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CRITICAL SUCCESS FACTORS FOR PROCUREMENT IN THE AUSTRIAN AUTOMOTIVE INDUSTRY

A Master's Thesis submitted for the degree of
"Master of Business Administration"

supervised by

Univ. Prof. Dr. Ing. DI Prof. eh. Dr. h.c. Wilfried Sihn

Denis Teves

0929122

Frankfurt, 05.02.2012

Acknowledgement

„Erkenne, wo Du stehst, wo Du hin willst. Mach Deinen Plan. Und dann geh!“
(Ken Cadigan)

If you decide to stop your current business career, go back to university and focus on another industry you might face a big challenge. But if you have passion for winning, passion for what you want to do in the future then the time investment will pay out – it will be worth it.

This Master Thesis represents the end of a fascinating journey and initiates the beginning of my second business life – my first in the automotive industry.

I am grateful for the last two years spent at Vienna University. Grateful for all the teachers and experts I have met and thankful for the new perspectives, and learning I could generate during this time.

My special thanks go to Daniel Palm, who took the time to discuss my studies. Your inspiration brought my thinking to the next level.

Further a big acknowledgement to Univ. Prof. Dr. Ing. DI Prof. eh. Dr. h.c. Wilfried Sihn for supervising my master`s thesis.

Finally, I would like to thank my beloved family, for the ongoing support and continuous pep ups.

Affidavit

I, **DENIS TEVES**, hereby declare

1. that I am the sole author of the present Master's Thesis, "CRITICAL SUCCESS FACTORS FOR PROCUREMENT IN THE AUSTRIAN AUTOMOTIVE INDUSTRY", 70 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 05.02.2012

Signature

Table of content

Abbreviation

AAI	Austrian Automotive Industry
AC	Automotive Cluster
cf.	confer
CPO	Chief Procurement Officer
CSF	Critical Success Factors
Dipl.-Ing.	Graduated Engineer
Dr.	Doctor
ed.	Edition
EDP	Electronic Data Processing
EU	European Union
EUR	Euro €
ERP	Enterprise Resource Planning
et al.	et alii
F&E	Research and Development
GmbH	Limited Liability Company
i.e	id est – that is
Ing.	Engineer
IT	Information Technology
KPI	Key Performance Indicators
KM	Kilometer
No.	Number
OEM	Original Equipment Manufacturer
p.	Page
pp.	Pages
Prof.	Professor
SRM	Supplier Relationship Management
SWOT	Strength Weakness Opportunity Threads
Uni.-Prof.	University Professor
Vol.	Volume
VMI	Vendor Managed Inventory
vs.	versus

Abstract

The purpose of the master thesis was to investigate the business role of procurement function for Austrian Automotive Industry determining the critical success factors to master procurement in the future.

The purpose is based on the hypothesis that the recent development in the global automotive industry is affecting the Austrian Automotive Industry as well initiating new challenges and demands on the procurement department given the high export rate (83%) of manufactured goods.

The thesis inspected a quantitative study from the Fraunhofer Austria Research GmbH, conducted in 2010 on behalf of the Forum Einkauf, investigating the procurement situation in Austrian industry and the effectiveness and efficiency of procurement department. The study was based on an online questionnaire, with more than 100 participants, exploring i: material cost movements, ii: procurement structures, iii: application of procurement methods, iv: supplier relationship management and iv: automation and EDP integration. The thesis examined further the automotive clustered companies participating in the study in regards to their procurement situation.

The result of the study discovered that success in the procurement is not a coincidence. Best practice participants revealed that it is independent of industry to master procurement, but rather depending on the constitution of the procurement department, the methods implemented and the procedures leveraged. Automotive cluster companies' specific results indicated a strong foundation set-up to master procurement successful in the future but discovered as well clear improvement needs and areas in relation to best practice.

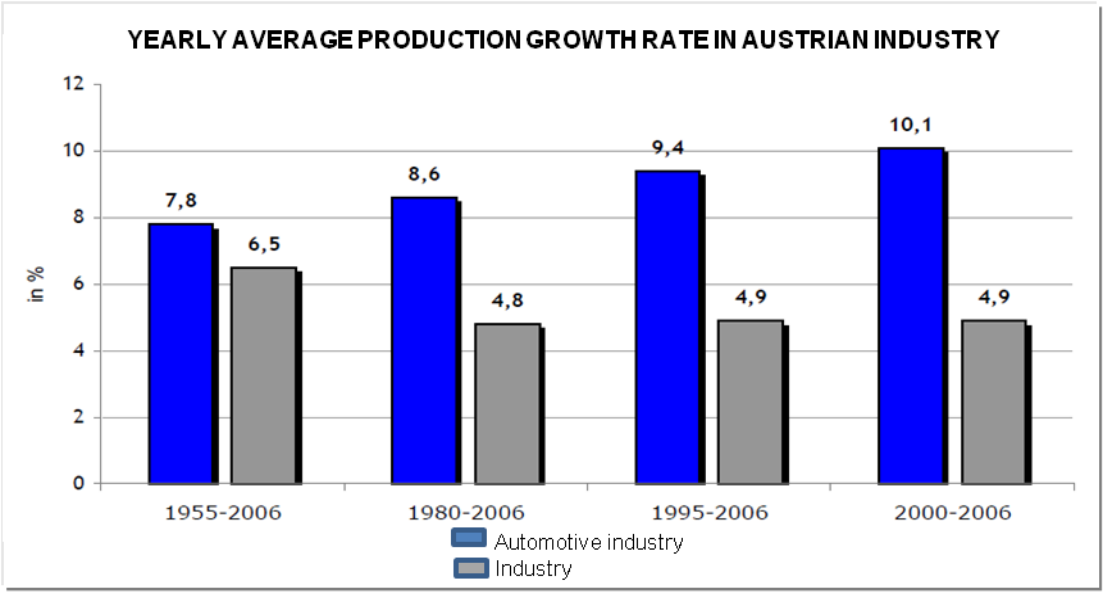
1. Introduction

The objective of this chapter is to introduce the reader to the current environment of the Austrian Automotive Industry, the consequential research problem statement, questions and the final purpose of the thesis followed by a clear structural framework.

1.1 Background of the Austrian Automotive Industry (AAI)

The Austrian Automotive Industry is an essential industrial sector in the Austrian economy highlighting the yearly production growth rates represented in figure 1.

Figure 1: Yearly average production growth of the AAI vs. overall Austrian industry



Source: Statistic Austria Industry- and Business Cycle Statistics

Production focus in the AAI is with 81% on engines and gear mechanism followed with 10% by cars and trucks.

Figure 2: Produced items in the AAI

PRODUCED ITEMS WITHIN AUSTRIAN AUTOMOTIVE INDUSTRY

Produktion der österreichischen Fahrzeugindustrie 2006 in Stück	
Motoren und Getriebe	2,25 Mio
Pkw und Lkw	275.000
landwirtschaftl. Traktoren, Motorkarren und Anhänger	26.000
Motorräder	70.000
Fahrräder	130.000

Quelle: Fachverband der Fahrzeugindustrie Österreichs

Source: Fachverband der Fahrzeugindustrie Österreichs

By generating a turnover of about EUR 14 billion, at present 150.000 people are directly or indirect employed by approximately 700 companies in the Austrian automotive sector.

Figure 3: Key facts Austrian Automotive Industry 2010

KEY FACTS AUSTRIAN AUTOMOTIVE INDUSTRY 2010

	EMPLOYEES	COMPANIES	PRODUCTION IN MIO €
Production PKW, LKW, BUSSE	11.000	5	2.800
Production Engines, Transmission, Parts	8.000	13	3.300
Production Tractor, Motorcyle	2.500	7	1.000
Production other	10.500	138	3.600
Total Cluster	30.000	163	10.700
AUTOMOTIVE INDUSTRY TOTAL	150.000-200.000	700	21.500
Automotive production	60.000		
Total Employees	700.000		

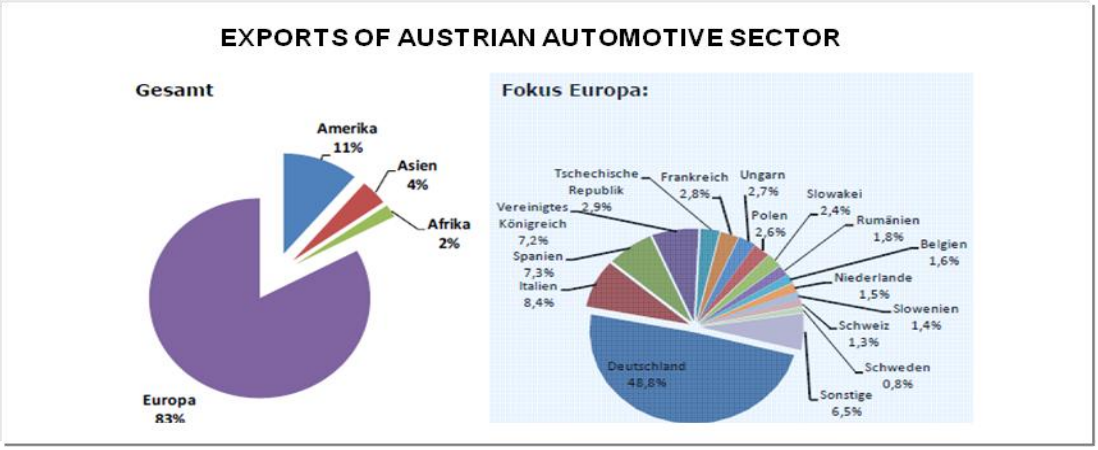
Total Cluster: Cluster data 2010
Automotive Industry total: Estimates 20

Source: Fachverband der Fahrzeugindustrie Österreichs

With related industries and services every 8th job in Austria is connected to the automotive industry and secures employment of 700.000 people. Several of the world´s leading vehicle producers and component suppliers such as GM, Opel, Magna, MIBA, BMW or MAN manufacture vehicles or components and develop innovations in Austria.

Fundamentally, the AAI is defined as a supplier industry. 83% of manufactured products are exported to OEMs and automotive manufacturers within European market. Given the bound on European automotive market the strategic orientation derives from the general direction setting and demands of the European automotive market players.

Figure 4: Exports of Austrian automotive sector

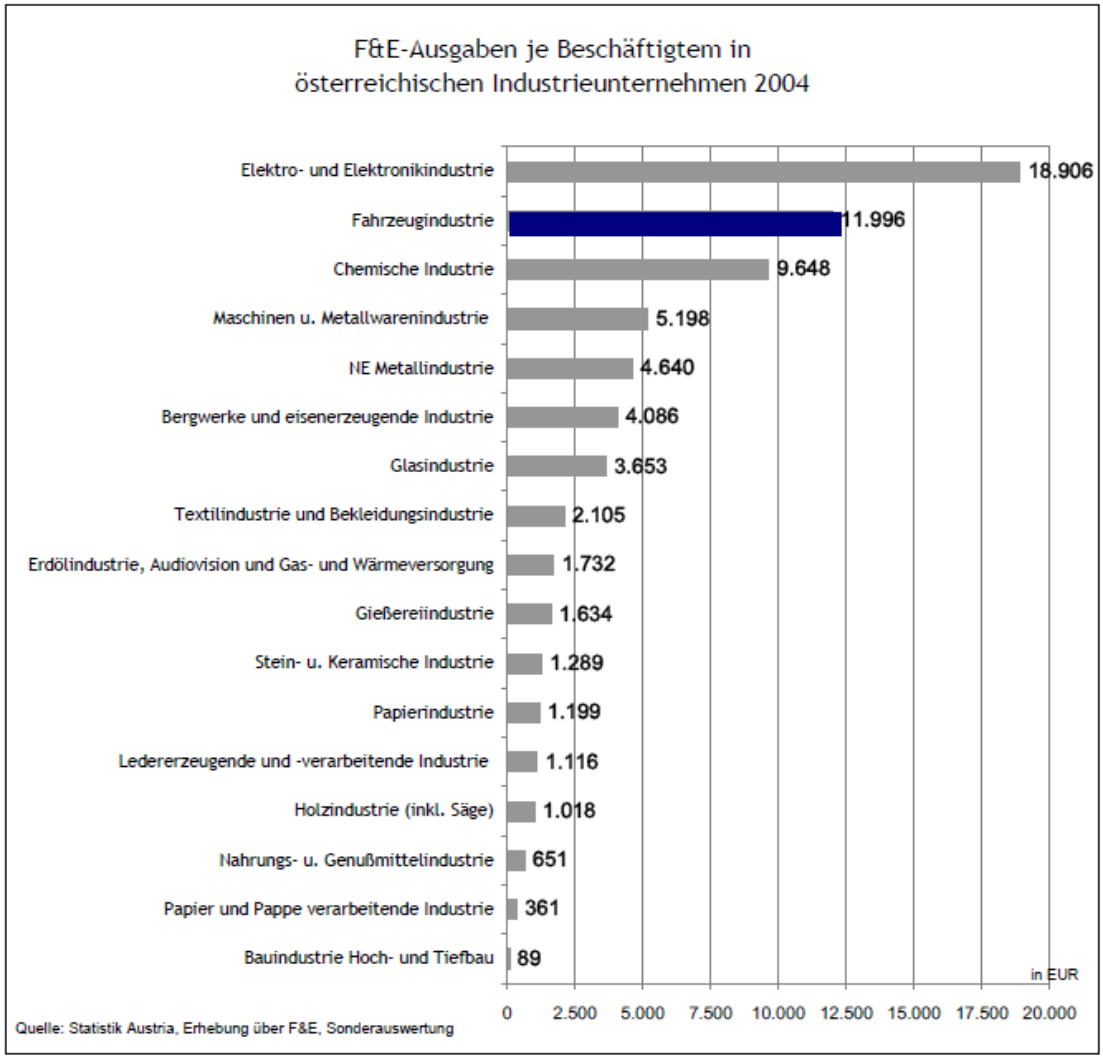


Source: Industriewissenschaftliches Institut 2010

Successfully gaining advantages from the new neighboring EU member states, global vehicle producers and suppliers are creating new corporate groups, constructing new plants and constantly implementing new investment projects on expanding of the existing productions. For example the Vienna Automotive Cluster offers accessibility to more than eight car factories just within a radius of 150 km around the Austrian capital.

Findings of the Statistic Austria Industry- and Business Cycle document F&E investments are top in the Austrian Automotive Industry in relation to the other industries at investment / employee.

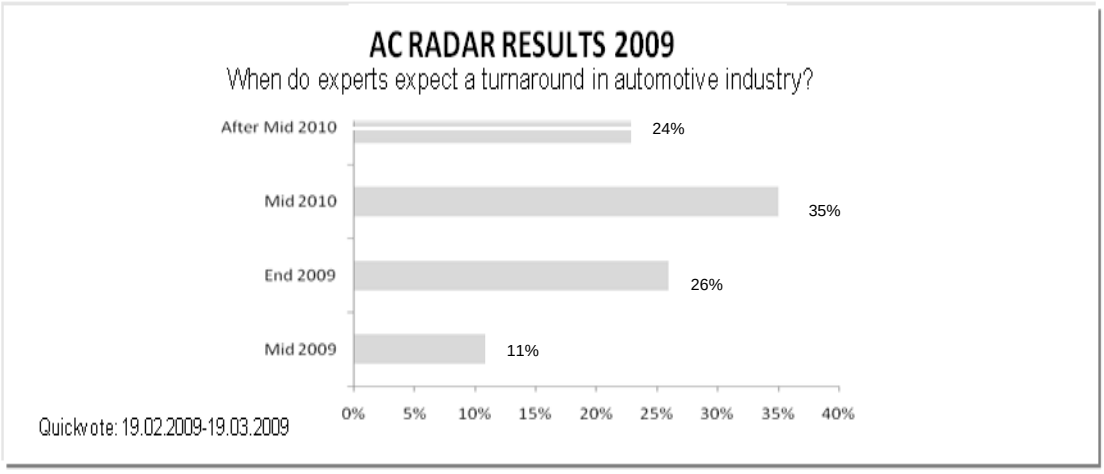
Figure 5: F&E spending of Austrian industrial companies in 2004



Source: Statistic Austria Industry- and Business Cycle Statistics

After three challenging years from 2006 to 2009 with a turnover regression of about 40% the AAI has in 2011 completely recovered. Promising economic data of 2010 will lead to a positive turnover level at the end of 2011 with EUR 14 billion. This development corresponds with the assessment of interviewed experts in a 2009 conducted survey of the Vienna Automotive Cluster. With 49%, the majority expected to achieve a turning point of performance in the automotive industry in Austria by 2010![1]

Figure 6: AC Radar results 2009

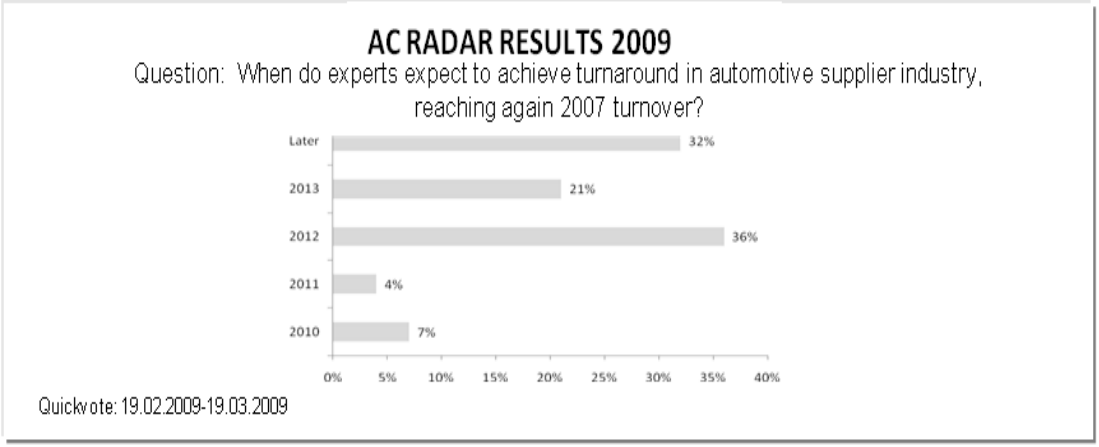


Source: Automotive Cluster Austria

Furthermore, the industry estimates to grow - against the European trend - about 5% in 2012. The AAI can direct participate of the increase of sales of German car manufactures in China, Brazil and India. The competiveness of Austrian manufactures and suppliers is shown in the export performance of the last year. With an increase of 19% of exports and 18% of imports the trade balance generated a surplus of EUR 1.2 billion. On the other hand, the 2010 results of the automotive cluster in Austria highlight that 32% of participants predict to overcome supplier industry crunch later than 2013![2]

[1] http://www.automobil-cluster.at/1731_DEU_HTML.php
[2] http://www.automobil-cluster.at/1711_DEU_HTML.php

Figure 7: AC Radar results 2010



Source: Automotive Cluster Austria

1.2 Problem statement

Highlighted in the introduction, the automotive industry in Austria is one of the leading industries expected to deliver further growth in the future. Nevertheless, looking at the global development of the automotive industry an environmental change can be observed influencing the roles and demands on Austrian automotive supplier industry. Likewise, these environmental changes are arising new challenges for the procurement function in Austrian automotive companies given the high export rate of manufactured goods. The increasing complexity initiates necessary adjustment for the procurement business function.

