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**Market Intelligence in technology-intensive enterprises:
Its constitution and utilization in a B2B context**

-Case Study of a Business Intelligence Outsourcing Supplier in the Automotive Industry-

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Abstract

An enterprise's market intelligence involves its knowledge about its customers, competitors, and the future market developments. The constitution of market intelligence is crucial for the enterprise in a variety of perspectives. Market intelligence affects the enterprise's ability to adapt to different countries and markets, the ability to satisfy current and future customer needs, and the ability to maximize its performance in the long-run. The generation and dissemination of, and the responsiveness to market intelligence are the three constituting elements of effective market intelligence. However, existing research lacks an understanding on (1) how enterprises practically constitute market intelligence, and on (2) how enterprises utilize their market intelligence. Technological enhancements such as the utilization of business analytics software to analyze data sets enlarge the necessity for contemporary research with focus on market intelligence constitution and utilization. This study's purpose is thus to add depth to existing research by contributing understanding on how market intelligence is constituted and how it is utilized in technology-intensive enterprises. The study finds that market intelligence is constituted on a strategic level and on an operative level. Furthermore, findings indicate that market intelligence constitution occurs both inter-functional and intra-functional. Strategic market intelligence is observed to be constituted inter-functional, while operative market intelligence is constituted intra-functional. The study also finds that the theory's suggestion on the consecutive order (1) generation and (2) dissemination of, and (3) responsiveness to market intelligence is not generally applicable for all departments or functional units, that are involved in the constitution of market intelligence. Regarding the utilization of market intelligence, the study finds the systematic internalization of customer-related intelligence, subsequent customer benchmarking, and the consolidation of inter-functional expert teams for sales functions as measures that are adopted to skim additional acquisitions of customer projects.

Keywords:

Market Intelligence; Market Orientation; Market Knowledge; Customer Data

Acknowledgements

With this final thesis, a long period of university studies comes to an end. The start was in 2010, when I began my Bachelor studies in my home country Germany. Since then, studies brought me to California, USA, to Gothenburg, Sweden, and to Brussels, Belgium. During those stays abroad, I have met people from all over the world. One thing I have acknowledged in those times was that cultures can be very different, characters can be very different, people are different. However, we all had one thing in common – to get through our studies and to graduate. This thesis is the final part which is missing in the puzzle.

While the will to get through our studies was one constant during all those years of studying, my family was another, even more important constant. No matter where I was located in the world, I would have always been able to reach my family if necessary. I am proud and thankful that my parents have made it possible for me to become a student – I emphasize that because I am the first one from my family to study, and I will be the first one to reach an academic degree. I have never perceived it as self-evident to be able to go to university, and I don't know how to thank my parents enough for always supporting me.

Therefore - the thing I am looking forward to the most after graduation is to come home and to present my diploma to my family, that is my father Peter, my mother Ursula, and my three siblings Thomas, Annemarie, and Marlene.

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1 Introduction

This chapter presents introductory background information on the research topic. The problem discussion outlines the necessity of further research. Afterwards, concrete research gaps are highlighted which this thesis intends to answer. Subsequently, a research question is formulated. Lastly, limitations of the study are emphasized and a research outline is presented.

1.1 Background

George S. Day emphasized in 1994 “What is new, [...] is the potential of information technology (IT) to enable organizations to do things they could not do before and thus develop new capabilities and skills” (p. 48). Almost 25 years ago from now, George S. Day pointed a finger at enterprises’ new opportunities with regard to market orientation sourcing from the usage of IT. Today, technology has gone as far that predictive modeling allows enterprises to predict the chance that a particular customer behavior will occur in the future. Day’s emphasized potential of IT-utilization has thus been skimmed in a higher developed way than he might have imagined in 1994. Rakthin et al. (2016, p. 5569) note that “Technological knowledge and market knowledge are among the most valuable resources that a firm can utilize for competitive advantage”.

In the recent years, public institutions, private enterprises, and individual consumers have been facing disruptive changes due to digital transformations. Enterprises around the world presently face the fourth industrial revolution, which affects them in all parts of their businesses. Many operations have become increasingly data-driven. One of the game changers of the digital transformation is big data, which refers to the storage of large amounts of data sets (European Commission, 2016). Enterprises face the appearance of large amounts of data, visualized by the 40% annual increase in the amount of data captured (McKinsey, 2011).

The appearance and availability of data is enhanced by new methods and sources to capture data. Those are for instance web-based capturing on websites, mobile capturing via smartphones and tablets, as well as sensor-based capturing via sensors in automobiles. This evolution of data availability results in highly detailed and rich contents that are of relevance to any enterprise (Chen et al. 2012).

To make use of the opportunity large amounts of data offer, companies need to be capable to extract data efficiently from a variety of data sources, homogenize the data internally, and

integrate the data into their IT systems. Ultimately, the integrated data need to be analyzed efficiently. If a company masters this process, the result from data exploitation can be valuable business knowledge which is powerful to improve companies' performances. Research highlights that companies which utilize data technologies become 5-6% more productive than those that do not adopt respective technologies (European Commission, 2015).

By analyzing the integrated data, enterprises aim to discover valuable structures within the data sets. Regarding the internal perspective of an enterprise, firms utilize data to improve their business performance management. The availability of data sets coming from a variety of sources provide a larger set of non-financial variables (Ittner & Larcker, 2003) that can be measured and analyzed. Consequently, data-intensive performance measurement opens new perspectives for strategic decision-making in any enterprise. According to a study by PwC (2016), the surveyed automotive enterprises state data analytics to have a 49%-significance for their decision-making today, while they state the expected significance to achieve 83% in 2021.

Considering an enterprise regarding its external environment, enterprises aim to increase their market knowledge by utilizing data. Literature on international business research has discussed the importance of market knowledge in different contexts. MacPherson (2000) emphasizes that international enterprises were found to invest more in market intelligence than non-international enterprises, measured as a percentage of their total sales. He thus highlights a strong tie between the effort taken to constitute market knowledge and an enterprise's internationality. Johanson and Vahlne (1977) describe the acquisition of market-specific knowledge in the context of internationalization. They emphasize characteristics of individual customers as particularly important component of market-specific knowledge. In their later revisited internationalization model (2009), they emphasize the importance of market knowledge from a business network perspective by considering knowledge about suppliers, buyers and other players in the business network environment of the enterprise. Kogut and Zander (1993) discuss knowledge creation and replication as core ability of a multinational enterprise (MNE) to expand and grow. They emphasize the current stock of (market-) knowledge as basis to decide how to service a foreign market, that is through licensing, export, or direct investment. Navarro-Garcia et al. (2016) emphasize that "[...] a company's capacity to adapt to the conditions in a given country and market depends largely on its skill at processing and interpreting relevant market information" (p. 368).

Research in strategic management and marketing has come further in the context of addressing market knowledge within enterprises than International Business research. Literature on

strategic management and marketing focused on the topic on a firm-based level and brought up the concept of “market orientation” of an enterprise. Two initial perspectives on the concept of market orientation were established.

In *the behavioral perspective*, market orientation is defined as “the organization culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business” (Narver & Slater, 1990, p. 21). The behavioral perspective focuses on the development of behaviors and norms within an enterprise to create superior value for the enterprise’s customers. Market orientation is suggested to have three constituting components, which are customer orientation, competitor orientation, and interfunctional coordination (Narver & Slater, 1990).

The *market intelligence perspective* is the second initial perspective on the concept of market orientation (Kohli & Jaworski, 1990; Jaworski & Kohli, 1993; Kumar et al., 2011). Market orientation is defined as “the organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organizationwide responsiveness to it” (Kohli & Jaworski, 1990, p. 6). The generation and internal spread of market intelligence, and the responsiveness to it are hence the three constituting elements of market orientation (Morgan et al., 2009). The perspective is centered around the “market intelligence” of an enterprise, which is defined as “[the] consideration of (1) exogenous market factors (e.g. competition, regulation) that affect customer needs and preferences and (2) current as well as future needs of customers“ (Kohli & Jaworski, 1990, p. 3).

This thesis sheds light on market intelligence, which has its foundation in market orientation theory. Furthermore, more recent developments in market intelligence as individual field of study are considered as theoretical fundament of this study. Market orientation is thus regarded as the ability of an enterprise to achieve organization-wide market intelligence (Kohli and Jaworski, 1990). Market intelligence is an enterprise’s knowledge about the current and future customers, competitors, and market factors of the market the enterprise operates on. The constitution of market intelligence is assumed to be achieved through (1) generating and (2) disseminating the market intelligence, and (3) responding to it according to current and future customer needs, information about competitors, and market factors.

1.2 Problem Discussion

Literature on market knowledge of enterprises emerged from both marketing, strategic management, and international business research. As emphasized, strategic management and marketing research achieved further levels of analysis in examining market intelligence than international business research, and more micro-level considerations were made on a firm-based level (Narver & Slater, 1990; Jaworski & Kohli, 1993; Hult & Ketchen, 2001; Kumar et al., 2011). Consequently, primarily literature from strategic management and marketing was utilized for this thesis.

Two research gaps were identified during the research process. Vast research on market intelligence illustrates the positive correlation to business performance (Narver & Slater, 1990; Kohli & Jarkowski, 1990; Jarkowski & Kohli, 1993; Hult & Ketchen, 2001; Hult et al., 2005). Literature thus widely illustrates that the process of generating and disseminating market intelligence, and responding to it positively affects the business performance of an enterprise. Recent studies and industry reports furthermore illustrate the positive effect of utilizing contemporary technologies to constitute market intelligence on business performance (European Commission, 2015; PWC, 2016; Côte-Real et al., 2017). However, necessity for further research was identified. Existing literature has not developed sufficient understanding *how* market intelligence is utilized from an enterprise. Research lacks a close-to-practice understanding which techniques, instruments, and measures related to market intelligence are used to utilize the available market intelligence. As Narver and Slater outline: “The understanding of what it means to be market-oriented and how a market orientation benefits the firm continues to evolve” (1999, p. 1167). Both conceptual research as well as recent studies that consider enhanced IT-technology lack an insight of how market intelligence is practically utilized in an enterprise.

The second identified research gap is emphasized by Van Raaij and Stoelhorst (2008). They highlight the necessity for a better practitioner-oriented understanding of the elements of market orientation, which would help managers in their effort to implement market orientation. There is thus no sufficient tie established between the conceptual level of market orientation, and how market intelligence as center element of market orientation is practically constituted in an enterprise. Existing literature hence lacks understanding on how enterprises constitute market intelligence. The research gap continues to open wider under consideration of the presented digitalization of enterprises. The opportunity data offer for market intelligence constitution have let this research gap growing further. The understanding of the constitution of market

intelligence in general, and its constitution under consideration of the digitalizing businesses thus needs to be enhanced.

1.3 Purpose of the Study

As presented in the introduction chapter, market intelligence is the central element deciding over how market oriented an enterprise achieves to be. The three elements generation, dissemination, and responsiveness are outlined to constitute market intelligence on a conceptual level (Kohli & Jaworski, 1990; Morgan et al., 2009). Studies indicate the generation and dissemination of, and the responsiveness to market intelligence to positively affect an enterprise's performance (Jaworski & Kohli, 1993; Hult & Ketchen, 2001; Hult et al., 2005). Having said that, this study aims to contribute to academic research in two main aspects.

Firstly, regarding the effect of market intelligence on business performance, this study intends to complement the existing literature by a practical understanding of how enterprises utilize their market intelligence. The study aims to shed light on how the generated, disseminated and responded market intelligence is utilized with the intention to improve the enterprise's performance.

In order to understand how enterprises utilize their market intelligence, an enhanced understanding needs to be gathered on how market intelligence is constituted. Conceptual research outlines the three elements generation, dissemination, and responsiveness as elements that constitute market intelligence (Kohli & Jaworski, 1990). However, little research can be found on how enterprises execute the generation and dissemination of, and the responsiveness to market intelligence in a practical context. The utilization of IT-technologies such as data-analytics software to acquire relevant information enlarge the lack in existing literature. Hence, this study secondly aims to contribute contemporary understanding on the constitution of market intelligence in technology-intensive enterprises.

Consequently, the study aims to contribute to (1) a deeper understanding on how technology-intensive enterprises utilize market intelligence, and (2) how technology-intensive enterprises constitute market intelligence in a practical context.

As a result, the following research questions are derived:

(1) How do technology-intensive enterprises utilize market intelligence?

(2) How do technology-intensive enterprises constitute market intelligence?

1.4 Thesis Disposition

The structure of the thesis was built according to a traditional approach. After the introduction, a chapter on the methodology presents the methodological choices made and utilized for developing this thesis. In the third chapter, relevant theories are presented. Those demonstrate the reader prior research about market intelligence as embedded in traditional market orientation concepts, as well as contemporary understanding of market intelligence. In the following chapter, the empirical findings demonstrate the reader the constitution and utilization of market intelligence in a practical context. The empirical findings are followed by an analysis, which confront the presented theory with the empirical findings. Based on the results of the confrontation, a generalizing model on the constitution of market intelligence is outlined. In the last chapter, a conclusion highlights the results of the analysis, answers the research questions, and leads into a discussion regarding academic contributions. The described disposition is visualized in *Figure 1*.



Figure 1. Disposition of the thesis
Illustration compiled by author

2 Methodology

In this chapter, the methodological techniques used to conduct this study are presented and critically discussed. Furthermore, the research process is described and the data-collection is presented. Lastly, the quality assurance is highlighted and limitations of the study are identified.

2.1 Research Approach

Bearing the in chapter 1.2 emphasized research gaps in mind, no study was found which sheds light on the constitution and utilization of market intelligence on a firm-based level. Since this thesis hence addresses a context which has been disregarded, the decision was taken to adopt a qualitative research approach (Merriam, 1998).

Due to the outlined lack in the literature, a theoretical framework was built. During and after the generation of the empirical findings, a continuous interplay between theory and empirics was applied. The theory was thus constantly developed and did not occur solely at a single stage during the research process. In this spirit, the exchange between theory and findings allowed for the continuous development of the model on market intelligence constitution, suggested at the end of the analysis chapter. The model ultimately visualizes the added depth to existing conceptual theory. The described research process is referred to as an abductive research approach, since a constant exchange between theory and empirical findings is applied (Dezin, 1978). Dubois and Gadde (2002) outline the systematic combining of matching theory and reality as abductive, which goes in line with this thesis' approach. The decision to take an abductive approach is a popular choice for researchers which carry out a qualitative study in the business field (Bryman & Bell, 2015).

2.2 Case Study – A single Case Study Approach

In determining which type of qualitative method best serves this thesis' research, the decision was made to adopt a case-study approach. The conduction of case studies "provide unique means of developing theory by utilizing in-depth insights of empirical phenomena and their contexts" (Dubois & Gadde, 2002, p. 555). According to Yin (2009), the researcher should be able to identify situations in which a specific research method offers unique advantages. This study's purpose is to contribute understanding on how market intelligence is constituted in technology-intensive enterprises, and how market intelligence is utilized. The identified

advantage for the purpose of this study is that a case-study allows a phenomenon to be studied in its real environment or context (Yin, 2009). Dyer and Wilkins (1991) highlight that the case-study approach is powerful to describe phenomena. Conducting a case-study thus provides the opportunity to investigate and describe a phenomenon as represented by the values given to actual real-life events and experienced by individuals that work in the context of the phenomenon, which is one of the substantial criteria for qualitative research (Marschan-Piekkari & Welch, 2004).

Yin (2009) sheds light on the research question as important step in a research study. Yin outlines that “[...] ‘how’ and ‘why’ questions are more *explanatory* and likely to lead to the use of case studies [...]” (2009, p. 9). For the conduction of a case study, Yin identifies three determinants as identifying the case-study as fitting type: (i) a research question that asks about “how” or “why”, (ii) a contemporary set of events, and (iii) the lack or absence of control over those events.

