



LUT University
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Designing Value Proposition by disruptive factors in Customer Jobs

Master's Thesis

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ABSTRACT

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<p>A customer-centric approach is a typical guiding principle for managing the development of innovations and business models. By capturing customers' expectations, preferences and pain points the supplying company translates the insights into business opportunities. The present business environment is impacted by varying patterns of disruption; for instance, the evolution boosted by new technologies integrates all sectors of industry into the digital world. Thus, whilst the surrounding business fundamentals are regenerated, industry incumbents are forced to anticipate new approaches and to review their own processes.</p> <p>This Master's thesis originates from an actual management dilemma of a case company. The study had three objectives; to identify change factors in customer's jobs in defined sales verticals, to describe the outcome in relation to value propositions (products or services) and, furthermore, to discover an applicable process that enables assessing changes in customer expectations.</p> <p>The research strategy used in this study was action research, where the primary focus was on the empirical part employing qualitative data collection methods. The main source of data was semi-structured interviews conducted with eleven internal stakeholders. To supplement the results, additional data sources were utilized. The secondary data was compiled from the case company's internal documentation and industry publications related to the area of business. The results of the study outline emerging themes of disruption in the business environment for the designated sales verticals. In addition, the study introduces a concept that provides a holistic methodology to identify customer requirements and to measure the gained results. The new approach is tested with concrete case examples and further steps for process development are recommended.</p>	

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<p>Asiakaslähtöisyys on yleinen periaate joka ohjaa yritysten innovaatioiden kehitystyötä ja liiketoimintamallien strategiaa. Liiketoiminnan ympäristöön kohdistuu tällä hetkellä merkittäviä muutosvoimia erilaisten kehitystrendien ohjaamina, esimerkiksi, teknologisen evoluution kiihdyttämänä kaikki teollisuuden toimialat integroituvat eri muodoissa digitaaliseen toimintaympäristöön. Tämän vuoksi radikaali murros (disruptio) heijastuu voimakkaasti myös teollisuuden perinteisiin toimijoihin, joten niiden on etsittävä uusia toimintamalleja liiketoimintansa kehittämiseen.</p> <p>Tämä tutkimus pohjautuu konkreettiseen ongelmaan kohdeyrityksessä. Työllä oli kolme tavoitetta; tunnistaa disruption synnyttämiä muutostekijöitä määriteltyjen myyntivertikaalien asiakkaiden liiketoimintaympäristössä ja kuvata muutosten vaikutukset kohdeyrityksen arvolupaukseen. Lisäksi tavoitteena oli löytää prosessi, jonka avulla asiakkaiden tarpeet voidaan arvioida ja kuvata systemaattisen toimintamallin kautta.</p> <p>Strategiana tutkimus hyödyntää toimintatutkimusta, jossa fokus asetettiin empiirisen osuuden toteuttamiseen kvalitatiivisilla tutkimusmetodeilla. Toteutus tehtiin tekemällä yksitoista puolistrukturoitua haastattelua sisäisille sidosryhmille. Tuloksia täydennettiin hyödyntämällä sekundääristä dataa, joka koostettiin tutkimusta varten kohdeyrityksen sisäisestä dokumentaatiosta sekä tutkimusaiheeseen liittyvän teollisuudenalan julkaisuista. Tutkimuksen tuloksena saatiin tehtyä yhteenveto teemoista jotka vaikuttavat tuote-/palvelukehitykseen määritellyissä myyntivertikaaleissa. Tutkimuksen tuloksena määriteltiin konsepti, jonka avulla kohdeyritys voi kuvata asiakkaiden tarpeita ja mitata saavutettuja tuloksia. Konseptin käytettävyys testattiin konkreettisten esimerkkien kautta, lisäksi tutkimuksessa arvioitiin mahdolliset kehitystarpeet tälle prosessille.</p>	

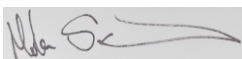
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This Master's Thesis concludes my individual study leave project. There was some prejudice about own rusty academic capabilities, considering that the earlier Bachelor's degree was accomplished already in 2000. That said and now looking at one and half years' back, the job is well done and it has definitely been worth of all efforts. Moreover, it was personally a positive experience to step aside for a moment from the daily business life. The GMIT program in LUT University delivered a great deal of new insights that can be further utilized and adapted into daily business activities. Concerning the research project, the case company provided to me a unique real-life case with a right set of circumstances. I was entitled to merge fresh learnings with past working experience and conduct this via an academic process.

Special acknowledgements goes to the employer, and several persons in the company - I'm grateful for given support. I would like to thank the project sponsor Juha Pikkarainen for boosting positively our common meetings and contributing business insights. The project was a great win-win without doubts. Furthermore, I would like to thank Professor Ville Ojanen from LUT for guidance and given feedback during the research process.

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Joensuu, 27th May 2019



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ABBREVIATIONS

B2B	Business-to-business (trade between companies)
B2C	Business-to-consumer (trade between a company and a consumer)
BMI	Business Model Innovation
CI	Critical Infrastructure
CVP	Customer Value Proposition
MNO	Mobile Network Operator
MVP	Minimum Viable Product
OEM	Original Equipment Manufacturer
ROI	Return of Investment
Towerco	Telecom tower company
VPD	Value Proposition Design (concept by Osterwalder et.al, 2014)

1. INTRODUCTION

Rapid development of digital technologies touches all industries, integrating physical world to digital and vice versa. Hence, the description of future scenarios even in constrained avenues of business is exceedingly challenging task. Considering the perspective of industrial companies, extensive survey by Deloitte Insights (Cotteleer & Sniderman, 2017) indicate that business executives see the Fourth Industrial Revolution (or Industry 4.0) simply bringing to the table “too much choice”, due increasing number of technological options the dilemma to manage company strategy and business visions is constant. Furthermore, even if the daily life is already deeply merged with digitalization, there still is a real world with human factors and emotional intelligence that construct described combinations complex.

Besides attractive blinking business opportunities, there are specific drivers of radical change (disruption) that generate various challenges while companies pursue long term sustainability for the business. One vital example is that the core revenues from existing sales channels are jeopardized due to the changing customer preferences, impacting correspondingly to customer journeys and value propositions of the supplying company (Sheehan, 2009). In other words, it is more challenging for the supplying company to recognize disruptive factors that transform expectations of customers. The presence of competition is self-evident, however, there are emerging signals that today it penetrates to markets from all, even unknown directions. Consequently, increasing competition reflects to the perceived value that customer are compliant to adapt. Transforming changes in customer behavior may even make some of existing assets redundant, decreasing the profitability of legacy solutions of the incumbent company.

Additionally, evolving customer needs accelerate the pull to enhance more advanced business models as all players in the industry are trying to realize opportunities and explore for profitable niche venues to secure sustainable business (Pritchett, 2014).

A citation from one of the leadership principles by Amazon compresses proficiently the mindset of customer-centric approach: “*although leaders pay attention to competitors, they obsess over customers*” (Amazon, 2019). In this Thesis, the focus is to explore evolution of changing customer jobs in defined business environments of the case company and present reflections to value propositions accordingly. Furthermore, a practical company level process that promotes to identify and assess collected market data is introduced.

1.1. Background

The topic of the Master’s Thesis was provided by the Abloy Oy (case company). To start with some brief details, this incumbent company has tradition of more than 110 years for providing security and safety to properties, people and business operations. Essential market segments are related to comprehensive customer solutions and services for residential (mainly in domestic market), commercial and institutional high-end projects, as well securing of critical infrastructure globally. The company manufactures and develops products in Finland, solutions are sold worldwide over to 90 countries through local ABLOY sales offices, authorized distributors or ASSA ABLOY Group companies. Abloy Oy is part of ASSA ABLOY group since 1994 when Swedish lock manufacturer ASSA AB and Abloy Oy merged together. Today, ASSA ABLOY is an international group with annual sales of SEK 84 billion and 48,500 employees, having acknowledged global position in access solutions and market leader base in most of Europe, North America, South America, China and Oceania (ASSA ABLOY, 2019). ABLOY as a brand has appreciated position in construction and security business, the brand has been rewarded several times in Finnish national brand surveys and international security exhibitions (Abloy Oy, 2019).

Ongoing evolution in the business environment and certain assumptions on technological trends were underlying elements that propelled to initiate this Thesis. How to monitor customer’s processes in such manner that it would deliver dynamically enriched data and insights for the supplying company? The customer-centric approach is a core objective when designing products or services and further actions with business models.

Innovations drive organic growth, however, today it requires changes from conventional product-orientated approach to more sophisticated customer solutions, in parallel with services that deliver also recurring revenue (Lusch & Vargo, 2007). Moreover, successful business models require also expertise to identify and merge relevant partnerships.

Based to above, this study focuses to the business development processes of the case company. Details concerning the description of the research process are introduced in the next chapter, furthermore, objectives and scope are presented in details in the chapter 1.3.

1.2. Description of the research process

The research process started at end of 2018 in face-to-face meetings with company representatives. The author has been working in the case company for relatively long time and personal relationships with contact persons provided appropriate base for open and creative discussions. The initial purpose for meetings was to trigger the management dilemma with a research focus and discover “a symptom to an actual problem” with the approach (Cooper & Schindler, 2008). Subsequent phases guided the process further, holistic description of incremental steps in this research is presented in Figure 1.



Figure 1. Description of the research process. Adapted from Cooper & Schindler (2008)

The actual research phase started in beginning of January 2019. Kick-off meetings resulted the official research proposal, it encompassed the actual research plan and preliminary scheduling of tasks. A certain follow-up process was agreed with the company to monitor the progress. In practice, during the research there were scheduled meetings upon requests by the author, whether any open topics and concerns occurred. Steering group meetings had relevant participants from the company, who contributed their insights and critical feedback. The research process was aligned to meet both academic and company level requirements. Documentation for the company is distinguished from this paper, with the intention to satisfy common standards of executive reporting.

1.3. Report structure

This report is divided to six interconnected sections, the outline is presented in the Table 1. The purpose of first chapter is to introduce the background of the study and central themes concerning the research, finally, the given output is actual framework for the research, objectives and scope.

Table 1. The report structure

INPUT	CHAPTER	OUTPUT
Provide sufficient background and idea about the management dilemma concerning the research	1. Introduction	Research framework, objectives and scope
Literature review, theoretical background to support solving objectives <ul style="list-style-type: none"> • Patterns of disruption • Disruptive innovation • Business model concepts • Customer Value Proposition • Jobs-to-be-done 	2. Disruptive change in the business environment 3. Customer value	Clarification of relevant theoretical backgrounds and concepts, set the study within wider theoretical context
Define methodology for the research, data collection and analysis	4. Research Methods	Provide information for reader, how data is collected and asses reliability of methods
Report and introduce discovered findings: <ul style="list-style-type: none"> • Disruption in defined business environment • Drivers of change in sales verticals • Understanding the customer 	5. Reflections on drivers of disruption	Observations presented in thematic structure
Interpretation of the results	6. Discussion	Provide holistic analysis
Present main findings and ideas for future research	7. Conclusions	Final conclusions and proposals for further research

The second and third chapter positions the given management dilemma to assorted theoretical context that assist solving aimed objectives, starting with description of patterns of disruption and definitions on disruptive innovation. This is followed by introduction of different business model concepts and their relations to customer value propositions.

The fourth chapter provides sufficient information about the research methodology, data collection and analysis. Thus, the empirical part of the research begins in fourth chapter that introduces results and discovered findings thematically. The fifth chapter discusses how results deliver answers and outcomes to the research questions. In addition, chapter 5 includes also critical analyzes on the study. Conclusions chapter 6 summarizes the research in overall and submits recommendations for further research areas.

1.4. Objectives and scope

Before the introduction of research questions and the framework is concise description of the business environment. As highlighted in earlier chapters, the aim and context for the research originates from the real-life management dilemma that was discussed with company contact persons.

The case company has a strong focus to enhance existent business actions by providing security solutions into the Critical Infrastructure (CI) market segment. In short, CI provides those core services that underpin regional societies and serves as the backbone of nation's economy. The growth of the global economy leverages investments to CI segment, according to report by McKinsey Global Institute (2016), forecasted cumulative investments needed by 2030 reach in total \$49 trillion. This substantial number can be divided to specific industry verticals, presented graphically in Figure 2. Assorted sales verticals focal for this research are Telecom and Railway industries. Specifically, from the Telecom the research limitation concerns Telecom Tower infrastructure and Railway to so-called rolling stock or related original equipment manufacturers (OEM). Appointed sales regions for the research context are Latin America, South East Asia and Africa.

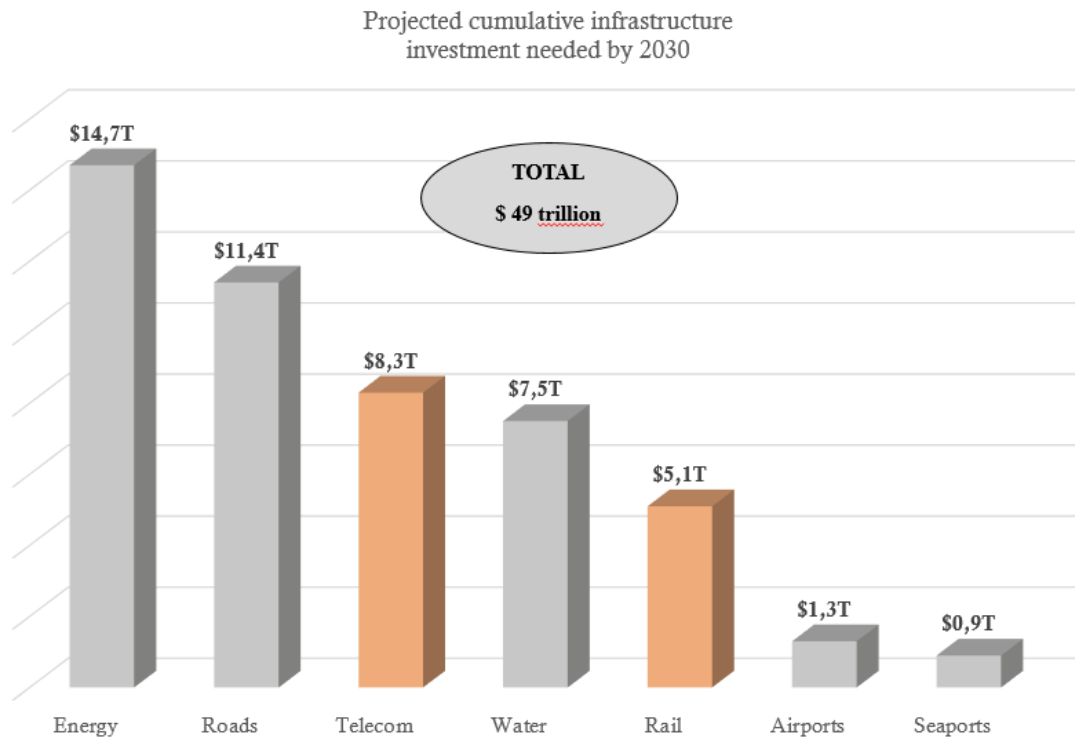


Figure 2. Projected cumulative investments in Critical Infrastructure. Adapted from McKinsey Global Institute (2016)

Considering the nature of CI in the context of case company's core business, the opportunity obviously reflects in major part from export regions, especially emerging markets are expected to invest significantly to develop their infrastructures to support increasing demands of the local society. The described infrastructure is scattered geographically to large number of sites. Usually, these locate in harsh conditions at remote locations that have high intrusion and safety risks. Threats can occur due terrorism, organized crime, vandalism, political uncertainties, cyber theft or even internal crime. CI objects have a variety of different kind of locking points, which must be accessible only when needed; i.e. by maintenance personnel, or subcontractors that provide external services (Abloy Oy, 2019).

Thus, now that the general business environment, required terminology and constraints are introduced, also the framework, research questions and objectives should be presented. The main theme in discussions with the steering group was the *disruption* in the surrounding business environment and customer understanding. In specific, the evolution boosted by digital technologies impacts also to *customer* value chains and preferences. Therefore, the company must anticipate new approaches and leverage own processes accordingly. Regarding internal processes, focal elements that have direct relation to customer understanding are *business models* and *value propositions*. Both should adapt and response dynamically to transforming market expectations. These primary themes formed the initial framework for this research, presented in Figure 3.