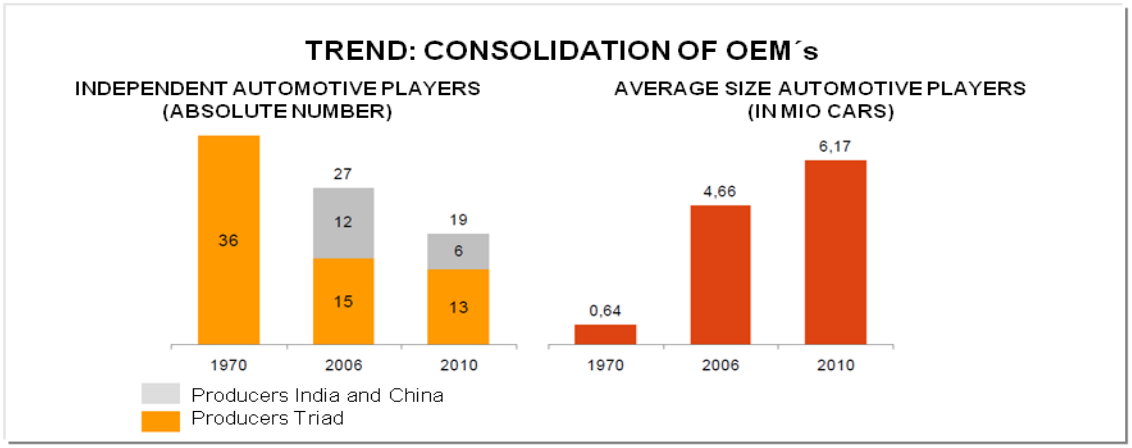
The following trends can be observed: [3]

1: Increased globalization initiating a stronger competitive surrounding
2: Consolidation of OEMs
3: Increased focus on innovation driven through a shorter product life-cycle
3: Shortage of raw materials
4: Increased sustainability focus

Aside the fact of further globalization the key trends affecting the AAI are a consolidation of OEMs next to increased car variances and a shorter innovation circles can be identified. (cf. Accenture, 2007)[4] This will have direct consequence for the procurement departments of all automotive suppliers.

[3] (Legner 2009: 3)
[4] http://www.automotive-rheinland.de/content/P5_accenture_270307_kurzfassung.pdf

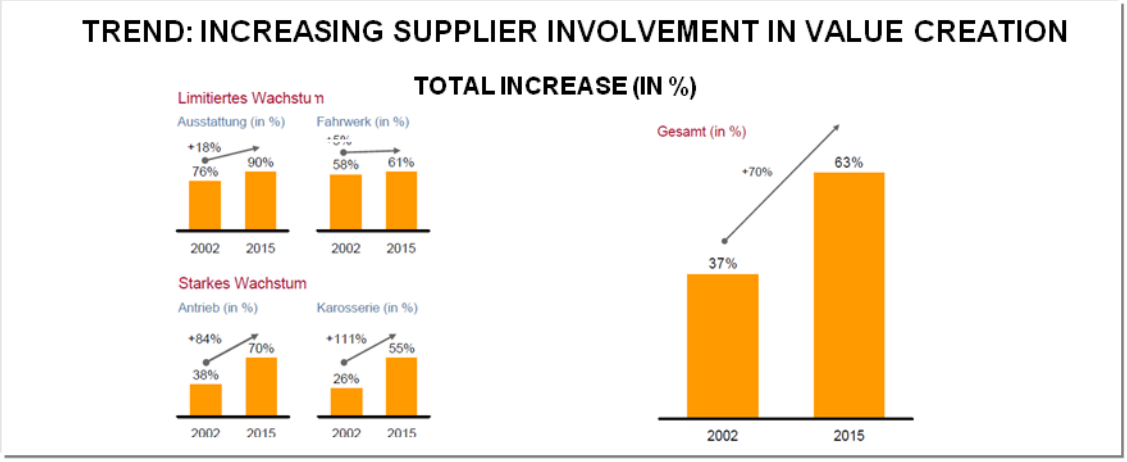
Figure 8: Consolidation of OEMs



Source: Accenture 2007, High performance in the Automotive Supplier Industry

On top of these factors the topic of sustainability and shortage of raw materials accelerates the dynamic within the automotive industry. These trends caused a change in the structure and the stability of the total value chain creation. The allocation of roles between OEMs and supplier are heading towards a strengthened position of the suppliers. This is elaborated by a study conducted by Accenture in 2007 highlighting that until 2015 the suppliers will take over 63% of development cost for innovations showing a growth of 70% vs. 2002[5]

Figure 9: Increasing supplier involvement in value creation



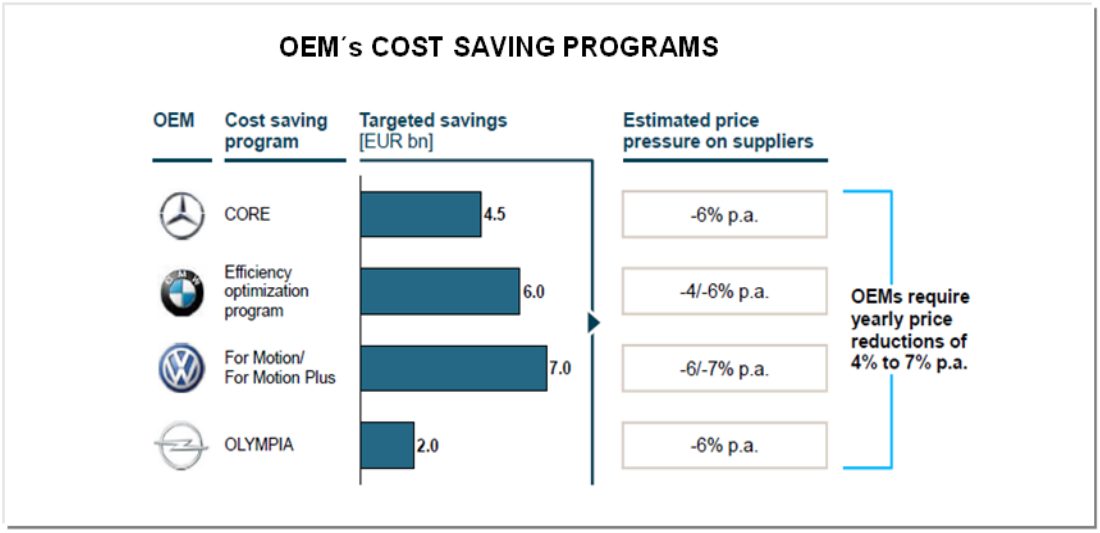
Source: Accenture 2007, High performance in automotive supplier industry

In execution this means that whilst OEMs focus on downstream business the suppliers strengthen their position in taking over tasks held originally by OEMs now becoming their own core tasks, e.g. innovation, production and logistic operational tasks.

[5] http://www.automotive-rheinland.de/content/P5_accenture_270307_kurzfassung.pdf

Further, it can be observed that among their “new” role suppliers are facing - through above mentioned trends - an increased ongoing pressure on total margins while OEMs continuously focus on overall cost savings, as highlighted in below figure 10, transferring the demands to suppliers. This creates huge additional challenge to supplier industry in the future as especially in regards to raw material prices an increase is expected in the upcoming years as evaluated by a Roland Berger study in 2008. [6]

Figure 10: OEMs cost saving programs



Source: Industriewissenschaftliches Institut 2010

Transferring the trends to organizational divisions of an automotive player it becomes obvious that there is a need of adaption in total company strategy and management roles. Especially through decreasing contribution of OEMs within value chain and the enlarged role of suppliers the thesis can be raised that one of the most affected management division in need of a re-conceptualization is the procurement, moving from a operation cost focused division towards an internal and external strategic business partner with the ability to proactively deliver strategies and drive profitable growth to the organization.

This thesis can be underlined by the latest Headline within ADAC Motorwelt magazine referring to automotive supplier industry as ”Die heimliche Weltmacht. Kein Auto kann heute ohne Zulieferer gebaut werden. Konzerne… wie Bosch investieren Millarden…-und machen sich so unverzichtbar.”[7]

[6] (Berger 2009: 4)
[7] (ADAC 2012: 46)

1.3 Research objective

Building on the above facts this thesis comprises an assessment of the future role of procurement within the AAI. Purchasing structures in general differ tremendously versus the structures put in place in the last century - limited knowledge of topics in regards to holistic portfolio management, supplier partnership and early supplier involvement can be observed.[8] Further, given the fact that the trends mentioned in previous chapter will generate new demands and challenges towards procurement business function this thesis aims to fill the gap between current knowledge and the future demands. These critical success factors will master the role procurement has to play within the AAI in order to be successful for the future.

The questions to be raised are:

- What are the new demands, challenges and thus critical success factors in procurement business for the Austrian Automotive Industry?

- How do the identified critical success factors affect and influence the role of procurement within key players of the Austrian Automotive Industry?

Thus, the objective is to provide a clear recommendation for AAI partners on how to master procurement in a changing value chain creation and behind a holistic procurement approach built on identified critical success factors.

1.4 Research approach

To allow quality recommendations to the above mentioned research questions the research paper is divided into two key parts:

Part 1: Theoretical Framework

The theoretical framework comprises the role of critical success factors, key performance indicators and the topic of procurement in the literature in past and today. It should provide the foundation for the reader of this thesis for the following empirical investigation and the final recommendation.

[8] (van Weele 2005: 92)

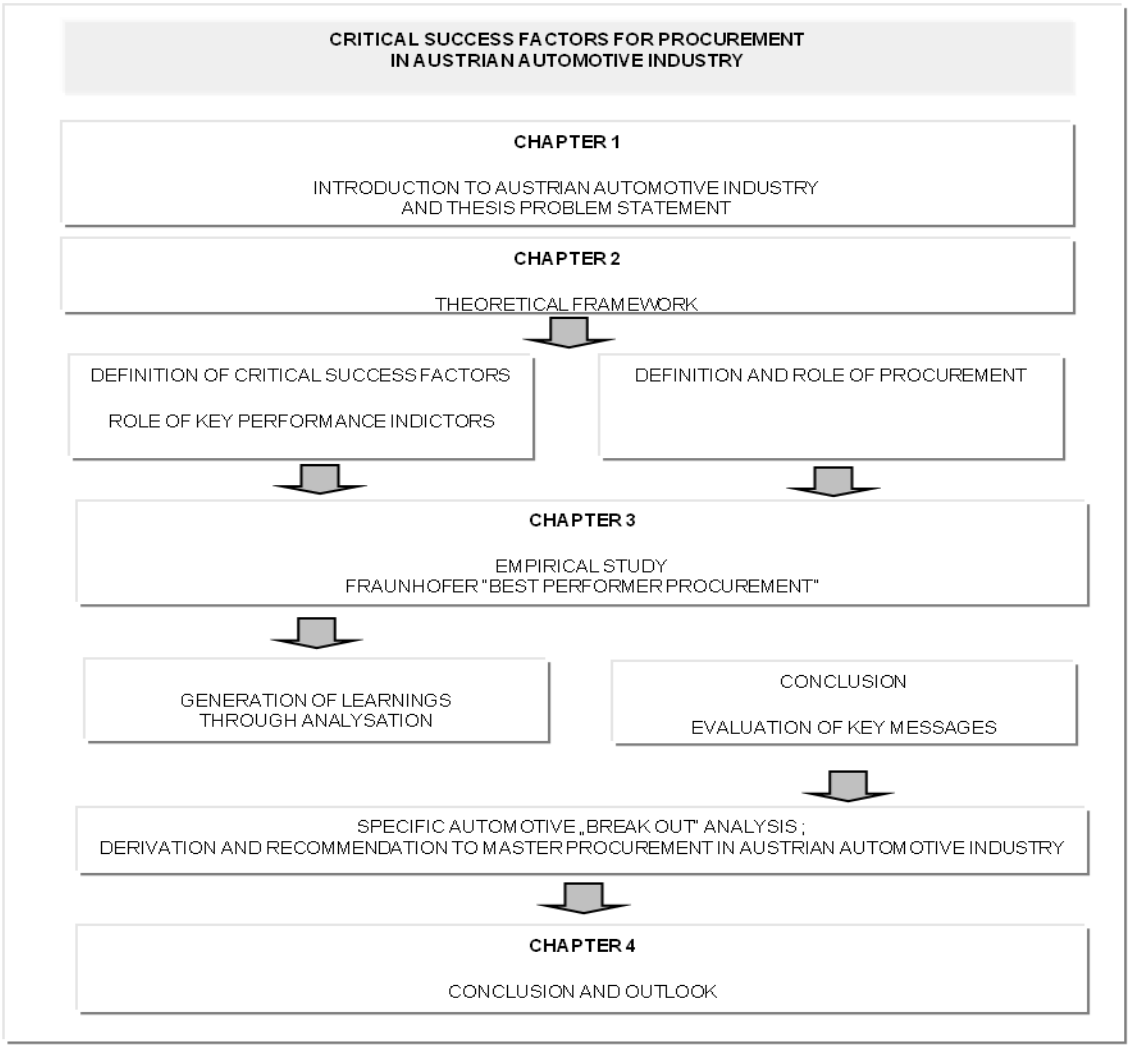
Part 2: Empirical Investigation

The methodical approach for the empirical investigation enfolds secondary data to channel suitable recommendations towards the determination of the critical success factors for procurement division within the automotive industry in Austria.

It is based on the quantitative data interpretation of a study conducted by the Austrian Fraunhofer Research GmbH with the topic “Best performer Einkauf 2011”.

Within the empirical part the approach is to first deal with secondary data analyzed with the objective to provide the reader with a holistic understanding of critical success factors for procurement business in general. Secondly, the analysis and interpretation of the study will follow a translation towards the environment of the automotive industry players in Austria. This phase can be described as the customization part of the procurement study results on specifics of the automotive industry rounded by an overall conclusion and outlook.

Figure11: Master´s Thesis structure personal contribution



2. Theoretical Framework

2.1 Definition of critical success factors (CSF)

In the literature, several definitions of critical success factors exist. In its foundation CSF can be described as elements that have a direct, significant impact on the success of a specific activity, thus influencing the achievement of a mission. Boynton and Zmud[9] described it with the words "critical success factors are those few things that must go well to ensure success for a manager or an organization".

Gabler Wirtschaftlexikon[10] even accelerates to the level that if critical success factors are defined well, the activity itself will be successful, while a lack of performance within the critical success factors will limit the overall success of the activity.