Alongside with the 3 determinants outlined by Yin, this study’s research questions were derived as “*how*” questions (see chapter 1.3). The research questions are answered with the aid of the examination of a contemporary set of events, which are as a sum the process of the constitution of market intelligence and its utilization. Lastly, by conducting the case-study and the interview-based data collection, no control over the events that lead to the constitution and utilization of market intelligence are carried out. The events are rather observed, investigated, and protocoled in the state they are executed at the time of the data collection. Consequently, an absence of control over those events can be presumed.

When conducting a case-study the option of a single case-study was chosen. Siggelkow (2007) notes that the researcher needs to be careful with the drawing of conclusions from single case-studies. However, Siggelkow highlights that the specialness of a certain case-unit allows particular insights to be collected which allow the researcher to draw inferences about more normal firms. Ghauri (2004) highlights that single case studies deliver important contributions and allow for the building of theory when used to extend, challenge, or confirm an established theory.

However, the case-study approach also brings critical aspects. Yin (2009) notes that a common criticism on the case study approach is the little basis for scientific generalizability. However, Yin outlines that a case study’s goal is to expand and generalize theories, not to enumerate frequencies. Fletcher and Plakoyiannaki (2011) highlight that single case-studies can provide

sufficient data for analytical generalization, find relationships, and test existing theories and contribute with new ones. Siggelkow (2007) outlines that single case-studies hold the risk of biased information due to the focus on a single case-unit. Siggelkow however highlights that single case-studies are mainly used due to their possibility to make conceptual contributions. This thesis aims to add detail to existing research on market intelligence, which thus results in conceptual contribution.

2.3 Choosing the Case Study

As Siggelkow (2007) outlines, it is often desirable to choose a particular enterprise due to its uniqueness which allows the researcher to gain specific insights that other case-units would not be able to provide. The choice of the case-unit is thus insofar crucial, as it affects the specificity of the insights. MSX International as chosen case-unit provides business solutions to its customers. As a part of its product-range, MSX International analyses data of its customers. Furthermore, the enterprise takes over business processes that are outsourced by customers, and thus executes many of its projects at the customer. The enterprise was thus considered by the author to be an expert in generating both data-related and non-data-related knowledge about its customers. The decision for MSX International was hence affected by this consideration of the enterprise and its potentially extensive constitution of customer-related market intelligence.

Furthermore, Merriam (1998) identifies that a case-unit must serve the opportunity to acquire new insights and to answer the declared research question. Market intelligence as construct has a crucial importance to enterprises which aim to better understand their customers, competitors, and relevant market trends. MSX International was chosen because of its high service- and customer-orientation, which makes it essential for the enterprise to understand its customers and the market it operates on. Remaining in step with technological enhancements and establishing long-lasting customer relationships require a good understanding of the customers' and markets' needs and developments. Consequently, MSX International depends on the constitution and utilization of market intelligence to a certain extent, which makes it possible to acquire insights regarding how market intelligence is constituted and utilized.

Prior contact to the case-unit, facilitated the author's opportunity to cooperate with MSX International in conducting this thesis' research. Ultimately, the choice was made based on MSX International's role as expert in the constitution of market intelligence on the one hand, and the previously established contact which facilitated the opportunity to cooperate for this

thesis' research on the other. The choice of sampling can thus be regarded as a hybrid version of purposive sampling (Saunders et al., 2003) and convenience sampling (Blumberg et al., 2011), however, an intended decision for the case-unit due to its expert-role remains the decisive factor.

2.4 Research Process

The research process for this study was initiated once the limited literature on research regarding the practitioner-oriented understanding of market intelligence was observed. After acknowledging that the term "market intelligence" had its first appearance within the market orientation literature, traditional concepts of market orientation were reviewed. An extensive literature review was conducted, which also included more recent literature which investigated market intelligence as isolated notion. The importance of market intelligence for both internationally and nationally operating enterprises was acknowledged. However, certainly literature from international business left questions unanswered which address how market intelligence is constituted under application of the suggested concepts, and how it is subsequently utilized. Literature on strategic management and marketing were found to deepen the analysis on market intelligence, however no study was found which explains the constitution and utilization of market intelligence on a firm-based level. Developments in information technology further necessitate research which addresses the mentioned context.

Due to this lack in existing literature, a general theoretical framework was built. The theoretical framework addresses theories related to market orientation as initial concept, as well as more recent studies which isolate market intelligence as individual notion. Subsequently, the empirical findings that sourced from data-collection within the case-unit are described. Afterwards, the empirics were analyzed and thereby confronted with the theory. As a result of this confrontation, a more fine-sliced understanding of the constitution of market intelligence could be gained on the conceptual level. It was thus possible to extend existing theory, which is outlined by the creation of a model at the end of the analysis. Furthermore, practitioner-oriented understanding on how enterprises utilize the constituted market intelligence was achieved. The latter was not initiated by previous literature before this study's research and thus opens paths for future research. Both, the insights regarding the constitution of market intelligence and its utilization were finally summarized in a conclusion.

2.5 Data Collection

To achieve an understanding of how market intelligence is constituted and utilized, a multiple data collection approach was applied, which is based on primary and secondary data. Patton (1990) outlines that no single source of information is completely trustworthy to serve an understanding of the research topic. Consequently, the triangulation of information is essential for the trustworthiness of empirical data collection, which certainly applies for case-studies (Yin, 2009). To thus improve some aspects of the primary data, secondary data such as internal publications were analyzed. Nevertheless, the primary data collected by way of interview conduction serve as main source of this thesis. According to Yin (2003), interviews are an insightful tool for data collection, whose limitation mainly lies in the biased behavior of the interviewer or the interviewee.

2.5.1 Primary Data

Primary data represent the main source of this thesis. Ten interviews were conducted under application of an interview-guide approach. The interview-guide is semi-structured and can be reviewed in the Appendix of this thesis. According to Bryman and Bell (2015), semi-structured interviews allow for unrestricted communication with the respondents. Moreover, follow-up questions are enabled which facilitates a deeper understanding during the interviews.

The utilization of a semi-structured interview-guide thus provides the opportunity to adapt the questions to the respective interview-situation. The approach to utilize a semi-structured interview-guide might lead to a lower level of comparability, it was however considered as very advantageous during the data collection, certainly due to the high diversification in the respondents' functions and their closeness to the constitution and/or utilization of market intelligence at different levels. Thus, the author could skim knowledge more efficiently dependent on the respondent's specific participation in the constitution and/or utilization of market intelligence.

2.5.1.1 Choice of the Sample

Regarding the choice of the sample, the respondents were chosen in cooperation with the Account Operations Manager. The choice was made after the conduction of a "trial-interview" with the Account Operations Manager, during which the same interview-guide was utilized as for the data collection afterwards. The purpose was to provide the Account Operations Manager with an understanding of what is researched, so that the Manager can help to select respondents after the best of his knowledge from 20 years of employment in the case-unit. Subsequently,

the Account Operations Manager suggested a group of 18 respondents, which were contacted via Email. From 18 invitations to participate in the interviews, 11 positive answers were received. All 11 interviews were conducted, however, 1 interview could not be considered due to the sudden interruption after solely 15 minutes of interview. The respondent had to leave due to a sudden change for a customer meeting.

2.5.1.2 The Interviews

All 10 interviews were executed between 21st of March and 18th of April 2018, as presented in *Figure 2*. The interviews were held with different respondents from a variety of nationalities, hierarchical positions, as well as functions within the case-unit MSX International.

Interviewee	Function	Date	Time	Duration [min]
1	Account Operations Manager	21.03.2018	9:00	90
2	Strategic Account Executive	23.03.2018	9:30	90
3	Head of department - Business Solutions	26.03.2018	9:30	120
4	Account Operations Manager	26.03.2018	16:00	60
5	Operations Director Germany, Austria, Switzerland	27.03.2018	10:00	60
6	Managing Director Germany, Austria, Switzerland & Nordics	03.04.2018	11:00	40
7	Vice President Product Development	09.04.2018	10:00	100
8	Project Manager	12.04.2018	14:00	60
9	Marketing Manager Europe	12.04.2018	10:00	60
10	Strategic Account Executive	18.04.2018	11:00	90

Figure 2. Interviewees for the primary data collection in order of the date of conduction
Compiled by author

All interviews were conducted as face-to-face interviews, which was considered by the author as the most direct and reliable way to gather qualitative data. The interviews lasted between 40 and 120 minutes, summing up to a total of 770 minutes or 12.83 hours of interviews. For 5 interviews, the conduction was executed in English, while the remaining 5 interviews were held in German.

In order to fully analyze the gathered information, the interviews were carefully transcribed. The interviews were not recorded due to respective preferences from the case-unit's management. It was decided from the author to follow the preference of the case-unit to not record during the interviews, in order to assure a cooperation which is based on high mutual trust. However, double-checking of the generated information was made through physical follow-up meetings with 7 out of the 10 respondents. In the follow-up meetings potential questions from the author could be clarified. Out of the 7 follow-up meetings 1 was conducted via telephone, while 6 were face-to-face meetings. The reachability of all respondents for follow-up communication was facilitated due to the author's presence in the case-unit in a

period beyond the data-collection, whose purpose was to fully clarify potential questions arising after the interviews. Consequently, the author could assure to gather all relevant information with the subsequent option to clarify or deepen specific aspects from the initial interviews in follow-up meetings.

2.5.2 Secondary Data

In addition to the previously described primary data, secondary data were considered during the data collection period. As main source, the intranet of the case-unit MSX International was utilized thanks to full access that was provided to the author. Internal reports such as strategy-papers were assessed and helped to understand and triangulate the constitution and utilization of market intelligence as reported by the respondents during the interviews. Particularly the IT-based constitution of market intelligence represented a very technical side of market intelligence constitution. Access to internal guides, such as how to analyze data with business analytics software enhanced the author's understanding and supported triangulation with the primary data. Another source was the public website of the case-unit, which helped to understand the enterprise's product-portfolio. Consequently, secondary data were an important aspect in enhancing the understanding of the primary data, as well as in triangulating those.

2.6 Analysis of Empirical Data

During the analysis of the empirical data, the gathered data were continuously reduced. Thereby, the process of analyzing the data is made more efficient. Miles and Huberman (1994) highlight the reduction of gathered data as a process which sharpens, focuses, discards, and reorganizes data. In line with Miles and Huberman's outline, the gathered data were reduced abductively. Subsequently, the remaining empirical data were analyzed by utilizing a deductive thematic coding. Deductive thematic coding involves the simultaneous analysis of the empirics and the theory (Bryman & Bell, 2015). However, also inductive coding was utilized to find new patterns and to extend existing theory (Bryman & Bell, 2015).

2.7 Quality Assessment

This section discusses the quality of the study in four dimensions: dependability, credibility, confirmability, and transferability. Those measures demonstrate the trustworthiness and its ability to contribute to existing literature in market intelligence research.

The *dependability* pertains the ability to trace and follow the development of the applied analytical process in order to understand the insights derived from the analysis (Guba, 1981). The analysis process is explained in an ambition to guide the reader through steps taken in the continuous analytical reasoning between theory and empirical data. The respondents' diverse professional positions and the variety of functions they have within the case company MSX International increases the dependability of this research, as it facilitates triangulation of findings and the consistency of the results with the empirical data (Bryman & Bell, 2015). Additionally, all interviews were transcribed and the quotes in the empirics utilized to visualize the findings were individually checked and confirmed by the respective interviewees. The latter thus further increases the dependability of this research.

Regarding this thesis' *credibility*, the triangulation and diversity approach according to Patton (2002) was followed to ensure and increase the credibility. Patton (1990) highlights that triangulation is important to elaborate on the validity of a research. Particularly when subjectivity could have occurred, triangulation was an acknowledged issue during the research process. Since this thesis utilizes primary and secondary data, two measures were taken. First, the data collection of the primary data included several different respondents with different backgrounds, positions, and firm-related responsibilities. The sources thus varied significantly. Second, secondary data such as internal presentations, guidelines, and information on the internal database were accessed and utilized for triangulation with the data gathered during the interviews.

The *transferability* of a research describes the applicability of the findings to other contexts, and thus the generalizability of the results. For this research, transferability was ensured and enhanced by creating a solid theoretical foundation and elaboration on the one hand, and by a rich description of the research unit MSX International and the research process on the other. This ultimately allowed for analytical generalizability (Yin, 2009). The conducted analysis facilitates analytical generalization, which is however limited to the extent that the findings could be transferred to other research on how technology-intensive enterprises constitute and utilize market intelligence.

A fundamental pillar in qualitative research is the presumption that each researcher brings a unique perspective. *Confirmability* in this context refers to the degree to which the results of the research could be confirmed or reinforced by others (Bryman & Bell, 2015). Other than that, confirmability addresses the possibility of bias in the research, as well as the measures adopted to decrease this possibility (Guba, 1981). Addressing the prevention from biased

findings, triangulation of the answers from all 10 respondents and the secondary data was made. As emphasized previously in this chapter, the respondents executed a variety of different positions, functions, and responsibilities within the case unit. In addition to the triangulation, measures taken during the research process are described extensively, which allows for trial auditing and thus enhances the confirmability. The reader is subsequently able to follow on decisions taken during the research process (Shenton, 2004). Furthermore, a continuous search for theories to better examine the phenomenon of market intelligence constitution and utilization was made. Both measures ultimately decrease the author's bias to an extent which does not infiltrate the study to an extensive degree (Lincoln & Guba, 1985).

2.8 Limitations

For this study's research, three main limitations could be identified. As a first limitation, the sampling method was identified as main limitation of this research. It is not statistically representative and could thus be considered as problematic when generalizing findings from this study to the population. The findings of this study are however intended to be analytically generalizable rather than statistically.

Second, Maxwell (2005) brings forward that a relatively small number of respondents constrains the comprehension of the diversity that might exist between a number of individual respondents, which might ultimately lead to an exaggerated uniformity. This issue was addressed previously by highlighting that the data collection was conducted with the intention to investigate the interviewees' perceptions within the framework of a qualitative study. The chosen interviewees were thus all relevant for the studied phenomenon.

The third and last limitation as identified by the author is the utilization of two different languages during the interview-conduction. Half of the interviews were held in English, while the other half was conducted in German. This could potentially lead to a certain degree of skewness during the translation of the data, which were gathered in German. However, due to the fact that the author's native language is German, a translation as exact as possible was made.

2.9 Ethical Considerations

Qualitative research usually involves the conduction of interviews for data-collection purposes, which makes ethical considerations very important (Yin, 2009). Interviews with individuals, in

this case employees that work at the case-unit, require those considerations to be respected from the researcher. Since the researcher intervenes with the respondents' personal sphere, it is crucial that the respondents do not perceive any pressure to take part in the interview-conduction (Bryman & Bell, 2015). The latter is essential to minimize the risk of bias (Collis & Hussey, 2009). Furthermore, the interviewees must be informed what the study is about in order to avoid delusion (Bryman & Bell, 2015). Yin (2009) outlines that those ethical considerations must be kept throughout the entire research process.

In order to respect the highlighted ethical considerations to the largest extent possible, a number of measures were taken. Firstly, none of the respondents was forced to participate in the interview-conduction, nor was any sort of incentive made to them. Secondly, all respondents were informed about the intention of the study prior to their decision whether or not they want to take part in the interview-conduction. Thirdly, the author assured to treat sensitive information confidential. Fourthly, the interviewees were told which techniques the author uses to protocol the information, such as transcription. Fifthly, the interviewees were free to not answer questions which they feel invade their privacy or harm them in any other way. Considering those measures taken by the author, the study is considered to be executed under the highest possible respectfulness regarding ethical considerations.

3 Theoretical Framework

This chapter provides the reader with an overview of the relevant theory. Existing research on market intelligence within traditional market orientation theory is presented. Furthermore, contemporary research on market intelligence as individual field of study is outlined with focus on the three constituting actions generation, dissemination, and responsiveness. Ultimately, the effect of utilizing market intelligence regarding business performance is outlined.