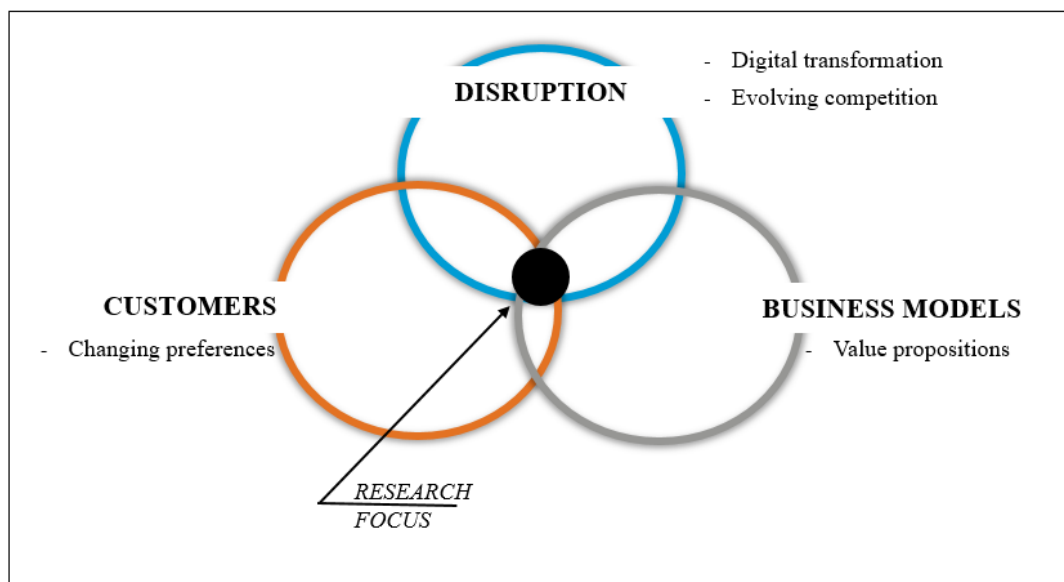


Figure 3. The framework for the study

The decision by the steering group directed the research approach to focus into value proposition part instead of business models, since it interconnects themes in the framework in sufficient manner. In addition, value proposition approach constrains the focal point to the customer. Research questions are shown in the Table 2, final objectives and targeted outcomes were formulated after few iterative rounds with company representatives.

Table 2. Research questions and objectives

RESEARCH QUESTION	OBJECTIVE
RQ1: How the transformation in business environment reflects to the design of Value Proposition in selected sales verticals?	<ul style="list-style-type: none"> ➔ Identify disruptive factors in Customer Jobs ➔ Describe reflections to actual Value Proposition
RQ2: How to leverage internal competences and processes related to customer understanding?	<ul style="list-style-type: none"> ➔ To present a sufficient blueprint and process how to asses changes in customer expectations

Because the study has customer-centric focus, the aim of the RQ1 is to explore and identify themes that transform the business environment and impact further to customer preferences in defined CI sales verticals. By collecting these insights, the aim is to analyze disruptive factors that enable to build a holistic overview of customer, as well reflect to actual value proposition of the case company.

The target for RQ2 is to discover applicable processes that would support the company to leverage internal competences. By discovering different approaches and methodologies, the goal is to present a dynamic process or model that would assist the company to evaluate changes in customer expectations also in long term. In terms of aimed practical outcomes for the research, results are yielded in academic and company level format. The steering group emphasized the importance delivering tangible results in simplified format that is convenient to communicate internally.

2. DISRUPTIVE CHANGE IN THE BUSINESS ENVIRONMENT

Purpose of the chapter is to draft expressions and understanding for the reader concerning the common business thinking term ‘disruption’. The first subchapter gives sufficient overview to the common definitions and forces which currently influence to transforming business environment. Following this, background and definitions of academic approach to disruptive innovation is introduced.

2.1. Patterns of disruption

There are a number of diverse perspectives how to interpret ‘disruption’, it is a powerful term used in business thinking and academic discussions it has even become a kind of cliché (Analyst Wire, 2014). However, focusing to the context of this study we constrain those to ones that relate to business environment. The verb ‘disrupt’ is defined by Cambridge University Press dictionary (2019): *“to change the traditional way that an industry operates, especially in a new and effective way”*. Sood & Tellis (2013) have defined technology disruption that it appears when the novel option delivers more superior performance than existing dominant technology, *“in the primary dimension of performance”*. Besides this Sood & Tellis (2013) defined the disruption from the firm’s perspective; it appears as the market share of a company whose customer solutions utilize novel technology surpasses the market share of the dominant market-leading company using the *“highest-share technology”* in their customer solutions. Deloitte report ‘Unlock assets from adjacent markets’ (Brown, Wooll & de Maar 2015a) present an approach that disruption could be treated as a catalyst for new opportunities and growth, even though there is lot of uncertainty among business executives to take the advantage while surrounded by the disruptive forces. According to the report, there is a significant potential beyond the conventional core that will provide profit and revenue in long term. However, this new edge of opportunities will require significant transformation to three types of businesses: infrastructure providers, platform organizers and trusted advisers.

The success factor for described cases originates from the value delivery that covers not only niche but also broader business environment. Macroeconomic forces due to globalization reflect to increasing competition and reduced control creates more uncertainty, in addition, changing customer behavior evolve expectations and needs are becoming more sophisticated. Brown, Wooll & de Maar (2015b) have illustrated the impacting factors of disruption with three step approach, presented in Figure 4.



Figure 4. Illustration, patterns of disruption. Adapted from Brown, Wool & de Maar (2015)

Patterns concern overall ‘Conditions’ that describe the business environment. In other words, it takes account characteristics of the customer solution (actual offering), the market (who are the customers and how they act) and the nature of the industry (role of incumbents, new assets required, degree of regulation). ‘Catalysts’ drive the disruption in broader perspective, specifically, those are changes in customer mind-set and technology enablers. Customer behavior is expected to shift from traditional possession of the asset, to ‘access to the asset’. This is owing to the transformation in digital infrastructure that provides constantly evolving sophisticated solutions. Incumbents face severe challenges whilst traditional core streams of revenue are under erosion, existing assets may become less viable and assumptions about customer value propositions are indistinct.

Thus, when having patterns of disruption recognized, it is important for supplying companies to engage their customers. Forbes (Pitney Bowes, 2017) defined the digital customer engagement: "*it is pulling together high-quality data on customers from multiple sources, and capturing insights from advanced analytics and software tools*". A global survey research 'Digital tipping point' by McKinsey (Gottlieb & Willmott, 2014) highlights that a key driver for business strategies is the digital engagement of customers and it was rated with 69% of respondents within the top three priorities in company strategy. The survey also points out that CEO's must stress their organizations for understanding the value and opportunities by digitization. Forbes Insights (Pitney Bowes, 2017) present in their report 'Digital Transformation' another approach, it consists from three phases that aim to successful customer engagement. Firstly, the approach points out the importance of describing the customer behavior on individual level, this can be done via extensively investigation of data related to the particular customer. In practice, Forbes Road Map recommends a graphical database that has a focus in relationships of the customer data. A good example is digital identity management, e.g. if a single person appears in a database with multiple identities. The stage two relates to the important dimension provided by data from location analytics. It will add physical depth and align context to the customer experience. Location can deliver information and answering to relevant questions in operations, e.g. routing or drive times to physical locations which are pivotal for customer processes. Thirdly, when earlier two steps are combined, this pushes supplying companies to innovate how the data is combined for successful customer interaction via correctly planned contact points/channels.

As a real-life case example, in the Deloitte report 'Approaching disruption' (Hagel et al., 2016) present the story how UBER and other ride services penetrated to taxi markets in US, creating disruption with their mobile platforms and new approach to engage stakeholders (drivers and passengers) in the value chain. The market opportunity was open for these novel entrants since there was upcoming a significant change in local taxi business regulations and dissatisfaction among the customers using taxi services. UBER and others provided by sophisticated mobile technology platforms, utilizing changes in customer expectations. The approach in their business model delivered more value for the stakeholders as pricing was evolving dynamically according to the demand.

However, there is some academic debate whether UBER's case can be considered disruptive, i.e. Christensen et al. (2017) argue that disruptive innovations stem from "low-end or new market footholds". This view originates from Christensen's the theory of 'disruptive innovation' that is shortly introduced in the next chapter. Another commonly referred case example is Apple, the company has been presented in several sources as an innovator that took the opportunity offered by disruptive evolution (i.e. Charitou & Markides 2003; Paap & Katz 2004; Assink 2006). In other words, how Apple put tremendous efforts to focus novel opportunities rather than just guarding the traditional core of personal computer technologies. With solutions like iTunes, iPod and iPhone, Apple was able to evolve their design-centric DNA with emerging technology trends and business model innovation. Therefore, Apple gained that well-known, remarkable success globally and with comprehensive ecosystem they can engage customers and drive further adaptation of products (Hagel et al., 2016)

2.2. Disruptive innovation

As discussed in earlier chapters, disruption is frequently associated together with radical changes of technology. The concept of 'disruptive innovation' introduced by (Christensen, 1997) has been an essential parent why 'disruption' is considerably used term among business language and academic practitioners (King & Baatartogtokh 2015; Vázquez Sampere, Bienenstock & Zuckerman 2016; Christensen & Raynor 2017). In his study from the disk drive industry Christensen (1997) presented findings that the rapid evolution of technologies result incumbent companies focus to more sophisticated solutions to more demanding customers with incremental or breakthrough innovations. Therefore, an opportunity gap is created for new entrants, while they can provide solutions to customers that are positioned in already well-established low end market. The disruption is generated because of solutions that are simpler, more convenient and with less costs receive a permanent position in markets. In the end, this originally intended low-end technology enhances enough characteristics to meet needs of more demanding customers, see Figure 5. In the Christensen's theory customer's ability to operate with developing technology is represented with dotted line ('good enough'), however, there is distribution in the range of technological performance which customers can or are demanding to absorb.

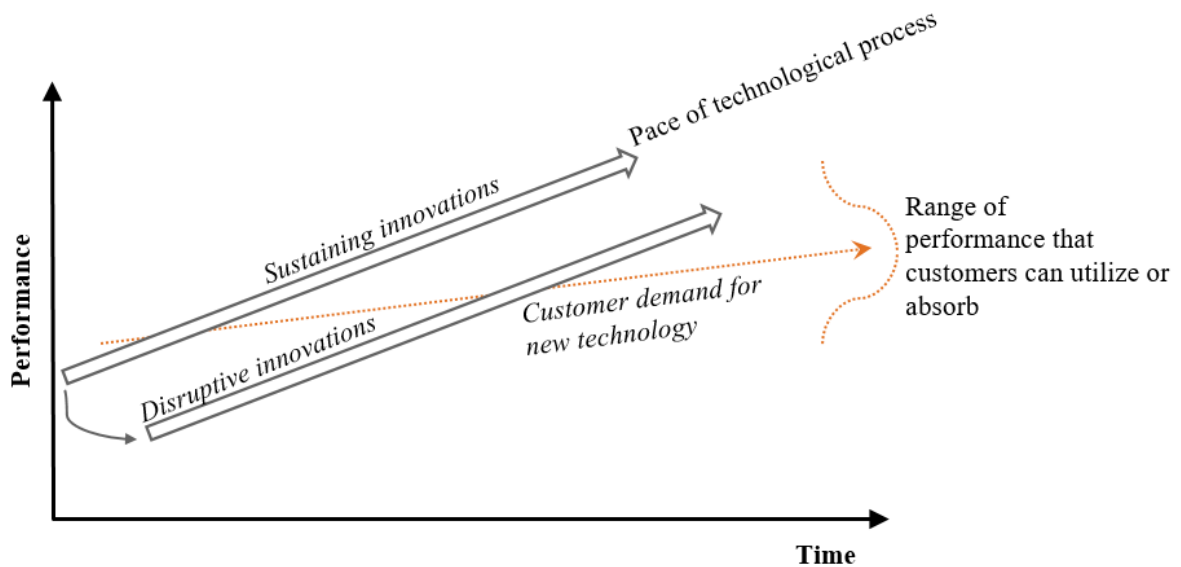


Figure 5. Modelling disruptive innovation. Adapted from Christensen's illustrations (1997; 2013; 2018)

During last 20 years the evolution of the theory has been continuous, and (Christensen et al., 2018) have explored a research with extensive review on conducted academic papers. Also critics have been presented i.e. (King & Baatartogtokh, 2015), they argue according to results from their research that Christensen's interpretations are not aligning with its predictions. Furthermore, they debate that 'disruptive innovation' should be just one approach for the business managers to explore surroundings and that the theory has not been appropriately evaluated and tested in the academic literature- However, several scholars i.e. Vázquez Sampere, Bienenstock & Zuckerman, 2016 defend the contribution of Christensen's theory to the academics and business. Results from the survey Forces of change: Industry 4.0 Deloitte (Cotteleer & Sniderman, 2017) align with Christensen's view. Business leaders who participated to the survey, indicated that they tend to protect their company's market positions by using advanced technologies, rather than directly investing to disruptive options. ATOS 2018 present the relationship between digital transformation and human dimension as 'Digital Dilemma', the model urges to align business strategies in three main areas: people engagement, sustainable business models and trust & compliance.

Further derived from this, human values of customers, employees and citizens should be in the core of business strategies. Additionally, ATOS publication debates that the development of digital technologies will increase the ethical tension between “art of possible” and “art of permissible”, reasoned by topics like data privacy, economic fairness and employee well-being. Moreover, to contribute another insight reflecting with Christensen’s theory on disruptive innovation, Sood & Tellis (2013) conducted in-depth research to study the phenomenon of disruption in seven various industries. Their analysis encompassed 36 technologies in various markets over timeline of several decades, results are graphically presented Figure 6.

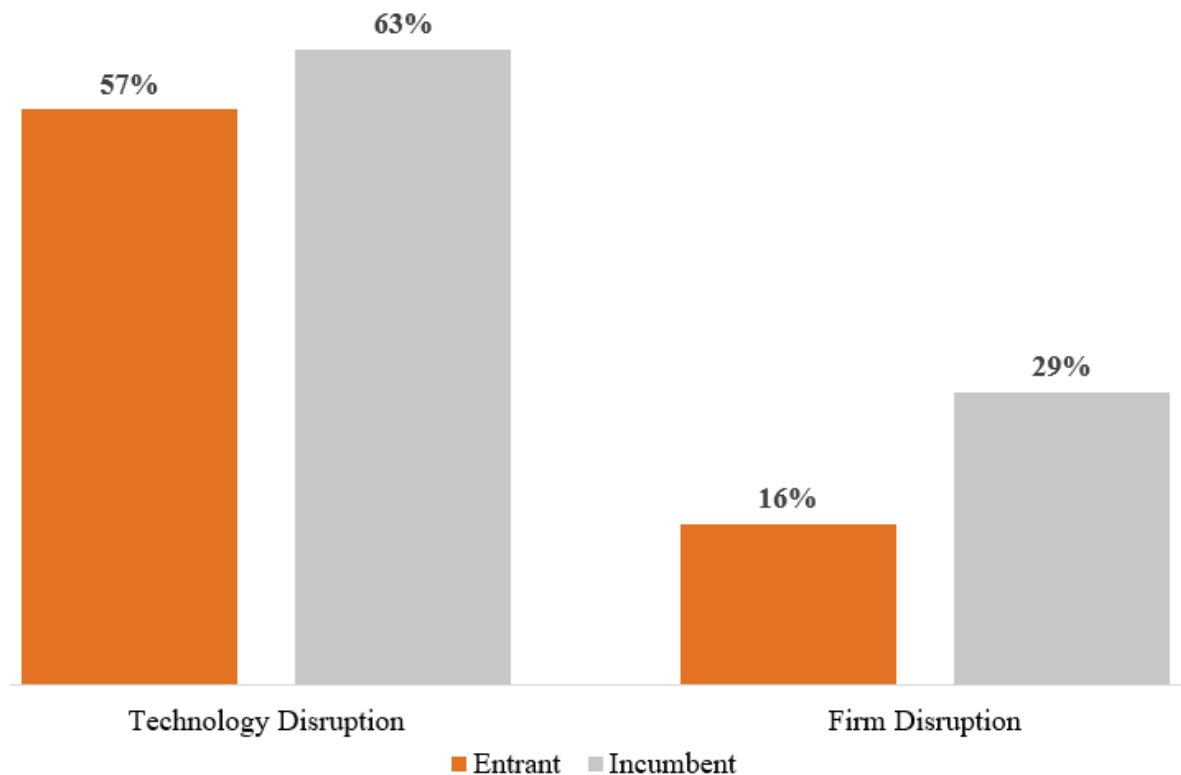


Figure 6. Disruption caused by incumbents and entrants. Adapted from Sood & Tellis (2013)

Findings provide evidence against the view on ‘high-end’ disruption and present that incumbent companies regularly introduce more disruptive technologies compared to new market entrants, indicating that the threat to incumbents from new competitors is less than assumed in other sources. Consequently, Sood & Tellis (2013) address that incumbents should have a constant outlook for new technologies.