The concept of Success Factors was first initiated and published by D. Daniel back in 1961 with the objective to filter data diversity to a few that are critical and make the difference for growth and success. [11] Building on Daniel, John F. Rockart popularized the initial concept of Daniel a few years later and defined critical success factors as "The limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization's efforts for the period will be less than desired."[12]

2.1.1 The role of CSF in business

In the economic literature to reach profit maximization or generate profitable growth could be defined as the origin role of a company's objective. [13]

From an organizational top-down perspective to maximize profit a company's long-term vision will be translated into a mission classified into different short to mid -term objectives. To achieve these objectives it is essential to define key areas of

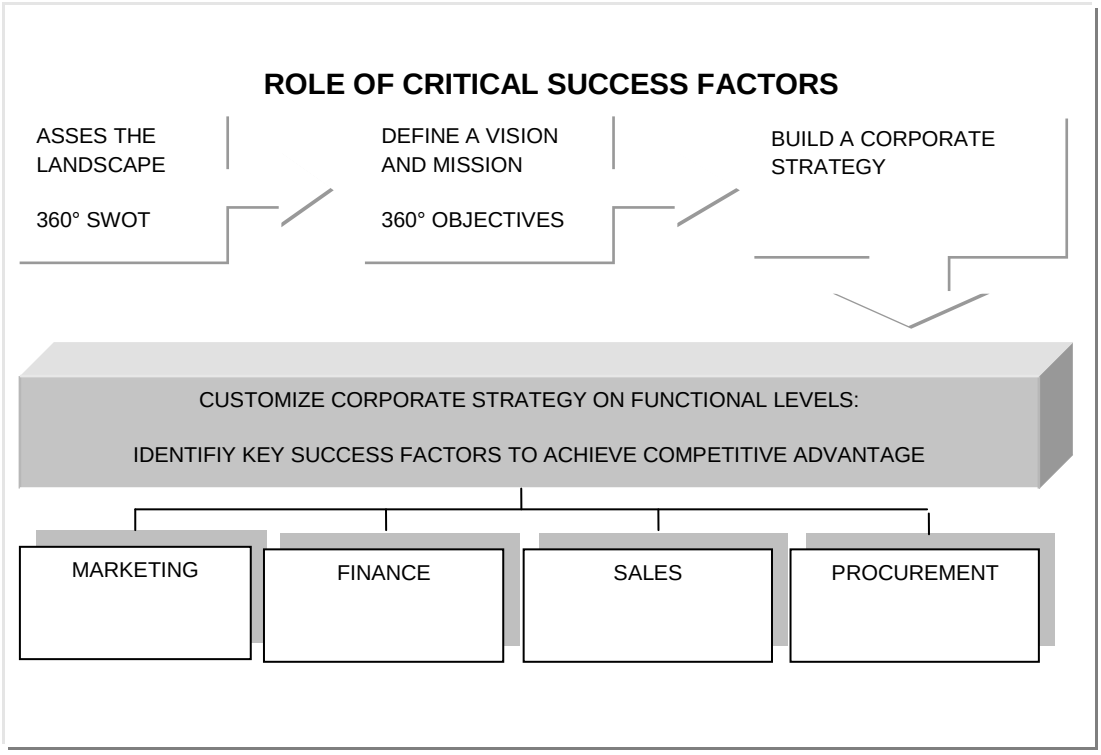
[9] (Boynton, & Zmud 1984: 17)
[10] http://wirtschaftslexikon.gabler.de/Archiv/10338/kritische-erfolgsfaktoren-v5.html
[11](Daniel 1961: 111)
[12](Rockart 1979:81)
[13](Wöhe 2000: 41)

performance – critical success factors - that are essential to accomplish the organizational mission from a bottom-up perspective.
Thus identified and defined, CSF focus on significant enablers for a successful achievement of a specific activity, objective, mission and to provide a company's competitive advantage.

While the vision and mission to reach profit maximization are leveraged across different functions, critical success factors need to be identified, linked, and specified on a functional level.

The figure below visualizes the anchorage of critical success factors within the strategic process.

Figure 12: Role of critical success factors



Source: Personal contribution

2.1.2 Differentiation CSF and KPI

It is important to clarify at this stage the difference between critical success factors (CSF) and key performance indicators (KPIs). CSFs are defined as actions and elements that need to be put in place in order to achieve the company´s objectives with respect to the company´s mission. KPIs in relation to critical success factors are indicators that quantify and make the CSF and strategies behind them measurable, leading to the fact that KPIs make the degree of performance measurable.

KPI systems are an essential tool for a company to reach a competitive advantage. Therefore, a continuous monitoring and tracking is leveraged in many companies to see early indications on different levers regarding the market performance in relation to the internal objectives and mission set in place.

Finally, it can be summarized that in order to be successful and reach a competitive advantage the definition of suitable CSFs are essential but cannot be seen isolated from KPIs as they are delivering the quantitative data. Through continuous monitoring of KPIs they are enablers to verify if an activity is still on track as defined. To manage the scope and expectations of the reader the research objective of this thesis is to primarily identify CSF for the procurement function in the automotive industry in Austria, i.e. elements that will set up a strong foundation for success.

The identification and set-up of KPIs would need to be done for a specific requirement level of each player in the industry, depending on their specific business targets as a second step.

2.2 Definition of procurement

The second part within the theoretical framework aims to deliver a clear picture of the functional role of procurement within a company in the literature. Further, it aims to generate and provide a first indication of procurement influence to achieve a competitive advantage in history, today and the future.

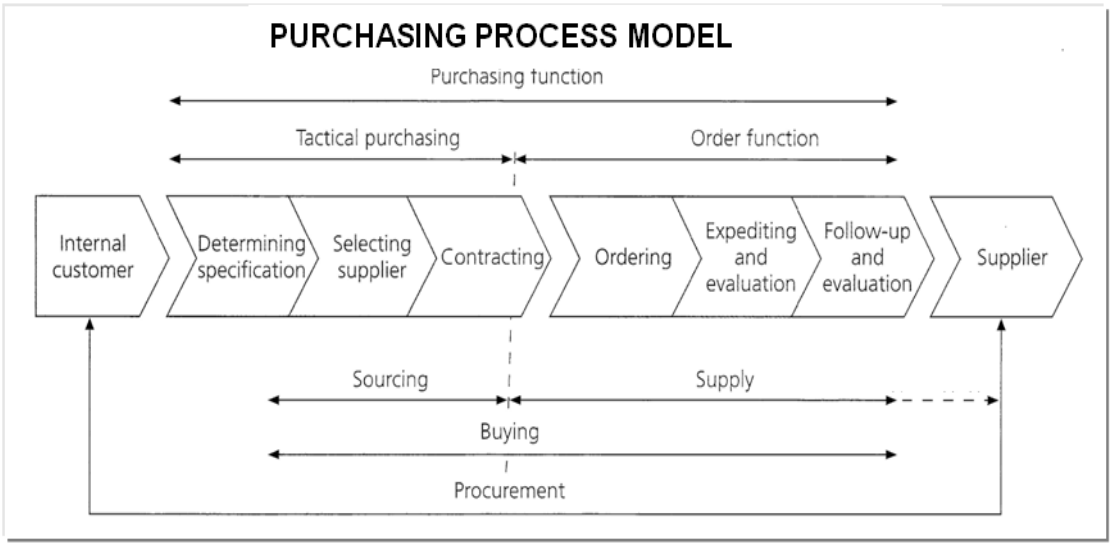
2.2.1 Definition and historical role of procurement in business

Purchasing in its original foundation, the function encompasses the buying process which incorporates all activities for the acquisition of goods and services as well as their management. In other words van Weele described the role as to "obtain the proper equipment, material, supplies and services of the right quality, in the right quantity, at the right price and from the right source."[14]

It is necessary at this point to mention that various experts in the literature use the wording of procurement and purchasing to the same extent and meaning. A smooth transition of wording is also mentioned by J. Oakland 2003.[15] Van Weele even enlarges the terms interchangeably used to describe the process in the area of purchasing by supply and logistics management.[16]

The term procurement is usually used to describe the overarching function of dealing with strategic and operative tasks related to purchasing, while purchasing itself focuses more narrowly on the operative transactions resulting in the acquisition of a good or service.

Figure 13: Purchasing Process Model



Source: Van Weele 2005, Purchasing & Supply Chain Management

[14] (van Weele 2005: 12)
[15] (Oakland 2003: 216)
[16] (van Weele 2005: 12)

Starting chronologically the initial role of procurement departments in history was primarily related to operational focused functions, rather being treated as a cost center support service. [17]

Adding to this statement procurement was for a long time seen as a sub-category of other company departments underlining the de-priorization of the function.[18]

In 1983 Peter Kraljic published his thoughts on the topic of procurement in the Harvard Business Review. It can be said, that this article initiated the beginning of the transformation of purchasing function towards an early idea of strategic procurement management.

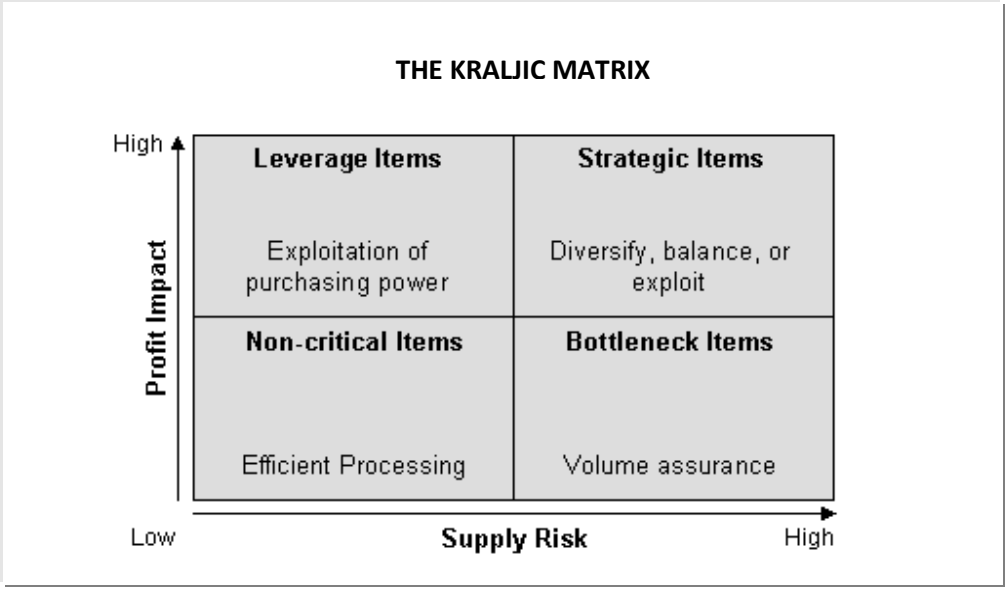
Kraljic himself mentioned in an interview in 2008: “Purchasing was seen as a second-class function, a service, and certainly not strategic,” and it was clear for him “purchasing must become supply management”. [19]

In its foundation Kraljics model is based on the idea of maximizing profit impact through buying power while minimizing supply risks on the other side.[20] The model is based on four different pillars classifying products in the categories of i: Leveraged items, ii: Non-critical items, iii: Strategic items and iv: Bottleneck items. The categories are linked to the dimension of profit impact and supply risk.

The result is a 2x2 matrix that helps to define suitable strategies with regards to supplier handling for categorized purchasing items and therefore the beginning of strategic handling.

[17] (Wincel 2004: 4)
[18] (van Weele 2005: 81)
[19] (Usherwood & Russel 2008: 1)
[20] (Krajic 1983: 111)

Figure 14: The Kraljic Matrix



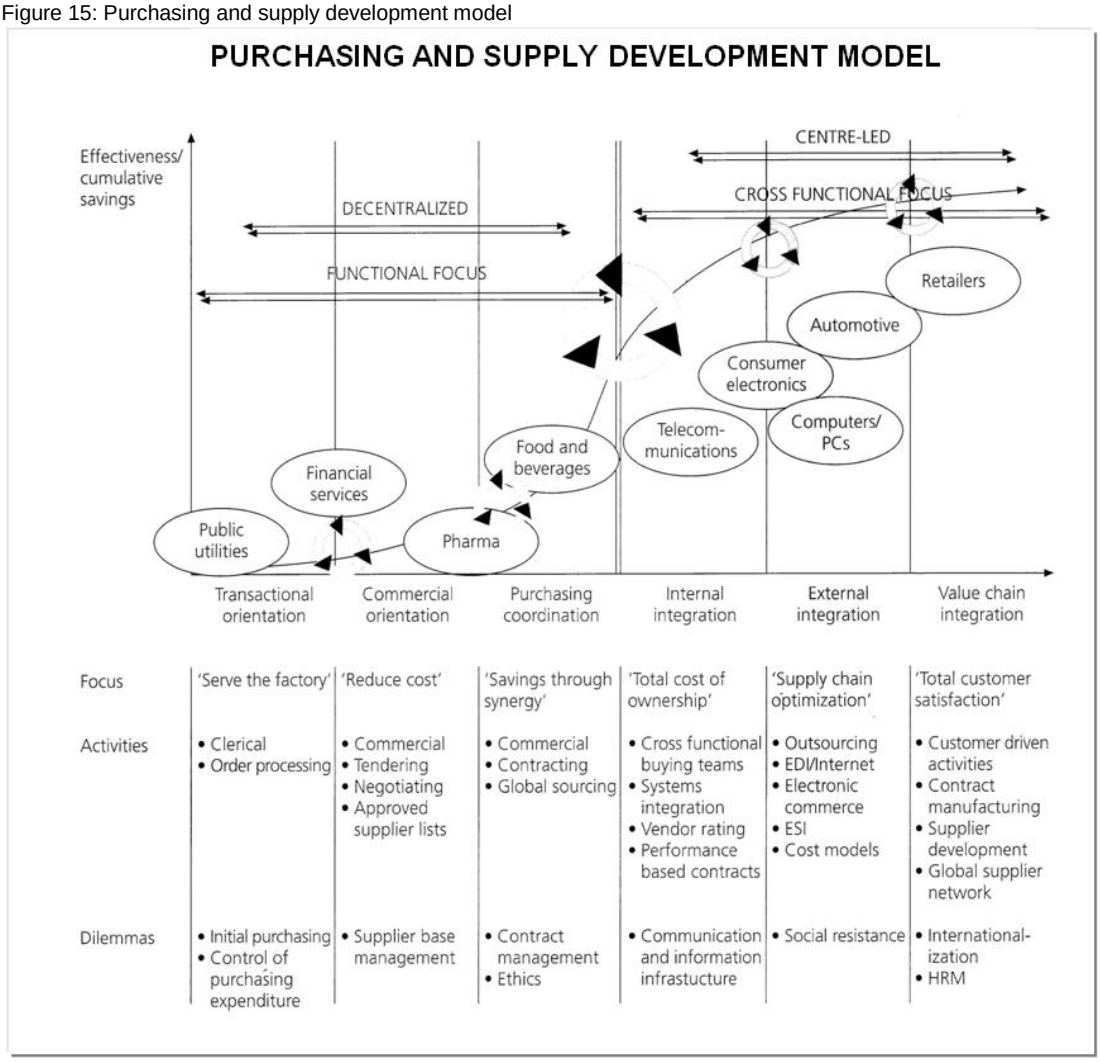
Source: Van Weele 2005, Purchasing & Supply Chain Management

Since the introduction of Kraljics portfolio model various adaptations of the model have been published with the objective to modify the original matrix. Nevertheless, it is widely accepted that Kraljics matrix has become the benchmark in the field of purchasing models.[21]

With this mindset shift, the original description of procurement is not sufficient anymore, not integrating the strategic part of managing procurement. At the beginning of the new century van Weele visualized the evolution of procurement by dividing tasks into functionally focused areas and those that can be described as cross functional. Van Weele is not connecting the roles specifically with a time frame, but with different industries and their current treatment of procurement. Knowing that the automotive industry is always recognized as an early adopter, the assumption can be made that the evolution model by van Weele also shows a timely evolution of procurement within history.

[21] (Geldermann 2003: 258)

Figure 15: Purchasing and supply development model



Source: Van Weele 2005, Purchasing & Supply Chain Management

During the same time van Weele and Geldermann further published an article about procurement portfolio models stating “It is generally agreed that purchasing has evolved from a clerical buying function into a strategic business function that contributes to the competitive position of companies.” [22]

Building further on this evolution J.P. Wincel in 2004 introduced the reader to the topic of procurement with the words “Procurement professionals will tell you about the tremendous changes in their profession during the past 10 to 20 years.”[23] He especially highlights the change of top management recognition within a company towards the “enormous contribution” a procurement organization, can achieve to the company´s profit improvement.

[22] (Gelderman & van Weele 2005:19)
[23] (Wincel 2004:3)

Thus, it is fair to conclude that the initial description of procurement, including the operative tasks as buying standard products and services, has been evolving into a strategic management function which enables the pursuit of core business objectives on a company level. The initial operative role has been broadened by a strategic dimension.

2.2.2 Definition operative vs. strategic procurement

As described in the previous paragraph the procurement role has been elevated over the last decades and can be divided into two different tasks operative and strategic procurement.[24]

Wildemann referred to the question of the importance of operative and strategic procurement in an interview with the Financial Times Germany: "Vielen Unternehmern ist das Potenzial im Einkauf durchaus bewusst. In der Praxis zeigt sich jedoch häufig eine organisatorische Vermengung von operativen und strategischen Aufgaben. Im Tagesgeschäft werden langfristig orientierte Controllingaktivitäten zugunsten aktueller Beschaffungsmaßnahmen und Bestellabwicklungen vernachlässigt. Damit werden mittel- und langfristig angelegte Aktivitäten und Zielsetzungen im Einkauf nicht systematisch verfolgt und dementsprechend auch nicht umgesetzt. "[25]

Operative and strategic roles differ in terms of many aspects. The main aspects according to G. Wöhe are highlighted in the figure below and should be replicable towards the general differentiation of operative and strategic procurement roles.

Figure 16: Operative vs. strategic role of procurement

OPERATIVE VS. STRATEGIC ROLES

OPERATIVE ROLE	STRATEGIC ROLE
Focus on short and mid-term programs	Focus on long term development, coordination and control of success drivers
Rather static than dynamic	Dynamic and aggressive managment of unique business mission adapting fast to risks and opportunities
Re-active managment	Proactive managment

Source: G. Wöhe 2000, Einführung in die Allgemeine Betriebswirtschaftslehre

[24] (Wildemann 2000: 390)
[25] http://www.tcw.de/news/interview-mit-prof-wildemann-einkaufscontrolling-im-mittelstand-418

Overall, G. Wöhe described the connection of both concepts as "…mit der Festlegung bestimmter Strategien ist die Notwendigkeit verbunden, auf taktisch-operativer Ebene die Maßnahmen zu planen, die die Umsetzung der Strategien in der Realität ermöglichen."[26]

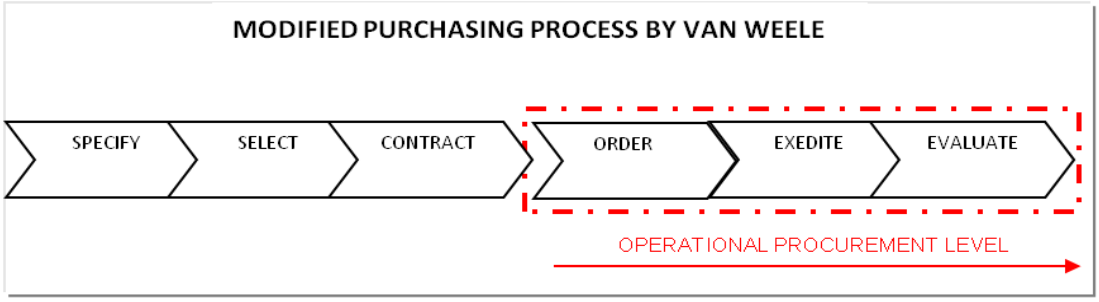
Based on the above definition and various literature reviews the following paragraph claims a construct of what could be defined as operative vs. strategic within procurement business.