3.1 Market Intelligence within Market Orientation Theory

The initial utilization of the term market intelligence in the literature occurred in traditional market orientation theory, during the conceptualization of market orientation in the early 1990s. The concept of market orientation was developed from two standpoints, which are the *behavioral perspective* and the *market intelligence perspective*.

The behavioral perspective has its essence in seeing the enterprise as learning organization. The market intelligence perspective instead takes a process-perspective on the constitution of market orientation. For a sufficient development of a theoretical framework, the following chapters thus aim to present both perspectives. The reader hence understands similarities and differences between them and can follow the development of a theoretical fundament for this study.

3.1.1 The Behavioral Perspective

Market orientation in its behavioral perspective was initiated by Stanley Slater and John Narver. Market orientation is defined as such development of an organization, which most effectively and efficiently constitutes behaviors for the creation of superior value for customers (Narver & Slater, 1990). Market orientation is the principle foundation of the learning organization and provides norms for the organizational development of and responsiveness to market information (Slater & Narver, 1995). Thus, market orientation is a learning orientation, where industry insight and customer insight are important components. An enterprise that is aware of market orientation as source for competitive advantage knows that it must build and maintain long lasting and mutually beneficial relationships with its customer to maximize its performance in the long run (Slater & Narver, 1995; Slater & Narver, 1999). Hurley and Hult (1998) emphasize the tie of market orientation as learning orientation to innovativeness. They expose the learning orientation as source of new ideas and motivation to respond to the environment. The orientation towards learning and towards the market support innovativeness of the enterprise (Hurley & Hult, 1998).

The three behavioral components that constitute market orientation in the behavioral perspective are (i) customer orientation, (ii) competitor orientation, and (iii) interfuncional coordination. The first two components involve the acquisition of information about the customers and competitors in the target market, as well as the spread of those information throughout the enterprise. The third component, that is (iii) the interfuncional coordination, is based on the first two components and comprises them. The efforts to create superior value as the focus of the entire business rather than the efforts of a single department (Narver & Slater, 1990).

Further distinction is made between *customer-led orientation* and *market-led orientation*. Firms that adopt customer-led orientation aim to enhance their understanding of current customer needs. This is carried out by utilizing for instance customer surveys (Slater & Narver, 1998). They hence operate rather reactive and focus on the short term (Hult & Ketchen, 2001). As a

consequence, those companies are adaptive rather than generative learners (Slater & Narver, 1998). Firms that adopt the market-led orientation scan the market more broadly, develop long-term thinking and systematically acquire market relevant information. Those firms desire to fulfill latent needs of customers (Hult & Ketchen, 2001). They aim to understand their customers and competitors by adopting market research techniques and are generative learners (Slater & Narver, 1998). To combine classic market research with techniques that reveal latent customer needs, firms for instance observe their customers using the products during regular working-routines. That way they gather information about customer needs, which are not available in market research (Leonard & Rayport, 1997).

Connor (1999) criticizes the emphasis on either current or future customer needs as too narrow. Companies instead must “lead and be led at the same time” (1999, p. 1157). Firms thus choose a position along the continuum between customer-led orientation and market-led orientation. They balance their funds they put into customer-led orientation and market-led orientation due to fund constraints (Connor, 1999).

3.1.2 The Market Intelligence Perspective

The market intelligence perspective initially describes the term market orientation as the ability of an enterprise to achieve organization-wide market intelligence (Kohli & Jaworski, 1990). Furthermore, the market intelligence perspective of market orientation initially brought up the term market intelligence. Market intelligence is defined as “[the] consideration of (1) exogenous market factors (e.g. competition, regulation) that affect customer needs and preferences and (2) current as well as future needs of customers“ (Kohli & Jaworski, 1990, p. 3).

Ruekert (1992) identifies (i) the acquisition and utilization of customer information, (ii) the development of a respective strategy to meet the customer needs, and (iii) the implementation of such strategy as response to customer needs as three actions that constitute market orientation. The acquisition of customer information as first action is done by managers on the business unit level. Developing a strategy as second action involves a strategic planning process with the aim to consider and satisfy customer needs. In the third action, the customer-oriented strategy is implemented by being responsive to market needs (Ruekert, 1992).

In comparison to Ruekert, which focuses on the strategy-perspective of utilizing market intelligence, Shapiro (1988) focuses on the decision-making process. He argues that an enterprise which processes all information important for buying influences through every

corporate function is market oriented. Furthermore, Shapiro emphasizes that “strategic and tactical decisions are made interfunctionally and interdivisionally” (1988, p. 121). Lastly, well-coordinated decisions shall be made and executed by divisions and functions.

Kohli and Jaworski (1990) center information processing in their conceptualization. They define market orientation as “organizationwide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organizationwide responsiveness to it” (1990, p. 6). The three from this definition derived actions of generation and dissemination of, and responsiveness to market intelligence constitute organization-wide market orientation.

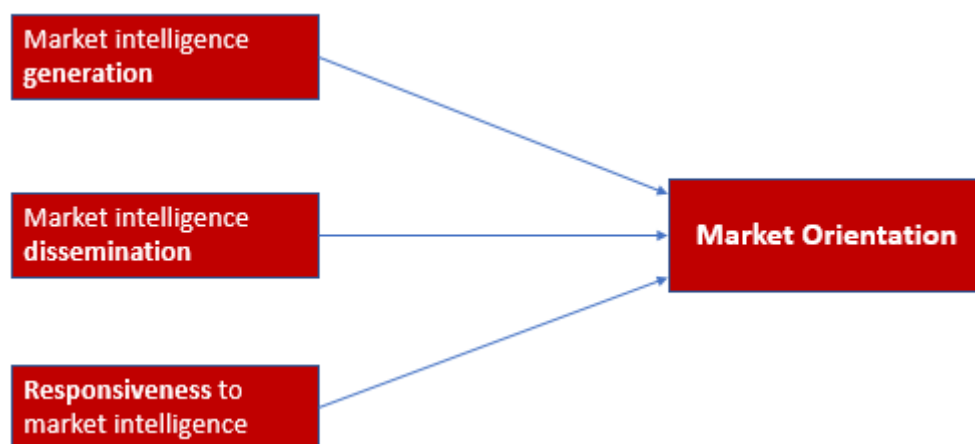


Figure 3. Constitution of Market Orientation adapted from Morgan et al. (2009, p. 911)

Figure 3 visualizes the three actions, which are (i) *intelligence generation*, (ii) *dissemination*, and (iii) *responsiveness*. As first element, *intelligence generation* includes not only the customers’ needs and preferences, but also an analysis of exogenous factors that affect those needs and preferences. Exogenous factors can for instance be government regulations, technology, environmental forces, or actions of competitors which influence the customers’ needs. Kohli and Jaworski’s first element thus shows similarities to the emphasized suggestion of Ruekert (1992), where business-unit managers acquire different sorts of information.

The second element, *intelligence dissemination*, explains the necessity of all departments of an enterprise to participate in order to respond effectively to market needs. Allocating and communicating the gathered knowledge about customers’ needs to relevant departments and individuals within the enterprise is crucial to respond to those (Kohli & Jaworski, 1990). The dissemination across all departments of the enterprise is similar to the emphasized suggestion

of Shapiro (1988), which stresses the importance to process relevant information through every corporate function.

Subsequently, *responsiveness* as third element describes the responsiveness to the developed market intelligence. Without responding to the gathered knowledge that was spread throughout the enterprise, the market intelligence is of little value for the enterprise's development (Kohli & Jaworski, 1990). Ruekert (1992, p. 229) emphasizes that the third, responding action “ is often described [...] as being central to the concept of market orientation”. Responsiveness to market intelligence can take several forms, for instance the production, distribution and promotion of products (Kohli & Jaworski, 1990).

In summary, the market intelligence perspective defines market orientation as the extent to which a firm engages in the generation and dissemination of, and the responsiveness to market intelligence pertaining to current and future customer needs, competitor strategies, and the business environment (Morgan et al., 2009).

3.2 Contemporary Understanding of Market Intelligence

Market intelligence is, as presented in the previous paragraph 3.1, the center element of market orientation. The generation and dissemination of, and the responsiveness to market intelligence are the fundament for an efficient utilization of relevant information about customers, competitors, and exogenous market factors. This process ultimately allows an enterprise to increase its level of organization-wide market orientation.

Market intelligence as term gained importance among researchers from marketing and strategic management when the presented conceptualizations of market orientation became popular in the early 1990s. More recently, market intelligence has evolved as a specialized activity in market research (Navarro-Garcia et al., 2016). Literature has consequently developed further in addressing market intelligence by taking into consideration technological developments reaching from the penetration of the internet as source for information to data-based information processing and analysis. This recent research phase thus builds an important bridge from the previously presented traditional concepts of market orientation, to a contemporary understanding of market intelligence in enterprises.

On the macro-level, Navarro-Garcia et al. (2016, p. 368) stress that “[...] a company's capacity to adapt to the conditions in a given country and market depends largely on its skill at processing

and interpreting relevant market information". MacPherson (2000) points out a strong tie between market intelligence and an enterprise's internationality. According to him, international enterprises were found to invest more in market intelligence than non-international enterprises as a percentage of their total sales.

On the firm-based level, MacPherson (2000) states that market intelligence is generally characterized by the information assembly of external information and is viewed as a strategic resource which promotes the achievement of competitive advantages in markets where the enterprise is active. De Pelsmacker et al. (2005) define market intelligence as an enterprise's skill of processing, interpreting and disseminating information on the market, which enables a fast response to change. Navarro-Garcia et al. (2016) outline market intelligence as dynamic capacity, which includes developing processes and activities connected to the acquisition, storage, interpretation and distribution of relevant market information.

3.2.1 Market Intelligence Generation

Technological changes brought major transformations to how enterprises work with market intelligence. Most of the information utilized to constitute market intelligence are publicly available (Calof & Wright, 2008). Taking information about competitors as example, the generation was traditionally carried out through the scanning of for instance annual reports or press releases of competitors. The result was that market intelligence was generated only occasionally (Blenkhorn & Fleisher, 2005). In the recent years however, technological advances have increased the availability of information. For instance, the internet has made continuous generation of market intelligence possible. The continuous rather than the occasional generation and utilization of market intelligence is suggested to be the basis to skim the full benefits of it (Blenkhorn & Fleisher, 2005). Consequently, technological changes play an important role in benefiting from a richer generation of market intelligence. However, a side-effect is that enterprises increasingly rely on the internet as source for market intelligence (Chen et al., 2002). Furthermore, enterprises face the challenge of an information overload which results in the necessity to optimize their generation resources (Adidam et al., 2012). However, Rakthin et al. (2016) emphasize regarding the generation of information about the customer, that it's still particularly physical front-line units such as sales and marketing that are important sources. Rakthin et al. (2016) outlines the challenge that many enterprises fail to consistently generate customer and competitor information which are collected from sales managers or the marketing departments. Much relevant information about customers and competitors can be

generated, sourcing from the frequent and direct customer contact, as well as the observance of products and services offered by competitors (Rakthin et al., 2016).

3.2.2 Market Intelligence Dissemination

Dissemination of generated market intelligence across the enterprise is outlined to be one of the most critical components of effective market intelligence (Lackman et al., 2000). Once information is generated and analyzed, it must reach the right user for effective decision-making (Adidam et al., 2012). Rakthin et al. (2016) outlines regarding the preparation to disseminate market intelligence, that many enterprises fail to transform or integrate the generated information into the internal market intelligence system. Furthermore, it is argued that the consistent dissemination of customer information generated externally (e.g. through sales managers) poses a challenge to enterprises.

For effective dissemination of market intelligence, the processing of relevant information thus plays an important role. As previously mentioned, Navarro-Garcia et al. (2016) outline an enterprise's ability to respond to external conditions as highly dependent on its skill to process relevant information. For new product development, necessary information about current and future customer needs must be processed efficiently to new product development teams. The effective processing of information thus facilitates new product success (Pentina & Strutton, 2007). Regarding dissemination instruments, Adidam et al. (2012) come to the result that memos, formal written reports, and oral briefings are the three most often used modes to disseminate market intelligence.

3.2.3 Market Intelligence Responsiveness

The generated market intelligence which was disseminated throughout the enterprise is of little value for the enterprise's development, without responding to it (Kohli & Jaworski, 1990). Ruekert (1992) outlines the responsiveness as crucial for a firm to ultimately achieve market orientation. He furthermore sees the development and implementation of a strategy which will meet the customers' demands as action of responsiveness. The relevance and the timing of the processed information play an important role in responding to it, for instance when it comes to strategic decision-making (Adidam et al., 2012). Rakthin (2016) emphasizes that many enterprises do not successfully respond the intelligence to increase their delivery of value for the customer. Kumar et al. (2011) add that the process to fully apply market intelligence and consequently achieve higher degrees of market orientation can be a costly and slow process.

3.3 Effect of Market Intelligence on Business Performance

As presented above, each of the three elements generation, dissemination, and responsiveness poses individual challenges to enterprises. However, if an enterprise manages to generate and disseminate market intelligence, as well as successfully responds to it, the market orientation of the entire organization can be achieved and extensive benefits can be skimmed.

The effect of higher levels of market orientation on the business performance of an enterprise was discussed extensively in literature and evidently provides the insight of a positive correlation. Narver & Slater (1990, pp 32-33) outline that “[...] the businesses having the highest degree of market orientation are associated with the highest profitability”. Enterprises that track and respond to customer needs are better at satisfying those and consequently perform at higher levels (Kohli & Jarkowski, 1993). Kumar et al. (2011) find a positive correlation between market orientation and both, short-run and long-run sales. Hult et al. (2005) come to the result that a market-focused enterprise, market information processing, and organizational responsiveness taken together affect the success of the company. They furthermore highlight that the performance effects of a market orientation are felt through responsiveness.

4 Empirical Findings

The section of empirical findings intends to provide the reader with an introduction into the case-unit and the relevant individual departments involved in the constitution and utilization of market intelligence. Subsequently, findings with regard to the generation and dissemination of, and the responsiveness to market intelligence are presented. Finally, findings on how the case-unit utilizes the constituted market intelligence are outlined.

4.1 About MSX International

MSX International is an American-owned enterprise established in 1943. With its headquarter based in Detroit, USA, MSX International has operations in 52 countries with 5.500 employees. The case study was conducted in the company’s subsidiary in Cologne, Germany. The subsidiary is “the headquarter of MSX International Europe” as stated by the Operations Director during the interviews. To visualize the importance of the Cologne-based subsidiary, and to strengthen the credibility of the choice for this subsidiary of the company, it is worth mentioning that the global product development department is part of the subsidiary in Cologne.

Any new product developments for the global company and its operations in the 52 countries are thus initiated in the subsidiary in Cologne.

Most of the original equipment manufacturers (OEMs) of the global automotive industry belong to MSX International’s customer base. In specific, MSX International is specialized in dealership network solutions. The products thus aim at the automotive companies’ dealership networks, consisting of wholly-owned or contracted car-, truck-, and motorbike-dealers. Those dealers sell their products, that is cars, trucks, and motorcycles to the end-customer and take in the sold vehicles for instance to execute repair-service or periodical maintenance. *Figure 4* visualizes MSX International’s position in the value chain.

