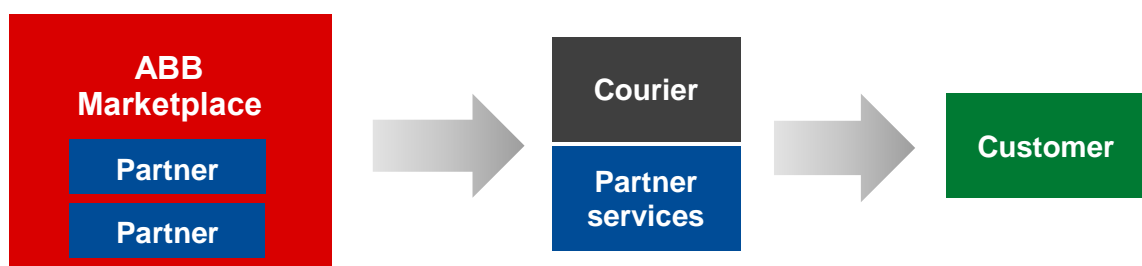


Pros +	Cons -
No initial investments required	Small profit due to partner and marketplace cut
No requirements for resources, except monitoring partner/marketplace success	No strong leadership for the direction of eCommerce nor on further development
Excellent fulfillment and delivery capabilities	Chaotic. Hard to have cohesive and comprehensive product offering online
Large players are easily accessible (e.g. Amazon & Alibaba)	Hard to control and monitor the e-commerce's success
Risks are transferred to the third-party (they own and store the products)	Customer journey and service is likely poor compared to other models


Furthermore, models A and E, can be run concurrently with great synergy. ABB could have an outsourcing agreement with large marketplaces, and partners could conduct their own e-commerce initiatives.

Model C – Hosted ABB marketplace upheld by partners

In this option ABB could have a branded *marketplace*, potentially hosted by third-party. The platform development and infrastructure are outsourced to a modular platform provider. This considerably reduces initial platform investment. However, modular solutions may possess some technological limits due to lower engineering available. These can include insufficient data gathering and system integration possibilities. However, these shortages can be to an extent disregarded by having the partners operate on the platform, them placing products and value-adding services for sale, as well as handling processes and fulfillment. This neglects channel conflict entirely and could increase benefits for both parties (Turban et al. 2010). Partners would hold the inventory but also build relationships through ownership of the processes. Finally, ABB would provide partners with support wherever possible (master data, product marketing, etc.).



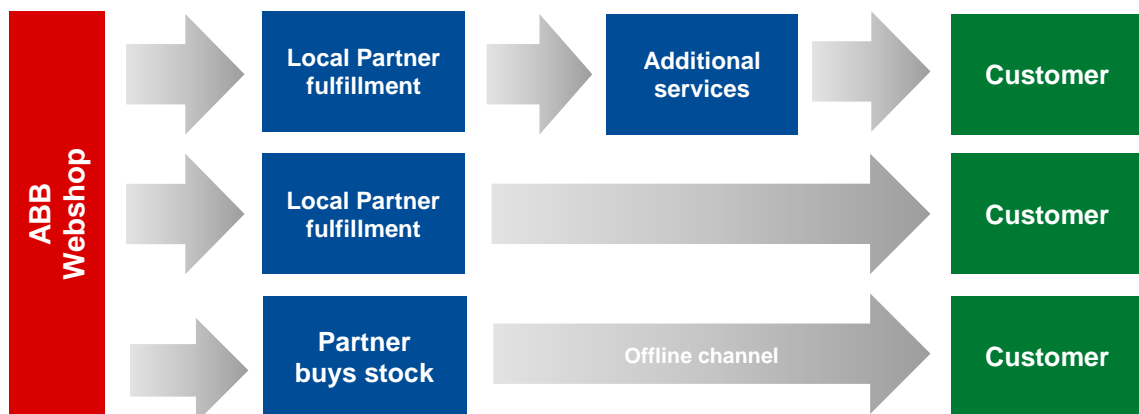
Pros +	Cons -
Only mediocre initial investments required compared to fully unique platform / ecosystem	Requires own investment but does not give strong ownership nor further development capabilities
Order fulfillment is outsourced – and to channel partners	Chaotic. Harder to have cohesive and comprehensive product offering online
Great channel partner involvement and profit for them	Harder to control and monitor e-commerce's success
Greater profit for not having to pay marketplace cuts to third-parties	Still requires strong management and monitoring resources for the partners
Risks are transferred to the third-party (they own and store the products)	Marketing, search engine optimization, and conversion can be a challenge