The role of the operative procurement is focused on daily activities and could be characterized through a more passive role of reaction – a specialist function with a base purchasing strategy is put in place. It conveys an a simple view mainly functional, operational and administrative focused activities that are more product oriented as:[27]

- Order process related topics
- Expediting related activities
- Monitoring and evaluation of supplier performance
- Implementation and monitoring of Statistics

A visualized process to described the above mentioned operative topics has been introduced by van Weele:

Figure 17: Modified purchasing process



Source: Van Weele 2005, Purchasing & Supply Chain Management

[26] (Wöhe 2000:147)
[27] (Wildemann 2000:390)

The objective of operative procurement, purchasing, is described by J. Oakland as "to obtain the correct equipment, materials, and services in the right quantity, of the right quality, from the right origin, at the right time and cost."[28]

While operative procurement is daily operation oriented the strategic procurement is generally based and focused on long-term decisions to influence the market position of a company. In analogy towards strategic management the strategic procurement, a sub-concept of the total procurement concept, main business activity is the targeted analysis and active influence of procurement relevant parameters.

Anders defined the role of strategic procurement as "…. Rahmenbedingungen sowie den Einsatz von Analyse- und Gestaltungsinstrumenten, welche der Entdeckung, Realisierung und Sicherung von Einkaufspotentialen dienen."[29]

According to van Weele the strategic procurement process includes tasks related to the planning and monitoring such as: [30]

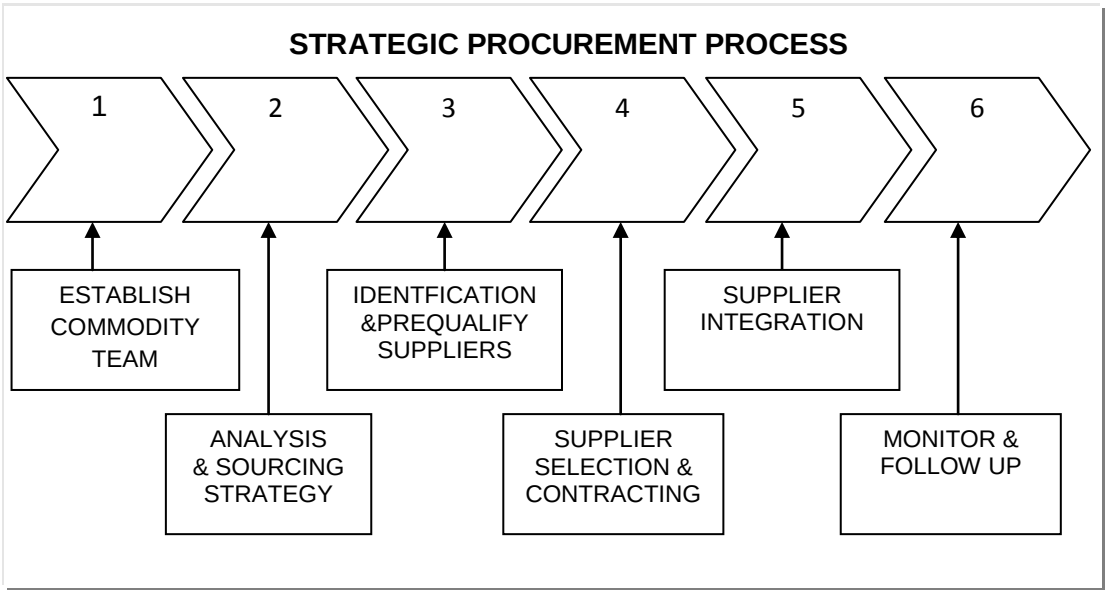
- Evaluation of strategic supplier choices
- Development of long-term framework contracts with preferred suppliers
- Integration of suppliers into the product innovation development process
- Development and implementation of supplier pricing and auditing reviews

Building on this point J.P. Wincel linked procurement and other organizational tasks mentioning that successful strategic procurement "is the effective integration of procurement tasks with other organizational objectives."[31]

Another holistic definition comes from Carr & Smeltzer establishing strategic procurement as „The process of planning, implementing, evaluation, and controlling strategic and operation purchasing decisions for directing all activities of purchasing function towards the opportunities consistent with the firm's capabilities to achieve its long-term goals.[32]

[28] (Oakland 2003: 66)
[29] (Anders1992: 30)
[30] (van Weele 2005: 232)
[31] (Wincel 2004: 124)
[32] (Carr & Smeltzer 1997: 201)

Figure 18: Strategic procurement process



Source: Related to Boston University Strategic Sourcing Model

2.3 Procurement performance measurement

Highlighted in the previous part procurement task have tremendously changed in the past decades. The topic of handling procurement as an operative vs. strategic management function becomes increasingly relevant. Thus, the implementation of suitable procurement performance measurements becomes an essential factor to master procurement in the future. Fundamentally, procurement performance measurement can widely differ and is again depending on the role of operative vs. strategic procurement focus within a company.[33] It is depending on how management within a company looks at procurement.

Figure 19: Management view on purchasing

MANAGMENT VIEWS ON PURCHASING

Alternative viewpoints	Hierarchical position of purchasing	Performance measures
Purchasing as an operational administrative function	Low in organization	Number of orders, order backlog, purchasing administration lead time, authorization, procedures, etc.
Purchasing as a commercial function	Reporting to management	Savings, price reduction, ROI-measures, inflation reports, variance reports
Purchasing as a part of integrated logistics management	Purchasing integrated with other materials-related functions	Savings, cost-reduction, supplier delivery reliability, reject-rates, lead time reduction
Purchasing as a strategic business function	Purchasing represented in top management	'Should cost' analysis, early supplier involvement, make-or-buy, supply base reduction

Source: Van Weele 2005, Purchasing & Supply Chain Management

[33] (van Weele 2005: 252)

Performance measurement methods need to be identified based on the individual demands of a company within a specific industry.

The higher added value that different performance measurement methods should enable can be summarized to van Weele in:[34]

i: Better decision making process based on performance evaluation. Thus, initiating cause and action related projects

ii: Increased transparency on procurement performance, enabled through regular reporting of actual vs. planned results

iii: Improved communication between all parties involved in procurement process

To reach this higher added value a continuous monitoring of defined procurement performance parameters is the foundation. These parameters differ in each company based on the view of management on procurement function in regards to operative vs. strategic focus. The holistic idea of procurement measurement methods must be embedded in the total procurement management process. Measurement methods need to cover all aspects of procurement influencing performance for example on new product development, total quality control and procurement logistics. Ultimately, through holistic implementation of procurement measurement performance an economic success, benefitting in overall cost reduction, should be realized.

2.4 Supplier relationship management (SRM)

Referring to J.P. Wincel stating “strategic procurement … is further defined through the use of a management system designed to pull all element together”[35] the process of strategic procurement can be best illustrated by the process of holistic supplier relationship management.

On a general foundation, supplier relationship management comprises the strategic and central supervision of a company’s relationship with its suppliers. In other words Campleo and Stucky described 2007 SRM as “… the part of the supply chain

[34] (van Weele 2005: 253)
[35] (Wincel 2004: 124)

management, which deals with all aspects of the business relationship between companies and their suppliers". [36]

Another source from W. Appelfeller and W. Buchholz mentions "SRM is understood as the sourcing policy-based design of strategic and operational procurement processes as well as the configuration of the supplier management." [37]

Overall, the supplier relationships management is an integral part of the holistic supply chain management, a process that describes and defines different individual stages of supplier relationship.[38]

According to literature - see figure 20 - supplier relationships management is build on interacting phases defined as:

1. Composition of supplier base, supplier selection and evaluation
2. Supplier development
3. Supplier integration
4. Supplier controlling and auditing

As a foundation of supplier relationship management companies have to deal with the question of global vs. local sourcing. Objective is to define if an international or local sourcing is required for a product to be purchased. Further, it has to be defined if a single of multiple sourcing is required. After this first phase of having evaluated basic requirements for a supplier base, relevant information of suitable suppliers need to be reviewed as for example suppliers disclosure or a list of references.

Based on a first selected supplier portfolio the phase of supplier evaluation can be initiated. Suitable method to be leveraged at this stage is for example the ABC analysis.

After the evaluation of pre-selected suppliers a cooperation can be committed with those who have been identified to match the pre-defined requirements. The arrangement of cooperation can differ from short- to long-term contracts depending

[36] (Campleo & Stucky 2007: 105)
[37] (Appelfeller & Buchholz 2005: 349)
[38] (Campleo & Stucky 2007: 105)

on the supplier needs. From a just „one off partnership" to a cooperation where the supplier becomes an integral partner of total product development process.

According to van Weele it can be observed that large companies prefer in general a multiple sourcing strategy as the involvement of a few suppliers in the total product development process can result in a greater dependency, even a monopoly situation. However he mentions further „it is possible that within the product group, one specific supplier is responsible for one particular item".[39]

The risk management plays a vital role at this stage of the supplier relationship management. Advantages and risk need to be reviewed as tendency towards reduction of overall amount of suppliers can lead to a strong dependency thus initiating a potential monopoly situation.

Given these advantages and risk the second phase of the supplier relationship management deals with the development and integration of cooperating suppliers. It is crucial that decisions on selected suppliers are also defined on their continuous improvement capacity. Supplier development deals with the topic of improving continuously the total quality suppliers are delivering. Supplier advancement-, target performance- and motivation programs can be described as the center of supplier development. According to van Weele suppliers are further challenged in this stage to provide proactively ideas for improvement given their stronger involvement in the total product development process thus their influence in the total quality management.[40]

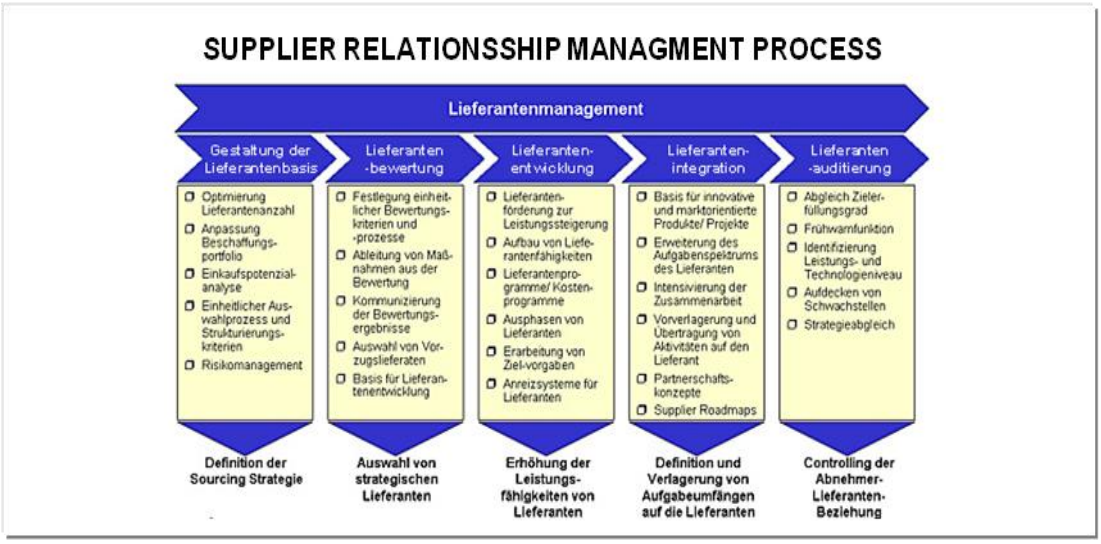
The supplier development follows the supplier integration. The level of integration and demands on the phase are depending on the cooperation demands. Given the tendency to involve suppliers continuously earlier in the total product development process, suppliers first of all need to be integrated in the company's original process effectively. The supplier will take over responsibilities for a boarder spectrum of tasks and might become part of the research and development teams. This will lead to an intensified interaction of a multifunctional team thus delivering the foundation to innovative market oriented projects.

[39] (van Weele 2005: 162)
[40] (van Weele 2005: 148)

Risks at this stage are often related to different working methods, management style and culture[41].

Final phase of the holistic supplier relationship management comprise the supplier auditing and controlling. This part constitutes successful long-term cooperation with selected suppliers. It aims to define clear performance objectives on which the cooperation and performance of the supplier is measured. An early indication system needs to be implemented to identify strength and weakness and should be reported and discussed with the supplier. This requires an appropriate administrative procedure by both parties.

Figure 20: Interacting phases of supplier management



Source: http://www.tcw.de/management-consulting/einkaufsmanagement/lieferantenmanagement-104

2.5 Changing role of procurement function in business

The literature, reviewed in the previous chapter defines the operative and strategic role of procurement as well as the established procurement management process should provide a strong theoretical foundation on the topic of procurement. Looking at today's vs. the historical role of procurement it introduces the reader further to the fast evolution in the field of procurement.

From purchasing to procurement. Over the last 30 years the role of purchasing transforms step by step to the role of procurement management. Various statements

[41] (van Weele 2005: 148)

in literature underline the assumption and provide reasons initiating the re-conceptualization of the role procurement within a company and towards external partners. Van Weele, for example, mentioned that one of the indicators is the ongoing and increased outsourcing of activities that were previously managed by the companies itself. [42]

Identified trends influencing the surrounding conditions for procurement function especially in automotive industry have been pointed out in the problem statement as: [43]

1: Increased globalization initiating a stronger competitive surrounding
2: Increased focus on innovation driven through a shorter product life-cycle
3: Shortage of raw materials
4: Consolidation of OEMs
5: Increased sustainability focus

In general, a clear movement from an execution handling towards a focus on concepts of total supply chain can be observed. [44] This strategic emphasize reflects also in the adaption within organizational structure of advanced companies. Accenture noted in one of their latest studies that meanwhile 64% of CPOs report directly to a C-suit executive[45]. This indicates the value increase of the procurement sector for companies broadening the role and responsibilities.

Furthermore, the role of experts in procurement is evolving. Various literature sources recently allocate managers working in the field of procurement an active role in developing and implementing strategies, forecast and planning and increasingly decision making authority.[46] Van Weele stated lately at an international supply chain congress in Amsterdam that the role of procurement has been elevated from “back room” to “board room”! [47]

Ultimately, the question raised is no longer whether to move procurement in a strategic direction within a company but rather which are the critical success factors

[42] (van Weele 2005: 125)
[43] (Legner 2009: 3)
[44] (Wagner & Weber 2006: 9)
[45] (Accenture 2009)
[46] (Tassabehji & Moorhouse 2008: 55-68)
[47] http://arjan.server02.colibri.nl/34/

that can make the difference between successful and non successful future procurement.

2.6 Gap between literature and future procurement challenges

In conclusion, the literature reviewed provided the basis for the gap this thesis intends to fill. The gap between the role of procurement in history and the scope and requirements to master procurement in the future, dealing with a complex environment of change influencing the procurement construct.

Thus, the key questions to be raised and answered through the thesis are:

- What are the new demands, challenges and thus critical success factors in procurement business for the Austrian Automotive Industry?

- How do the identified critical success factors affect and influence the role of procurement within key players of the Austrian Automotive Industry?

The objective is to provide a clear recommendation for AAI partners on how to master procurement in a changing value chain creation and behind a holistic procurement approach built on identified critical success factors.

3. Empirical Framework

3.1 Research methodology

The objective of this section is first to provide the reader with a holistic understanding of a procurement study conducted by Fraunhofer Austria Research GmbH with the topic “Best Performer Einkauf 2011”. Second, to highlight key leanings generated through analysis for the thesis topic of “critical success factors in procurement of Austrian Automotive Industry” followed by an overall conclusion.

In a third section a possible adaptation of the conclusion towards the environment of the automotive industry players in Austria will be evaluated. This phase can be described as the customization part of the procurement study results to the specifics of the automotive industry.

3.2 Fraunhofer Austria Research GmbH - “Best Performer Einkauf 2011”

3.2.1 Background

One of the recent studies conducted by the Fraunhofer Austria Research Institute in collaboration with Forum Einkauf deals with the topic “Best Performer Einkauf 2011” and compiles the effectiveness, efficiency and best practice in procurement and logistic. The goal of the study is the analysis of the performance and the use of methods of Austrian companies in procurement and logistics. The study focuses on the economy of Austria with over one hundred participants from various enterprise levels and business disciplines, trade- manufacturer and services companies. To give a more detailed perspective the participants profile can be built on four different aspects:

1. Industrial sector:
   Two thirds of the participating companies are manufacturing companies vs. one third trade and service companies.
2. Participants position:
   More than two third of the interviewed experts belong to top management of procurement and logistic functions or belong to a company’s board.
3. Turnover:
   Almost two thirds of participated companies deliver a yearly turnover of more than EUR 50 million.
4. Company size:
   Over 50 percent of companies participating have more than 2000 employees.