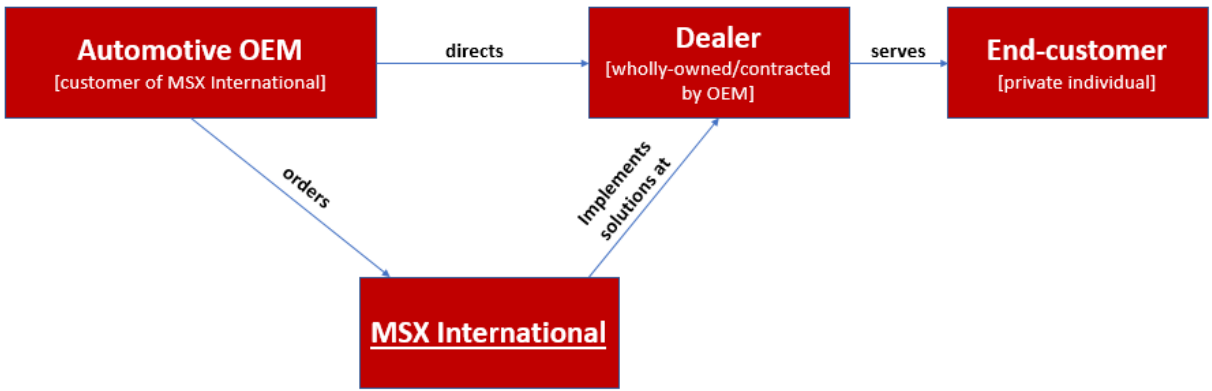


Figure 4. MSX International’s position in the value-chain
Illustration compiled by author

The company thus solely operates within B2B customer relationships. MSX International advertises itself as being capable to increase efficiency, optimize business processes, enhance relationship to end-customers, reduce costs for warranty-services, and improve products and services of the OEMs dealership network. Concerning MSX International’s product-related core business, the products and services are concretely separated into three main areas presented in the next paragraph.

4.1.1 Introduction into the Product-Portfolio

(1) Warranty Solutions

As part of the warranty solutions business unit, MSX International helps the automotive OEMs to improve their warranty business. Services in this area are for instance the warranty auditing, warranty process improvement, and warranty training. The aim is to adapt and improve the warranty services of the dealership network, so that less money is spent on providing the end-customers with warranty services. This could include the scope of a repair, or when an end-customer’s car damage does not need to be repaired within the warranty anymore.

(2) Technical Solutions

As part of the technical solutions business unit, MSX International is mostly active in two areas. First, MSX maintains technical hotlines for the OEM. This service contains the creation of call-centers and respective supply of necessary workforce to maintain a technical hotline. In those so called “technical helpdesks”, phone calls coming from both end-customers and dealers are answered with a special focus on technical questions. As a second part of the technical solutions business unit, MSX offers technical training to the dealership network of OEMs. Practically, trainings on for instance efficient extraction of data-based information from cars that are brought to the garages of the dealers from the end-customers are held.

(3) Dealer Solutions

In the dealer solutions business unit, MSX International offers a package to automotive OEMs which aims to improve the sales and service performance of its dealers in the dealership network. MSX International carries out campaigns, for instance by doing a current state analysis of the dealers’ service features. Surveys are sent out to the dealers, which pose a variety of questions reaching from whether the dealer has a proper WIFI-connection to questions regarding the supply of a spare car to a customer that hands in his car for maintenance repair. Ultimately, MSX creates concrete points of action for every individual dealer that need to be improved to enhance the customer-satisfaction and the retail compliance.

4.1.2 Introduction into the relevant Departments and their Functions

The conducted interviews were held with executives from different departments in a variety of functions. Interviewees were mostly working on the head of department level or held managing positions within their respective department or function. Furthermore, interviewees included employees in leading interdepartmental strategic functions, such as the Managing Director of Operations, the Managing Director of Sales, and the Vice President of the Product development department. To grasp the most operational level, the interviews additionally incorporated the project management level, which is hierarchically located right above the project teams as most operative employees.

To provide the reader with a deeper understanding of the individual departments’ functions and areas of operation, the following paragraphs describe and elaborate on the most important departments and their function within MSX International.

The product development department

The product development department was established 3 months prior to the interview execution. I was given the chance to interview the vice president of the department, which provided me with a deep understanding of the department’s history and its operations. The department was established as an answer to the increasingly digitalizing automotive industry with the customers’ wish to have a clearer product-portfolio when contacting MSX International for a purchase of their products and services. Additionally, the increasingly spread operations of the OEMs, which are the main customers of MSX International, incrementally demand for globally implementable products.

As a relatively young department, the product development department has its core functions mainly in two areas: the strategic generation of information about customers, competitors, and market trends, as well as the new product development. In the second function of new product development, the department mainly focuses on the development of radically new products rather than adapting existing ones. Due to its recent establishment the department engaged in creating clear definitions of existing products during the interview execution of this thesis. However, the new product development had started some few weeks prior to the interview execution, so that information on this function were available during the interviews.

Sales operations through Account Manager structure

The nature of MSX International’s sales operations is based on a 3-level Account Manager structure, visualized in *Figure 5*.

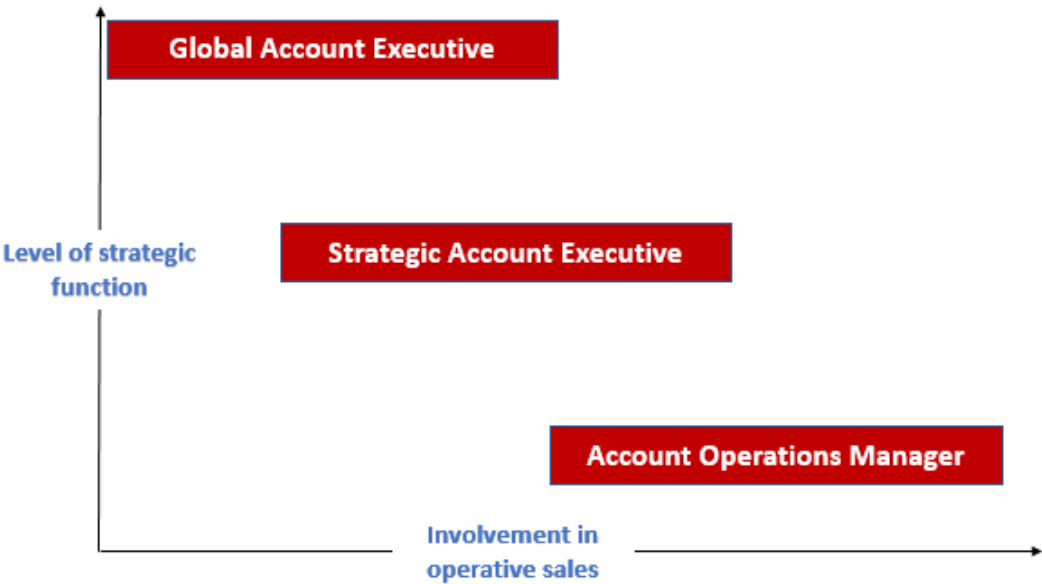


Figure 5. The three levels of Sales Operations in MSX International
Illustration compiled by author

The Global Account Executives are the globally responsible executives and in charge of the global development of customer relations on a strategic level. They are less involved in daily or operative sales activities, but rather acknowledge the strategic directions of the customers on a global level, observe strategic directions of the customers on a continent-wide level, and negotiate solutions of MSX International which are to be implemented globally at the customer. *The Strategic Account Executives* represent the second level of the sales operations. Those operations also incorporate strategic activities, they are however based on country or area levels like for instance the German-speaking market. The *Account Operations Managers* form the third level of sales operations and are most operative and least strategic. They are responsible for local customer development. Their reach can however be country-wide, dependent on the respective project scope.

To consolidate, MSX International operates sales and develops its business via the three-level sales manager system. While the Global Account Executives are not involved in operative sales, Strategic Account Executives and Account Operations Managers sell products and services to customers. Most of the sales do not only contain a product such as an IT-system, but additionally the respective implementation through project-teams which are led by the respective manager. The project teams are each led by a project manager and work directly at the customer to implement the sold solutions.

The Business Solutions Department

The Business Solutions department has the function of an internal IT-support for the sales operations. Dependent on the respective nature of the project, the department closely works together with some of the Sales Managers. Practically spoken, if a Sales Manager sells a product or service that is IT-related to one of his customers, the Business Solutions department can help the Account Operations Manager to carry out the respective IT-related contents. Whenever a customer purchases for instance services that include extraction of data from the customer's database and the analysis or visualization of sales data, the Business Solutions department can be of great help to the Sales Managers. Not always, the Sales Managers have an IT-expert in the project teams they lead. Especially in such situations, the Business Solutions department provides respective expertise. Since every Sales Manager is responsible for different customers with different needs and projects, not all Sales Managers demand the Business Solutions department's support.

A noteworthy is that the Sales Managers must "book" the Business Solutions department's support through an online ticketing system. The reason behind lies in the attribution of the

services of the Business Solutions department to the respective Account Manager. In an interview, the head of the Business Solutions department pointed out that the department holds a supplier-customer relationship to the Sales Managers, which give up a part of their project-related margin to book the support of the Business Solutions department.

4.1.3 Overview of the inter-departmental Cooperation

Figure 6 shows the overview of how the different departments work together. On the top end of Figure 6, the Product Development department develops new products, which are positioned at the customers through the Account Operations Managers. Each Account Operations Manager is responsible for specific customers, a so called “Account Manager system”. The Strategic Account Executives and the Global Account Executives at the top-levels of the presented sales structure are not included in Figure 6, since they have no operative contact to the customer. They rather lead meetings which involve the Account Operations Managers and intend to inform them about global developments within the customer companies.

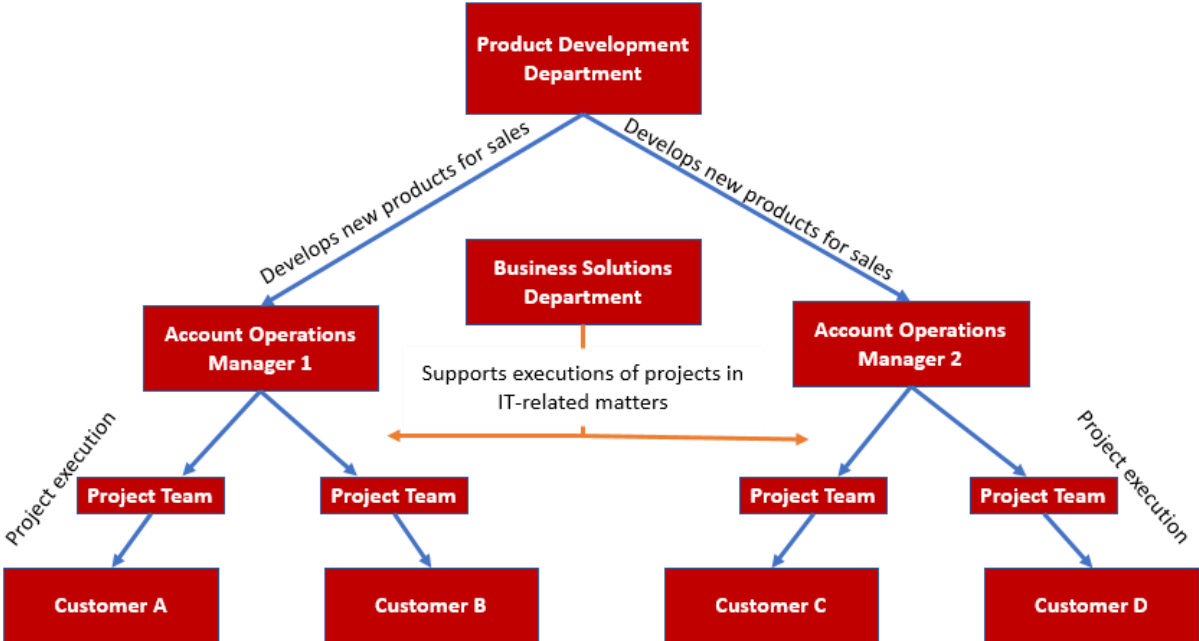


Figure 6. Inter-departmental cooperation in MSX International
Illustration compiled by author

In the middle of Figure 6, the Business Solutions department is visualized. The function of the department is to support the Account Operations Managers. The support does not occur during the sales process, but mostly after a product, service or project was sold to a customer. During the data collection it was observed that the Account Operations Managers unregularly consult the Business Solutions department during a sales process, for instance concerning very specific IT-related questions. Usually, the Business Solutions department thus supports

in executing projects which include the analysis or visualization of data from the customer. Furthermore, noteworthy in Figure 6 are the Project Teams. Those have the function to execute the projects that were sold by the Account Operations managers at the customer.

4.2 Generation of Market Intelligence

The first section of the interview-guide (see Appendix I) addressed the generation of market intelligence in the case-unit MSX International. The data-collection revealed the three main pillars of the case-unit to generate market intelligence from, which are customer projects, paid content, and internal generation. Regarding the generation of market intelligence through customer projects, especially Business Process Outsourcing was identified to play a key role. Furthermore, the Business Solutions department is a cornerstone due to its data-based generation of market intelligence within customer projects. Regarding the other two main pillars for generation of market intelligence, i.e. paid content and internal generation, the Product Development department was identified to have a strategic role.

4.2.1 The three Pillars of Market Intelligence Generation

Within the first section of the interview-guide (see Appendix I), the questions aimed to gather understanding on how and through which instruments market intelligence is generated. The generation of market intelligence naturally is the first and inevitable action to profit from relevant information about customers, competitors, and the market development at a later stage. This chapter gives an overview of the three main sources for generation of market intelligence, as identified during the data collection.

First, *customer projects* were identified to be a main source for market intelligence, and as such particularly important for the constitution of customer-related market intelligence. In a first step, the Account Operations Managers in their sales function sell a project at the customer. It was reported during the interviews, that typically a presentation or a meeting is held at the customer. The Account Operations Manager, which is informed about the intentions of the customer to potentially purchase the project, gathers much understanding of structures and issues at the customer-company. As a second step after the successful sale of a project, project teams implement the sold solutions at the customer. During this execution of their work, they have direct access to customer-related intelligence. Predominantly operative information is generated from the project teams. In other words, the project teams generate very customer-

specific and operative knowledge, for instance about processes executed within the customer-company.

Second, *paid content* was identified to be a main source for market intelligence. MSX International buys access to content with the intention to gather industry- or market-relevant information. External industry-specific databases, market research institutes, and industry journals are three examples of paid content accessed by MSX International. This pillar of market intelligence generation is primarily important for the generation of market intelligence related to market development.

Third, *internal generation* is a source for market intelligence at MSX International. The Product development department employs a team of researchers which research in a variety of internal and external channels and platforms for relevant information. After, the generated information is compressed and transferred into internal reporting and papers. Those are then spread and made available to other departments.

4.2.2 Market Intelligence Generation through Business Process Outsourcing

Business process outsourcing is an essential source for the generation of customer-related market intelligence at MSX International. The interviewee which is a Project Manager emphasized to have gathered a detailed operative understanding of processes that customers outsource to MSX International. The respondent is a project manager which is responsible for 50 employees who continuously work at the customer.

To explain the generation of customer-related market intelligence through BPO, an example given by the interviewee is visualized. One of the projects the interviewee manages is the operation of a technical service hotline for a customer, which has outsourced that task to MSX International. After the customer's decision to create a centralized technical service hotline for the European area by way of outsourcing, MSX International was hired to execute the project. Practically, MSX International maintains a call-center with technical automotive experts. Those experts take calls from individual dealers within the dealership network of the customer. By way of phone calls, technical questions concerning the maintaining operations on end-customers' cars which arrive in the dealers' garages are answered.

MSX International has built up the technical helpdesk by recruiting respective personnel, building the IT-infrastructure and the physical structure. Consequently, a high degree of customer-specific and process-specific market intelligence was gathered. In the interview the

dependency relationship between the customer and MSX International that arises from this outsourcing context was highlighted.

“We know more about the customer’s processes than the customer himself does. That creates a dependency the customer doesn’t always like”.