For example, Hewlett Packard Enterprises (HPE) has  similar solution. They have outsourced an HPE-branded marketplace from a supplier of modular e-commerce platforms. Furthermore, these marketplaces are run by channel partners having the products and services placed and sold in the platform by them, as well as availability for giving quotes. The channel partners also conduct order fulfillment by themselves.

**Hewlett Packard
Enterprise**

Model D – ABB webshop & value chain integrated ecosystem

The option with higher risk for ABB is to develop an e-commerce ecosystem. ABB would have its own e-commerce webshop, and systems integrated with key channel partners. ABB would sell the products from local partner inventories with additional partners' value-added services. At the ordering stage in the webshop, a closest partner would be determined with its additional value-adding services available. The order fulfillment would be directed to the closest partner, by determinant of common postal codes. The partners hold excess inventory, yet such adoption of localized strategy in mini distribution centers (Bain & Company 2019) enables to operate close to the customer, and delivery times as well as service levels can achieve desirable measures.



Pros +	Cons -
Strong ownership and control over the initiative and its further development	Requires heavy own investments and likely some from partners as well
Strong profit potential due to no marketplace cuts and strong ownership	Operational failures are potential on system level, due to infrastructure complexity
Order fulfillment & services are outsourced – to channel partners	Partners' view on their lack of ownership on customer relationships (but e-sales should be just accessory benefits)
Great channel partner involvement and additional profit for them	Pricing and invoicing present a challenge
More streamlined customer journey and faster lead times	Service levels depend on partner capabilities, what if volumes spike

The partners could conduct their incurring orders from the ABB portal with potential partner discounts and further sell these products via their offline channel. This model has potential to increase efficiency for each party.

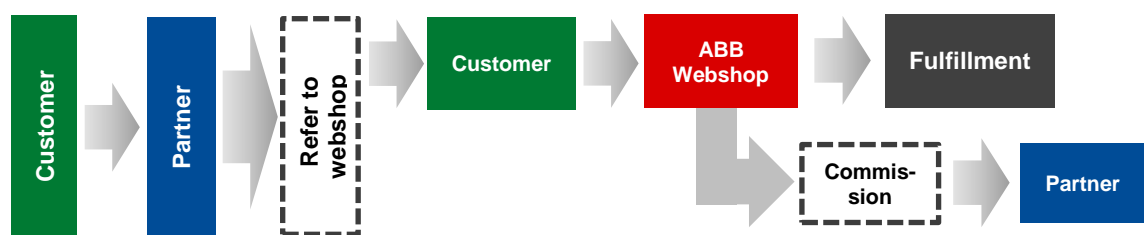
Furthermore, the ecosystem thinking could be taken even further, enabling partners the ability to develop their own business in a larger integrated ABB-partner ecosystem. For example, partners would be system integrated with ABB and with other possible parties, allowing the partners, to an extent, utilize ABB's resources and data to further drive their own initiatives and innovations.

For example, Mini has a simpler model of similar suggestion: they have own webshop for its cars with prices and online ordering available. You can order a car for your needs and have it picked up from the closest mini center. Moreover, the mini center receives profit from the online sale.



Omnichannel / reference model

For an omnichannel consideration (McKinsey 2018; Bain & Company 2014), partners could be addressed a commission on every order they refer customer to take online (from the ABB webshop), for products or services they are not able to provide themselves. Beside small benefits for partner, this model could provide great returns for ABB in the long-term. Moreover, customer service and thus experience are improved.



Furthermore, other applications should be considered to combine offline and online channels. The base is founded on eliminating channel conflict, which then allows both channels to utilize each other in order to provide differentiated end-customer experience. Especially new technologies present opportunities in this field, e.g. how Augmented Reality combined with digital channel could be used in offline sales.