3. CUSTOMER VALUE

This chapter introduces definitions that assist understanding the customer-centric mindset and its relation to company business activities. Furthermore, presented themes in the chapter are deeply related to the terms used in research questions and objectives. Description start from presenting the background and different approaches of business model concepts. Some of those have profound interconnection with customer value proposition, therefore, following subchapters deliver academic definitions on customer value and jobs-to-be-done theories.

3.1. Business model, background and concepts

The purpose of this chapter is to provide an overview to literature area regarding business models. Scholars have introduced various definitions, which range from all-inclusive approaches to the more simple presentations of how the company aims to make money. Hence, also the scattered evolution of concepts is described. In addition, the practical relation in between business model innovations and customer value proposition is illustrated with some case examples. To start with academic definitions, Zott, Amit & Massa (2011) provide extensive review to the specific business model literature. Their collection of selected definitions on business models is presented in Table 3. The summary describes themes that interconnect and emerge from literature; business model stresses holistic definition “how firms do they business”, business models acts as “a new unit of analysis” and business model includes presentation of “how value is created, not just how it is captured”. Zott, Amit & Massa (2011) conclude that the activities of the company have vital role in the alternate conceptualizations of suggested business models.

Table 3. Selected definitions of the Business Model. Adapted from Zott et al. (2011).

Authors(s), Year	Definition for the Business Model
Timmers (1998)	“An architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues”
Amit, Zott (2001) Zott, Amit (2009)	The business model depicts “the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities” (2001) Authors further evolved above definition to conceptualize a firm’s business model as “a system of interdependent activities that transcends the focal firm and spans its boundaries” (2009)
Chesbrough, Rosenbloom (2002)	“The heuristic logic that connects technical potential with the realization of economic value”
Morris et al. (2005)	A business model is a “concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets”
Teece (2007)	“A business model articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value”
Casadesus-Masanell & Ricart (2010)	“A business model is...a <i>reflection</i> of the firm’s <i>realized</i> strategy”

Wirtz et al. (2015) contribute a holistic literature review into research field of business models by reviewing more than 500 academic articles. Results indicate that in the early phase, used models were rather immature. However, today approaches have a wide range of application scenarios and a key component of business models is their value creation logic. Observations address that modern scientific approaches deliver more holistic and integrated methodology, ideally, those deliver pragmatic applications for the business managers.

Based to the study from the explored academic literature Wirtz (2016) introduces an overview to the development of business model concept. It includes a classification of approaches to three theoretical main categories: (1) technology-oriented approach, (2) strategy-oriented approach, (3) organization-oriented approach. Illustration is shown in Figure 7.

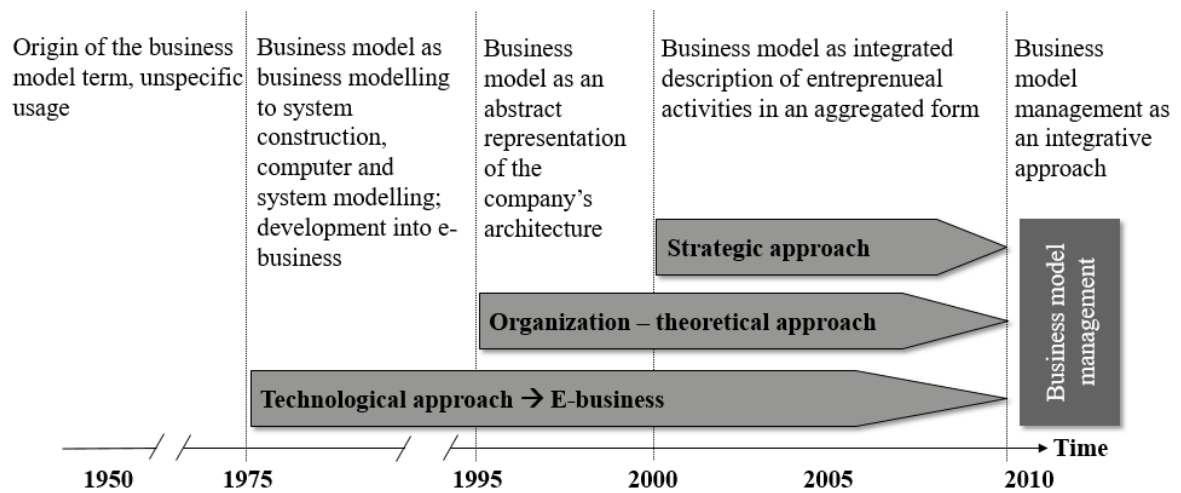


Figure 7. Development of business model concepts. Adapted from Wirtz (2016)

Furthermore, in relation with the organization theory, distinct functions of business model can be defined to following characteristics (Wirtz, 2016):

- “To better understand the key mechanics of an existing business”
- “To act as a basis for improving the current business structure and operations”
- “To show the structure of an innovated business”
- “To experiment with a new business concept or to copy or study a concept used by a competitive company (e.g. benchmarking on the model level)”
- “To identify outsourcing opportunities”

Considering business model innovation in practice from the company perspective, a central theme is the understanding on current business models, and besides this, how to develop models to meet requirements that the disruption in business environment yields.

According to Johnson, Christensen and Kagermann (2008), the fundamental element for successful business models is customer value proposition. This is built by identifying critical jobs that the customer is aiming to accomplish and designing the company offering correspondingly with lowest functional price. They rationalize their views with two real-life case examples. The car-manufacturer Tata Motor Group in India developed the value proposition of the low cost vehicle. Ratan Tata realized the urgent need for safer option of scooters by observing the traffic and behavior of people in crowded streets of India. The result as a product was a low-cost car that provided safe logistics for families and revised business model delivered significant savings in supply chain.

The second example describes the company Hilti who produces high-end power tools to construction industry. The dilemma for Hilti was severe product price competition by other manufacturers, especially from the low-end market entrants. Customer insights delivered input that the actual issue was reliability and availability of power tools, in addition, customers were not willing to own construction power tool products. This guided Hilti to redesign their business model approach towards comprehensive service-oriented customer offering.

Johnson, Christensen and Kagermann (2008) summarize certain strategic conditions that usually demand incumbent companies to update their business models. There are opportunities on markets that originate from changes in customer preferences and expectations, i.e. current solutions are considered too expensive or complicated, new technology delivers novel value and additional opportunity to revise current profit formulas via business models. In other respects, the competition drives the need to update business models. Incumbents should prepare to block low-end market disrupters and observe new approaches how to adjust value propositions that deliver profitable revenues. Figures 8 and 9 illustrate frameworks by Johnson (2010) and Osterwalder & Pigneur (2010), the customer value proposition is a focal element in both models.

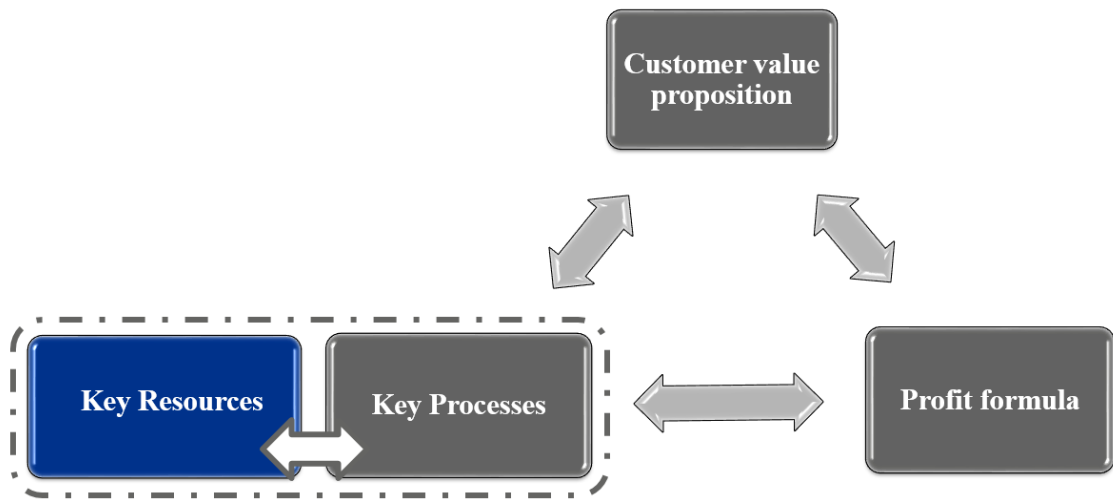


Figure 8. The four-box business model. Adapted from Johnson (2010)

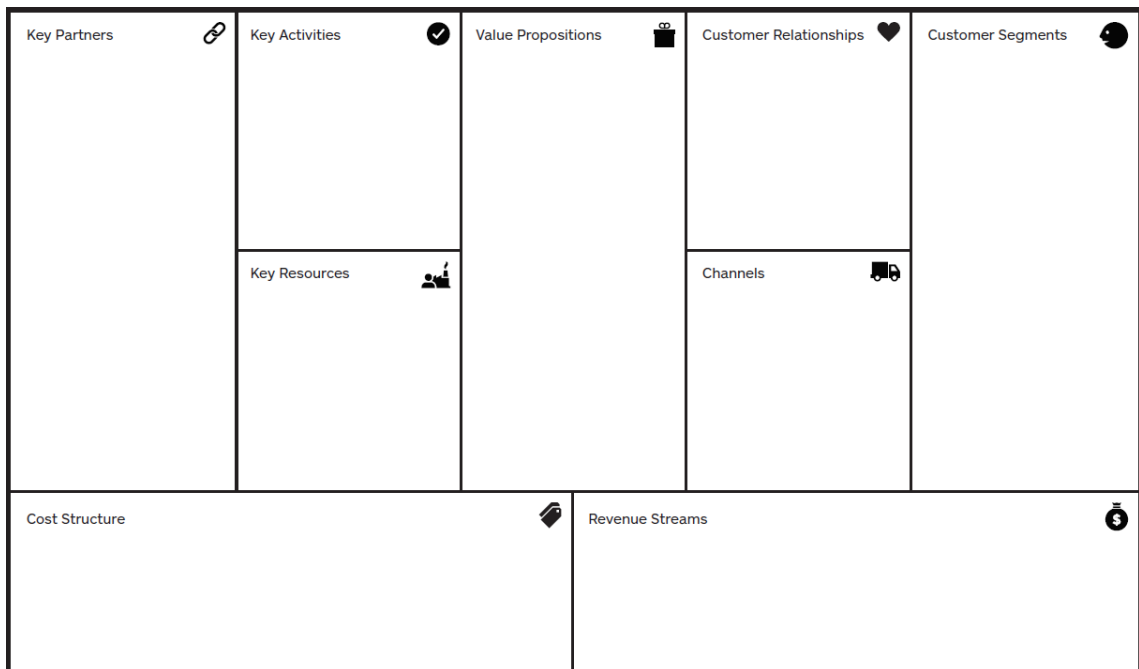


Figure 9. The Business Model Canvas. Adapted from Osterwalder & Pigneur (2010)

To continue with introduced modern integrative approaches of business models, these include classifications and visual presentations of individual core elements. Scholars provide various methodology, some examples are introduced in the Table 4.

Table 4. Integrative approaches of business models

Author(s), Year	Concept description
Amit, Zott (2001)	Four major sources of value that are embedded to business model; “Novelty, lock-in, complementarities, efficiency”
Johnson (2010)	<i>‘The Four-box model’</i> constructs the overview to the business model with four core components; “customer value proposition, profit formula, key resources, and key processes” The model creates sufficient questions and assumptions categorized logically for further implementation
Demil, Lecoq (2010)	<i>‘ROCV framework’</i> presents the structure of business model via three core components; “resources and competences, organizational structure, and its propositions for value delivery”
Osterwalder, Pigneur (2010)	<i>‘Business Model Canvas (BMC)’</i> provides nine building blocks that are visualized to form of canvas; “customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, cost structure”
Enkel, Mezger (2013)	<i>‘Imitative approach’</i> ; a systematic process model to business model innovation, it explores analogies and suitable adaptation with broad approach across industry boundaries

3.2. Customer Value Proposition

The value in the focus of this research is considered from the customer perspective. Vargo & Lusch (2004) introduced that value is perceived and qualified by the customers based on the concept of value in use. In addition, i.e. Lindgreen & Wynstra (2005); Prior (2013); Zauner (2015), have focused to the concept ‘customer-perceived value’, where the hypothesis is that given supplier continuously pushed to create value, in a view of the fact that the customer wants to maximize perceived advantages and keep disadvantages at minimum. One of the earliest definitions of markets and customers aligned to specific segments in order to deliver tailored customer satisfaction was characterized by Smith (1956), another segmentation approach by Wilson & Gilligan (2005) describes the case of car manufacturers Toyota and Volkswagen in the 1960’s. A further fundamental element for segmentation can be designed also according to requirements of customer and related marketing strategy (Best 2000; Doyle 2002).

Customer value for the product or service according to van der Merwe & van Rensburg (2015) is: “a trade-off between what customers perceive to give in order to obtain the returned value”. Furthermore, the value is defined on the contribution of the product or service to meet customer requirements and what kind of contrast those have to competing options. Vargo & Lusch (2004) stressed that value is actually defined in the markets, where the continuous evolution of social and economic processes transforms offerings from product-oriented to service-oriented dominant logic. Value to a customer has been characterized by Hamel & Gatz (2004) and Gupta & Lehmann (2005) to following four categories:

- *Economic value*; is provided when the company can prove to customer that by using their products customer can gain economical savings, instead of using competitive alternatives
- *Functional value*; when economic value is difficult to demonstrate, the company provides to customer evidence which practical benefits are received by the functional performance of the product or service
- *Psychological value*; associated to intangible elements, such as expectations reflected from brand name or social needs
- *Creative value*; added value to customer resulted from radical innovations

The relationship in between described characteristics of customer value is illustrated to Figure 10, typically competition in the markets addresses to improve value propositions so that it would provide more ‘economic value’ via improved productivity and cost reduction, as a consequence, effecting positively to market share and/or internal profits (Yang & Yang, 2011).