[Project Manager, MSX International]

Moreover, the high importance of customer relationships was highlighted by the interviewee. The above-mentioned project was recently re-announced by the customer. MSX International had to take part in an open competition with other providers of respective services. The competitors were all invited to the customer to present themselves and to offer a plan of action for the establishment of a second call center with technical service hotlines. Even though many competitors were low-cost providers from India which are very experienced in building up call-centers, MSX International was hired. The interviewee as leading project manager was highly involved in the project acquisition. She emphasized that even though competitors could offer lower prices, MSX International was hired due to the existing customer relationship and the built trust.

4.2.3 The key Role of the Business Solutions Department

The Business Solutions department is the internal IT-support for project-related matters. It is thus responsible for tasks which involve IT-related and customer-related issues. In this function, the Business Solutions department closely works together with the Account Operations Managers. In other words, when the Account Operations Managers need IT-expertise to execute a customer project, the Business Solutions department takes over those tasks. It is thus part of the project execution for projects that include for instance analysis of sales data from the customer. The interviewee concluded a typical involvement in a project as follows:

“An Account Operations Manager usually involves us in one of his projects when business analytics are needed to be carried out. This is the case for almost every second project. Then our task is to conduct data analysis, visualization, and reporting based on data that come from the customer.”

[Head of the Business Solutions Department, MSX International]

During the interview conduction, the department was identified to be involved in generation of market intelligence. The interviewing has revealed that particularly customer-specific intelligence is generated. The analysis and visualization of customer-data during projects builds highly compressed overviews of the customer's business data, such as sales figures. Sourcing from this insight into the customer's business figures, the Business Solutions department acquired deep understanding of the customer's business structures. If the analyzed data are for instance sales figures of the customer, the created analysis and reporting includes detailed overviews of sales performances on different area levels:

“We do the entire sales-data analysis for the customer. We can show the customer the sales performance for his entire dealership network in just one dashboard. We can make it possible to compare sales performance on the area-level, the state-level, the country-level, and on the international level”.

[Head of the Business Solutions Department, MSX International]

For the reader to better understand how market intelligence is generated from analysis of customer-data, the process of acquiring, analyzing, and visualizing a customer's sales data is explained in further detail below.

4.2.3.1 The Process of working with Customer Data

As part of the interview, the author was provided with a detailed understanding on the process of how the Business Solutions department works with customer-related data. Those data are usually sales-related data. The interviewee explained the usual process from the first contact to the Sales Manager which asks the Business Solutions department for support, to the step of sending visualized data back to the customer. *Figure 7* visualizes the process to provide a better technical understanding.

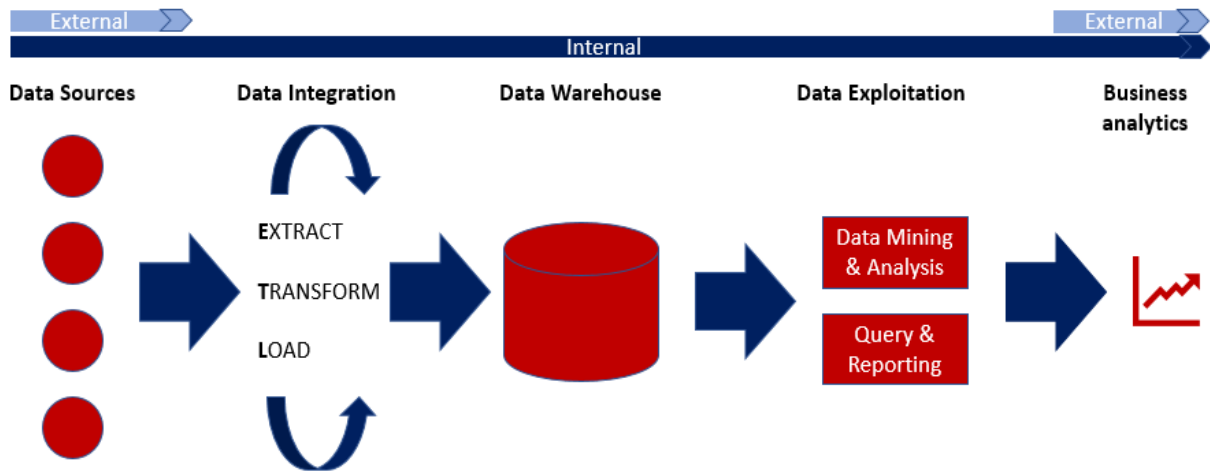


Figure 7. The Processing and Analysis of Customer Data in the Business Solutions Department
Illustration compiled by author

As first step, a Sales Manager from MSX International requests the support of the Business Solutions department. If the needed help can be fulfilled, the Business Solutions department confirms its support for the requested matter. As a next step, the Business Solutions department gets operatively involved by receiving access to data from the customer.

On the very left side of Figure 7, external databases are shown under the headline “*Data Sources*”. Those external databases are located at the customer. The customer provides the Business Solutions department with access to the database, which is limited to the necessary files. The Business Solutions department extracts the necessary data from the database. Those extracted data contain raw data, meaning data with recorded sales figures.

As a second step, the “*Data Integration*” is executed, the next right phase of the process in Figure 7. After having extracted the raw data from the customer’s database, the data are transformed into the necessary format. Data formats are for instance PDF or Excel-Files. Ultimately, depending on the agreements with the customer, the transformed data are loaded into the internal data warehouse of MSX International. This process step has two intentions: first, the data are standardized in their file-format as preparation to analyze them, and second the data are stored internally to make them accessible as soon as needed.

In the next step of “*Data Exploitation*”, the integrated data are accessed. The last step is the execution of “*Business Analytics*”. In this step, the data are uploaded in business analytics software programs. Those programs are capable to process and visualize large data sets. In other words, dependent on the customer needs, the data can be visualized with different graphs. The business analytics programs offer a variety of functions to combine different data in consolidated graphs and charts. It is thus possible, to visualize sales figures for different

country- or area-levels. As a last step so called “Dashboarding” is executed in the business analytics programs. Dashboarding is the presentation of visualized data in a “one-view” way. Compressed results of the data analysis are thus visible on a single page. On this page, it is possible to change several settings, which in turn change the information in the graphs to the intended ones. If a manager in the customer company wants to compare for instance sales figures of Northern Europe with those of Southern Europe, he solely needs to switch some settings on the dashboard. The manager from the customer company is hence able to scan sales performances on different levels in one view.

4.2.3.2 Generation of customer-related Market Intelligence

The Business Solutions department gathers extensive understanding of the customer’s sales performance by executing the above described process. The detailed overviews of sales figures and other key performance indicators within the entire dealership network of the customer unfold a variety of insights. Based on those data and their visualization, it is for instance possible to determine the customer’s market share. Another opportunity mentioned by the interviewee is to compare the sales performances from different customers.

4.2.4 The Strategic Role of the Product Development Department

The Product Development Department has the function to define, develop and position new products. The Vice President of the department stated that the new product development rather than the adaptation of existing products is the core function of the department. A change in customers’ needs is the increasing demanded for solutions which are implementable on the global level. As a reaction to that, the product development department is responsible for the development of those global product solutions. The Vice President of the department commented on the department’s strategic role within MSX International:

“When we talk to customers, there is always one topic mentioned from everyone: Digitalization. This change also occurs for us. We want to change from a people-centric organization to a digital solutions network organization”.

[Vice President Product Development department, MSX International]

To execute the emphasized change towards a “digital solutions network organization”, the department intends to develop digital products which are globally implementable. To strategically approach the task, the Product Development department includes a team of 2 researchers. Those take a key role in the generation of market-related information. Their

function is to research for relevant information in paid content such as industry reports, databases, and industry-related journals. With focus on the mentioned transformation of MSX International's products in line with the market developments, the researchers specifically search for forecast data to make assumptions about future market development and future customer needs. The product development department thus plays a strategic role in the context of market intelligence generation.

4.3 Dissemination of Market Intelligence

The second action of market intelligence constitution is the dissemination of generated market intelligence. For dissemination of relevant information on customers and competitors, the Global Account Executives are found to be a crucial element. Processing of relevant information from the global level to the local level mainly goes back to meetings initiated by the Global Account Executives. Furthermore, project teams of MSX International that work at the customer were identified to disseminate important customer-specific intelligence with their responsible Account Managers. Thirdly, the Product Development Department disseminates information regarding the newly developed products.

4.3.1 The Global Account Executives in a disseminative Role

Reviewing the 3-level Account Manager structure presented in chapter 4.1, the Global Account Executives are strategically involved in maintaining and extending customer relationships on a global level. In this function, one of the interviewees as Global Account Executive for the German speaking market and the Nordics expressed the strategic importance of the customer-related market intelligence he generates. In meetings with executives of customer-companies, the respondent negotiates MSX International's current and future supply to customers. In the interview, he highlighted that the negotiations are much more than agreements on pricing. The meetings include discussions on where the customer has future needs on the global level of his operations, which MSX International can potentially fulfill.

In addition to the direct generation of customer-related market intelligence on the global level, the respondent has weekly internal meetings with the Strategic Account Executives. Those are as priority presented on the second level of the sales structure and still incorporate a strategic role for cross-border customer projects. In the internal meetings, the Global Account Executive forwards the strategic customer-related market intelligence which he generated during the

global customer meetings. The interviewed Strategic Account Executive expressed the importance of receiving the customer-related information of the global level:

“As a Strategic Account Executive, I receive information about the strategic direction of the customer and organizational changes in the customer-company during the weekly meetings steered by the Global Account Executive. This information is crucial to understand the holistic development of the customers that I am responsible for”.

[Strategic Account Executive, MSX International]

The respondent pointed out that it’s crucial to understand into which direction the customer intends to develop his products and processes on a global level, because the global level decides over the regional levels in the long run. The interviewee emphasized the importance to understand the global processes of the customer to more efficiently understand the future development of the local ones.

4.3.2 Project Teams for customer-specific dissemination

Within the previously identified first pillar of market intelligence generation, i.e. the generation through customer projects, MSX International’s project teams were identified to be involved in disseminative functions. The project teams have the function to execute projects which were sold to the customer by the Account Operations Managers. In other words, they are responsible to implement the solutions in the customer-company. In doing that, they are led by the respective Account Operations Manager which has the responsibility over the customer the project team works at.

Just as in the previously elaborated generation of customer-specific intelligence through Business Process Outsourcing, also the project teams generate customer-specific intelligence through their presence at the customer. If an Account Operations Manager for instance sold a project to the customer which involves the optimization of the customer’s warranty solutions, the project team analyzes the customer’s processes in order to optimize them. By doing so, the project team gathers much customer-specific intelligence regarding the customer’s processes and operations. This generated intelligence is disseminated to the responsible Account Operations Manager in meetings. One interviewed Account Operations Manager reported of

regular meetings with the project team he leads. During those meetings, the leader of the project team gives reporting on customer-specific practices.

4.3.3 Dissemination of the Product Development department

After new product ideas were developed by the Product Development Department as presented previously, the new product ideas and developments are disseminated. The interviewees reported monthly meetings initiated by the Vice President of the Product Development Department. Further participants are the Global Account Executive, the Strategic Account Executives, and Account Operations Managers. As dissemination instrument, the form of a webinar is used to hold the meetings. The intention of those monthly meetings is to introduce and explain the new product solutions, or respective ideas that were developed in the Product Development Department.

In the interview it was reported that an early introduction of the new products to all managers that are involved in sales is crucial. Even though the product development is still at the stage of an unrealized idea, the introduction to the Sales Managers brings many benefits. The sales managers reported that it is very important to familiarize themselves with new products at an early stage. The IT-based nature of the products requires technical knowledge about them in order to optimally present them at the customer. Vice versa, the Product Development Department gets new input from the Account Operations Managers, which work very close at the customer and thus have practical insights in placing products at the customer.

As a second context within the dissemination of market intelligence, the Product Development department was found to play a key role in the creation of an internal knowledge-database. The department builds up a platform-based knowledge database for internal utilization. The function of the knowledge database is intended to be the organized spread of relevant internal information and knowledge. The aim is to make internal knowledge accessible and available to employees from all departments. In the conducted interview, the Vice President of the Department pointed out that it's crucial for the internal development to increase the digital availability of internal knowledge, and to decrease the oral exchange of information. As he expresses in the quote below, the internal dissemination of relevant information needs to be improved.

“There is a lot of knowledge in this company. Much knowledge is bound to specific employees, which becomes a problem if you need a specific information about a specific customer

and don't know who the expert is”.

[Vice President Product Development department, MSX International]

Particularly recently hired employees face the challenge to find the information they need. This lies in the fact that they do not know who the experts regarding a specific topic are within the company. In addition, sometimes even older employees cannot access the information they want if it is for instance about a particular customer or a specific project-related topic.

4.4 Responsiveness to Market Intelligence

The responsiveness to market intelligence represents the last action of market intelligence constitution. In the data-collection, the important role of the Product Development Department was identified. Responsiveness to generated market intelligence occurs during the new product development process.

4.4.1 Responsiveness in the Product Development department

In its previously emphasized strategic role in generating market information, the Product Development Department acquires relevant market intelligence in an organized manner. As a sequential step, the generated market intelligence was found to be responded to during new product development. Since the department's core function is the new product development, the new products are developed in line with the generated market intelligence. Future market developments, product trends, or customer needs are considered immediately and applied in the process of new product development.

“When considering newly acquired information we consider both, entirely new opportunities the market provides and changing market trends that affect products we already have”.

[Vice President Product Development department, MSX International]

As an example, the interviewee emphasized the car sharing in big cities as new phenomenon. Car sharing enterprises have established a new market within the automotive industry and gained increasing importance during the last years. Since the core customers of MSX International are the main automotive enterprises, the car sharing firms were identified as potential new customers for MSX International. New product development can focus on the development of products, which can be of interest for the car sharing enterprises. The latter is an example given by the interviewee regarding how responsiveness can occur.

4.5 Utilization of Market Intelligence

The generation and dissemination of, and the responsiveness to market intelligence constitute the enterprise's market intelligence. As a last part of the empirical findings, gathered insights are outlined regarding how the constituted market intelligence is utilized. As outlined in the theoretical framework, the goal of utilizing market intelligence is to increase the enterprise's performance. In the following, concrete actions are highlighted how MSX International was identified to utilize its market intelligence.

4.5.1 Microbattle-Teams for Project Acquisition

The interviews with the Account Operations Managers and Strategic Account Executives have shown that a sales tactic internally called "Microbattle-Teams" is utilized. Those teams consist of experts of different functions, and usually involve one Account Operations Manager, one IT-expert, and one internal expert from the Product Development department. The Account Operations Manager is the contact person for the customer, the IT-expert has expertise in the IT-related matters which apply to the product or service that is intended to be sold, and the internal expert has background knowledge on the specific product or service from a product point of view. The teams are sent to the customer to hold a presentation or a meeting with the customer. This happens at a stage, where an initial meeting between the responsible Account Operations Manager and the customer has already taken place before. In other words, an initial meeting with the customer was conducted before, while the meeting between the customer and a Microbattle-Team usually is a follow-up meeting. This action occurs at a stage, where a project or service is close to be sold to the customer, while details, expert questions, or specific terms still need to be clarified.

“We use the Microbattle-Teams to push forward at the customer.

They are a concentrated unit of experts, specifically for the products or services the respective project includes that we intend to sell”.

[Vice President Product Development Department, MSX International]

During the interviews it was highlighted that the Microbattle-Teams strategically prepare to represent a high degree of competence in the field of the respective topic or project which the customer is about to purchase. Apart from the respectively responsible Account Operations Manager, the other members of the Microbattle-Team might not be part of the project execution after a successful sale. They only have the function to be experts for the sales meetings at the customer.