The scope of the study conducted includes the following topics discussed in relation to procurement:

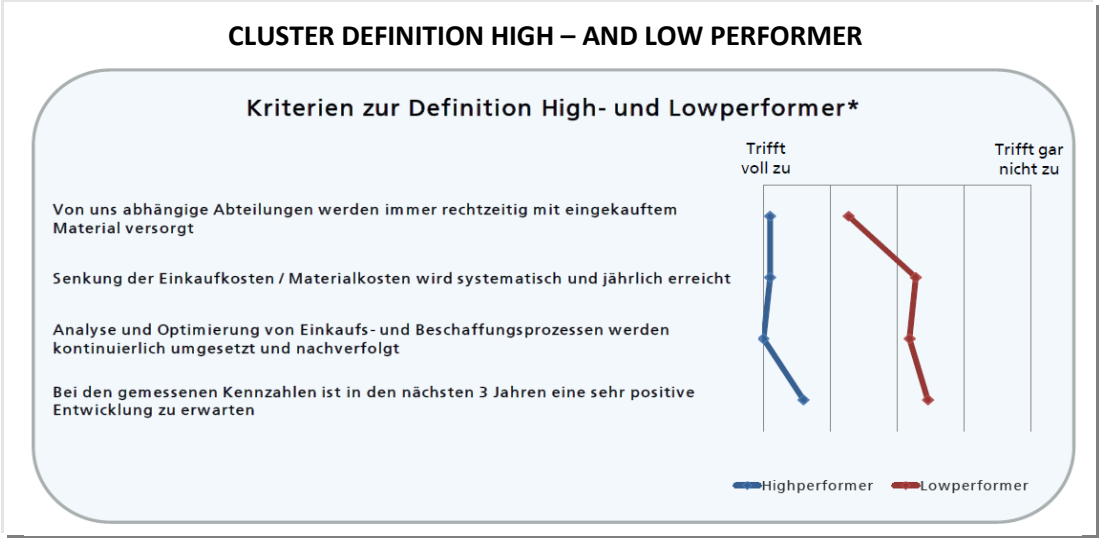
- Material cost variation
- Procurement structures
- Applied methods in procurement function
- Supplier relationship management
- Procurement controlling and operating figures
- EDI and system automation
- Trends and challenges

Overall the objective is to generate a fundamental understanding of how successful Austrian companies are in managing their procurement activities. To understand what drives the difference between being successful or not the study compares critical success factors through comparison of high- and low performers. The cluster of high- and low performer is based on self-appraisal of the interviewed experts and on the following question:

- Depending function are always delivered in time with purchased materials
- Reduction of material cost is systematic, yearly achieved
- Analysis and optimization of purchase and procurement process is actively implemented and monitored
- Assumed positive development on KPI´s tracked in the next three years

High performers do agree up to 100 % with these questions while low performers agree to a lower extend. On a ranking perspective of all participants the 10 best have been identified as high performer and the least 20 participants as low performer.

Figure 21: Cluster definition high – and low performer

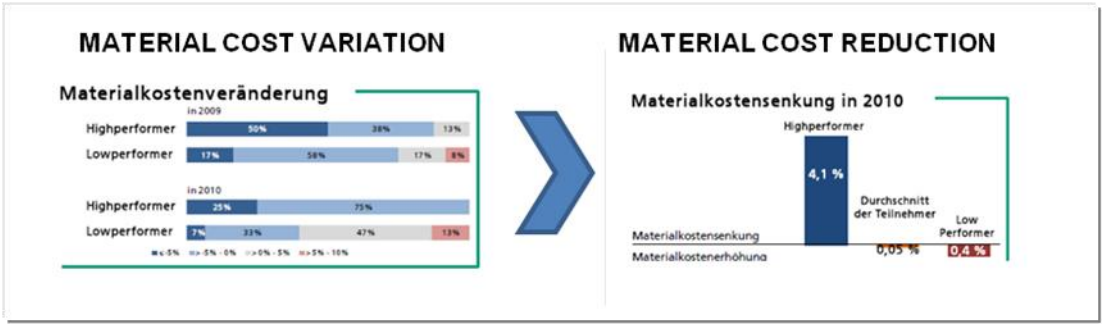


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

To provide at this stage a perspective of how the difference on performance can impact a company's business results the following table highlights the generated material cost savings through procurement in 2010 by high- and low performer. It becomes obvious that best practice in procurement enables strong impact on the

overall turnover, as for example a 4.5% material cost reduction translates approximately into a 30% growth in sales.

Figure 22: Material cost variation / material cost reduction



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

3.2.2 Key findings of CFS in procurement

The secondary data study is an essential research base for this thesis as it delivers key information on CSFs within the Austrian industry for the procurement sector. An identification and interpretation of the critical success factors will make it possible to set a strong foundation for conveying recommendations towards the requirements to the Austrian Automotive Industry.

The methodical approach to identify the key critical success factors for procurement business in Austrian industry, presented in this chapter, is based on the following approach:

1: Exploration of the entire questionnaire conducted by the Fraunhofer Institute- incorporating 41 questions in regards to procurement.

2. Cluster of key procurement topics discussed in the study towards areas as i: Material cost variation, ii: Procurement process structure, iii: Applied procurement methods, iv: Supplier relationship management, procurement controlling and operation figures, v: Automation and EDI integration as well as vi: Trends and challenges.

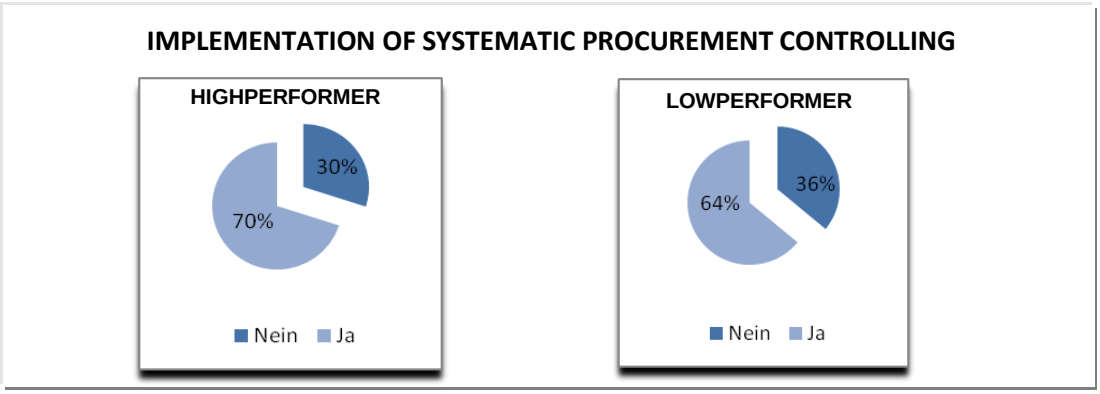
3: Analyze of each cluster in regards to procurement performance differences of identified high-and low performer in the conducted study. Identification of critical success factors based on a comparison of high- and low performer.

The final evaluated CSFs based on this approach will be presented in detail in the following paragraph.

1. Procurement controlling

This critical success factor incorporates a holistic, systematical measurement of performance within a company`s procurement function through different methods.
The study reveals that both high- and low performers generally implement procurement controlling to the same extend. The difference in frequency of monitored KPI is crucial.

Figure 23: Implementation of systematic procurement controlling



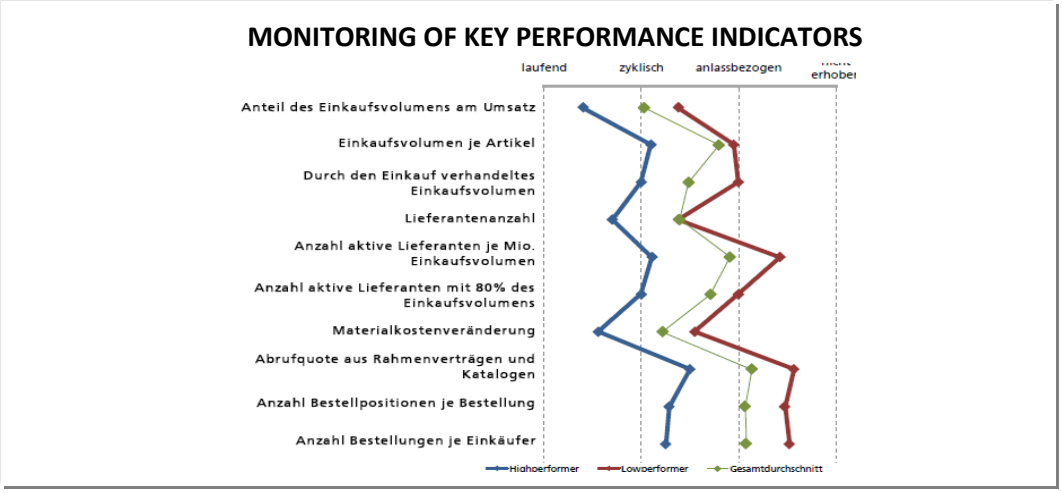
Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Looking at the top six continuously monitored KPI´s for high performer it becomes obvious that low performers do under proportionately track these KPIs especially the negotiated purchasing volumes through procurement and the amount of orders per purchaser.

Overall six KPIs tracked on a 100% level by high performers can be identified as:

- Ratio of purchased volume on turnover
- Negotiated volume through purchasing
- Supplier variety
- Amount of orders per purchaser
- Adherence to delivery date
- Goods receipt

Figure 24: Monitoring of key performance indicators



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

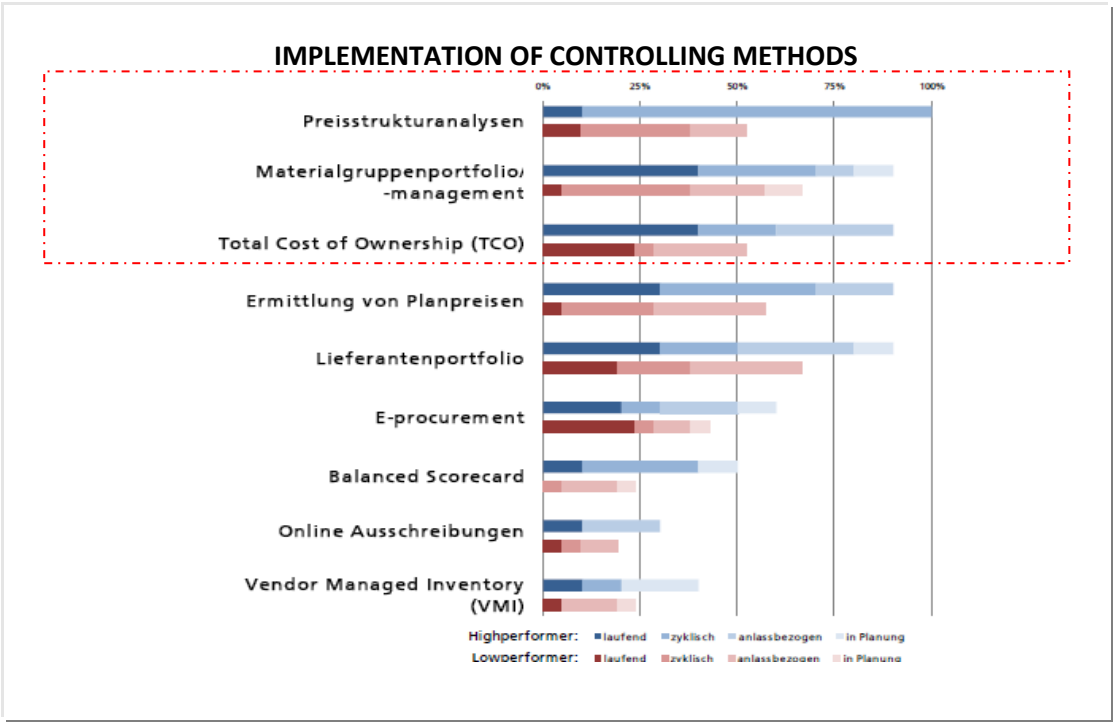
In addition to defined KPI´s the high- and low performer focus on different intensity levels on research methods.

1. High performers leverage more controlling methods in procurement function

2. High performers focus primarily on continuous realization of strategic controlling methods while the low performers still focus primarily on the operative instruments.

As an example highlighting the three top methods in terms of leveraged frequency in high performer companies i: price structure analysis, ii: material group management and iii: total cost of ownership with an implementation grade of up to 100%. In comparison the low performers use of these method only to a limited extend. Especially looking at periodical implementation of the price structure analysis the gap is remarkable with only 29% usage within low performers while high performers have an implementation rate of 90%.

Figure 25: Implementation of controlling methods

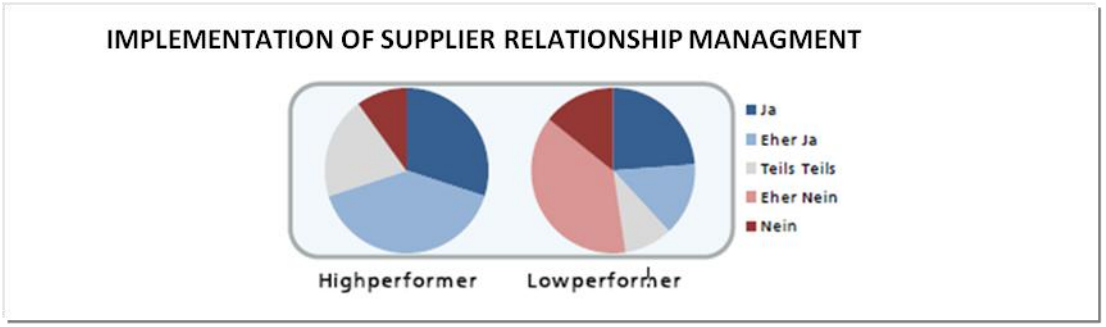


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

2. Supplier relationship management

The 2nd identified CSF serves to achieve a collaborative cost improvement behind systematical cooperation with suppliers and an increased supplier performance in terms of in time delivery. Supplier relationship management, in contrast to procurement controlling, is not implemented at the same level by high- and low performers. While high performers operate to 70 % with supplier relationship management only 38% of the low performers leverage SRM.

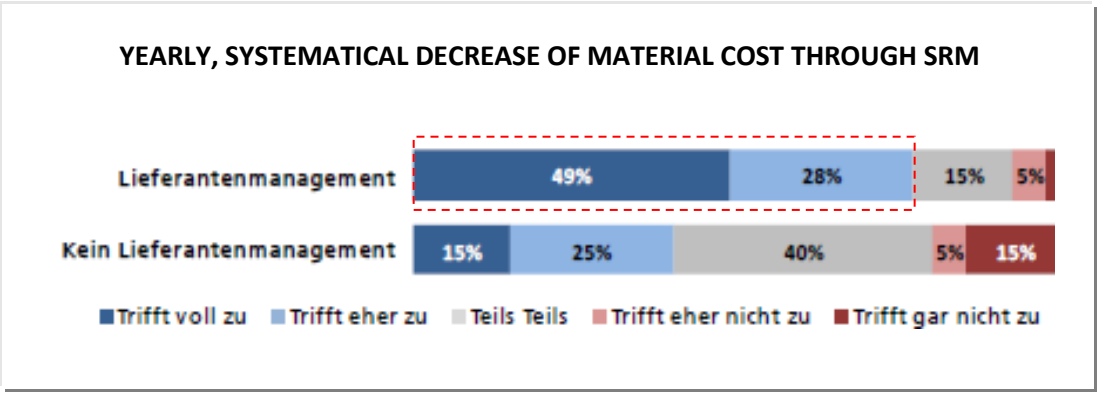
Figure 26: Implementation of supplier relationship management



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

It can be observed, that companies that implement an SRM system reach a systematical yearly decrease of material cost to an agreement level of 77% while companies with no focus on supplier relationship management do only met these target at a 40% agreement level.

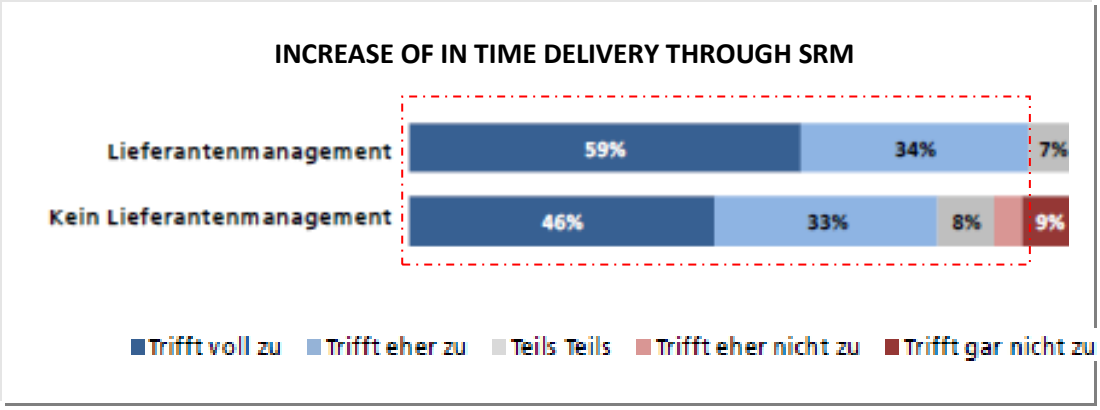
Figure 27: Yearly, Systematical decrease of material costs through SRM



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Next to the big impact on cost efficiency the on-time delivery could be increased as well but the gap towards companies not implementing SRM is lower vs. cost saving opportunities.