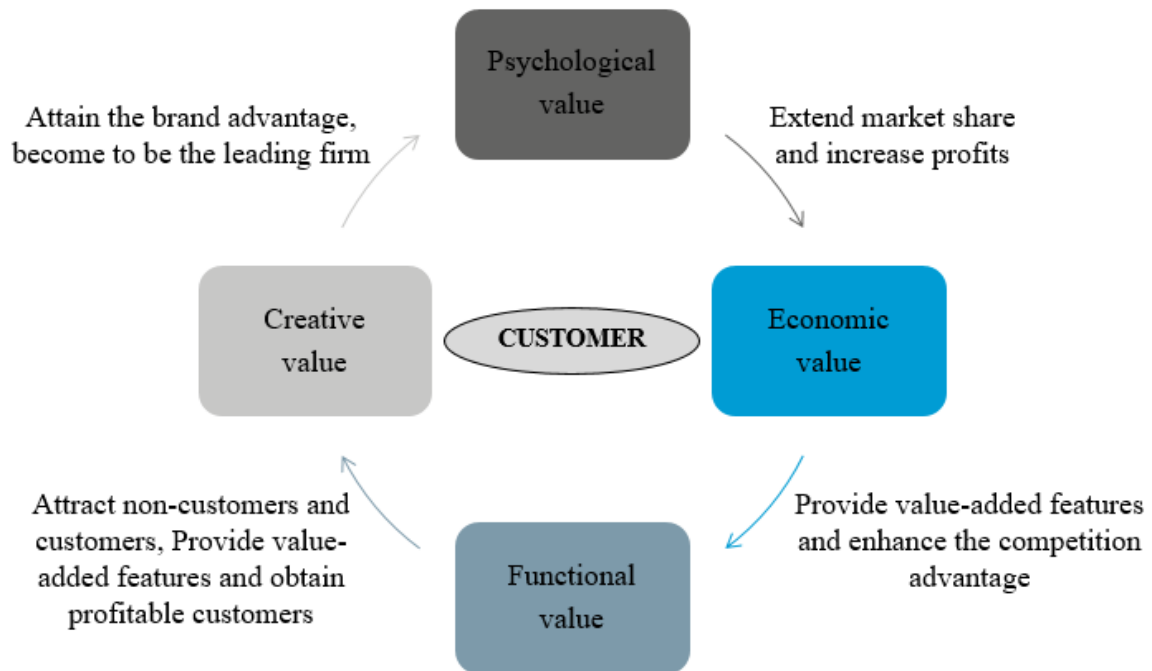


Figure 10. Rotation of the four categories of customer value. Adapted from Yang & Yang (2011)

However, while pushing this approach it might deliver price decreases as outcome, for this reason, some companies choose instead to provide value-added features ('functional value') that would offer additional competitive advantage. Moreover, whether firms invest to distinctive and value-added features they can yield 'creative value' that enhances the attractiveness, ideally, it results enhancement of the firm's brand ('psychological value').

From the supplying company's perspective customer value proposition (CVP) is a focal element. Table 5 describes a collection of definitions originally introduced by Payne, Frow & Eggert (2017).

Table 5. Illustrative definitions on CVP. Adapted from Payne, Frow & Eggert (2017)

Source	Description
Webster (1994)	“A statement of how the firm proposes to deliver superior value to customers and to differentiate itself from competitors.”
Kambil & Ginsberg (1996)	“Value propositions define how items of value (productivity service features as well as complimentary services) are packaged and offered to fulfil customer needs.”
Molineux (2002)	“The value proposition describes the total customer experience with the firm and in its alliance partners over time, rather than that communicated at the point of sale.”
Anderson & Narus (2006)	“Properly constructed value propositions force companies to rigorously focus on what their offerings are really worth to their customers.”
Lusch & Vargo (2007)	“A value proposition can be thought of as a promise the seller makes that value-in-exchange will be linked to value-in-use.”
Rintamäki & Kuusela (2007)	“A strategic management decision on what the company believes its customers value the most and what it is able to deliver that gives it competitive advantage.”
Johnson (2010)	“An offering that helps customers more effectively, reliably, conveniently, or affordably solve an important problem (or satisfy a job-to-be-done) at a given price.”
Frow & Payne (2011)	“A value proposition is an organization’s offering to customers, representing a promise of benefits of value that customers will receive during and after the usage experience.”
Grönroos & Voima (2013)	“The value proposition must be considered a promise that customers can extract some value from the offering.”

Based to the presented study of prior literature, Payne, Frow & Eggert (2017) propose three alternative approaches on the CVP; CVPs which are for the most part “*supplier-determined*”, giving the consideration to a value-in-exchange; CVPs which are “*transitional*”, related with the customer experience; and CVPs which are “*mutually determined*”, focusing to value-in-use.

3.3. Background and definitions on Customer Jobs

Objectives of this research refer to identification ‘Customer Jobs’, therefore, it is necessary to introduce in brief the background and definitions of this commonly used term. Moreover, following terms and concepts have been taken into consideration in the empirical part of the research, since the second objective of the study was to discover applicable methodologies and tools which would support internal business development processes of the case company.

According to Leavy (2017) and Ulwick (2016), three relevant insights have propelled the development of jobs-to-be-done theory; (1) by Theodore Levitt “people don’t want to buy a quarter-inch drill – they want a quarter-inch hole”, (2) by Peter Drucker that “the customer rarely buys what the company thinks it sells him”, (3) by Clayton Christensen that “people buy products and services to get a job done”. Leavy (2017) determines that the main objective of the jobs-to-be-done is to detect causation in defined context, thus, which parameters effect to the customer when he is making the final purchase decision over available alternatives. In addition, Ulwick (2016) describe a comprehensive framework to support business development activities to discover jobs-to-be-dones of the customer. The framework assists companies to identify, capture and arrange customer needs following a particular procedure. Additionally, Ulwick’s concept delivers also tools to measure key performance metrics from achieved results.

The history of launching novel customer solutions or products encompasses typically minor updates or constant incremental improvements, however, from time to time some new innovations meet the definition to be disruptive/radical which generates a totally new market and customer segment (Ulwick & Bettencourt, 2008; Christensen et al., 2007). According to Oestreicher (2011), Christensen’s jobs-to-be-done theory debates on the increasing risk that customers relationships are threatened when new product offerings are settled to the conventional segmentation. He refers to his study and the characteristic trend of convenience that customers currently demand, via an example from music recording industry. While customers have increased offering of alternatives (physical records vs. online streaming services), customers tend to acquire only those assets based to their own, individual interests and ignore ones that do not meet given customer demand.

Vandermerwe (1993) present the relation between the individual customer experience and the company. Her model, illustrated in Figure 11 draws the customer journey in three steps (‘PRE, DURING and POST’), by deliberate identification of phases companies can recognize potential customer tasks to create new added-value features.

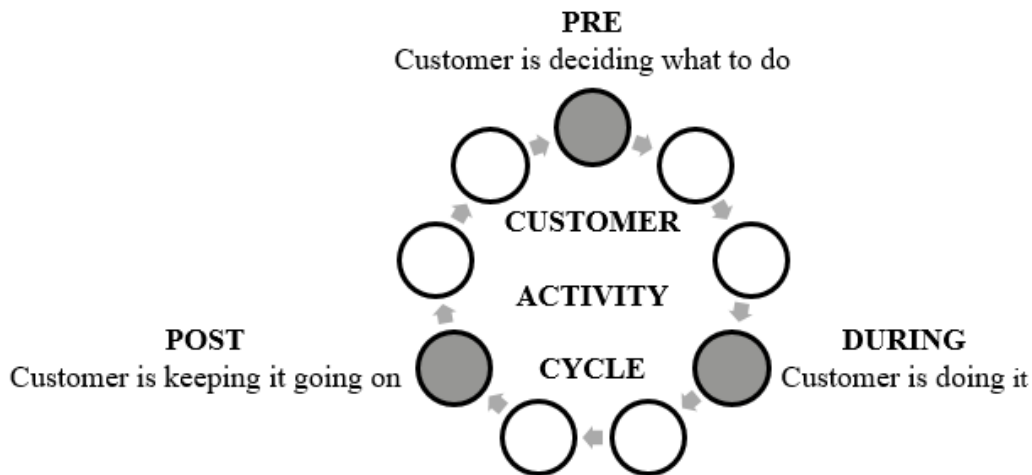


Figure 11. Customer activity cycle (CAC). Adapted from Vandermerwe (1993)

Vandermerwe's concept has a holistic view into the customer's journey, exploring all required activities that the customer has to conclude in order to finalize the actual job-to-be-done. Oestreicher (2011) debates that companies could discover additional advantages when combining the CAC with the Jobs theory. The main idea is to adapt findings from CAC so that less valued, unnecessary steps from activities could be removed and by this way the final solution that eventually gets the customer's job done is enhanced.

NABC tool introduced by Carlson & Wilmot (2006) provides a four-step approach to construct, examine, and re-develop value propositions reflecting to needs by the individual customer profile or specific market segment, shown in Figure 12. In the first step, most important needs of the customer are defined, including also a detailed description of the market potential, which should be large enough to deliver back required investments.

NEED:	APPROACH:	BENEFIT:	COMPETITION:
What is the most important user and market need?	What is the unique approach?	What are specific user advantages?	How does these advantages differ from competition?



Figure 12. NABC tool. Adapted from Carlson & Wilmot (2006)

The second phase is the designing of the actual product/service, it considers primarily unique features which are aimed to fulfill the customer need. Typically, this phase evolves via several iteration rounds. Third part of the method describes actual client benefits, these should not be just different, successful solutions must be also quantitative and substantially better than competition. This leads to the final fourth step, since it focuses to identify feasible argumentation against the competition. The company needs solid statements for the commercial marketing language to convince the customer.

Osterwalder et al. (2014) introduce a customer-centric approach to design value propositions; ‘Value Proposition Design (VPD)’. In practice, their framework is a holistic process description including a tool kit with alternate methodologies to design value propositions in dynamic and iterative manner. Here to be referred, in relation with Ulwick’s contribution to jobs-to-be-done, his comprehensive framework for innovation management named as Outcome-Driven-Innovation (ODI) has also influenced Osterwalder’s VPD concept (Ulwick, 2016).

Concerning the VPD model, background data for design work is collected from customer observations and exploring the business environment in broad manner. Results are embedded to a shape of canvas model that is presented in Figure 13. It provides a simple illustration of all related key components, the approach fosters objectives especially in communicating matter of subjects.

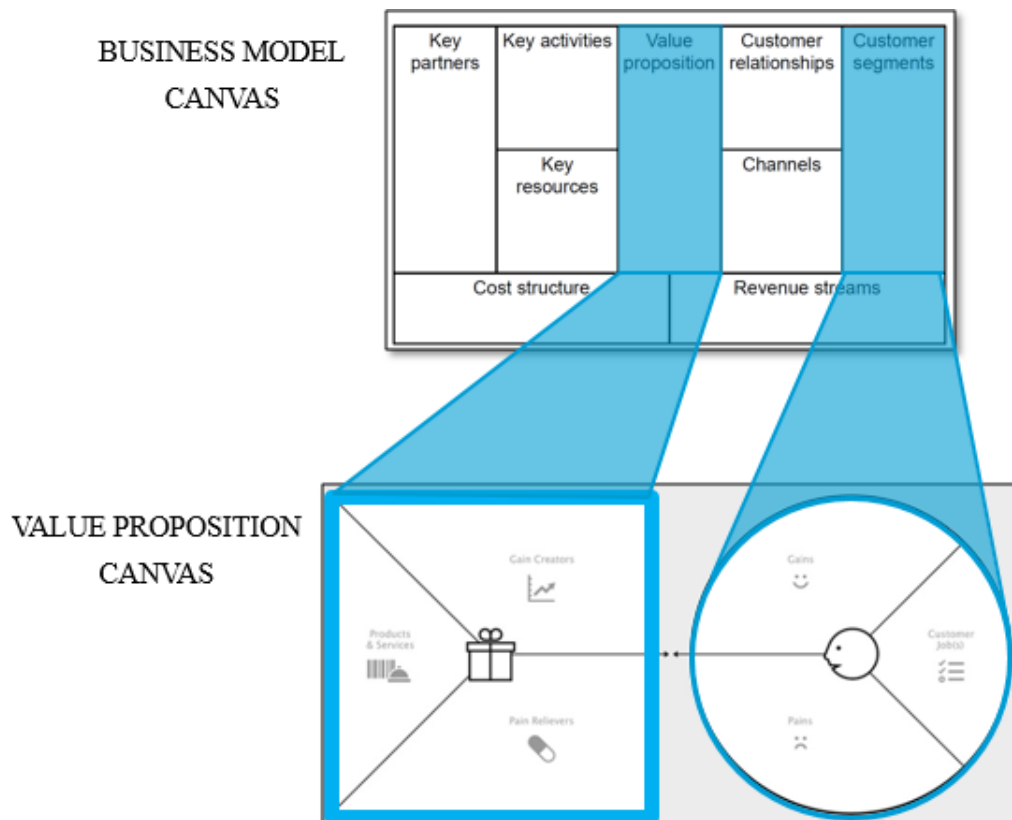


Figure 13. Integrated relation between VPD and Business Model canvas. Adapted from Osterwalder et al. (2014)

The VPD canvas includes a visual presentation of the *customer profile* (the circle on the right bottom side). In-depth level description of ‘Customer Jobs, Pains and Gains’ is designed according to verified data from customer observations and market insights. These core elements reflect to designing of actual value proposition (the box on the left bottom side). By this way the fit is assessed, desirable result is that company’s solutions meet or even exceed market requirements. Additionally, there is an integrated relation with Business Model Canvas (Osterwalder & Pigneur, 2010). The BMC concept is commonly utilized and broadly recognized tool for business development processes. Thus, BMC illustrates a definite representation of interdependencies on the key elements how companies drive their business (Osterwalder & Pigneur, 2010).

4. RESEARCH METHODS

This chapter describes the research setting and methods that have been utilized in the study. The research strategy, data collection process and data analysis, as well the reliability of data are presented on detailed level. The purpose is to give an adequate overview from the basic fundamentals of this research paper, before presenting and discussing on concrete results.

4.1. The research strategy

The selected strategy is action research with qualitative data collection. Few fundamental elements guided towards this strategy. Firstly, the addressed research problem is considered practical and relates to defined avenue of business. The assumption is that solutions for the research problem are dynamic components, though, can be approached via systematic analysis which in the end reflect to company level actions. The research contains a knowledge creation element, the understanding is initially shaped from theory and finally created through practice (Savin-Baden & Howell Major 2013, p. 251). Secondly, as already described in previous chapters, the author has been working in the company organization for relatively long period of time in various functions. The research is conducted with a topic that originates from the same source. There was a sufficient base to conduct the research inside the case company organization, existent personal level relationships that eased collaboration and there was notably a genuine interest towards topics of the research. The research scenario setting process was fairly effortless. Unofficial discussions about the progress of the research provided additional input and improved communication overall, i.e. sharing practices (Savin-Baden & Howell Major 2013, p.254).

The characteristics of action research support reaching defined objectives of the research, past experience and ongoing actions related to practice adapt with each other in the form of spiral model process, presentation in Figure 14.

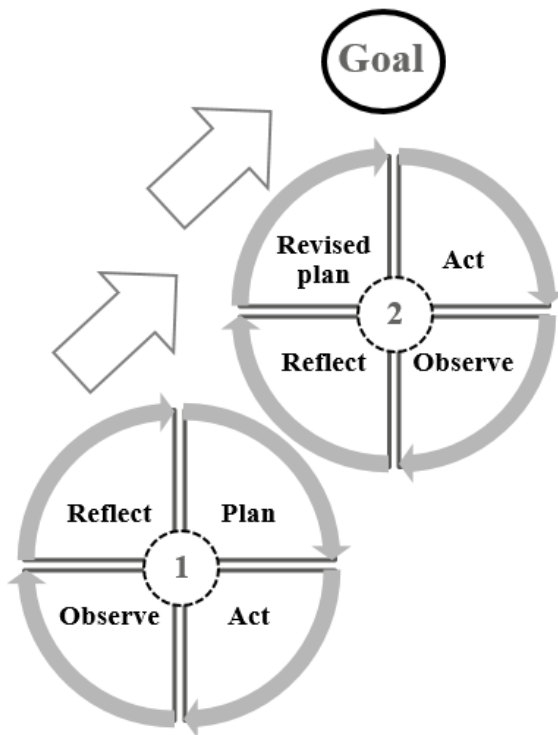


Figure 14. The spiral of action research cycle. Adapted from Zuber-Skerrit (2001)

The spiral model process is efficient method for analytical iteration and planning, since it interconnects active participation and contribution by the organization (Savin-Baden & Howell Major 2013, p.249). Continuous assessment delivers outcomes that can be evaluated immediately in action. Consequently, achieved learnings can be communicated swiftly and further actions agreed, ideally, it results that the research evolves dynamically and the progress is transparent (Saunders, Lewis & Thornhill 2009, p.147).

4.2. Data collection

In view of introduced objectives and constraints, specific multiple data collection methods with diversity were defined, description illustrated in Figure 15. Multiple sources of evidence enable enriching and cross-checking of data, the aim is to reduce the risk of bias and enhance the quality of data.