Considering the utilization of market intelligence that lies behind the Microbattle-Teams, the interviewees highlighted that each of the three members of the Microbattle-Team contributes specific knowledge to the sales meeting. The Account Operations Manager is an expert regarding the customer. He knows the decision-maker within the customer company, he knows the processes, and he has experience from previous projects that were sold to this customer. The IT-expert usually contributes with pure technical knowledge. Most of the projects and services contain IT-based solutions, which the IT-expert usually knows well. Thirdly, the expert from the Product Development department utilizes and contributes the intelligence from his department. As highlighted previously, the Product Development department includes a team of researchers which constantly search for information regarding industry-development. Consequently, the subject matter expert has background information on the macro-level. The combined expertise is strategically utilized to present the customer a competent team which can answer all detailed questions.

In the perspective of potential increase of the enterprise's performance, the Microbattle-Teams help to relieve the customer from last questions concerning the product or project MSX offers. By tactically demonstrating competence about the customer's need, the technical side of the product or project, and the beneficial outcome of the purchase, the Microbattle Teams enhance the customer's will to make the purchase. The utilization of market intelligence in the context of the Microbattle Teams was outlined in the interviews as highly effective to convince the customer towards the ultimate purchase.

4.5.2 Spotting of Best Practices and Benchmarking

The interviews with the Account Operations Managers revealed that the constituted market intelligence is utilized for benchmarking. Since MSX International has most of the automotive companies as its customers, MSX benefits from an overview of how different customers execute their processes within specific operations such as warranty services. The result is that best practices can be spotted and utilized to determine strengths and weaknesses for every single company.

“When I see that there are 10 people working in the warranty services department of customer A, but only 3 people work in the warranty services of customer B, then one of them does something wrong. We have the direct comparison to benchmark

and can figure out who”.

[Account Operations Manager, MSX International]

Benchmarking thus occurs based on customer-specific market intelligence, which is compared systematically for different customers of MSX International. Referring to the quote above, the interviewee outlined MSX International’s benchmarking practices by explaining how customer-related market intelligence about one customer is strategically utilized for the project acquisition at other customers.

The during the interview revealed process is treated now in further detail, to shed light on how benchmarking is practically executed with support of the constituted market intelligence. To first recap on MSX International’s product portfolio, one of the services MSX International offers is the scanning and cost-optimization of warranty services of its automotive customers. Assuming an Account Operations Manager of MSX International is responsible for two different customers, which are customer A and customer B. Customer A has bought a project from MSX International for the optimization of his warranty services. MSX sends out a project team to the customer to scan all processes, and to examine the costs the customer spends on warranty services. Ultimately, recommendations are made to decrease the costs. By scanning the customer’s warranty services, the project team generates operative market intelligence as described in chapter 4.3. This intelligence includes details about the customer’s cost structure in the warranty services, as well as the physical conditions such as how many employees work in the department of the warranty services. Furthermore, the project team generates and implements improvements which decrease the customer’s costs on his warranty services.

Figure 8 below visualizes the above-described generation of customer-specific market intelligence in step (1) and (2) on the bottom left side. The generation occurs through the project team which executes the project and works directly at the customer. The third step (3) is that the generated intelligence about best practices of the customer is internalized. The internalization is made by communicating the intelligence from the project team to the responsible Account Operations Manager. The Account Operations Manager thus receives the generated intelligence through reporting from the project team.

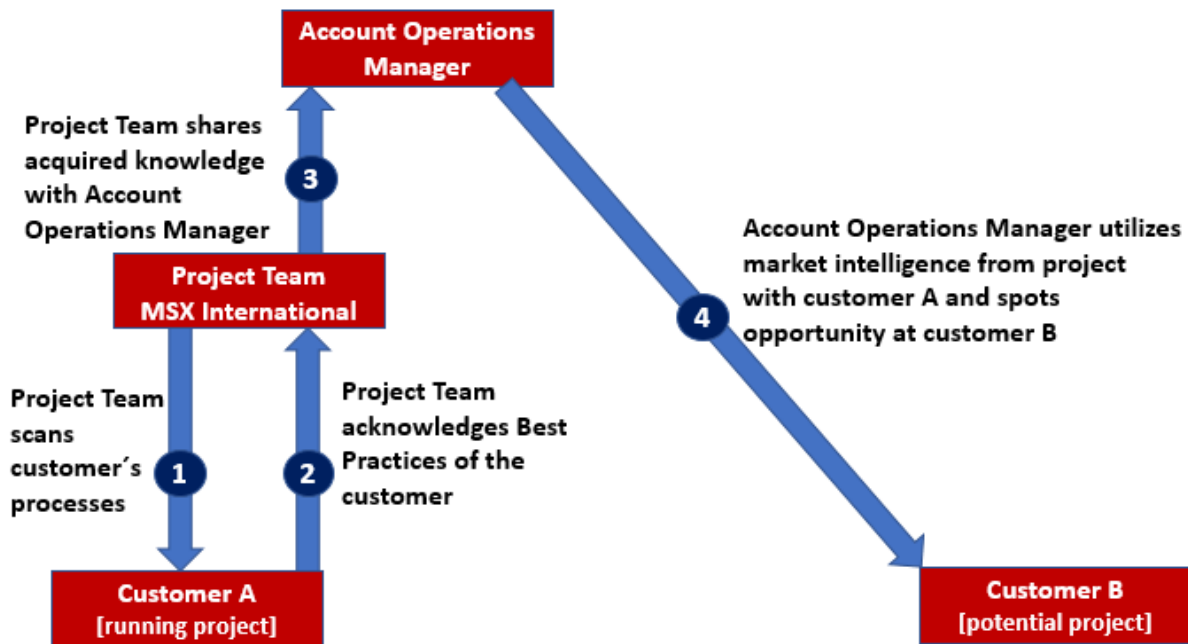


Figure 8. Utilization of Market Intelligence for Benchmarking
Illustration compiled by author

Step (4) in Figure 8 highlights the utilization of the generated market intelligence. The Account Operations Manager has a sales meeting with customer B, where he tries to sell a project. He acknowledges broad insights into how customer B works in the warranty services operations. In the interview with the Account Operations Managers, it was emphasized that this acknowledgement occurs either before the sales meeting, or during the meeting. As a direct opportunity, the Account Operations Manager can now utilize his intelligence from the project with customer A. He compares the best practices of customer A and the through the project execution achieved improvements with the operations at customer B. Benchmarking takes place, which in the best case will lead to new project acquisition at customer B.

In the interviews with the Account Operations Managers, it was highlighted that case-study presentations serve as concrete instrument in sales meetings. Those case-studies include the experience from projects with other customers, such as from customer A in the example above. Without pointing out concrete names of other customers, the Account Operations Manager shows the new customer how much cost-saving can potentially be realized. The case-study presentations are thus utilized as concrete instrument to show the new customer hard facts of past projects, for instance how much cost saving can be made with specific measures that MSX took at previous customers.

4.5.3 The Company-Magazine as Demonstration of Competence to Customers

MSX International internally creates a magazine called “Benchmarker”. The magazine is created in the Marketing department and compiled of content that comes from different other departments. The Benchmarker is created twice a year and sent out as printed version to all active customers, as well as to potential new customers. It intends to show current market and product trends, as well as best practices in the automotive retail industry. In the interviews, the role of the Benchmarker as self-marketing tool was emphasized.

**“We send out the Benchmarker to all our customers.
We want to show that we are in-step with the most recent
industry developments and even know what will be
important to consider in the near future”.**

[Operations Director, MSX International]

The magazine thus demonstrates MSX International’s expertise specifically within the target industry, which is the automotive retail industry. Topics are focused on three areas: (1) the current and future industry development, (2) the presentation of best practices for specific operations, and (3) the presentation of experts from MSX International.

Concerning topic area (1) current and future industry trends, specifically the Product Development department contributes its generated market intelligence to the magazine. As highlighted previously, the Product Development department involves a team of researchers which research for relevant information in external industry and forecast data. The research team creates comprised reports specifically for the publication in the magazine, which source from the generated market intelligence on the industry development. Those reports are subsequently sent to the Marketing department, which is then responsible for adding the information to the magazine for the visual design.

Concerning (2) the presentation of best practices for specific operations, primarily Account Operations Managers work on content for this part of the magazine. It was highlighted in the interviews that this part of the magazine sources from the benchmarking activities elaborated in the previous chapter. As presented, benchmarking is made possible through the systematic comparison of customers’ practices. In a much lower level of detail, the results of this benchmarking are presented in the magazine regarding specific operations that are important for the industry. Concretely, insights from how companies work with warranty services are presented, of course without mentioning customer names. The interviewees highlighted that it’s

important to sensitively adjust in which detail the benchmarking insights are presented. If the insights are presented properly, they demonstrate the customer-base MSX International's industry-overview and can have beneficial effect on the customers' perception of MSX International as highly specialized industry expert.

The third topic focus of the magazine "Benchmarker" is the presentation of experts from MSX International. In the interviews it was emphasized, that it is important to "give the presented expertise a face". Customers must be able to connect presented expertise concerning a specific issue with an expert that they can call if they want further information. For instance, the interviewed Vice President of Product Development was presented in the last issue of the "Benchmarker". In reference to the modernization and digitalization of MSX International's new product development, he was interviewed and presented to the customers as new industry expert in MSX International.

Conclusively, MSX International systematically utilizes its market intelligence for the magazine "Benchmarker". Market intelligence concerning industry trends and operative best practices is demonstrated, and concrete experts within MSX International for those issues are introduced in the magazine. The allocation to the customers aims to acquire projects by demonstrating the expertise MSX International has. The "Benchmarker" hence is a practical instrument to utilize MSX International's market intelligence for positively affecting the development of sales.

5 Analysis

The analysis chapter brings together the theoretical framework in chapter 3 with the empirical findings of chapter 4. Findings and theory are confronted, which results in the presentation of similarities and differences between both, as well as in conceptual extensions to existing research. The chapter closes with the creation of a model that visualizes the constitution of market intelligence in technology-intensive enterprises.

5.1 The conceptual Level of Market Intelligence

Bringing together the theoretical framework built in chapter 3 and the empirical findings of chapter 4, one main context of difference emerges on the conceptual level of market intelligence constitution. Neither the research on market intelligence within market orientation theory, nor the research on market intelligence as individual notion elaborate on a further fine-slicing

regarding the nature of market intelligence. The empirics of this thesis have brought forward a distinction between *strategic market intelligence* and *operative market intelligence*. The two natures of market intelligence are outlined in the following chapters 5.1.1 and 5.1.2.

5.1.1 Strategic Market Intelligence

Strategic market intelligence was observed to occur predominantly in the Product Development department of MSX International. As highlighted in the empirics, a team of researchers intentionally searches for relevant information to gather knowledge about market and industry development. External databases, industry reports from research institutes, and industry literature is exploited systematically. The consecutive intention is the direct utilization of the generated market intelligence for new product development. The new products aim to fulfill customers' needs of the present, but even more aim to adapt to future developments such as digitalization matters. Strategic market intelligence was thus identified to be a systematic and intended constitution of market intelligence. Furthermore, the time-related orientation is the present and the future. However, specific focus on the future could be identified. Additionally, the utilization of strategic market intelligence is immediate, but its effect aims to unfold over a longer period of time. For instance, newly developed products which consider the generated strategic market intelligence are supposed to remain in the product portfolio for a longer period of time before being revised, modernized or removed. Otherwise, new product development would occur constantly and would cost unreasonably high amounts of investment. Regarding the utilization of strategic market intelligence, the empirics revealed that the strategic market intelligence is mostly used for future-focused product development.

The theory contributes by distinguishing between market-led and customer-led orientation of an enterprise (Slater & Narver, 1998). As highlighted in the theoretical part, market-led orientation implies systematic generation of market intelligence and the satisfaction of latent customer needs (Hult & Ketchen, 2001). This partly goes in line with the outlined identification of strategic market intelligence. The Product Development department as main department to constitute strategic market intelligence systematically generates market intelligence, just as outlined by the theory. However, the constitution of strategic market intelligence as occurring in the Product Development department does not solely focus on satisfying customer needs. The empirics rather showed that the strategic direction of the entire company was in the main focus as reason to constitute market intelligence about future market development.

Hult and Ketchen (2001) outline market research techniques as main instrument to adopt market-led orientation. This can be identified in the empirics, since the constitution of strategic

market intelligence as executed in the Product Development department of the case-unit involves a team of researchers which scan databases and industry reports for relevant information. Market research is hence adopted as suggested by Hult and Ketchen (2001).

5.1.2 Operative Market Intelligence

Operative market intelligence was observed to occur mostly during the execution of daily operations. It can be described as “generating-by-doing” market intelligence, where the generation occurs through gathering process-related or customer-related intelligence during the execution of processes or customer projects in general. Several examples were elaborated on in the empirics. For instance, the generation of market intelligence through Business Process Outsourcing. One interviewee demonstrated the high process-related intelligence of processes which are executed by employees of MSX International that work at the customer. This process-related intelligence might reach an extend, where MSX International knows more about the customer’s processes than the customer itself.

Another example for the generation of high customer-related market intelligence is the Business Solutions department and its key role, as elaborated on in the empirics. By way of analyzing the customer’s sales figures, MSX International generates deep understanding of the customer’s sales structures and sales performances. Sales figures for different countries and regions are analyzed for the customer, and reporting of highly compressed overviews of the dealership network’s performance is created. The Business Solutions department gathers deep understanding of the customer’s sales performances, however, the interviewee as member of the department appeared to be rather unaware about the extensive generation of the customer-specific market intelligence. The only case, where an intended constitution could be observed was the process-related market intelligence generated by project teams which work at the customer. The sharing of generated intelligence with the Sales Manager is the preparatory step for systematic benchmarking. As compared to strategic market intelligence, the constitution of operative market intelligence thus occurs rather unsystematic and sometimes unconscious.

Regarding the utilization of operative market intelligence, the empirics revealed that a utilization mostly occurs for the sake of benchmarking operative processes among different customers. This benchmarking reveals strengths and weaknesses of the compared customers’ processes and ultimately opens up the opportunity to sell projects. Those projects are then executed by applying the operative market intelligence about customer A, to improve the processes respectively at customer B, as demonstrated in chapter the last section of the empirical findings.

Comparing the identification of operative market intelligence with the theory, existing literature outlines the differentiation between market-led and customer-led orientation of an enterprise (Slater & Narver, 1998). While market-led orientation shows similarities to the identified strategic market intelligence, customer-led orientation in the literature outlines similarities to the empirically identified operative market intelligence. Customer-led orientation is defined as the enterprise's aim to understand current customer needs. Customer-led enterprises are outlined to be rather reactive than active and to focus on the short term (Hult & Ketchen, 2001). Confronting those suggestions with the above-described identification of operative market intelligence, overlap can be observed in the aim to understand current customer needs. The constitution of operative market intelligence through Business Process Outsourcing is the understanding of the processes, that were outsourced by the customer. In other words, the current need of the customer was to find an outsourcing partner which executes the processes, which is done by the case-unit.

However, the theory's suggestion that customer-led market intelligence is reactive does not prove to be conform with the findings of this research. For instance, the utilization of customer-specific intelligence which was generated by project teams and disseminated to the Account Operations Managers is utilized actively by the Account Managers. After receiving the customer-specific intelligence regarding customer A from the project teams, the Account Operations Managers *actively* approach customer B to benchmark the best practices of customer A with customer B's best practices. In the best case, the Account Operations Manager spots inefficiencies at customer B as compared to customer A's practices. Subsequently, the Account Operations Manager aims to actively sell a project to customer B, where the intelligence about customer A's best practices is utilized to improve customer B's practices.

5.2 The functional Level of Market Intelligence

Regarding the functional perspective of market intelligence constitution, the empirical findings revealed a differentiation between *inter-functional* market intelligence and *intra-functional* market intelligence. The previously identified nature of market intelligence, i.e. strategic market intelligence and operative market intelligence, was found to have an impact on the functional level. That is, strategic market intelligence was found to be constituted on an inter-functional level, while operative market intelligence was found to be constituted on an intra-functional

level. The following chapters 5.2.1 and 5.2.2 elaborate on the two identified functional levels and the influence of the previously identified nature of market intelligence.