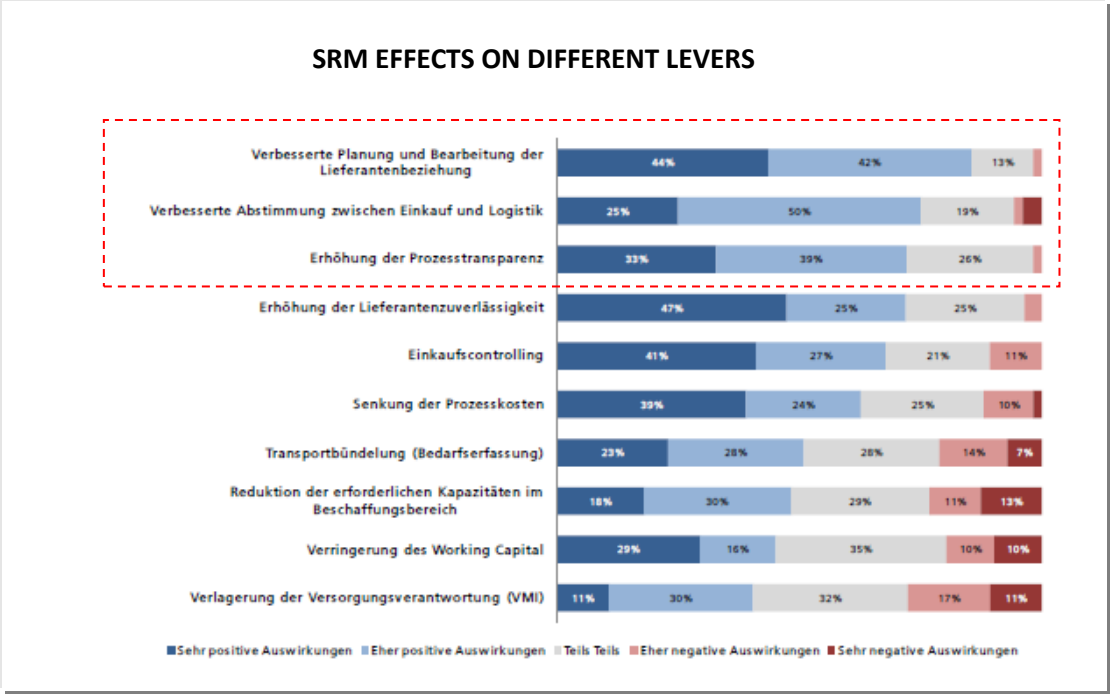
Figure 28: Increase of in time delivery through SRM



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

If you look further at the top two mentioned factors on which the implementation had a positive impact over the past three years 86% of participating companies agree that the planning and handling of supplier relationship increased, 75% agreed to a better relationship between purchasing and logistic departments, and 72% mentioned a higher process transparency.

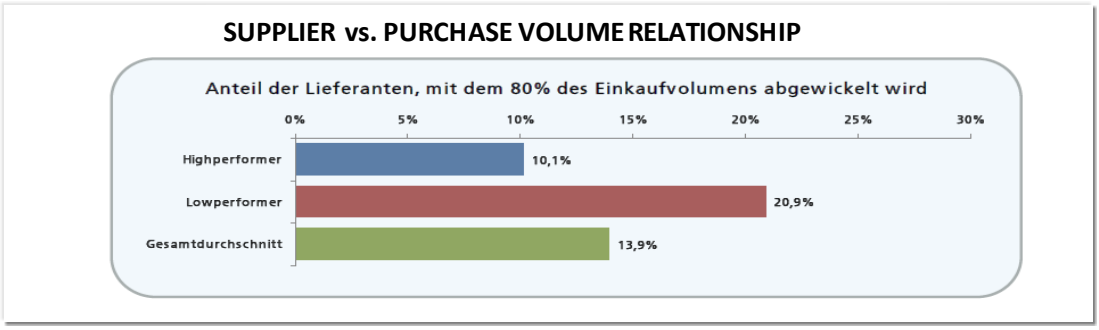
Figure 29: SRM effects on different Levers



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Taking into account another aspect of the supplier relationship management - the supplier assessment - additional interesting learning's can be generated. Supplier assessment is identified as one of the five sub-segments of the total SRM process with the aim to classify suppliers for example through ABC Analysis. The ABC Analysis, as stated by the participating companies, is one of the methods that is implemented to more than 70% in companies either on an ongoing, cycling or cause related demand. Further, high performers manage to achieve 80% of the purchased volumes through 10% of the suppliers. High performer concentrate on a few A-suppliers which enable them to be more focused in their relationship with suppliers.

Figure 30: Supplier vs. purchase volume relationship



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

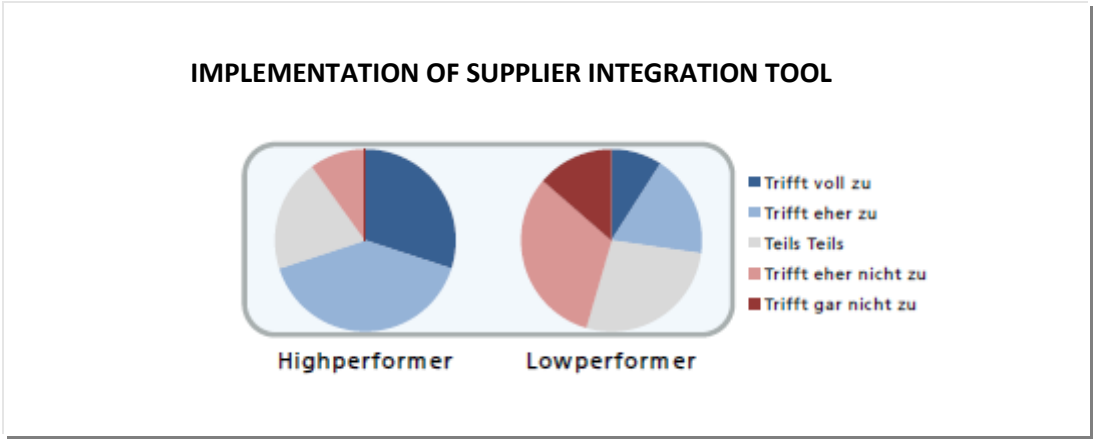
To sum up, supplier relationship management is not as widely implemented in companies as the identified procurement controlling success factor. It seems that especially low performers do not focus and did not discover supplier relationship management opportunities as a key influence to achieving a competitive advantage. Furthermore, it seems that a different understanding of SRM and scope exists within the participating companies. Interestingly, high performers prove that with focusing on SRM, i.e. on coordinated interactions with suppliers, improved results in the main area of delivery performance and cost reduction can be achieved. Additionally, further indications highlighted in the previous section show a positive impact on many procurement levers.

3. Supplier integration

Generally the supplier integration is defined as a sub-part of the total SRM process but on its own it is so important that it should be mentioned as a separate success factor.

Primarily, a huge difference in the implementation ratio of this critical success factor between high- and low performer must be mentioned. While approximately 2/3 of high performers leverage supplier integration tools only a small minority of low performers already implement the process.

Figure 31: Implementation of supplier integration tool



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

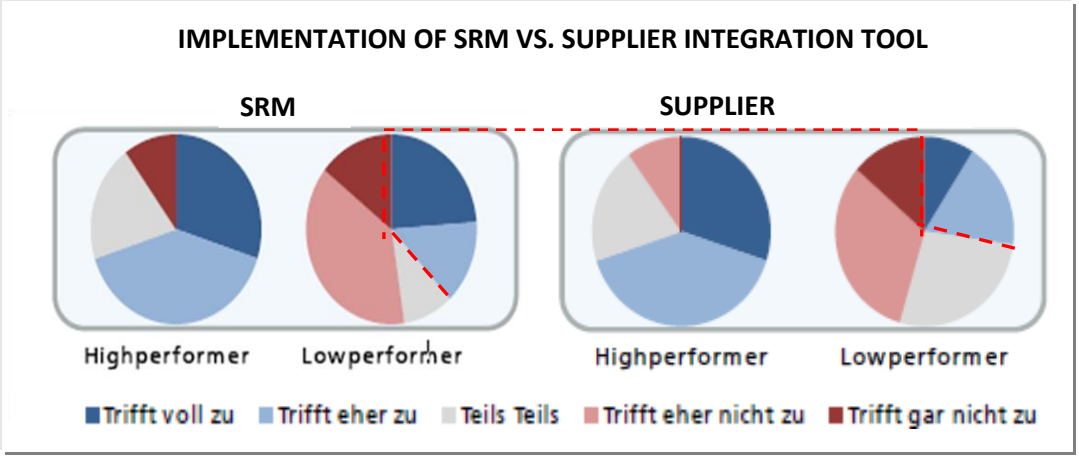
This is remarkable as the supplier integration enables further transparency between supplier and industry partner providing a strong opportunity for the companies to

leverage supplier know how in different stages of a product life cycle and to achieve an even higher competitive advantage.

Overall, the study proves that there is still a great opportunity for all companies to increase the focus on supplier integration tools, meaning to develop an active investment of suppliers in the innovation- and product development process, leading to the fact that suppliers become a valuable partner from the idea generation until the launch of the product in the market.
The study further highlights that especially in regards to supplier relationship management various definitions, understandings and forms of implementations exist in the companies.

This becomes obvious in the example of low performers and their answers in regards to the implementation of supplier relationship management and supplier integration. While 59% claim to implement and use SRM only 44% claim to apply supplier integration. This is an interesting fact given that supplier integration is seen - in the literature as one of the five sub-steps of a holistic supplier relationship management. In comparison, to all participating high performers claim to leverage SRM and supplier to 70%, both to the same extend.

Figure 32: Implementation of SRM vs. supplier integration tool



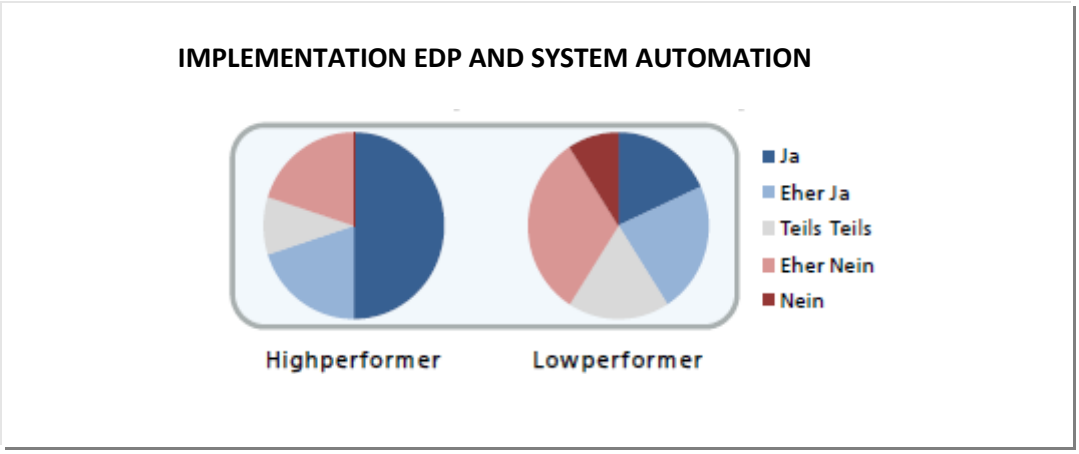
Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

4. Procurement through supplier framework contracts

As another complex but helpful lever to achieve cost optimization within the total procurement process, the role of supplier framework contracts as outlined in the study.

High- and low performers of participating enterprises both leverage this tool in their procurement, but on a different level in regards to the volumes purchased. While more than half of the high performers manage 60-80% of their total purchased volume through framework contracts, nearly the same numbers of low performers purchase less than 20% of their total volume covered by supplier framework contracts.

Figure 33: Implementation EDP and system automation



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

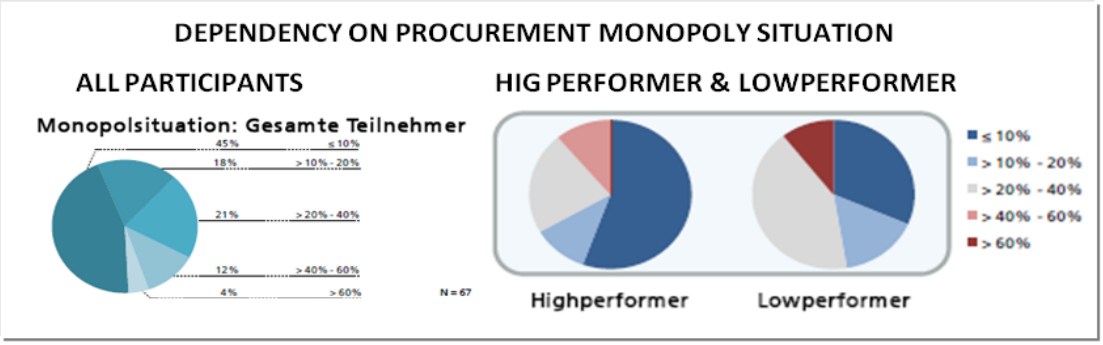
This proves again the advanced and strategic thinking of high performers, which enables pricing advantages through manifested long term relationships with exclusive suppliers.

5. Avoidance of monopoly situation in procurement

A continuous risk management to secure product-, supply-, raw materials and price risks is a crucial foundation for succeeding in the procurement business. Ongoing evaluation of alternatives, to decrease the dependency on monopoly situations and the role of above mentioned implementation of framework contracts becomes an important factor.

Based on the study results almost 40% of all interviewed experts claim that they are depending with more than 20% of their purchased volume on monopoly situations.
On the contrary, more than 50% of high performers manage to depend with less than 10% of their purchased volume on monopoly situations.

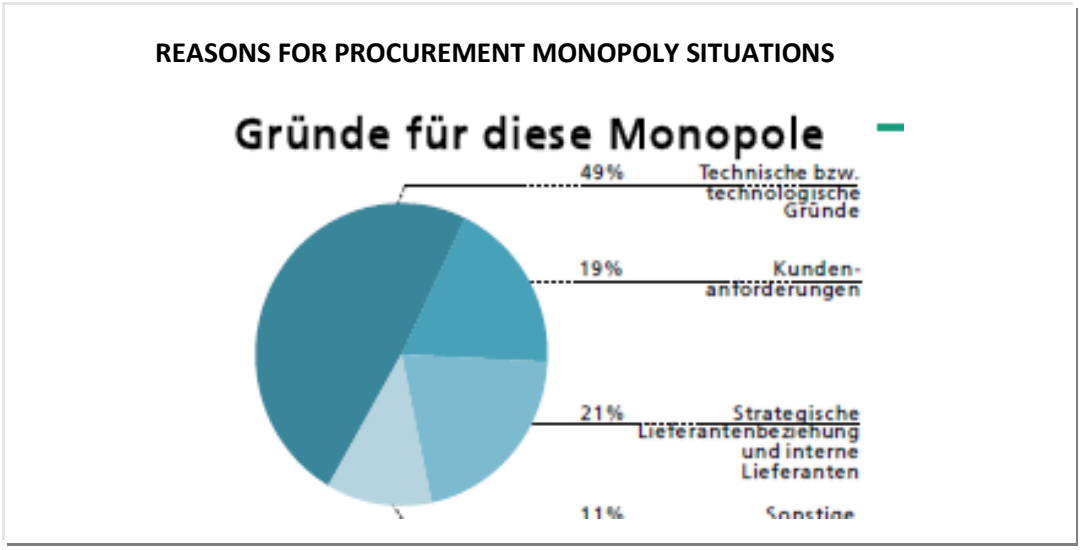
Figure 34: Dependency on procurement monopoly situation



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

It is worth mentioning at this point that high performers with a low dependency on monopoly suppliers have already implemented other techniques management tools like supplier relationship management and supplier integration. Majority technological and technical reasons are claimed as main reasons for a monopoly situation.

Figure 35: Reasons for procurement monopoly situations

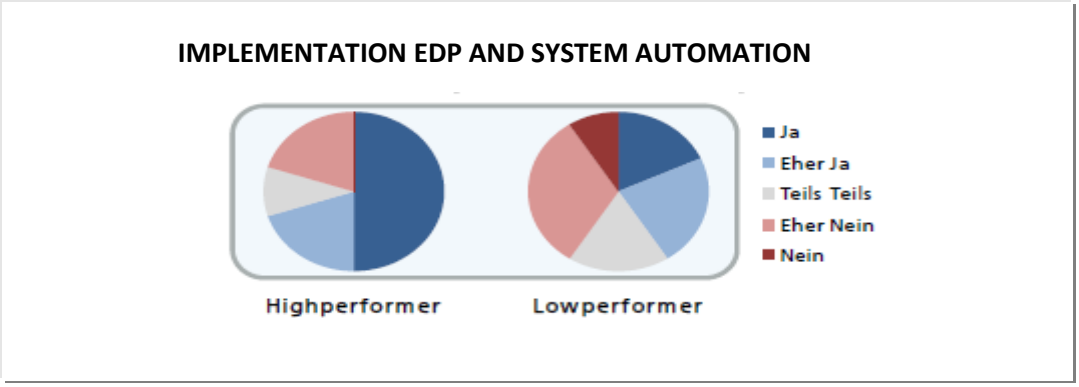


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

6. EDP Integration and system automation

The role of EDP and automation does not stop in the procurement business and therefore it is not a surprise that in high performer companies these levers are widely implemented in relation to low performers.