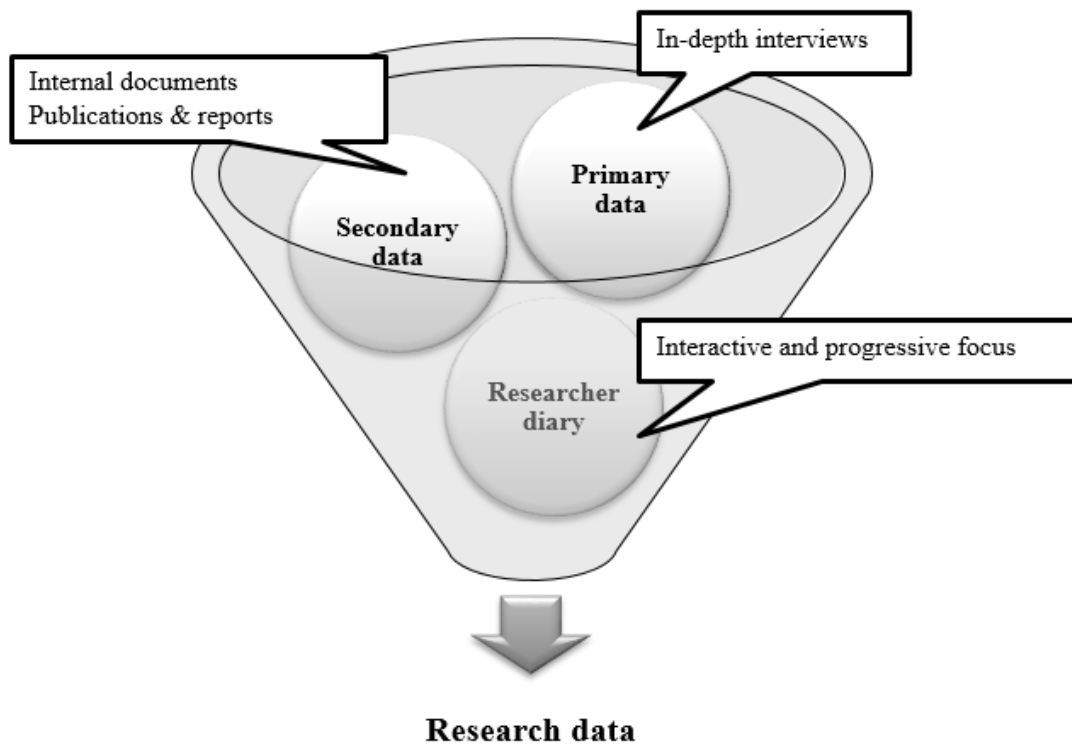


Figure 15. Data collection methods of the research

Structured approach of collecting data set covers the geographical and industry related constraints that have been defined for this research. Each data collection method is described in following subchapters.

4.2.1 Primary data collection

Primary data collection was implemented with qualitative semi-structured in-depth interviews. Arrangements and semi-structured probe questions are presented in edited format in Appendices, due to confidentiality issues of the research. The probe question setting was designed to align with the themes escalated from research questions (Rubin & Rubin 2012, p.140). In brief, these three key themes for interviews were; (1) general understanding of Customer Jobs and customer's value chain, (2) discuss on new insights to disruptive factors in defined sales verticals, (3) assessment of current processes of previous topics. Each theme had specific sub-questions that supported the facilitation of the interview discussions, however, encouraging the interviewee to provide personal insights.

Concerning preliminary arrangements, for interviews there was prepared a personal invitation letter including concise information about the research project. Prior to each interview session, the key terminology of the research was introduced (i.e. ‘what is Customer Job’, ‘how to define disruption in the business environment’), such approach enabled to lead the mindset to the interview themes (Rubin & Rubin 2012, p.132), as well it provided opportunity for open discussion. Moreover, for the author this section gave an opportunity to evaluate how each interviewee preliminary took the attitude to presented themes (Saunders, Lewis & Thornhill 2009, p.333-336). Observed input allowed the interviewer flexibility to guide how semi-structured discussions were operated. For the motivational purposes to interviewees, it was also essential to highlight aimed tangible results of the research transparently, so that they felt motivated and aspired to contribute their knowledge to the project. Interviews in this study have been conducted during February-March 2019.

Participants were stakeholders from internal global organization and they were selected by using purposive sampling. The aim was to accumulate expertise on defined sales verticals and regional market knowledge, as well coherent knowledge considering objectives of developing internal processes (Rubin & Rubin 2012, p.133). The final selection of interviewee’s as persons was assessed within the steering group of the project, profiling of respondents is described in Table 6. The duration of interviews was approximately 60 minutes. In practice, meetings were arranged either face-to-face or online via MS Skype, recording was done for data documentation purposes with interviewee’s approval.

Table 6. Profiling of interviewee's

Department/function	# of participants
Sales Region Latin America	3
Sales Region South East Asia	3
Sales Region Africa	1
Business Development	2
R&D	2
TOTAL interviews	11

According to the initial plan of interviews, sales region representatives were assumed to deliver novel data in particular for related to information of sales verticals and Customer Jobs, whilst Business Development and R&D mostly related to internal processes.

4.2.2 Secondary data collection

Credible sources for secondary data are determined market observations and insights from two distinct sources. The first data set is a collection from internal company documents, consisting from recordings and minutes of meetings from two distinct cases of market observations. The second data source is an extensive collection of market insights (reports/publications). Documentation concerned is produced by business or industry specific consultancy experts that are commonly accepted.

Internal data set consists of two actual cases from defined sales regions, data was collected by case company representatives in parallel with progress of the research. The first case focuses to sales vertical Telecom Tower business in Latin America region. Data was recorded from end customer visits and observations that were accomplished during February 2019, recorded documentation contain data predominantly from end user behavior (i.e. maintenance operations of Telecom Tower). The second case addresses on Railway business in South East Asia region, more specifically, data consists of recordings from company driven workshop during the relevant railway exhibition held in March 2019 in Hongkong.

The author determined methods for data collection in described cases, aligning with aims of the study. Besides this, in order to reduce observer bias, introductory brief was conducted to the responsible company's contact persons, so that they were logically informed on this research and data usage purposes. Preparations provided certain advantages for conducting the project. The approach delivered financial savings in resources, costs and time. Altogether, the approach provided flexibility to plan and adjust the progress of the research efficiently. In this sense, there is positive argumentation on benefits vs. costs.

Additionally, recorded secondary data is further useful for other comparative purposes. In case it does not directly deliver results for concerned research, it can lead to unforeseen topics that are applicable for company intentions in other purposes or further research (Saunders, Lewis & Thornhill, p.268-269).

Concerning the market reports/publications that were assorted as secondary sources, for each publication access was available online at publisher's website without additional fees, however, in some cases there was a request for subscription to order a newsletter or equivalent. Selected reports/publications encompass emerging insights, themes and concepts that match with defined objectives and constraints of this research (Rubin & Rubin 2012, p.197). Thus, it is essential to underline that described data sources deliver up to date information from broadly respected business expertize actors who provide market insights for particular management purposes, i.e. McKinsey & Company and Deloitte Insights.

4.2.3 Researcher diary

To conclude the diversity of data, the research diary enriched research data as a supplementary source. Along the progress of interviewing phase, notes collected to the diary assisted to review probe questions for semi-structured interview sessions, so that the flow of discussions was refreshing the cohesion of data for research purposes. Moreover, the diary was exceedingly useful in meetings with case company's contact persons, providing stimulative ideas for discussions and then evolving further to action points. Finally, reflections from the diary are giving additional aid to the phase of data analysis (Saunders, Lewis & Thornhill 2009, p.499).

4.3. Data analysis

The function and goal for the data analysis is to align collected data in structured configuration which finally introduces results in neutral format. The approach to qualitative data analysis in this study is deductive approach with analytical process of explanation building (Rubin & Rubin 2012, p.154). Following key elements lead to this selection; in prior starting this research, there were initial assumptions in the company regarding disruptive factors inside the business environment of defined sales verticals. Moreover, existing literature provides several concepts and theoretical analysis to design the Customer Value Propositions. According to discussions with company representatives, these are in some form recognized within the industry and predetermined factors formed a broad to narrow guidance to deduce whether research findings will confirm original assumptions.

Recordings from interview discussions yielded verbatim transcription to written data. The transcription phase was prepared manually since there was a limitation not having a license available for automated transcription tool. However, this was minor issue for the data analysis process, even it requires more time to work, the approach provides supplementary option to sense the tone how interviewees actually response to the given discussion topics during the interview (Saunders, Lewis & Thornhill 2009, p.485). Careful breakdown of transcripts produced elements to set up preliminary coding for relevant key words or themes (Savin-Baden & Howell Major 2013, p.264). Whilst certain topics were repeated and evidently emerging, data was conceptualized to categories that were crosschecked to match with main themes used in semi-structured interviews. Thereafter, categories were a guideline for processing data from secondary sources. Multiple data sources enriched findings from interviews and after iteration rounds final restructuring was formed (Rubin & Rubin 2012, p.193). Categories are displayed in Figures 16 and 17.

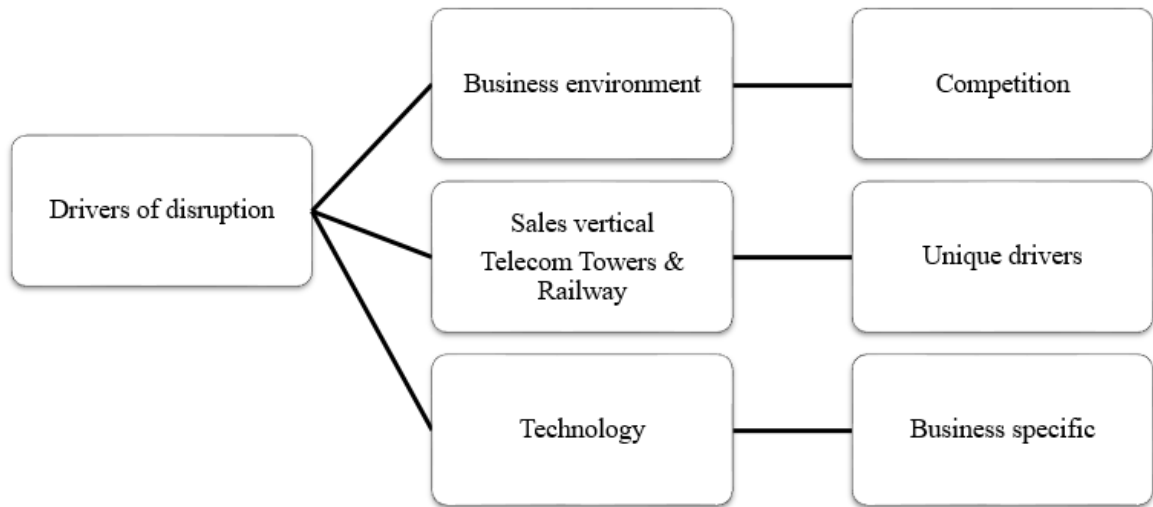


Figure 16. Categorization of data related to drivers of disruption

According to the research framework introduced earlier, categories for drivers of disruption were divided to four main themes. Subthemes for each main were deduced according to emerging topics, for example, unique drivers for the relevant sales vertical.

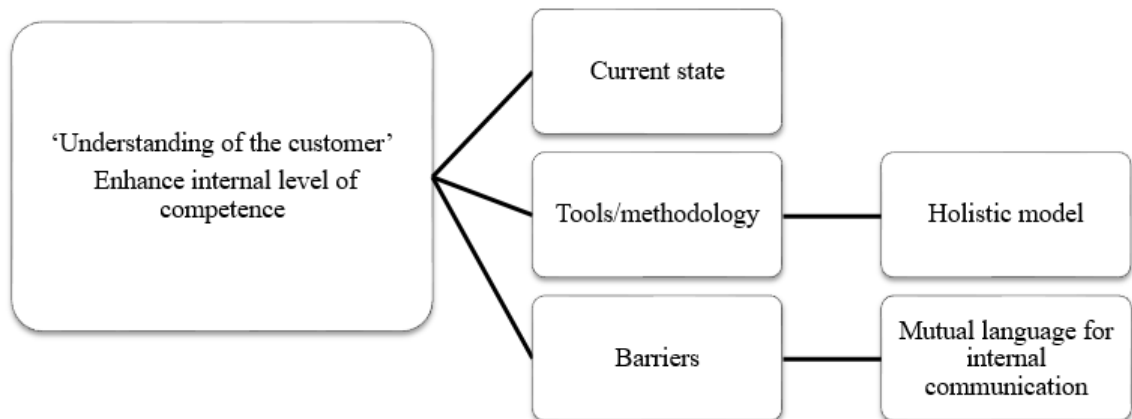


Figure 17. Categorization of data related ‘understanding of the customer’

The second research question was connected to the enhancement of customer understanding by assistance of appropriate tools or methodology. Therefore, categorization was allocated to precise themes with a purpose to support this strategy.

4.4. Reliability of methods and data

Reliability and validity in action research are critical factors to be considered when establishing the research (Saunders, Lewis & Thornhill 2009, p.280). Methods and reliability of data must to be justified and properly assessed. Concerning this research, potential data quality issues and actions to reduce the hazard of unreliable results have been taken account accordingly in the preparation phase. The structure and detailed description of interviews was discussed in supporting manner in meetings with company representatives. Furthermore, the pitfall of different forms of bias (Saunders, Lewis & Thornhill 2009, p.326) was diluted. In connection to initial planning actions of interviews, with the support by steering group themes and probe questions for semi-structure format approach were analyzed, aligning with objectives of the research. This methodology was taken to reduce the risk of interviewer bias. Proper level of knowledge was delivered to interviewees in advance (described personal invitation letter and introductory brief on terms prior interview).

The potential suitability risks with secondary data might be that persons that originally collect data are not familiar with aimed data use purposes and context. Additionally, they might also insert own personal insights that disrupt data so that the measurement validity is disrupted since data is not delivering answers to research questions (Saunders, Lewis & Thornhill 2009, p.273). In this case there was exceptional opportunity for author to influence to secondary data collection in advance, since described secondary data sources (Telecom customer observations and Railway workshop) occurred in parallel timeline with the progress of the research. Persons that participated to collect data were briefed appropriately in advance concerning data use objectives, as well on recommended methodology and tools. Moreover, there was jointly agreed format on how to record findings in such format that would be useful for the research.

In regards to the suitability of used publications/reports, this part was assessed carefully with the company sponsor. There was a critical analysis on the reliability of various sources, seeing that some actors might possess own business interest in terms of 'language used in communication', for example due financing issues. However, the decision was to proceed with commonly appreciated actors that publish trustworthy insights for business development purposes (i.e. McKinsey & Company, Deloitte Insights).

5. REFLECTIONS ON DRIVERS OF DISRUPTION

Chapter 4 introduces findings from described primary and secondary data sources. Qualitative data from interviews has been structured to themes and visualized into form of mind map to engage the reader and deliver sufficient overview to emerging themes. In addition to this, related comments from interviewee's are quoted in a call boxes.

Subchapters begin with of factors that were seen to lead the transformation in customer behavior and expectations, as well emerging themes concerning competition. The approach with these themes is related to the concerned business environment on general level. Thereafter, the focus is aimed to drivers of change into characterized sales verticals, Telecom Towers and Railway. Furthermore, last subchapter provides outlooks that relate to understanding of the customer, the current state, prospective tools and methodology.

5.1. Transformative disruption interconnected to competition and customer

Appearing theme from the interviews concerning the disruption in the business environment was highly focusing to evolving field of competition and technology. All interviewees stressed that competition is even more agile than earlier and possess certain characteristics, outline to these themes is described in Figure 18. Results propose that the competition is expected to show up from all directions, from incumbent companies to novel start-ups, from market players which have not necessarily not been involved earlier in this constrained area of business. Apparent interrelation between these variables is the link to the software and ICT industry, novel competition that enters to markets is characterized to possess top competence of solution development especially from these areas.