5.2.1 Inter-functional Market Intelligence

The constitution of market intelligence on an inter-functional level was found to occur across functional units and departments. The empirics showed that so called “Microbattle-Teams” are sent out to the customer to trigger the final conviction for the customer to sign a project. Those Microbattle-Teams consist of three different parties, i.e. one Account Operations Manager, one IT-expert, and one expert from the Product Development department. Consequently, three different departments are involved in the strategy of the Microbattle-Teams. Regarding the generation of market intelligence, each member of the respective Microbattle-Team contributes his own knowledge. The Account Operations Manager as contact person to the customer has the customer-specific intelligence, the IT-expert contributes technical expertise, and the expert from the Product Development department brings market intelligence related to the market development. In order to prepare for a customer-meeting, the members of the respective Microbattle-Team disseminate the necessary market intelligence amongst themselves in prior internal meetings, in order to prepare for the customer-meeting. Responsiveness occurs at the customer, when the customer-specific market intelligence, the IT-expertise, and the market development-related market intelligence are utilized to convince the customer.

This inter-functional generation, dissemination, and responsiveness as emphasized in the finding above goes in line with the “interfunctional coordination” as suggested by Narver and Slater (1990). Narver and Slater (1990) outline the inter-functional coordination as third constituting element of market orientation. It is suggested, that superior customer value is created through this third element. This was also outlined in the empirics, since the collective competence of the Microbattle-Team aims to find the best possible solution for the customer, in order to achieve a project acquisition.

However, the first two elements suggested by Narver and Slater (1990), i.e. customer orientation and competitor orientation, cannot be fully confirmed by the empirics. Customer and competitor orientation involve the acquisition of information about customers and competitors, as well as the spread throughout the enterprise. Customer-related market intelligence is generated by the Account Operations Manager in an initial meeting with the customer which takes place prior to the meeting which involves the Microbattle-Team. However, this customer-related market intelligence is not spread throughout the enterprise, but

rather kept within the Microbattle-Team. Furthermore, the empirics did not show a generation of competitor-related market intelligence, as suggested by Narver and Slater (1990).

Kohli and Jaworski (1990) emphasize the organization-wide responsiveness to generated and disseminated market intelligence. The responsiveness to acknowledged customer needs is thus suggested to occur throughout the entire enterprise. As highlighted, the Microbattle-Teams work project-based. The empirics thus imply a project-related responsiveness through customer-specific adaptation of products and services. The findings hence suggest a responsiveness which is not applied throughout the entire company.

5.2.2 Intra-functional Market Intelligence

Market intelligence constitution on the intra-functional level was found to occur within functional units or departments, without the involvement of other functions or departments. Referring to the empirical findings, it was presented that customer-specific market intelligence is generated by the project teams which work at a “customer A”. Those project teams execute projects which were sold beforehand. For instance, they optimize the warranty operations of the customer and have a deep insight into the customer’s processes by doing that. By disseminating the generated intelligence about the customer’s processes with the Account Operations Manager, the Account Operations Manager is able to benchmark the received customer-specific intelligence of customer A with another customer’s operations, i.e. “customer B”. If the Account Operations Manager spots the opportunity to improve the operations of customer B by applying the best practices of customer A, the basis for suggesting customer B a project is made. Until this stage, intra-functional market intelligence is generated and disseminated. The responsiveness subsequently takes place when the Account Operations Manager suggests customer B concrete options to improve his operations, which the Account Manager does based on his customer-specific intelligence of customer A’s operations.

The findings of Ruekert (1992), which are outlined in the theoretical framework come closest to this thesis’ findings for intra-functional constitution of market intelligence. Ruekert does not specify between inter- or intra-functional market intelligence. However, Ruekert (1992) identifies (i) the acquisition and utilization of customer information, (ii) the development of a respective strategy to meet the customer needs, and (iii) the implementation of such strategy as response to customer needs as three actions. The outlined findings of this study accord with Ruekert’s findings regarding those three actions. First, the acquisition of customer information takes place through the project team, while the utilization of this information is executed by the Account Operations Manager when using the intelligence about customer A to compare with

customer B's operations. Second, Ruekert's (1992) suggestion of the development of a respective strategy can be interpreted as the Account Operations Manager's creation of a concrete project-suggestion for customer B. Ruekert's (1992) third action, the implementation of such strategy as response goes in line with the Account Operations Manager's sending of a project team to implement the sold products or services. From here, the process starts over by another generation of customer-specific market intelligence through the project team.

However, Ruekert's (1992) suggestion that the acquisition of customer information is done by business-unit managers is not supported by the empirics of this research. As stated, the customer information is acquired by the case-unit's project team which works at the customer.

5.3 The procedural Level of Market Intelligence

The process of market intelligence constitution consists of generation and dissemination of market intelligence, and of responsiveness to it. The following chapters compare theory and empirics for each of the three steps generation, dissemination, and responsiveness. Differences and similarities are outlined.

Noticeable is the inequality between findings and presented theory regarding the sequence of the three actions generation, dissemination, and responsiveness. The empirics show that the sequence of the actions does not generally follow what the theory suggests. In other words, the sequence generation, dissemination, and responsiveness has not proved to be generally applicable. Elaboration within this context is made in chapter 5.3.4.

5.3.1 Generation

The generation of market intelligence is the first of the three constituting elements. The empirics show that the Product Development department, the Business Solutions department, and the project teams are the predominant generators of market intelligence. Considering the identification of strategic and operative market intelligence earlier in the analysis chapter, the Product Development department generates strategic market intelligence, while the Business Solutions department and the project teams are involved in generation of operative market intelligence. All three functional units thereby generate external information, which goes in line with Kohli and Jaworski's (1990) suggestion that intelligence generation includes not only customers' needs, but also the analysis of exogenous factors such as technology.

Regarding the sources for generated market intelligence, the theory outlined that most of the information is publicly available (Calof & Wright, 2008). The empirics on the other hand highlighted customer projects, paid content, and internal experts as three main sources for the case-unit's generation of market intelligence. Customer projects predominantly involve internal information which are obviously not published. The paid content includes the access to external databases and the purchase of information from research institutes. Here the information is public, but solely available for paying customers and not for the public population. Regarding the third source, the internal experts, internal research is conducted in a variety of sources that are partly public, partly paid content, and partly internally stored information. Despite the fact that Calof and Wright (2008) do not further specify their definition of "public availability" of information, the empirics show a partly contradiction. It can be confirmed that publicly available information is part of the generated information, however not "most" of them as outlined by Calof and Wright (2008). The empirics instead show a large share of generated information to be not public or accessible solely after purchasing.

Rakthin et al. (2016) bring forward findings on which functional units of an enterprise are involved in the generation of market intelligence. The authors outline sales and marketing to be particularly involved in the generation of customer-related market intelligence. This sources from the frequent and direct customer contact and the observance of products offered by competitors. Challenging for many firms is however the consistent generation of market intelligence that is collected by the sales or marketing managers (Rakthin et al., 2016). Confronting the empirics of this study with Rakthin et al.'s findings, the Account Operations Managers in their sales-function were conformably found to generate important customer-related market intelligence. However, the marketing department was not identified to be involved in the generation of market intelligence. Furthermore, the Business Solutions department and the Product Development department were identified in the empirics as major generators of market intelligence.

Regarding the by Rakthin et al. (2016) outlined challenge of a consistent generation of market intelligence generated by sales managers, the empirics highlighted no challenge in consistent generation through the Account Operations Managers. It was rather showed that the subsequent dissemination among the Account Operations Managers represents a challenge. This issue will be discussed in the following chapter 5.3.2, which handles the dissemination of market intelligence.

5.3.2 Dissemination

The dissemination of generated market intelligence is the second step in constituting market intelligence. The theory highlights dissemination as one of the most critical components of effective market intelligence (Lackman et al., 2000). One of the critical points highlighted in the empirics regarding dissemination is that much specific information is bound to individual employees. The interviews revealed the challenge to access specific information if needed. Not always knows the person that needs specific information who the expert for a particular topic is. Especially recently hired employees face the problem to be not aware of respective experts regarding individual customers, projects, or topics.

The theory outlines that once information is generated and analyzed, it must reach the right user for effective decision-making (Adidam et al., 2012). In the empirics this suggestion is confirmed. Receiving the relevant customer-related information was identified as crucial from a Strategic Account Executive to understand his customers. Strategic Account Executives are the second level of Sales Managers under the Global Account Executives. While Strategic Account Executives are responsible for customer projects on a country-wide level, they receive important information on the customers' global development from meetings with the Global Account Executives. The Global Account Executives generate the information from meetings with global executives of the customers and disseminate the generated information during meetings with the Strategic Account Executives. This dissemination of information from the Global Account Executives was outlined to be crucial for the Strategic Account Executives to better understand the customer on the local level. The example of the Strategic Account Executive's dependence on receiving the information goes in line with Adidam et al. (2002), which outline the necessity that the respective decision-maker must be reached with the dissemination of relevant information.

Dissemination means to process information internally. Regarding this internal information-processing, Navarro-Garcia et al. (2016) find that an enterprise's ability to respond to external conditions is highly dependent on its skill to process relevant information. The empirics highlighted that an Account Operations Manager has criticized his lack of knowledge over other Account Operations Manager's customers and their best practices. If there was sufficient dissemination among the Account Operations Managers regarding their customers' best practices for specific operations, the Account Operations Manager would be able to benchmark more efficiently and would thus be able to more efficiently respond to spotted inefficiencies at the customer. The findings thus go in line with the finding of Navarro-Garcia et al. (2016).

The latter challenge shows the problem to disseminate market intelligence inter-functionally, since each Account Operations Manager represents an own functional unit together with the project team he leads. Comparably, the intra-functional dissemination was not found to be problematic. As highlighted, the project teams generated customer-specific market intelligence which is then disseminated with the responsible Account Operations Manager. The dissemination of customer-specific market intelligence on an intra-functional level was found to be unproblematic in this context. Consequently, dissemination on an inter-functional level was found to be more challenging than dissemination that occurs on an intra-functional level.

5.3.3 Responsiveness

The third element of market intelligence constitution is the responsiveness to generated and disseminated market intelligence. Theory outlines that without responding to it, the generated and disseminated market intelligence is of little value for the enterprise (Kohli & Jaworski, 1990). As presented in the theoretical framework, Ruekert (1992) defines the development and implementation of a strategy which will meet the customers' demands as an act of responsiveness. The empirics showed that the Product Development department plays a key role in the constitution of strategic market intelligence. Information on new market development is generated, and new products are developed respectively. As highlighted in the findings, those new products are then introduced to the Account Operations Managers, which sell and finally implement them at the customer through their project teams. Hence, Ruekert's (1992) identification of the development and implementation of a strategy as an act of responsiveness is in line with the empirical findings of this research, considering the new product development as a strategic move to respond to customers' needs.

Responsiveness as the last element is the step which fully applies market intelligence to create value for the enterprise. The full application of market intelligence is found to be a process which can be costly and slow (Kumar et al., 2011). The empirics are conforming with Kumar et al.'s outline for the constitution of strategic market intelligence. For instance, the Product Development department constitutes strategic market intelligence by generating information on future market developments. The responsiveness to those market developments occurs through new product development. This consideration of newly generated information for subsequent new product development was outlined by the Vice President of the department as a long-term process. During the interviews, the increasing digitalization of processes as development in the customer companies was highlighted.

However, the slow and costly nature of fully applying market intelligence by responding to it was not found to count for operative market intelligence. Considering the generation of operative market intelligence through Business Process Outsourcing as found in the empirics, customer-specific market intelligence is generated on the basis of daily business execution. Employees of the case-unit execute processes such as end-customer care through technical hotlines for the case-unit’s customer. The experience gathered in Business Process Outsourcing activities for one customer can be utilized for another customer, without having high costs or a long-ranging process in utilizing the generated expertise.

5.3.4 The Sequence of Generation, Dissemination, and Responsiveness

The theoretical framework outlines the sequence of action as starting with the generation of market intelligence, followed by its dissemination, and ultimately the responsiveness to it (Kohli & Jaworski, 1990; Ruekert, 1992; Morgan et al., 2009). Both in market orientation literature, as well as in research regarding market intelligence as isolated notion highlight the three actions in the sequence of generation, dissemination, and responsiveness. No study was found to test the sequential nature of the three actions that constitute market intelligence.

As implication from the empirics in this context, the findings on market intelligence constitution in the Product Development department indicate a divergent sequence than suggested by the existing literature. The findings on the sequence of actions as occurring in the Product Development of the case-unit are visualized in *Figure 9*.

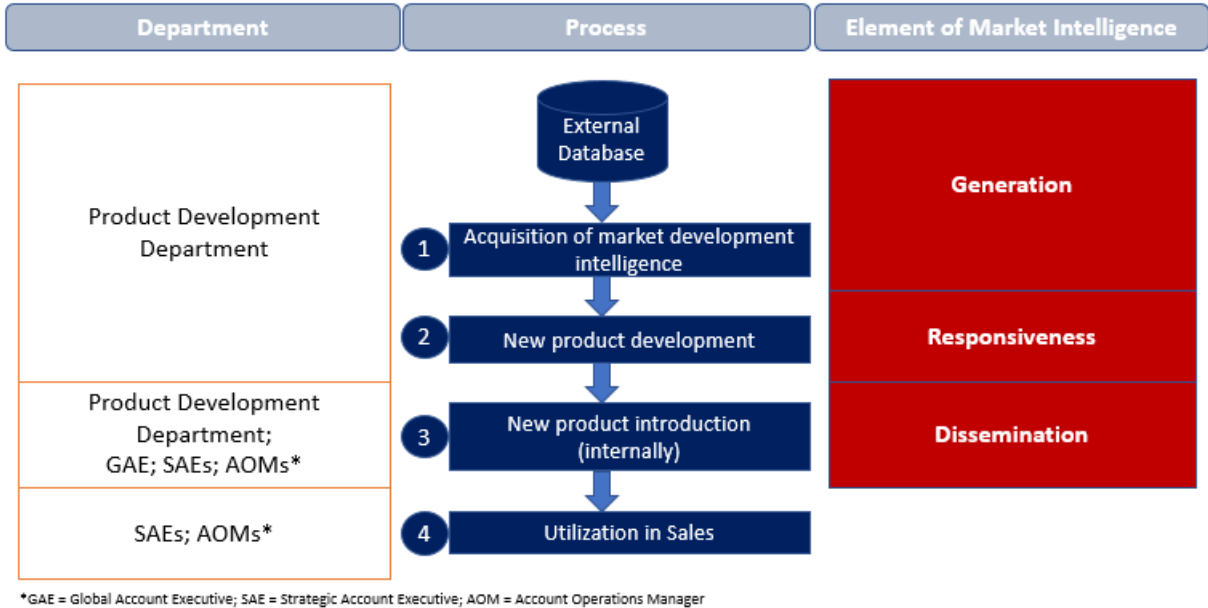


Figure 9. The Constitution of Strategic Market Intelligence in the Product Development Department
Illustration compiled by author

Figure 9 highlights the process of market intelligence constitution in the Product Development department of the case-unit. The middle column outlines the individual process-steps which are undertaken to generate, disseminate, and respond market intelligence. The left column states the involved department(s), while the right column highlights which action of the three elements of market intelligence is involved. To recap, the Product Development department of MSX International was observed to generate market intelligence which is related to current and future market- and industry-trends, highlighted in process step (1) of *Figure 9*. This is done by the research team which generates relevant information such as market trends and forecast data from external databases. In this step, solely the Product Development department itself is involved, as highlighted in the left column of *Figure 9*. After this process step, the generation is finished, as visible in the right column.

In the second step, the generated market intelligence is responded to. This is done by considering the generated market intelligence for both, the new product development and the adaptation of existing products of MSX International. The products are adapted/developed in line with the new insights from the generated market intelligence. Consequently, responsiveness occurs by utilizing the newly acquired information for the product development. The process-step of new product development is visualized at process step (2) in the middle column, and the respective action is visible in right column of *Figure 9*. The Product Development department is the only involved department at this stage of responsiveness.