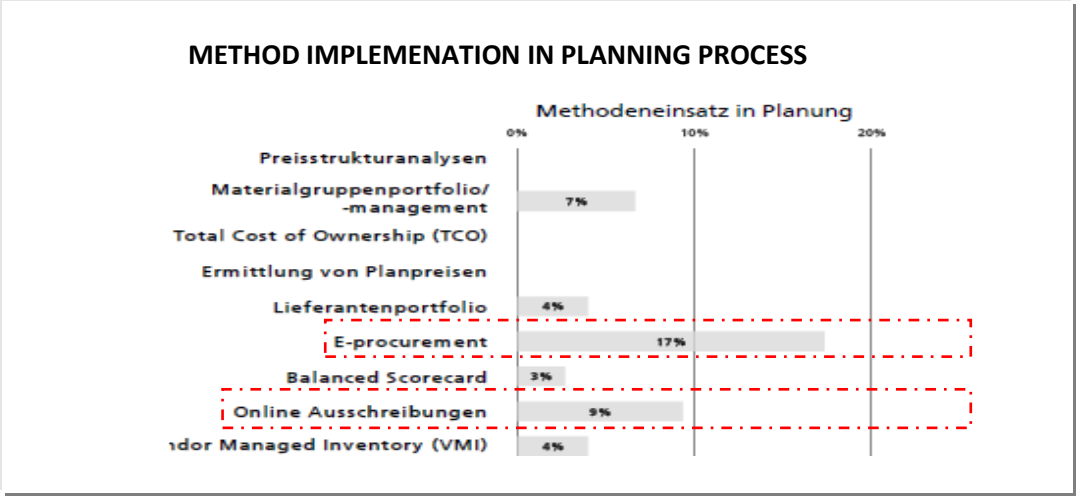
Figure 36: Implementation EDP and system Automation



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

EDP integration and system automation leads to cost reduction in procurement. Key underlying costs saving drivers are: i: time savings, ii: easier and faster communication, iii: stronger price transparency, iv: possibility of global sourcing and a broad offer base which is quite new to the companies. Looking at the method of implementation planned in interviewed companies with E-procurement and online tenders seem to have strong potential in the future.

Figure 37: Method implementation in planning process



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

3.2.3 Conclusion of CFS in procurement

To master procurement, it can be concluded that high performers proved a good mix of several critical success factors, which they monitored and handled systematically. Fundamentally, high performers are characterized by multidimensional implementation, of CSF´s network, vs. low performers.

Figure 38: Overview implementation CSF high vs. low performer

OVERVIEW IMPLEMENTATION CSF HIGH VS. LOW PERFORMER

CSF	HIGH PERFORMER	LOW PERFORMER
PROCUREMENT CONTROLLING	70%	64%
SRM	70%	38%
SUPPLIER INTEGRATION	30 %	< 10 %
PREVENTION OF MONOPOLY (DEPENDENCY > 60 %)	0 %	10 %
FRAMEWORK CONTRACTS (BETWEEN 60 %-80 %)	60 %	25 %
EDV INTEGRATION	40 %	35 %

Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

While procurement controlling in general is a learned concept, the role of SRM (including Supplier integration and the handling of framework contracts) is more in the development phase and still offers a huge potential to master procurement in the future.

Looking at each individual CSF, it becomes obvious that high- and low Performer define the role and their tools differently and also implement them differently. From only a partial to a holistic 360° process implementation in order to master procurement it is crucial, as proved on the high performers, to build on different CSFs, to understand the levers behind in detail and to take advantage out of the interaction between different CSF. Successful procurement within high performers is not a coincident, but is based on strategic treatment of the function, on clearly defined CSF, on suitable methods to monitor and initiate interactions on a proactive level. It can be further distinguished through the fact that high performers are early adopters of environmental movements translating new challenges into the process of procurement, as for example the adaptation of supplier integration tools.

Procurement controlling is already an established critical success factor within the procurement functions of the industry and cannot be defined as a new concept. But the implementation, monitoring and understanding of a holistic procurement is

treated and defined differently. While high performers monitor their defined KPIs on an ongoing basis, low performers implement mostly cause related tracking, which prevents them from acting proactively based on forward looking anticipations, and thereby keeps them in a reactive position. This indicates that high performers already adapted to the strategic, modern concepts of controlling.

Therefore, a systematic controlling basis is essential to monitor business performance. The procurement controlling needs to be built on different key performance indicators related to the CSFs identified. High performers clearly proved in comparison to low performers that the difference is not necessarily within the chosen methods of controlling, but within the continuity of monitoring and measuring.

In conclusion, it becomes obvious that to master procurement the implementation of a continuous, systematical procurement controlling system must become a priority. Further, the role of methods and KPIs is not a static one-time development and implementation but should be reviewed on a regular basis if the established methods and KPIs are still the most relevant for the CSF.

3.3 Comparison of CFS in procurement with the AAI

The first section of the empirical research analysis evaluated and pointed out the critical success factors in today´s Austrian procurement business and provided a foundation for the second part of the empirical analysis of the thesis, the customization of these critical success factors towards the Austrian Automotive Industry.

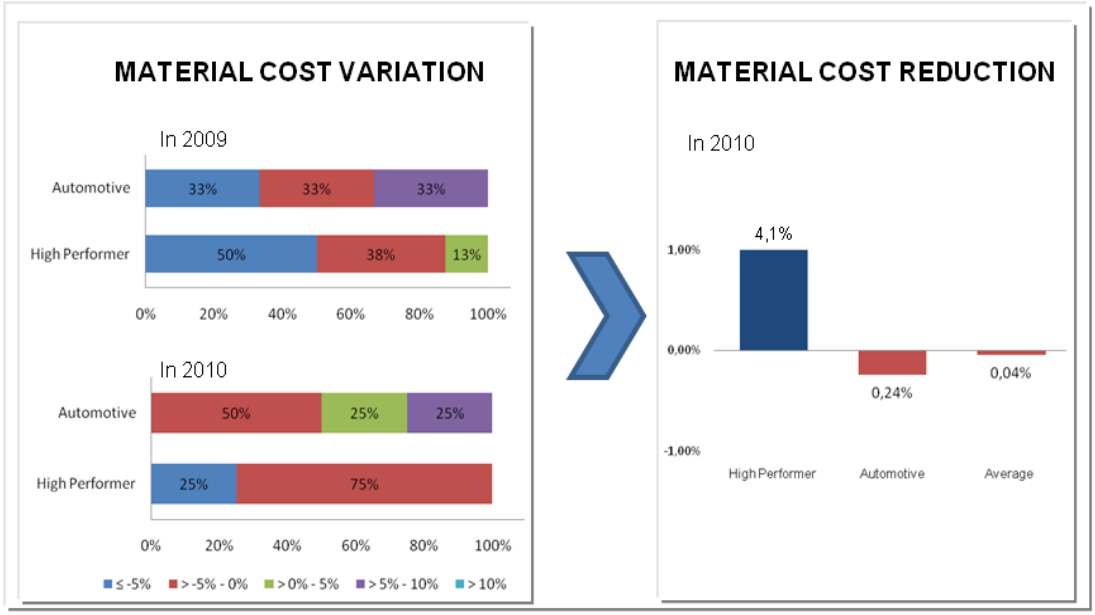
With the objective of gaining a crucial understanding of what critical success factors for procurement in the AAI are, the methodical approach chosen in this section is to leverage identified high performers in the Fraunhofer study “Best performer Einkauf 2011” as benchmark and to compare results to automotive clustered companies within the study. Thus, this section of the thesis comprises a specific “break out” of the automotive companies conducted within the study to enable a holistic comparison with the “Best Practice” of high performers.
The approach is based on the fact that no automotive cluster participant has been identified as high performer within the total study and therefore a “dilution” of the

results can be eliminated. Still, 50% of the automotive cluster participants within the study reached to some extent scores that would identify them as high performers.

A limitation in the approach has to be mentioned at this stage driven by the rather small number of cases within the “break out” and the outcome should be seen as providing indications for critical success factors within Austrian automotive procurement. A further validation incorporating other secondary data seems to be necessary for validation at later stage in the thesis.

At a first glance, comparing the historical established critical success factors of procurement, the reached material cost reduction, between high performers and the automotive cluster a tremendous difference can be observed, highlighted in the chart below. While high performers manage to decrease their material cost on a yearly basis, a cost increase is observed on the side of the automotive cluster. Reapplying the calculation made in the first section the gap of 4.34% translates to a potential turnover increase of 29% that could be achieved.

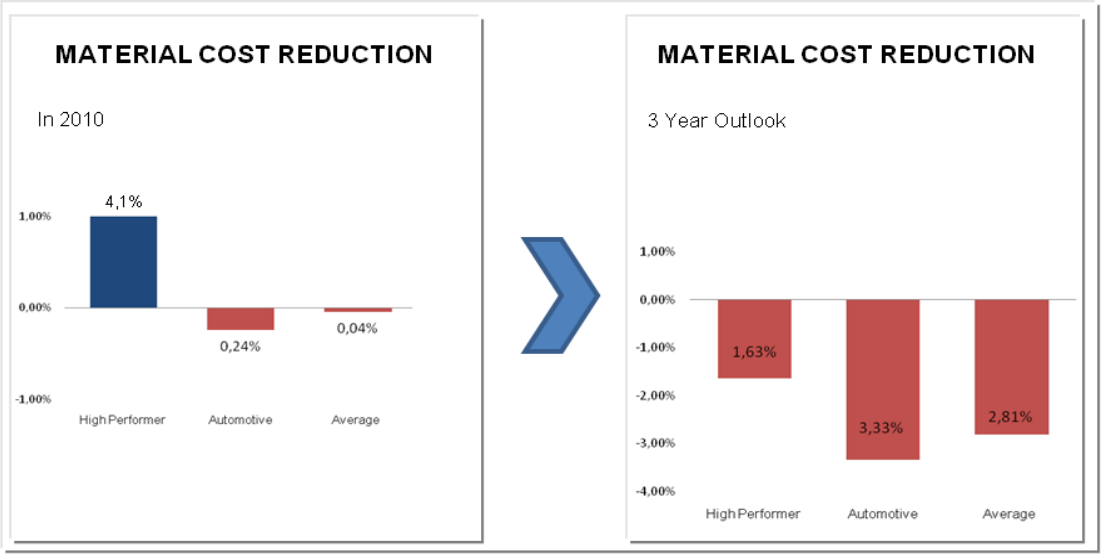
Figure 39: Material cost variation 2009, 2010 / material cost reduction in 2010



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Furthermore, the automotive cluster does not anticipate a material cost reduction in the next three years.

Figure 40: Material cost variation 2010 / material cost reduction 3 year outlook

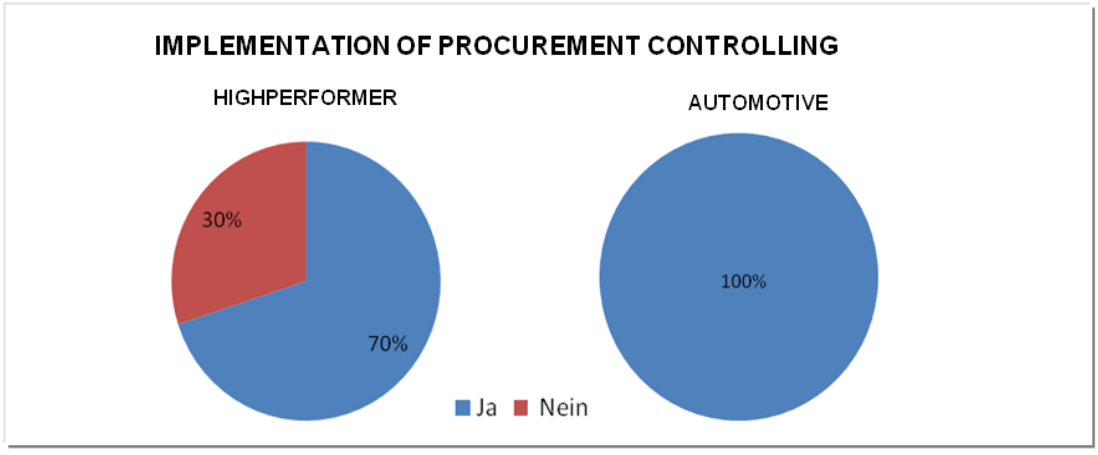


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Taken this fact into consideration the following part compares the automotive cluster performance vs. high performers on the identified CSFs out of the first empirical analysis in section 3.2.2 in depth.

Beginning with procurement controlling automotive cluster participants seem to be advanced on the general implementation grade of procurement controlling vs. high performers as highlighted in the figure below.

Figure 41: Implementation of procurement controlling

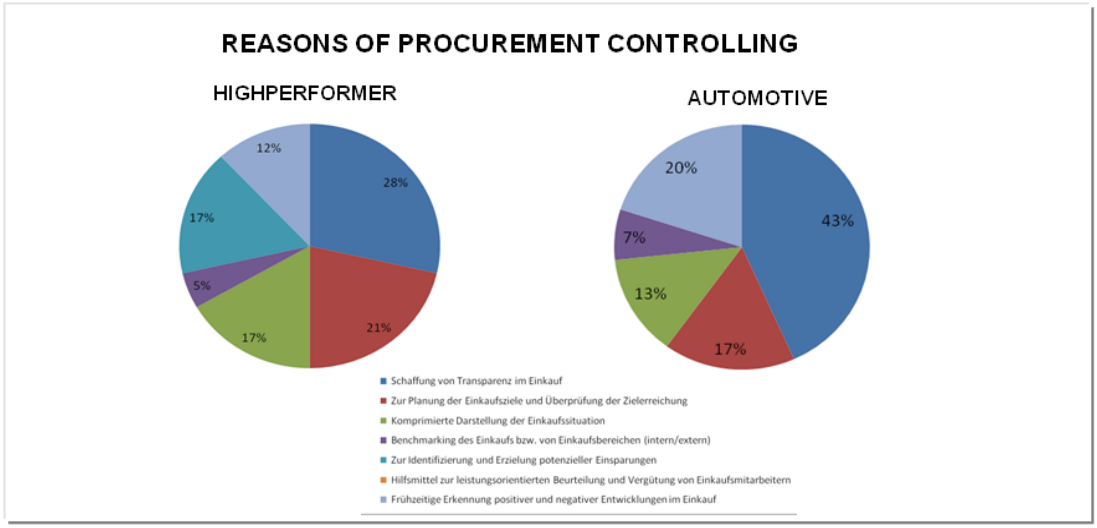


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Taking into consideration the key intentions for leveraging procurement controlling both the automotive cluster and high performers defined the same priorities, but at a different intensity level. The first priority is the establishment of transparency of the

procurement function, followed by an early indication system for positive and negative trends and the planning of procurement objectives as well as their level of achievement. While high performers seem to have a more balanced focus, the automotive cluster strongly focuses on the first priority.

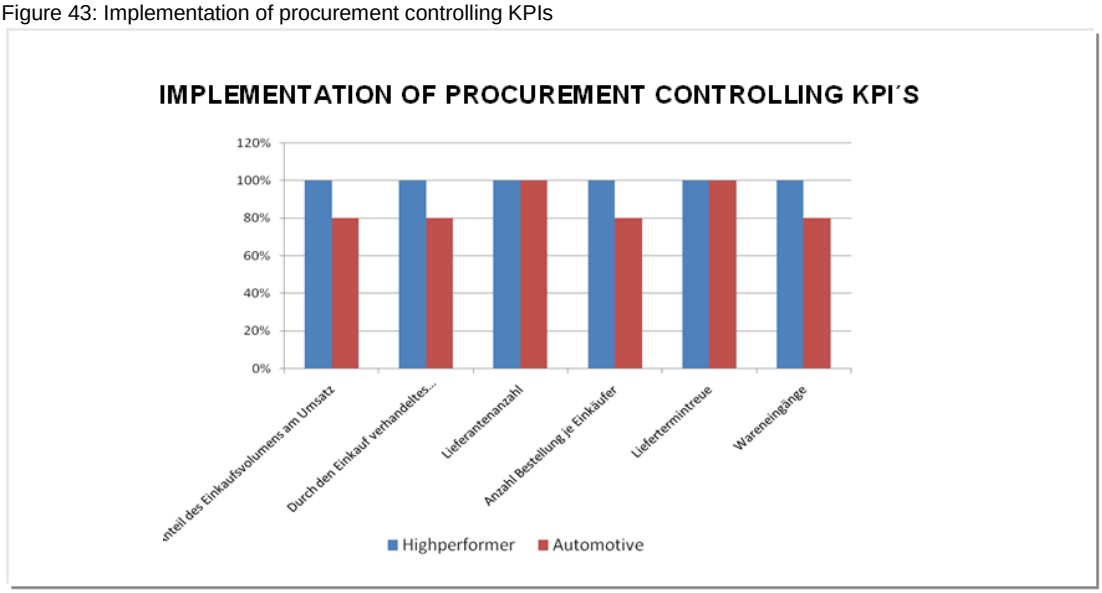
Figure 42: Reasons of procurement controlling



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Looking at the key controlling KPIs high performers leverage on a 100% basis; the automotive cluster focuses overall on the same key KPIs, but some to a minor extent, as for example the percentage of purchase volume on turnover.