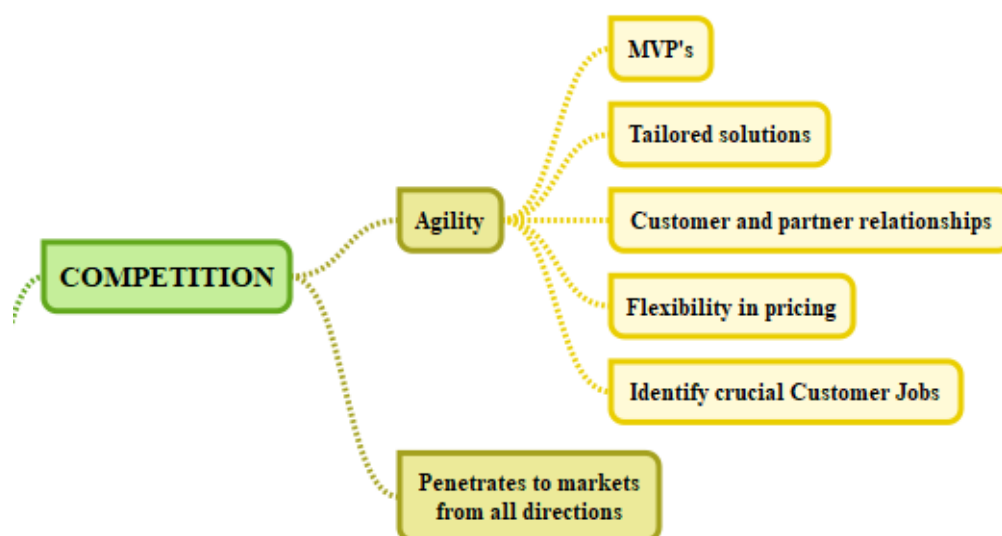


Figure 18. Summary on appearing themes concerning competition.

Introduced incumbent companies consist from local SME's and multinational players which are expected to invest finding streams for the new revenue, since their regular field of business is eroding due to high competition. These predicted competitors usually own existing area of technology which they then aim to refine to enhanced solutions in a new business avenue.

The competition via start-ups is mostly considered local, though, few received comments support that particular start-up companies might spread their market presence also to other regions in the near future. The most essential value for customer provided by start-ups is that they are agile to recognize crucial customer needs. Moreover, they intensively attack if current dominant market players have any value gaps in their products or services. Therefore, minimum viable product (MVP), further development and necessary tailoring is delivered swiftly from start-ups to customers. According to interviewees, in some cases technology orientated customers (e.g. Telecom Tower sales vertical) appreciate such flexibility even more than conventional features linked to security and reliability of the solution. The competition driven by start-ups disrupts markets also in the shape of marketing pricing, these new market entrants have significantly different aims in terms of profitability of the business. Additionally, they put significant efforts to establish and maintain closest possible customer relationships. Quote from one interviewee describes this phenomenon:

“They can even do that with a cost, they will get a solution and make it work, even with all their blood, sweat and tears...the problem with that is, it creates disruption”

In reference to the case company environment, it is relevant to pinpoint that some interviewees highlighted that not only external competition is a matter of concern. The influence of broad solution portfolio and internal competition from inside the global Group was seen that it disrupts customer’s decision making process, since the Group offers similar solutions to the customers:

“...customers are suddenly being bombarded with whole lot of different solutions and they really do not know technically which is going to be best for them, particularly when there has been so much development and changes in recent

Emerging themes from the interview discussions concerning customer can be divided to three main areas, specifically, enhanced individual technological know-how that customers evidently own, increasing need for ‘convenience in-use’ and required integrations with customer’s ICT platforms (Figure 19).

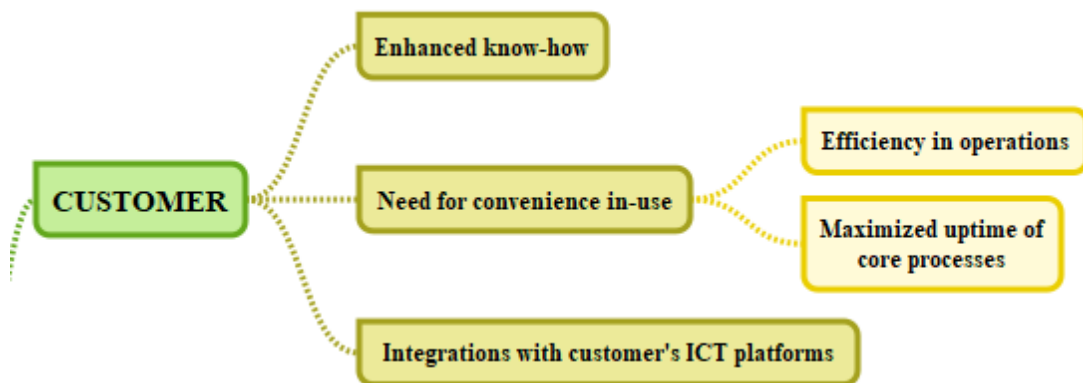


Figure 19. Summary on appearing themes concerning customer

Firstly, taking the focus to enhanced know-how, customers confront increasing flow of alternate technological solutions which predisposes to persons to creative thinking, whether much the same technological approach could be one way or another adapted to profit own business. In other words, customers challenge suppliers to greater extent to adapt with modern technologies while boundaries between industries are blurred and in parallel, it is also obvious that competitors enrich customer's knowledge when introducing new solutions. Moreover, business-to-business (B2B) customers in certain sales verticals are willing to drive sophisticated technologies due to their own interests, this theme is further discussed in chapter 4.2.1. While these described themes transform customer expectations to actual requirements, integrations with customer's ICT platforms has become as one key factor:

"...integrations are there, so you don't really sell a system without the integration to other system..."

In practice, the comment highlights that customer solutions are expected to provide flexible interconnection with other relevant IT platforms in a way that the customer receives a complete solution which supports delivering the job-to-be-done. Consequently, the behavior of customers is considered being disrupted because of increasing interest towards convenience, typically, it concerns positive phenomenon of user experience ('ease of use') when utilizing the application. However, in this context is covers also viewpoint of enhancing operational efficiency, whatever additional value solutions create to the B2B customer's value chain, i.e. reduced labor costs in maintenance operations. Constantly repeated subject from interviews was 'keyless solutions', the management of physical keys is considered old-fashioned method (= not convenient) that reduces performance in operations management, in some cases it may even reduce the uptime of customer's core processes. This critical subject is taken to further review while presenting results of the sales verticals (chapters 5.2.1 and 5.2.2.) and in Discussion (chapter 6).

5.2. Drivers of change in sales verticals

Findings from the sales verticals are presented in this chapter, data consists from interviews and secondary data sources. However, certain business related intelligence is constrained out from this report here due to confidential nature of the research. Since few key themes from findings interconnect between sales verticals, the overview is described already here in Figure 20. Themes in detail are presented accordingly in following subchapters.

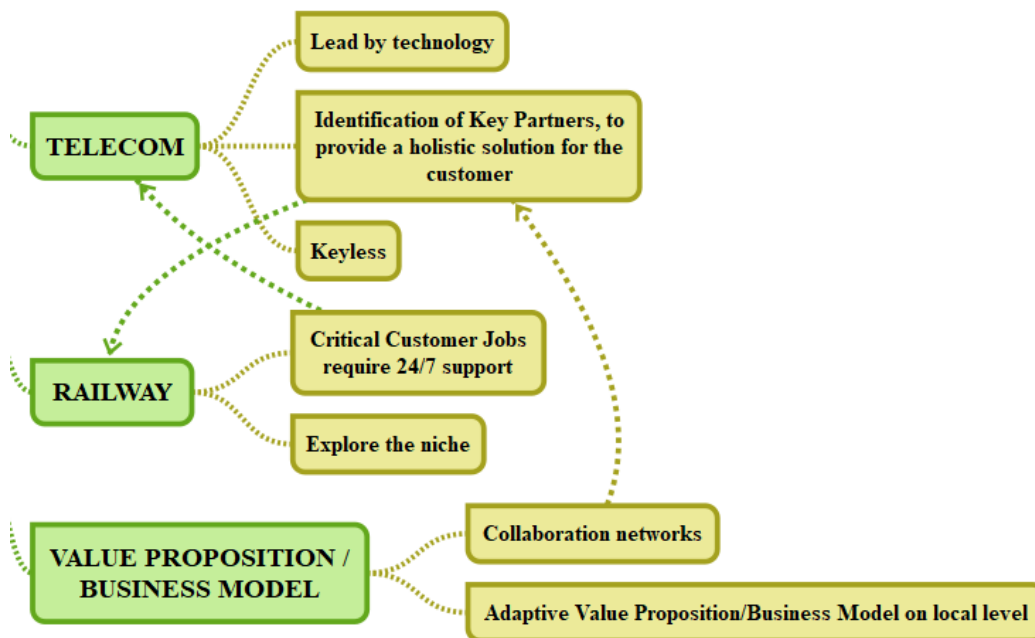


Figure 20. Summary on appearing themes concerning sales verticals

Additionally, it is essential to underline that both sales verticals represent such critical infrastructure where the downtime of functions must be minimized, customer's core operations and processes must perform with precision under all circumstances. On that account, combining core element in customer requirements is the top level reliability of solutions and a demand for 24/7 support from supplier.

"We need to make sure our product works all the time, because there are whole different dimensions of things that can go wrong"

5.2.1. Telecom Towers

Rapid evolution of technologies in-use and new sophisticated solutions required by customers, trend of improve operational efficiency regarding Telecom Tower infrastructure and serious competition of market shares were highlighted as key characteristics of Telecom Tower business in several interview discussions.

To summarize these views, telecommunications industry was seen as a forerunner led by technology, setting in default that it possess substantial technological know-how which is today reflecting in all segments of industry (i.e. software integrations, cloud ecosystems, mobile solutions). Therefore, this drives also the evolution of high-security solutions that are required to secure Telecom Tower infrastructure:

“Customers from the Telecom Tower segment are keen to combine their technology with security solutions...so compared to any other market, they are innovators because they are technology based.”

Themes ‘key partners and collaboration networks’, originate from findings from publications presenting the nature of Telecom Tower industry. To begin with, it self-evidently has a core role in development of local and global digital networks. The issue of demand to build new tower infra concerns in particular emerging markets (i.e. Africa, Latin America) which traditionally lack such infrastructure. According to the report by ATKearney (Dobberstein & Gupta, 2012) mobile network operators (MNO) globally shifted their main focus on acquiring end customers (consumers), this lead to strategic decisions that previously seen core functions like network management, information technology and tower infrastructure was finally outsourced to maximize the value of operations. Tower infrastructure was seen as a high single investment, so capital investors attacked to the markets to solve the dilemma of MNO’s, independent spinoff assets termed telecom tower companies (‘towerco’) were established around the world.

McKinsey market analysis report (Boniecki & Marcati, 2016) explains the same phenomenon, the fundamental element for MNO's is cost reduction in operations, an example of reducing costs and free-up of capital is passive sharing of infrastructure, networks are shared with other companies. Consequently, McKinsey report states that more and more operators merge with each other, as well fully new players enter into the markets. According to publication by TowerXchange this evolution finally effects to the local business models how towercos operate in different geographical locations (Osmotherly, 2017).

Summarizing received comments from the interviewees and above described publications, following factors aim for operational excellence, which then again determines requirements for collaboration networks:

- reduce fixed costs and opex for individual tower sites (e.g. energy or guarding costs)
- need for customized sites when tower infrastructure is shared with other mobile operator companies (changing demand of customer tailored solutions)
- green telecom requirements (e.g. utilize renewable energy technologies)
- both MNO's and towercos actively study novel business models which could enhance their profitability (tailored tenant profiles for site sharing)

Concerning findings from Telecom customer visits in Latin America, customer observations were recorded during customer visits with a focus to the actual behavior of end users. The aim for this this exercise was to monitor actions of the customer, how maintenance operations are performed in daily life practice for Telecom Tower sites, in relation to case company's security solutions. In terms of used methods, conducted operative actions by the customer were mapped in the explanatory format of 'customer journey'. The approach presented in Figure 21 delivers extensive insight and description how the actual customer process proceeds in operational steps, 'contact points' and related 'actions' are visualized according to expression by the customer, either positively, neutral or negatively. In essence, with this approach there are respective similarities with the customer activity cycle concept by Vandermerwe (1993), introduced in chapter 3.3.

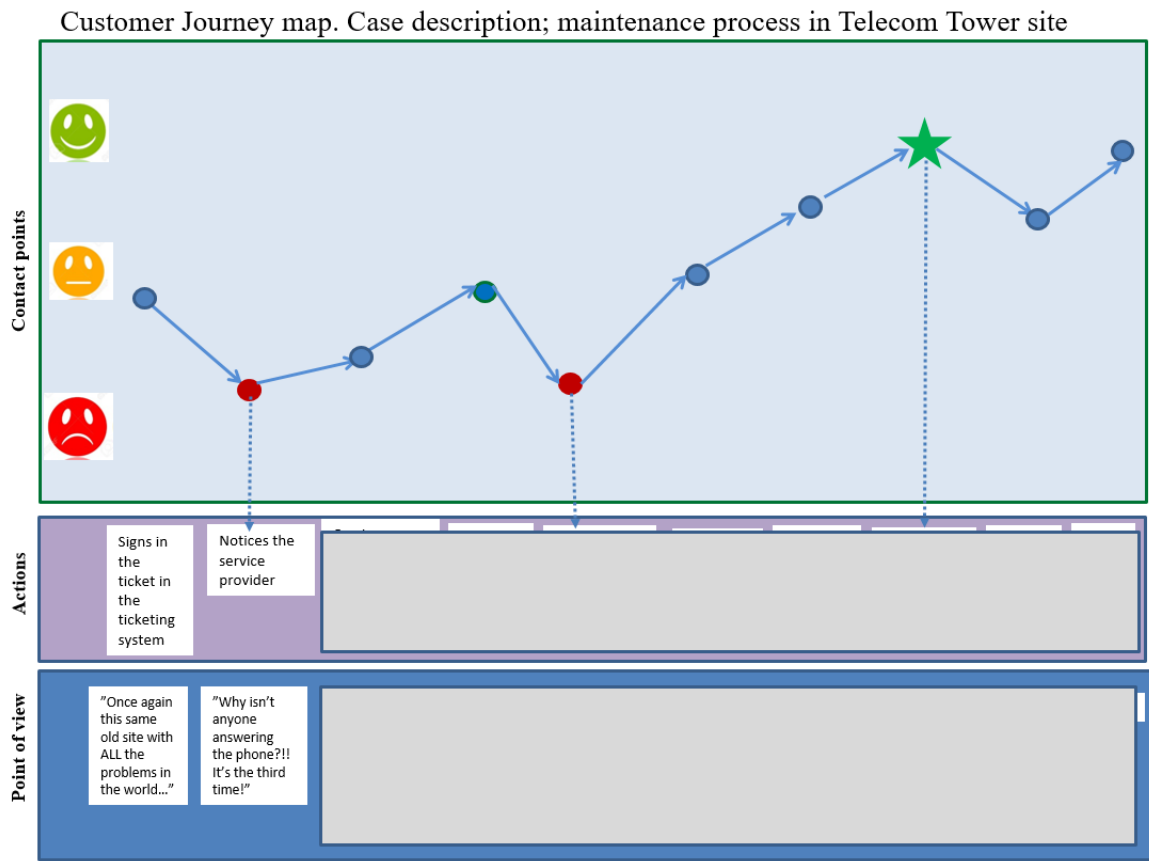


Figure 21. Illustration of customer journey map (Abloy Oy. 2019)

Typically, also recorded verbal comments from customer are included in the customer journey description. Furthermore, concerning supporting documentation, each customer person was described as fictively 'customer persona', explaining factors in the background which are assumed to influence to the behavior and actions during the process.

Ideally, customer journey description creates transparent insight whether the customer has face during process any difficulties or barriers ('pain points') to accomplish his job-to-be-done. As an outcome, received data is valuable for development purposes; products, services or even comprehensive solutions can be designed accordingly so that the value delivery to customer is optimized and aids customer to accomplish tasks with most efficient and convenient manner. Essential findings from this exercise delivered applicable data for company purposes, i.e. value proposition design purposes for existing solutions, as well development of novel applications, however, comprehensive overview to findings are excluded from illustration due to confidential nature of the study.

“Customer observations are extremely important when identifying customer jobs...on top of functional requirements like technical features or product certificates, it is important to recognize also “softer” factors, for example related to customer’s emotional feelings...knowledge on pain points of customer will help us to develop also disruptive business models”

Finally, few interviewees emphasized that forthcoming 5G technologies drive further the disruptive evolution of novel security solutions in the Telecom Tower business, this technology is already in piloting phase and finally it will be a game changer in the global mobile networks. The infrastructure for 5G networks is more widely spread geographically than current 3G/4G mobile network infrastructure, therefore, it requires new generation of integrated physical solutions. For instance, cabinets including required electronics are integrated to street lightning pole solutions, keeping in mind the business context of this study, such infrastructure must to be secured by some means. Interviewees stressed that it is still open how actual business models regarding the ownership and operations of 5G infrastructure will form, for that reason it is challenging to make assumptions who will be actual customer considering required security solutions.