In a third step, the generated market intelligence which was responded to previously is disseminated, corresponding to process step (3) in *Figure 9*. As presented in the empirics, dissemination is executed in monthly meetings which are initiated by the Product Development department. The meetings intend to introduce newly developed products ideas to the Global Account Executives, the Strategic Account Executives, and the Account Operations Managers. Thus, the action of dissemination firstly involves other departments, outlined in the left column of *Figure 9*.

Lastly, the internally introduced products are implemented into the product portfolio and can be utilized from the Strategic Account Executives and the Account Operations Managers to sell them to customers. This last step is visualized in the middle column of *Figure 9*, corresponding to process step 4. At this progress, the Product Development department is no longer part of the operation.

The presented consecutive order of the three elements that constitute market intelligence is thus (1) Generation, (2) Responsiveness, and (3) Dissemination. Literature on the other hand suggests (1) Generation, (2) Dissemination, and (3) Responsiveness. As emphasized, this sequence was found for the Product Development department of the case-unit. The constitution of market intelligence in other departments or functional units occurred as suggested by existing literature. For instance, the previously highlighted generation of customer-specific intelligence through the project teams which work at the customer, the dissemination of the intelligence to the Account Operations Manager, and the responsiveness through the Account Operations Manager's benchmarking with other customers.

However, the confrontation of the findings regarding the Product Development department with existing theory brings forward that the sequence of market intelligence constitution as suggested by the theory does not generally apply to all functional units or departments of an enterprise. Thus, a more fine-sliced differentiation between different sorts of functional units or departments is necessary when it comes to the sequence of the three actions generation, dissemination, and responsiveness.

5.4 Model – The Constitution of Market Intelligence

The analysis confronted the theory with the empirical findings. The observance of similarities and differences could be made, and theoretical extensions unfolded. Ultimately, a model was created which comprises the theoretical extensions as derived from the analysis. It intends to outline the constitution of market intelligence as of resulting from the interplay between theory and empirical findings. In *Figure 10*, the model is presented.

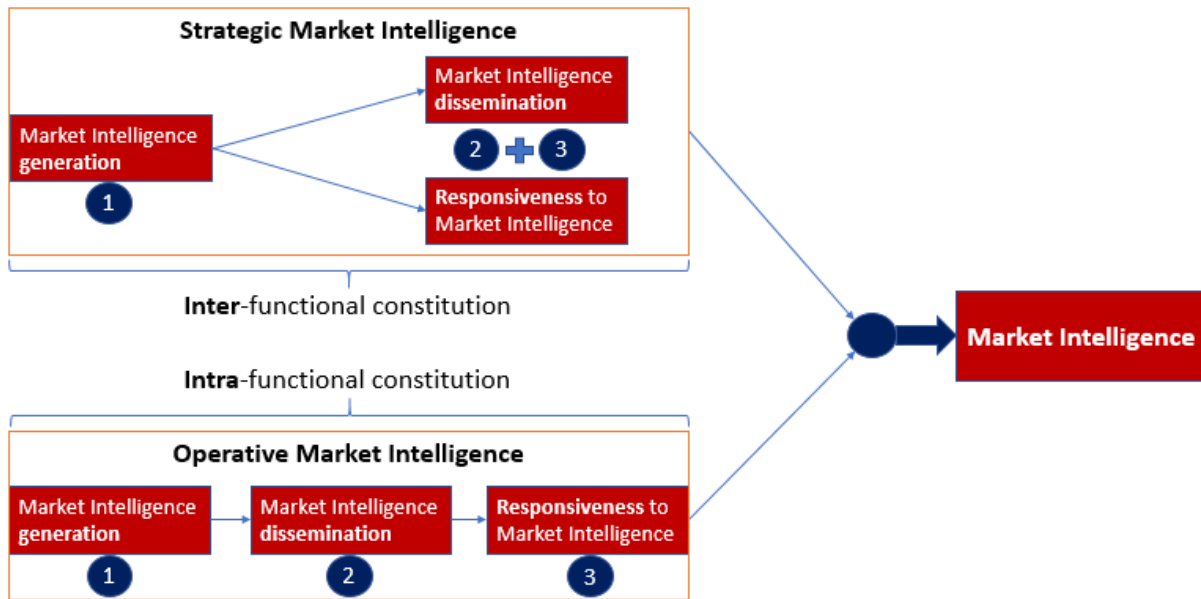


Figure 10. Constitution of Market Intelligence in technology-intensive enterprises
Illustration compiled by author

Figure 10 compiles the theoretical extensions to existing research regarding the constitution of market intelligence. The three conceptual findings as unfolded during the analysis are integrated. Those are:

- (i) the differentiation of *strategic market intelligence* and *operative market intelligence* on the conceptual level,
- (ii) the differentiation of *inter-functional* and *intra-functional* constitution of market intelligence on the functional level,
- (iii) the *sequential order* of the three elements generation, dissemination, and responsiveness on the procedural level.

6. Conclusion

The conclusion chapter outlines the most important findings and answers the research questions. Furthermore, theoretical contributions of this study to existing literature are highlighted. Finally, implications for managers are discussed and suggestions for future research regarding market intelligence are outlined.

This study focuses on the constitution and utilization of market intelligence. More precisely, this study examines how technology-intensive enterprises constitute market intelligence, as well as how they utilize the constituted market intelligence subsequently. Prior research has

conceptualized market intelligence within market orientation theory (Kohli & Jaworski, 1990; Narver & Slater, 1990), and research was made on market intelligence as individual field of study (Lackman et al., 2000; De Pelsmacker et al., 2005; Rakthin et al., 2016). The three actions generation, dissemination, and responsiveness constitute market intelligence on the conceptual level (Kohli & Jaworski, 1990; Morgan et al., 2009). Though existing literature finds a positive effect of market intelligence on the enterprise's performance (Hult et al., 2005; Kumar et al., 2011), as well its importance for enterprises to adapt to conditions in a given country and market (Navarro-Garcia, 2016), an understanding of how market intelligence is constituted in a practical context is missing (Van Raaij & Stoelhorst, 2008). Moreover, existing research does not provide insights on how enterprises utilize market intelligence. This study therefore contributes to a contemporary understanding of how market intelligence is constituted. Furthermore, contributions are made to understand how enterprises utilize their market intelligence to skim benefits such as the positive effect on business performance.

6.1 Findings

This study has two research-purposes. The first purpose is to examine how technology-intensive enterprises utilize market intelligence. The second purpose addresses how technology-intensive enterprises constitute market intelligence. Understanding how market intelligence is utilized requires understanding how it is constituted. Consequently, the author tends to answer the second research question first, which will then provide the basis to answer the first research question.

Regarding the **constitution of market intelligence** in technology-intensive enterprises, this study examined the three constituting actions generation, dissemination, and responsiveness in a practical context. The study finds that *generation* of market intelligence occurs on a strategic level, and on an operative level. Strategic market intelligence involves information regarding the market development, which is generated with market research techniques. Sources were identified to be external databases, industry reports, and forecast data from research institutes. Strategic market intelligence is argued to play a key role for new product development. Operative market intelligence is found to be customer-related. Source are employees which work at the customer and gather knowledge about the customer's processes and operations. The study found project teams which implement products at customers, as well as Business Process Outsourcing as typical sources of generation through externally working employees.

Furthermore, data-intensive intelligence about customers is found to be generated by utilizing business analytics software within the execution of data-intensive customer projects.

The *dissemination* of generated market intelligence occurs mostly in physical meetings. Furthermore, internal “knowledge-databases” are identified as instrument for dissemination. The physical meetings are found to be held across hierarchical levels. By adopting inter-hierarchical meetings, for instance customer-related information which source from different geographical scopes of the customer can be disseminated. The study finds that it is crucial for the local business development of sales, to have information on global developments of the customer company. Finally, this study finds that dissemination is a critical element of market intelligence constitution. The results of the study show that particularly inter-functional dissemination represents a challenge for enterprises. When different functional units within the same business unit do not disseminate their intelligence, potential sales are missed out due to a lack of exchange of customer-related information such as best practices.

Responsiveness to generated and disseminated market intelligence is found to differentiate depending on whether strategic market intelligence or operative market intelligence is responded to. Responding to strategic market intelligence is found to be a long process, such as the new product development as responding action to acquired information on future market development. This can be reasoned inter alia by the inter-functional nature of strategic market intelligence. Inter-functional generation, dissemination, and responsiveness is more time-costly than respective intra-functional actions. Responsiveness to strategic market intelligence is executed rather internally such as in the Product Development Department than in front-line units such as Sales Managers. Considering responsiveness to operative market intelligence, the study finds a fast process of response. Since operative market intelligence is identified to be typically intra-functional and customer-related, a fast responsiveness is facilitated. Responsiveness to operative market intelligence is found to be executed by front-line units such as Sales Managers or Project Teams with direct customer-contact.

The presented findings on market intelligence constitution lead to the initial research-purpose, which addresses how technology-intensive enterprises **utilize market intelligence**. This study brings forward three findings regarding how technology-intensive enterprises utilize their constituted market intelligence. First, *systematic benchmarking of best practices* is found to incorporate the utilization of constituted market intelligence. In order to benchmark best practices of different customers, operative market intelligence about customer processes is

systematically internalized. Afterwards, best practices of different customers are compared. The ultimate best practice is then utilized for new project acquisition at the other customers.

Second, the *consolidation of expert teams* for sales meetings was found. Small teams combine operative market intelligence about customers with strategic market intelligence about future product developments. Those teams are sent to the customers and utilized for project acquisitions.

Third, *marketing magazines* sent out to customers are identified as utilization of market intelligence. Under anonymization of names of customer companies, best practices are presented in a marketing magazine. Furthermore, strategic market intelligence on future market developments is incorporated to demonstrate the customers expertise.

6.2 Theoretical Contributions

This study contributes to existing theory in three contexts. First, this study finds a differentiation regarding the nature of market intelligence, i.e. *strategic market intelligence* and *operative market intelligence*. Strategic market intelligence is found to be characterized by a systematic approach to search and generate relevant information. The generated market intelligence is predominantly market-related and focuses on future market developments. The constituted strategic market intelligence is based on long-term thinking for instance with regard to new product development. However, the utilization of strategic market intelligence is found to occur immediately after its constitution. Operative market intelligence is found to be constituted on the level of daily operations. Operative market intelligence is found to be predominantly customer-related. The responsiveness to generated operative market intelligence is reactive, while the utilization of operative market intelligence for instance for new project acquisition occurs actively. The focus of operative market intelligence is found to be short-term focused.

Second, this study finds that market intelligence is constituted on two different functional levels, i.e. the *inter-functional* level and the *intra-functional* level. Inter-functional constitution of market intelligence occurs across departments or functional units. Since inter-functional market intelligence sources from the intelligence of different departments or functional units, dissemination is a critical element. It is found that the constitution of market intelligence on the inter-functional level predominantly involves strategic market intelligence. The intra-functional constitution of market intelligence occurs within departments or functional units. Finds indicate

that the constitution of market intelligence on the intra-functional level predominantly involves operative market intelligence, such as the knowledge about customer processes or operations.

Third, this study contributes findings regarding *the procedural sequence* of the three actions (1) generation, (2) dissemination, and (3) responsiveness. While the from theory suggested sequence is confirmed to apply for constitution of operative market intelligence, this study indicates that the theory is not generally applicable to the constitution of strategic market intelligence. This study brings forward the case of the Product Development Department of the case-unit, where the sequence was identified as (1) generation, (2) responsiveness, and (3) dissemination.

6.3 Managerial Implications

This study provides managers involved in market intelligence constitution and utilization with insights regarding different aspects. Firstly, consequent generation of strategic market intelligence on the future market development can be crucial for the Product Development Department in its sustainable focus on the future. Market developments are important information, which are suggested to be skimmed systematically. The adoption of market research techniques executed by industry-researchers is one potential measure. Secondly, the dissemination of generated market intelligence across functional units and departments is critical for customer benchmarking, which again is related to the generation of sales and potential revenue. Dissemination through meetings on the strategic level is suggested to also incorporate operatively working employees, since those might have valuable operative market intelligence. Furthermore, the establishment and maintenance of an internal “knowledge-database” is suggested to facilitate inter-functional dissemination of market intelligence. The combination of different functional units and hierarchical levels is also necessary for utilizing the constituted market intelligence. Even if Sales Managers have different customers, the exchange of customer-related market intelligence might lead to additional project acquisitions.

6.4 Future Research

Too little is known about various aspects of market intelligence. This study has helped to add depth to a practical understanding on how market intelligence is constituted and utilized in technology-intensive enterprises, which operate in a B2B-context. Furthermore, the study

contributed theoretical extensions to existing literature by fine-slicing market intelligence constitution on the conceptual level.

A limiting factor is that the enterprise serving as case-unit for this study has all its customers within one industry. The constitution and utilization of market intelligence could vary substantially for enterprises, which have their customers in a variety of different industries. Regarding the importance of information on future market-developments, such sort of enterprise might face the challenge to generate strategic market intelligence regarding a variety of different markets. This context could consequently be subject to further research.

Furthermore, the procedural sequence regarding generation and dissemination of, and responsiveness to market intelligence might be identified as not generally applicable by further studies. This study found that one department of the case-unit worked with a different sequence. This finding is however limited to specific characteristics of the department. Confirmative or contradictory further studies would help to further test this finding.

Lastly, the Product Development Department was found to have a strategic role for all steps of market intelligence constitution. Further research regarding enterprises which understand themselves as wholesaler and thus buy and sell products would enhance understanding of market intelligence. Research directions could involve the question whether and how those enterprises adopt systematic generation of strategic market intelligence, for instance regarding future market development.

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7. Appendix

Appendix I: Semi-structured interview guide

I Introduction

What is your name, your position in the company?

How would you describe your responsibility and core objective within the company?

How close are you to the market of the company? (Market = where the enterprise's supply meets the customer's demand)

How high would you consider your level of market knowledge? (customers, competitors, technology trends)

How is sales generally performed within the company from your point of view?

II Market Intelligence Generation

Do you have any contact with customers?

Do you have a clear picture of the current customer base?

Do you evaluate the service need of your customers?

Do you evaluate customer satisfaction of your customers?

Do you actively or unconsciously acquire or collect any kind of market knowledge?

What sort of market knowledge is it? (Customer, competitor, market trend related)

What sources do you use both internally and externally to collect market knowledge?

Is the market knowledge you collect data-based or of other kind (e.g. oral/written information from a stakeholder)?

Is acquired market knowledge consolidated somewhere within the enterprise and accessible on a platform (e.g. Database, CRM-system)?

III Market Intelligence Dissemination

Do you keep continuous contact to other departments/Department managers?

Is there continuous contact to the Account managers?

Do you personally disseminate market knowledge to other departments/individuals?

Do you receive market knowledge disseminated by other departments/individuals?

Are there internal channels/systems used to disseminate the market knowledge?

IV Market Intelligence Responsiveness

Do you consider newly acquired market knowledge such as new market trends or changed demands for future customer interactions/sales activities?

How do you try to respond to newly acknowledged changes in customer needs, market trends, or competitor strategies?

Is there a strategic data-analysis of market knowledge in order to improve the market orientation of the enterprise as a whole?

Is this data-analysis used to derive implications for responding to the constituted market knowledge?

V Utilization of Market Intelligence

How do you find and contact new customers?

Are there strategically important markets that you focus attention on?

Do you feel you are missing out on sales? Due to what?

How do you include priorly acquired market knowledge for your future customer interactions/sales activities?

Do you think that the ability to utilize new internal market knowledge in sales is optimally skimmed?

What could be improved to utilize market intelligence more efficiently?