5.2.2. Railway

Discussions with selected interviewees focused for the most part to the sales vertical Telecom Towers, because of this reason most findings of related to data on Railway vertical are based to the arising themes and future scenarios from industry publications. In general, ‘The Future of Rail 2050’ (Goulding & Morrel, 2014) declares that railway transportation modes have significant role in global urbanization. Railways provide high capacity and efficiency to respond to the growing demand of mobility. In practice this requirement is to move rapidly growing number of passengers and freight from A to B.

From the environmental aspects, railway infrastructure connects major population hubs to each other in sustainable manners. 'The Global Railway Review' (Mazzino, 2017) has summarized key disruption drivers that impact the railway industry in near future: "automated rail transport, mobility as a seamless service, digitalization, way towards to zero emission railway, maintenance of the future, enhancing the security and the protection of the rail system, optimized infrastructure, digitalization of the supply chain and new certification network". The report explains that technology already plays significant role since new trains have enhanced features, for example related online information which is delivered to end-users (passengers), as well reducing costs of the infrastructure operations (e.g. related to maintenance and monitoring).

The McKinsey & Company report (Stern et al., 2017) introduces insights from the survey conducted to railway executives. Results indicate emerging business opportunities related to maintenance processes of railway infrastructure and opportunities provided by digital technologies. According to the report, two main trends of digitization that will affect to the maintenance landscape in railway are advanced analytics (savings potential due increasing operational performance) and technological leap from condition-based maintenance to predictive maintenance. Both trends forecast interconnected and autonomous (partly or fully) process operations, these utilize sophisticated applications of sensor technologies and digital data. The challenge for supplying companies is to reconcile their agility to identify actual customer profile and its demands in presented scenarios, in addition, the complexity of future platforms and ecosystems requires a defined niche that the company is willing to aim. Furthermore, report debates on the demand of crisp business models in terms of partnerships; since functional silos from the past in between rail operators, OEMs (i.e. rolling stock) and software companies are expected to transform. Referring to described need to define the business niche, the in-depth research report by Heln & Ott (2018) delivers a set of recommendations how companies in the industry could adjust their business models to capture future opportunities. The paper highlights three core segments which are assumed to face notable changes and commercial opportunities for business growth; train control and signaling, electrification and digital customer solutions.

To certain extent results from interviews follow findings from industry publications. Firstly, comments from interviewee's state that the business niche should be considered carefully when focusing to the Railway vertical. Secondly, interviewees also emphasized that it is becoming more complex to identify the actual customer profile (and Customer Jobs) within the case company's business context. However, emerged topic and a unique characteristic feature for solutions in the Railway vertical is 'moving locking points', which was assumed by the interviewees to offer significant potential for new business (i.e. location data via sensor technologies). According to few interviewees, intelligent solutions could be even embedded with conventional physical security applications.

Finally, to summarize findings from the workshop held in the Hongkong Railway exhibition. In the workshop participants (internal stakeholders and intermediary distribution) were given particular team tasks where the aim was to generate a description of the customer in Railway vertical and define jobs-to-be-done accordingly. Preferred targets regarding facilitation were; (1) test the facilitation tool with actual case examples, (2) collect feedback about the feasibility of the tool from participants. Introductory brief for the workshop participants was designed in advance, this included few applicable future business challenges from the railway industry that were assumed to relevant for participants. Thereafter, workshop was moderated accordingly by representative persons from the case company and observations were recorded appropriately

Selected facilitation tool for the workshop was Value Proposition Canvas (Osterwalder et al., 2014). In practice, the section 'Customer Profile' was utilized from the VPD canvas model, presented in Figure 22. Participants used Post-It notes during brainstorming sessions, the given assignment dilemma was: "how could we describe crucial Customer Jobs, Pains and Gains in case examples".

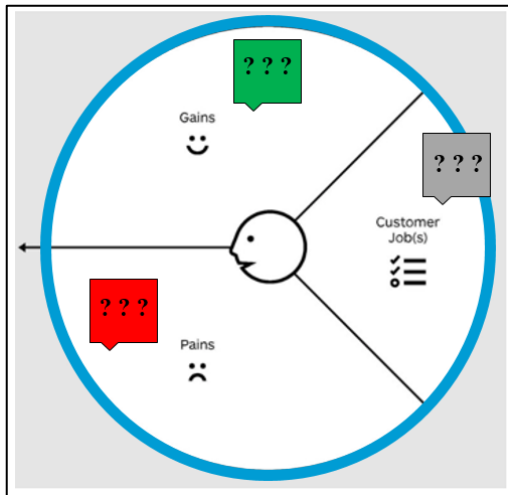


Figure 22. Illustrative canvas template for workshop facilitation purposes

Concerning results in practical perspective for the case company, received feedback in terms of described approach was positive, both from participants and facilitators. They appreciated that the methodology supports to shift the mindset to discover customer's jobs-to-be-done beyond functional tasks. Additional tools provided by VPD concept, i.e. trigger questions for thinking customer pains assist to consider broader outside-of-the-box perspectives (Osterwalder et al., 2014). Moreover, simple illustration to the canvas model was seen to ease communication and visualize the progress during the workshop. The logical integration of VPD concept with Business Model Canvas was also appreciated as an advantage for business discussion workshops.

5.3. Understanding of the customer

“Improved Customer understanding is a must since each project is unique, we would need a formalized framework how to go deep to Customer’s processes”

As quoted below, it was commented through interviews that a structured and iterative process for enhancing internal understanding of customer is required. This chapter provides viewpoints from interviews coded under to this theme. Based to findings two thematic main themes were separated (Figure 23), these are presented in following subchapters.

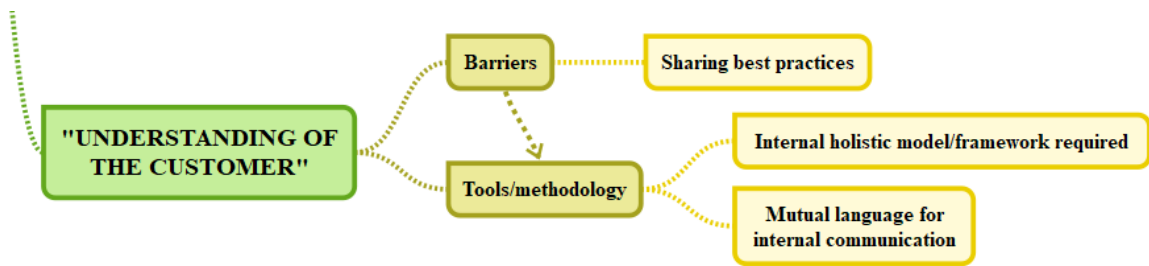


Figure 23. Summary on appearing themes concerning 'understanding of the customer'

5.3.1. Current state inside the organization and internal barriers

Through interviews it was indicated that the current level of customer understanding is on moderate level. However, the level of competence should be constantly updated and knowledge must be shared swiftly thru entire organization, ignoring functional boundaries. There was a recurring concern because of already recognized changes in customer value chain, as well assumed ones. One repeated proposal by interviewees for solving this dilemma was information sharing of best practice cases and methods in between export sales regions and company's back office in Finland. Even though such type of process already exists, comments demanded for supplementary velocity in sharing the knowledge on success factor and potential market opportunities, ideally, communication should include Road Maps for customer solutions. This information could be then further communicated with customers, because according to interviewee, technologically oriented customers are without doubt willing to see this approach. In addition, communication language overall should be enriched with simplified methodology.

A project case example was introduced by the interviewee as 'lesson-to-be-learned', it revealed inadequate customer understanding and value proposition arguments. A substantial project was lost since value for the customer was not presented in transparent manner. On the other hand, another interviewee presented a 'best-practice' case in which Customer Jobs were identified via careful observations. The case included an excellent story to be shared with others, wherein the key takeaway was uncovered Customer Job that reflected from the 'social needs' that customer wants to gain. The positive outcome for recognizing this need concluded that the case project was won with a notable commercial deal.

In connection to internal barriers, findings from interviews were mostly touching on flexibility to response to customer needs on regional level and missing methodology/tools how to describe value proposition. Flexibility here means that development actions of customer solutions were considered too slow. According to few interviewees, it takes too much time to bring tailored solutions to local markets.

5.3.2. Findings of feasible Tools and Methods

The latter part of the semi-structured interview focused to explore feasible Tools and Methods how to design, describe and communicate Value Proposition. Stimulative themes were escalated for discussions to discover whether interviewees had past experience or knowledge from other sources and/or open proposals related to this theme. Frequently upraising theme from received comments was the enhancement of internal competence by using structured, holistic model, *“a kind of uncomplicated customer centric approach, including iterative process”*. One interviewee proposed to establish a set of probe questions which would assist and guide the discussions with customers, fundamental purpose for this idea was that *“particular questions might light a fire to further fruitful topics”*. Few interviewees with background from Sales pointed out that a tailored tool kit for evaluating the return of investment (ROI) in certain project is already on place. Comments with reference to this were favorable, the tool is used depending on the local project case and has been well accepted by the sales force and customers.

6. DISCUSSION

This chapter presents discussion referring to objectives of the research in relation with the received results, Table 7 connects research questions with related subchapters that present answers accordingly. The significance is interpreted primarily what meaning findings have for the company and professional practices, however, also relevant theoretical aspects and concepts are considered.

Table 7. Research questions in Discussion chapters

CHAPTER	RESEARCH QUESTION
5.1. Major factors associated to design of Value Proposition	RQ1: How the transformation in business environment reflects to the design of Value Proposition in selected sales verticals?
5.2. Establishing internal framework and systematic process	RQ2: How to leverage internal competences and processes related to customer understanding?

Proposed solutions are evaluated in chapter 6.3, including the discussion on the limitations of the study. Recommendations for further research follow in chapter 7 (Conclusions).

6.1. Major factors associated to design of Value Proposition

Based to the findings from the empirical part of the research, interviews and explored analysis of the industry publications upraised essential insights about the transformation in the business environment. Identified factors can be considered central influencers that effect either directly or indirectly to customer preferences and expectations. Moreover, which consequently reflect to the design of Value Proposition. A structured and holistic mapping of conceptions provide answers to the RQ1, the overview is illustrated in Figure 24.

In addition, the illustration has been discussed accordingly also with the company sponsor. Notes from meeting discussions have been embedded with interpretations provided by the author, the aim with this approach was to reach reasonable enrichment and accomplish coherent understanding.

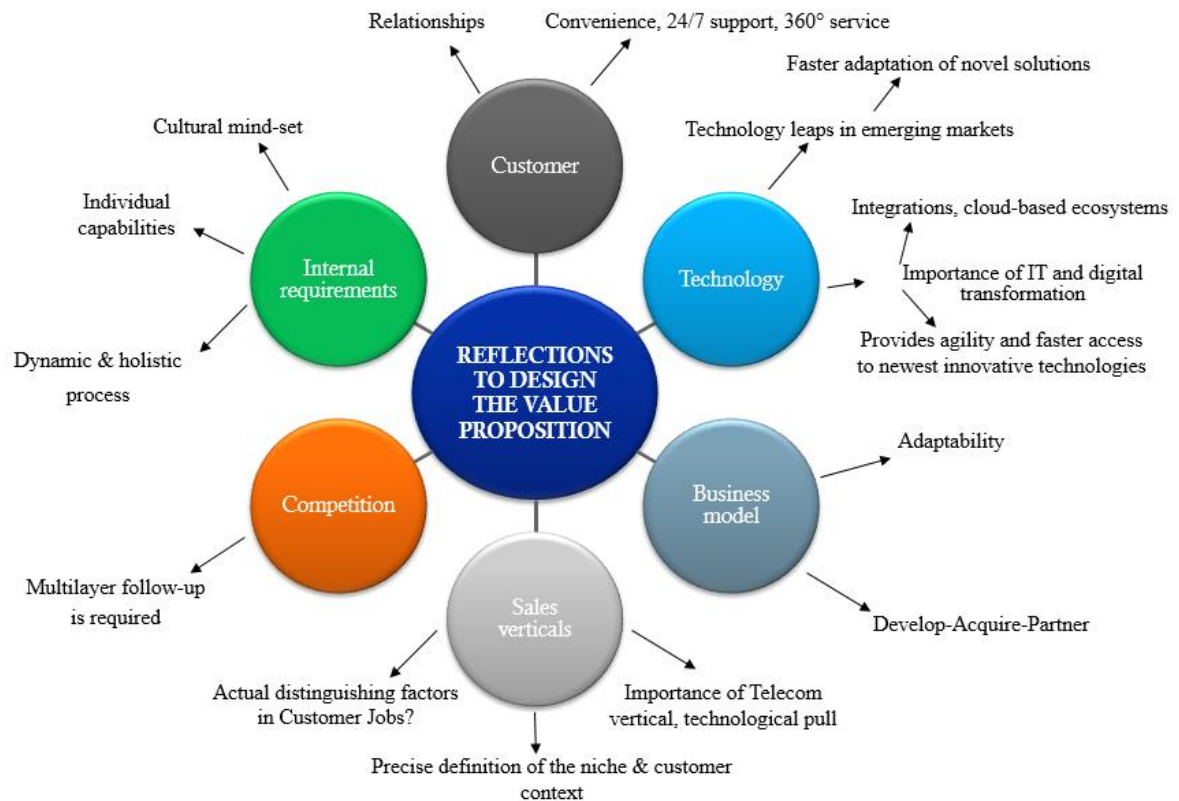


Figure 24. Summary of drivers that reflect to designing of value proposition

In terms of the customer, following three main requirements came across evident from several data sources; (1) the demand for convenience in-using case company products/services, addressing the perspective that convenience in this context must not only focus to user experience, in parallel, it must enhance the performance of customer's operations and maximize uptime of customer's core processes, (2) with some extent, customers in CI sales verticals demand 24/7 support for products/services, (3) 360° service solutions relate directly with point 2., and the final form of actual business model.

Determining the point 1 in details, it has a direct impact to the identification of Customer Jobs and designing of Value Proposition. From the professional practice, it means that 'convenience' as a term must be integrated with greater extent with above described definitions (performance of operations, maximize uptime of core processes) when collecting customer insights. Described factors leads following recommendations for future process:

- utilize distinct methodologies of collecting customer insights
- focused efforts to customers
- ensure resources
- provide transparent communication through organization
- proactive and iterative process with feedback loop between functions
- discussion in the next chapter

The need to leverage broader understanding of customer also means that more efforts, resources and competence are required to identify the crucial factors which finally make customer expectations more transparent. The point 2 can be interpreted as a mandatory element for the case company's value proposition. Customers in CI market segment have such exceptional role in local/global infrastructure ecosystems. Therefore, given pressure from their level of performance is conveyed also to suppliers that are part of the value chain. Customers in CI require acknowledged trusted partners, and those to rely on are held in high regard.

Concerning the role of technology, results indicated the trend that emerging markets have a tendency to adapt faster novel technologies and customer solutions. Rapidly growing economies have not only significant business opportunities, moreover, they can also act as technological forerunners and generate the pull for innovations. Technology is the carrying core element of evolution, it provides the agility with significant advantages for growth in multiple industries. Hence, in emerging markets it does not follow conventional progress. Technological leaps are overrunning those incremental steps of development what has earlier occurred in Western economies.

Suchlike leapfrogging reflects also to results of this study. Customer expectations referring to geographical regions included in this study (Latin America, Africa and South East Asia) urge for such sophisticated security solutions that have not been earlier present i.e. in European markets. The importance of IT and responsiveness to digital transformation is overly apparent. The industry segment where the case company operates is considered rather conventional, especially in terms of security solutions. These typically require physical elements, i.e. pad lock with mechanical key. Therefore, integrating existing physical applications to digital ecosystems or developing entirely new requires significant digital transformation, this has become a crucial customer requirement within relative short period of time. In other words, there must be smart dynamic interconnections in between managing physical and digital world, this ensemble forms the foundation for tailored solutions fitting to local business environments. Software platforms must be integrated with each other, then the customer gains holistic ecosystem that delivers and creates value the value. Concerning meanings from the case company perspective, integrations between software platforms demand also rethinking for new kind of internal IT competences, as well enhanced speed of software development processes.

Sales verticals 'Telecom Towers' and 'Railway' were in the focus of this study and one of the objectives was to find disruptive factors in the Customer Jobs. Firstly, when setting the focus on the Telecom Tower vertical, it became obvious that this vertical has strategic importance for the case company. Customers in this vertical have high interest and capability to drive for novel technological solutions (technological pull from customers). Emerging markets (i.e. Latin America, South East Asia and Africa) ignore conventional incremental development of technologies. Instead, they push the evolution with technological leaps that are significantly different than in mature market regions (i.e. Europe), even concerning the security solutions. For described reason, the practical meaning for the case company is to drive active market presence in this vertical. It is assumed to deliver relevant knowledge on near future customer aspirations, as well opportunities for co-creation of solutions with tech-oriented customers.

Secondly, based to the industry related publications and few comments from interviewees, there are substantial market opportunities in the Railway vertical. It requires further strategic decisions which niche slots of the industry are taken into consideration (i.e. rolling stock, maintenance operations). In practice, the actual customer insights in specified context are collected and the value propositions concerning products and services are described. Considering outcomes from this research, initial plans for such approach are proposed to the case company.

Thirdly, in a view of collected data and results, findings from customer jobs between given verticals reflect only minor distinguishing factors to the value propositions what comes to the technical development of actual product/service. Therefore, the most relevant part is to tailor the commercial marketing language according to customer's business environment. Collected customer insights will be the base for this process, establishing an interconnection that touches the daily business of the customer. By using this approach, the value to the customer can be presented logically and covering alternate perspectives (economic / functional / psychological and creative value).

Business models in the context of this study are related to the objectives via value proposition design. Debate in the academic literature as well results from empirical part support the view that value proposition reflects directly to the business model. Concerning this research, adaptive features of business model will have impact to the success in the market. Value proposition should be a dynamic element that filters insights from business environment. As insights are identified and translated to requirements, then the company is should make strategic decisions whether value can be delivered by own development, or is acquisition or buying knowledge needed. Additionally, partners can supplement the actual business model in various roles, i.e. in terms of offering value to distribution or IT specific key resources.

Defined multilayer market follow-up also is needed routinely, collected market data should somehow also yield assumptions of competitor behavior and not only state existing status. Concerning internal requirements in relation with the value proposition design. The first priority is that the cultural mind-set must be driven by the management, all related teams must be aligned and have sufficient knowledge on company objectives. Thereafter, individual capabilities and experience can be leveraged with appropriate trainings to the methods/tools. Finally, the changing form of evolving competition should regulate to the internal competitor evaluation processes of the case company, as it is a vital part of strategic planning of all companies.

6.2. Establishing of internal framework

As described earlier, the RQ2 originates from the strategic interests of the case company and desires on concrete results with practical meaning. The objective was to present a blueprint for a feasible and structured concept that would leverage internal competences related to customer understanding. Requirements presented in the Table 8 are concluded from interview discussions and notes that appeared from Researcher diary, recommended solutions are processed accordingly for reaching objectives above. Final touches also to this section of the study was formalized in cooperation with the company sponsor.

Table 8. Recommended actions for establishment of internal framework

Requirement	Recommended solution / action
Enhanced understanding of customer via specific tools, customer centric and iterative process	<ul style="list-style-type: none"> • Value Proposition Design (VPD) concept, it forms a structured dynamic framework including tools to follow-up the progress and manage assessments
Understanding on the concept	<ul style="list-style-type: none"> • Appropriate internal trainings for stakeholders • Commitment supported by management
Mutual language	<ul style="list-style-type: none"> • Simplified visual presentation of data
Minimize overlapping with existing tools (i.e. ROI tool and Customer Journey map)	<ul style="list-style-type: none"> • Embed deliverables from Customer Journey mapping with Value Proposition Canvas (Customer Jobs/Pains/Gains) • As a link to ROI tool, VPC acts as ‘asset for orientation’, providing to sales persons detailed background data on customer, prior sales proceed to ROI tool analysis with customer
Leverage the level of communication	<ul style="list-style-type: none"> • Recurring feedback loop via different internal stakeholders for information sharing
Share best practices	<ul style="list-style-type: none"> • Revise current templates for presenting best practices, preferably with engrossing stories to describe the case

In terms of the objective that a feasible concept or framework should be presented, introductory briefs to explain the potential of VPD concept were held during the spring 2019 to stakeholders from various functions (Business Development, Product Management, Marketing, R&D). After each introduction session it was discussed how managers assumed the concept deliver value in terms of professional perspectives. Based to meeting discussions the concept gained positive feedback for further iteration. According to received feedback, VPD provides the approach with three key benefits; structured visualization of topics that emerge from customers and market, simplified concept delivers useful data for objectives in different functions (i.e. new product/service development and ‘marketing language’) and last but not least, the tool was seen to foster internal competence of customer understanding.

Consequently, a consistent and compact procedure was drafted to three phases that are illustrated to Figure 25. In parallel with research work, actions described in Step 1 for recognizing the potential were taken into practice, case examples will be tested via tools and methodology provided by the VPD concept. Following Step 2 is expected to deliver concrete results from case exercises for further evaluation. During this phase it is relevant to interpret if findings from cases indicate that modifications to tools/methodology are required considering needs from the case company perspective. Besides this, it is important to evaluate and/or whether there are any overlaps with other existing related processes. In the roll-out phase (Step 3), defined process owners with focus responsibilities specify the actual action plan with deadlines for putting the concept into service (issues currently yet unsolved). Finally, required follow-up practices must be described and communicated to organization.

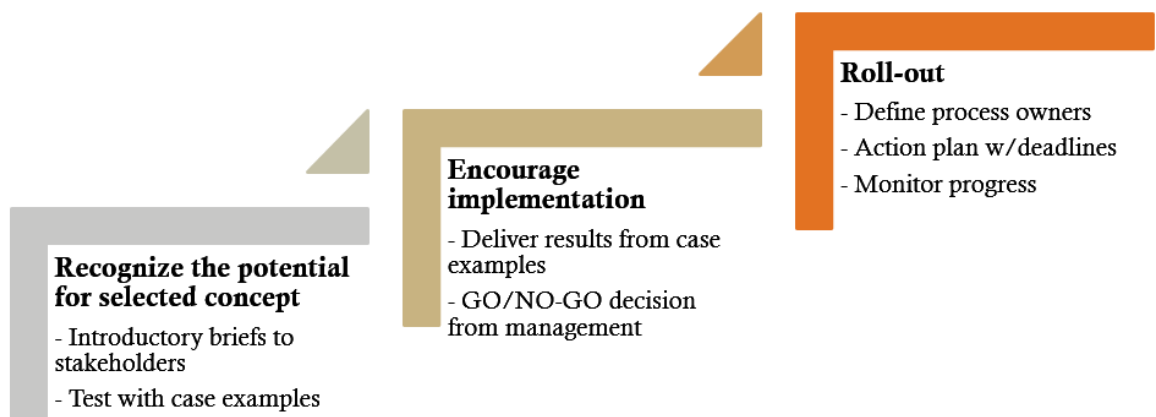


Figure 25. Suggested procedure for implementing the VPD concept

Concerning last two topics from the Table 8, ‘leverage the level of communication and sharing best practices’. The practical recommendation is to review and analyze current loop of information that operates feedback in between organizational functions. As suggestion, it should be arranged in pre-defined recurring cycles in compact size team sessions, preferably driven from the back office by the business development team, one option is to carry out arrangements aligning with pre-defined annual focus plans of concerned function. Thus, this requires commitment from participants and resources from persons who manage the process. Therefore, it is reasonable to assume that it takes efforts to set up the platform.

Thus, the level of communication needs to be improved, it is rational to refine also reporting templates of sharing best practices. However, as recommendation, those should with some means ‘transfer the mind-set’ of value proposition design process, i.e. how to collect data from customer insights and how these findings are further communicated. Furthermore, it is recommended to consider methodology to engage the audience to the theme when communication results, i.e. with engrossing story telling approaches that encourage the audience for interaction. In the ideal environment, it should be a common goal for internal stakeholders to share experiences that have enhanced the competence and supported growth of business.

6.3. Evaluation of solutions and limitations of the study

This chapter has been supplemented in cooperation with the company sponsor. The common aim was to assess solutions and answers provided by the study. Specifically, the main criteria was to consider perspectives that deliver practical and professional benefits for the case company. The assessment was conducted using critical approach and gained benefits for the company are described referring to the planned outcomes for the study. Thus, those areas that still require further development/testing are presented with rational aspects to determined limitations of the study. Recommendations for future research are discussed in next chapter.

Starting with objectives that concerned identifying emerging themes of transformation in the business environment for designated customer profiles and the described outcome to actual value propositions. The summary of drivers is introduced in Figure 24 with top level themes that are valuable and support the value proposition design process. Especially, themes ‘*convenience, 24/7 support and integrations*’ are considered as critical characteristics when developing solutions. As stated earlier, the convenience of the customer solution has a broader approach than the user experience. It must encompass perspectives to deliver additional efficiency to customer’s operational value chain.

A high-quality 24/7 technical support of solutions is unquestionably a critical factor when providing customer solutions to CI sales segments. Finally, digitalization of technologies and related security products/services demand sophisticated interconnections with customer's other IT platforms and ecosystems. Varying IT interfaces request readiness to act and swift delivery of integrations according to customer expectations.

However, objectives with precise definition for this section were reached in some measure and there is still room for further development. Customer Jobs are required to be described even in more detailed level, ideally, making distinguishing factors transparent in between sales verticals. This approach is important from the aspects of customer solution development and marketing purposes (commercial communication language). Suggestions to improve these areas are following:

- Additional efforts to collect customer insights and customer oriented interviews which would deliver data to describe Customer Jobs
- Linking few existing and/or assumed network partners to the research (i.e. distribution channels, key partners that relate to integrations and/or software development)
- Aimed objectives were now focused to two sales verticals, in the real-life there are several others that need to be considered in order to receive holistic overview

The second objective was to deliver a proposal of a process that supports evaluating changes in customers' preferences and expectations. The goal for this part was reached with tangible results. Feasible concept options were introduced and the selected one (Value Proposition Design) was tested in practical level with case examples.

Moreover, findings along the process were communicated to the case company organization. A general feedback about the concept is very positive, benefits for the company in brief:

- The VPD concept offers a dynamic approach to increase customer understanding and provides a holistic tool kit
- Verified with case examples, received data is valuable aid for various purposes (solution development, commercial marketing language); therefore, benefits appear for teams in business development, marketing, sales and R&D
- The visual illustration of the canvas submits simple communication language, it introduces the customer and how company's products/services (value proposition) can deliver value to the customer

Finally, as an area of consideration when the actual roll-out phase of VPD concept is launched. Prior to utilizing the VPD canvas with new data, following topics must be concerned and defined in team meetings:

- Brief written description of the customer profile(s)
- Provide stakeholder mapping, including interrelationship between each other
- Internal metrics how to benchmark crucial 'Customer Jobs/Pains/Gains'

Regarding the limitations for the study, the given management dilemma was reasonable and it originated from actual issue in their present business environment. Thus, it grounded rational professional meaning for conducting the study. However, since the evolution boosts forward with increasing speed it is essential to highlight that those identified appearing themes of disruption evolve constantly. Therefore, the process how company iterates customer's value chain and processes must be dynamic so that the collected data remains up-to-date and useful for the company.

7. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Evaluation of meeting research objectives on case company level is discussed in details in the chapter 6.3. Thus, this chapter concludes the research project as whole and from the academic perspective. To start from the project level aspect, the project was initiated with the given management dilemma that originated from actual business environment of the case company. Therefore, the start of the study was grounded with rational professional meaning and it sparked instantly also the professional interest of the author. Defined research problems were rather broad, however, the iterative nature of action research promoted logical progress.

From the perspective of managerial and professional practices, collegiality and open sharing of individual insights in between different internal functions was considered fruitful. Through the project, working process as such with every contact person from company's side contributed substantial support to author to accomplish the project. The set goals were practically nearly reached. The action plan for further development is dynamic and introduced in chapter 6.2.

Concerning academic perspectives, this study has a minor relation to theoretical implications due to practical nature of the study. Nevertheless, utilized theoretical approaches delivered valuable fundamentals for conducting the research. Furthermore, it is obvious that certain academic approaches evolve to useful concepts for the business life. From the individual academic aspect, this project was definitely a learning experience for the author. Through the duration of the project, structured action research process coached into new insights how to enhance individual competence, especially, in terms of searching and analyzing data with alternate methodology.

Regarding the future research and assumed valuable assets for the case company, in the end, it is the business model that realizes the potential of designed value propositions. Hence, it would be profitable for the case company to evaluate few particular academic and practical approaches that came across to the author when conducting the literature review. Following points are suggested subthemes for the future research, under the main theme Business Model Innovation (BMI):

- 1) Research focus into '*key partners*'; especially in terms of collaboration models that relate to IT integrations development and opportunities in partnering with local IT companies (idea originates from interview comments by sales unit representatives)
- 2) Research focus into '*revenue streams*'; discover and benchmark alternate options how to monetize designed value propositions, i.e. via multi-sided platform or performance-as-a-service approaches
- 3) Research focus into '*best practices*', utilize the imitative approach introduced by (Enkel & Mezger, 2013) and analyze best practice business models via holistic survey to the business environment with broader scope

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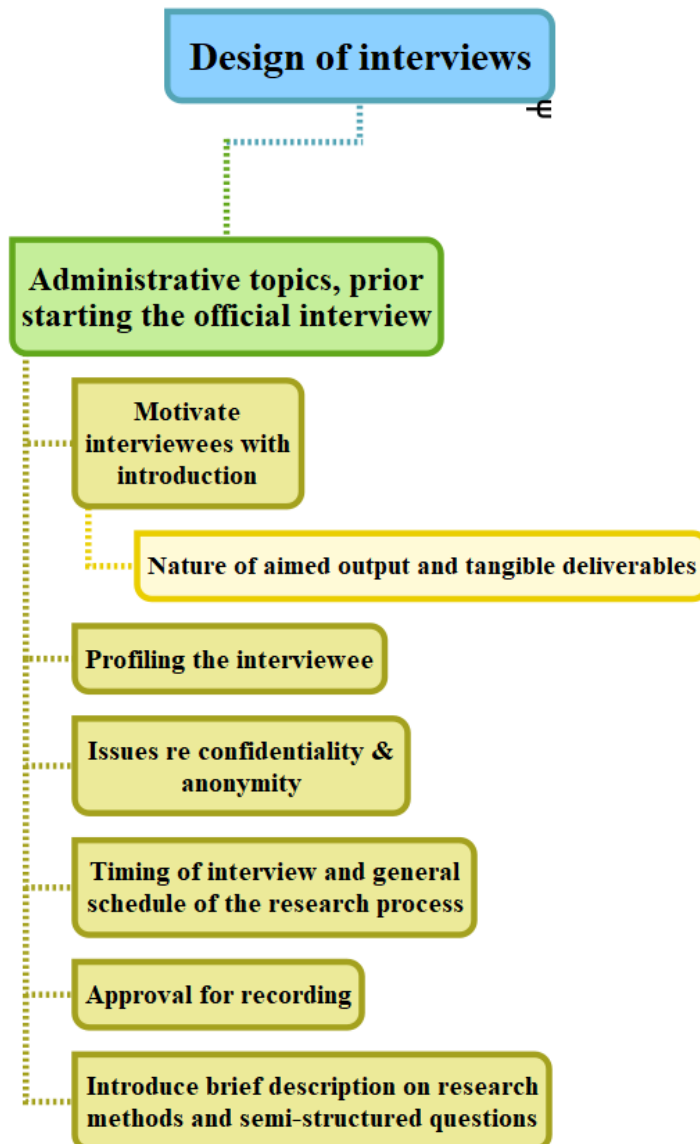
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APPENDIX 1. Administrative preparations prior interviews. Adapted from Cooper & Schindler (2008, p.170-175).



APPENDIX 2. The structure of interviews. Adapted from Rubin & Rubin (2012, p.41-57).