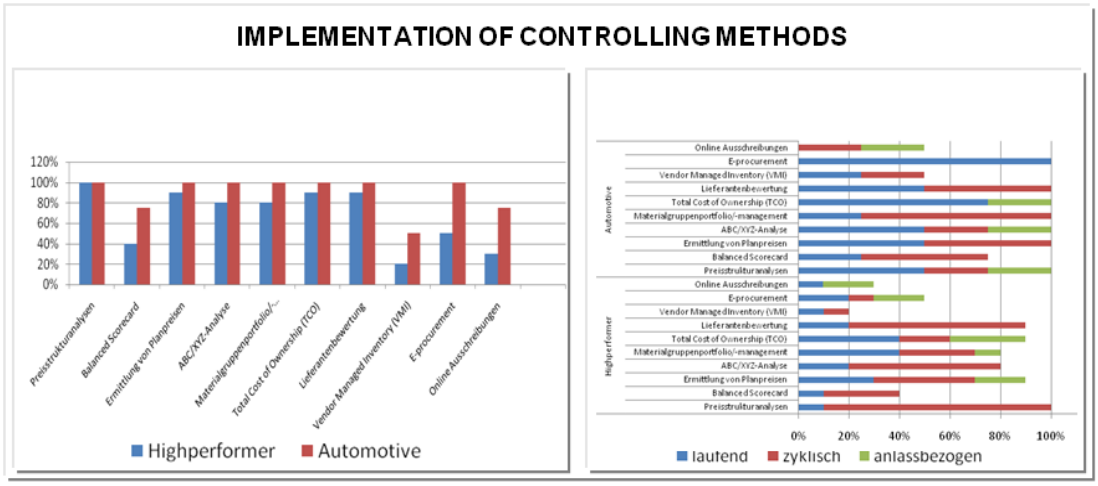
Figure 43: Implementation of procurement controlling KPIs



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

The methods leveraged and the frequency of implementation within the automotive cluster is again advanced given the answers among the high performers. Still, it can be concluded that in average only 45% of the methods are implemented on an ongoing basis.

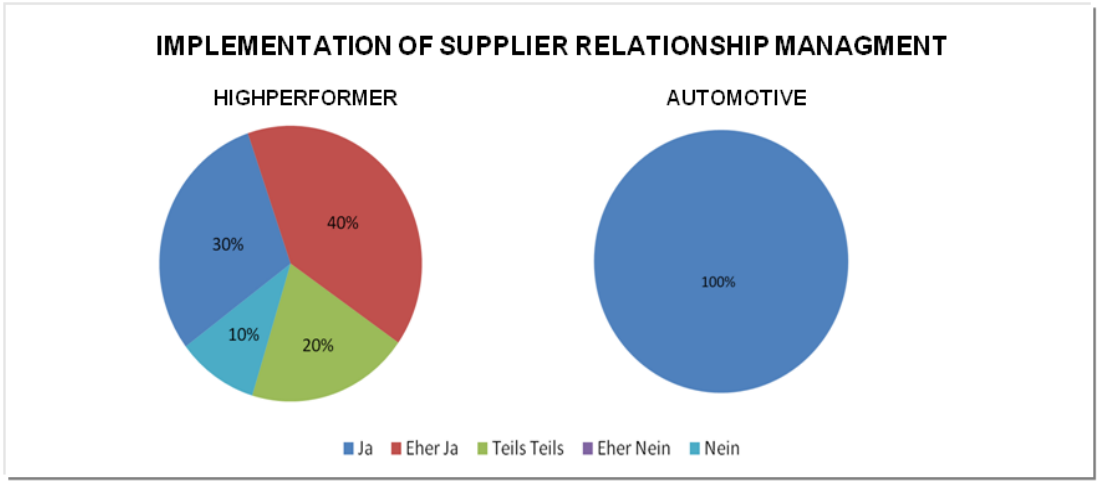
Figure 44: Implementation of controlling methods



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Moving further to the CSF of supplier relationship management, in parallel to the implementation of a holistic procurement controlling all automotive study participants agree to a 100% level to an implementation of supplier relationship management. This stands in strong difference to the high performers´ implementation rate with only 30%.

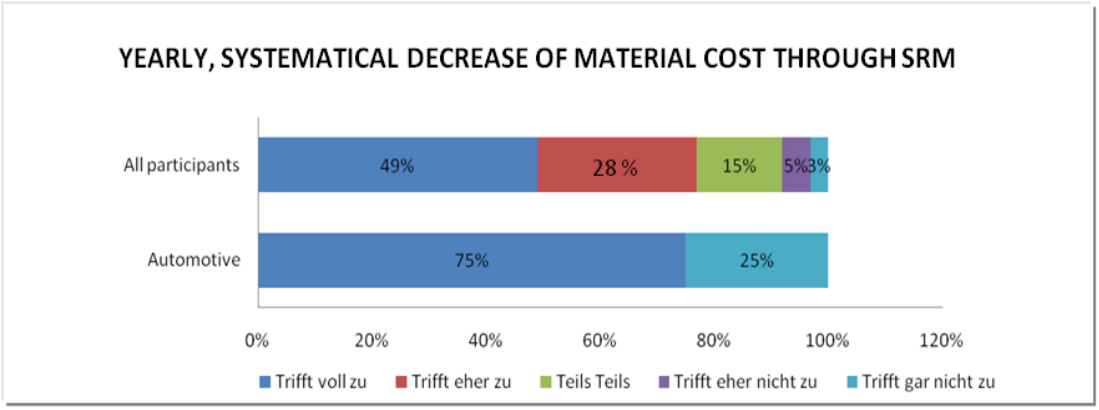
Figure 45: Implementation of supplier relationship management



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Referring to the impact of SRM on material cost reduction all participants of the study who claim to implement SRM see a positive effect on the yearly achieved material cost reduction to an extend of 49%. Even to a higher level of 75% automotive participants agree to this statement! This statement needs to be observed closer comparing further critical success factors as this self assessment within the study stands in contrast to the overall material cost reduction highlighted in figure 39.

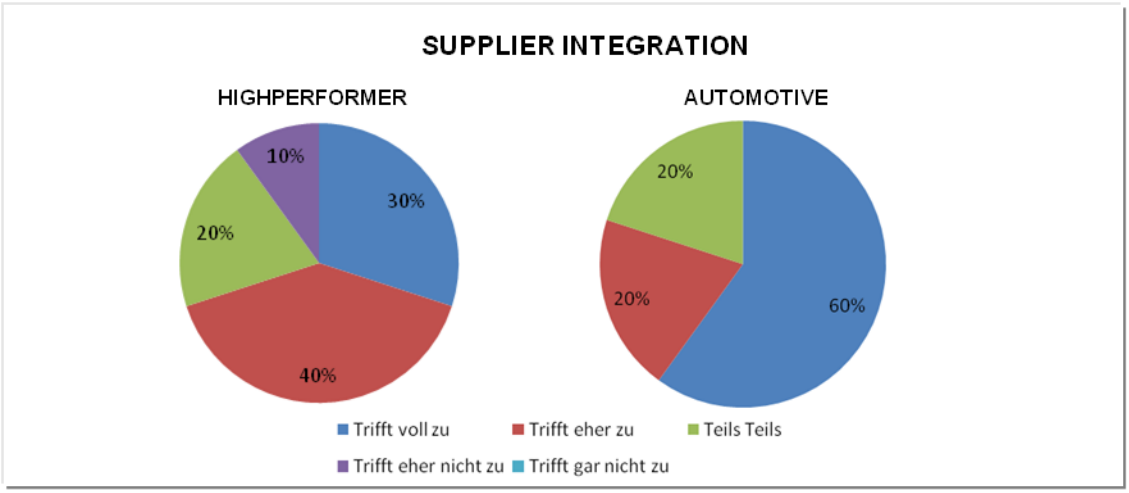
Figure 46: Yearly systematical decrease of material cost through SRM



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Furthermore, looking at one of the sub elements of SRM – the supplier integration- interestingly the study reveals that high performers implement supplier integration to the same extend as total supplier relationship management. Automotive cluster companies on the other side see a supplier integration only to 60% implemented while SRM in total is leveraged to a 100% level.

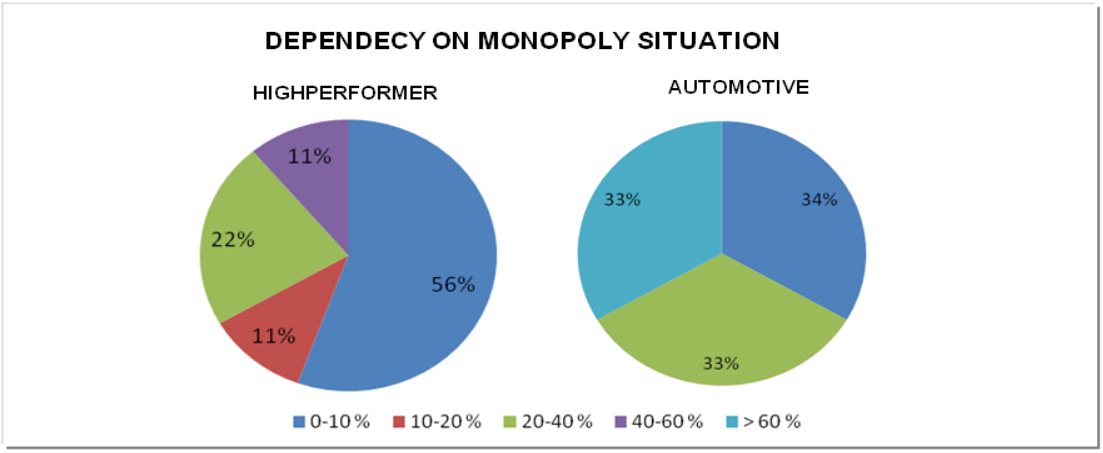
Figure 47: Supplier integration



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Building on this mismatch, a closer look at the critical success factor of “monopoly avoidance” reveals a strong dependency on monopoly situations in comparison to high performers. 33% of automotive participants claim to be dependent with more than 60% of their purchased items on a monopoly situation driven by the fact of “Island Position” of suppliers and raw material obedience.

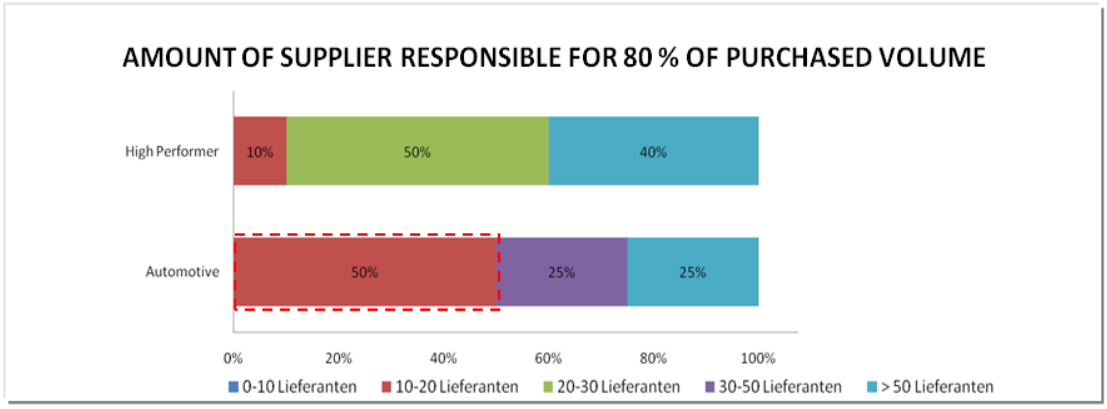
Figure 48: Dependency on monopoly situation



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

This fact also becomes obvious when looking at the amount of suppliers with whom the automotive cluster makes 80% of its total purchased volume. The automotive

Figure 49: Amount of supplier responsible for 80% of purchased volume



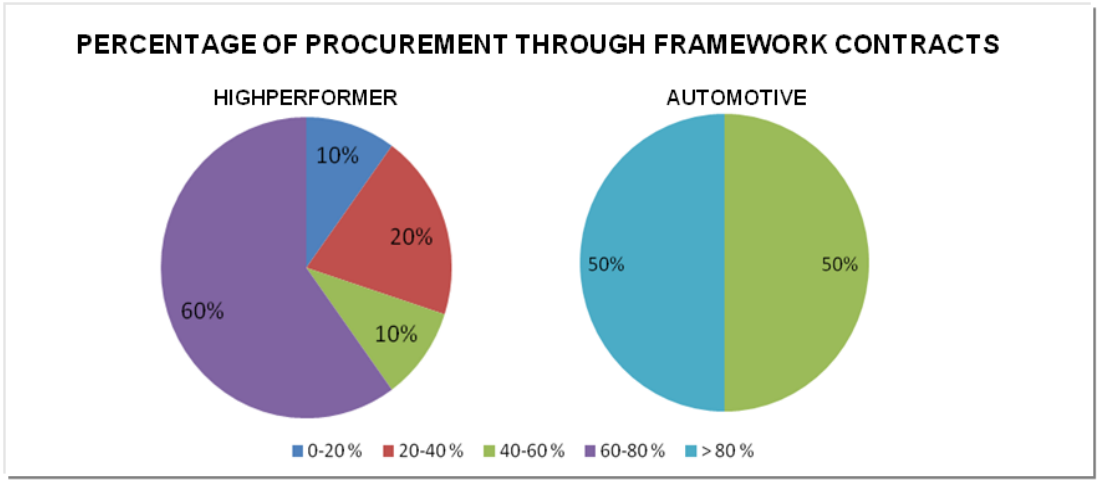
Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

cluster is with 50% vs. 10% with high performers over proportionately depending on few suppliers to purchase 80% of total volume.

Finally, the role of the critical success factor “framework contracts” provides a holistic picture of the situation of automotive cluster companies with their suppliers. While automotive procurement is strongly depending on framework contracts with

their specific suppliers with 50% handling more that 80% of their suppliers through framework contracts, high performer in comparison handle around 40-60% of their suppliers through framework contracts.

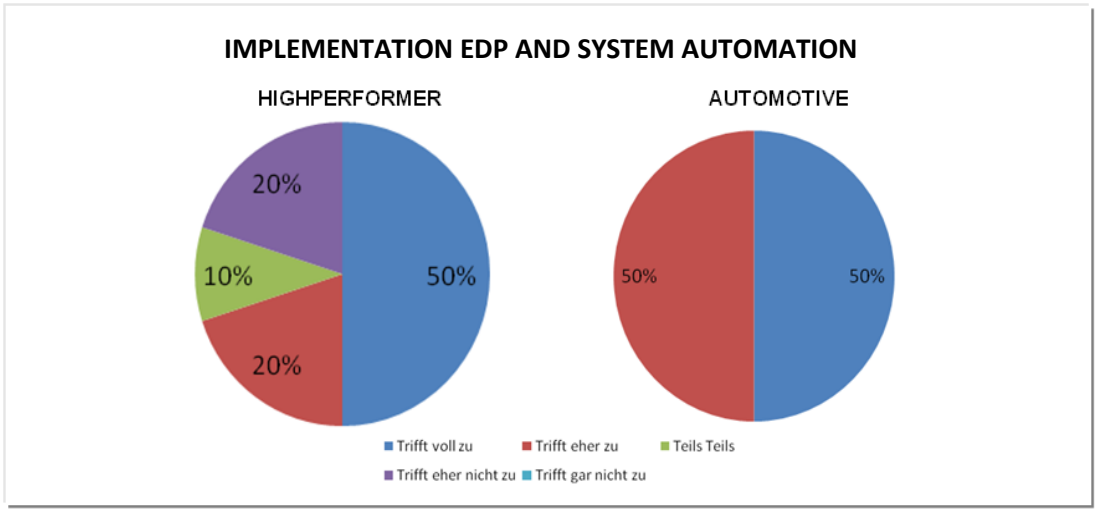
Figure 50: Percentage of procurement through framework contracts



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

On the final identified CSF, the EDP and automation system, it can be observed when comparing high performers vs. the automotive cluster that both agree to the same level to the implementation of EDP and system automation.

Figure 51: Implementation EVP and system automation

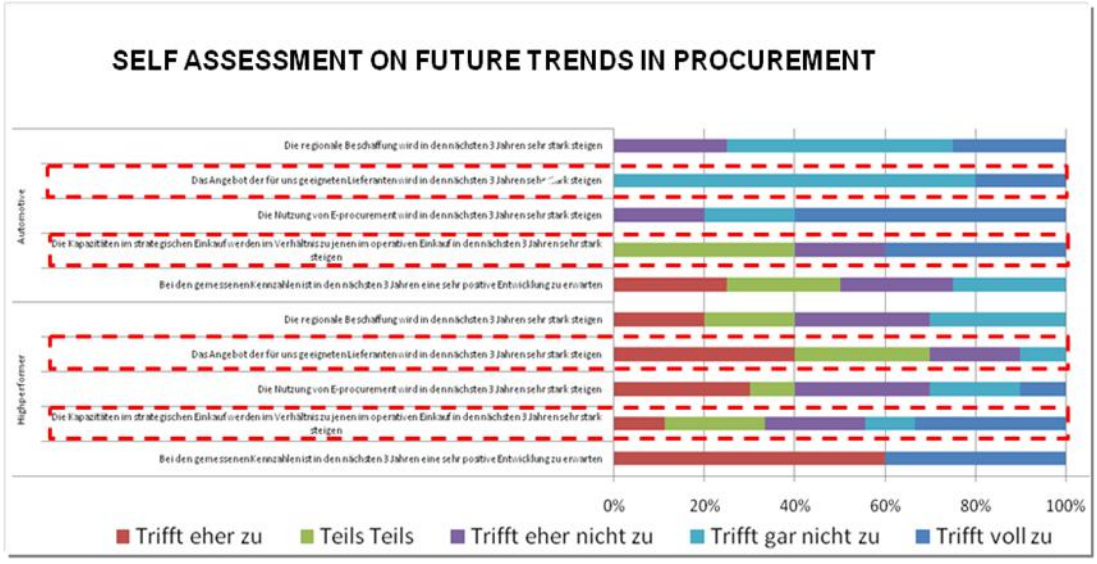


Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

Future Trends

Besides the status quo comparison an outlook on the anticipated trends within procurement is crucial in order to build a conclusion on the critical success factors in AAI procurement and to convey clear recommendations. Participants of the study have been asked about their perception of development on specific topics on a three year outlook highlighted in the figure below by automotive cluster and high performer:

Figure 52: Self Assessment on future trends in procurement



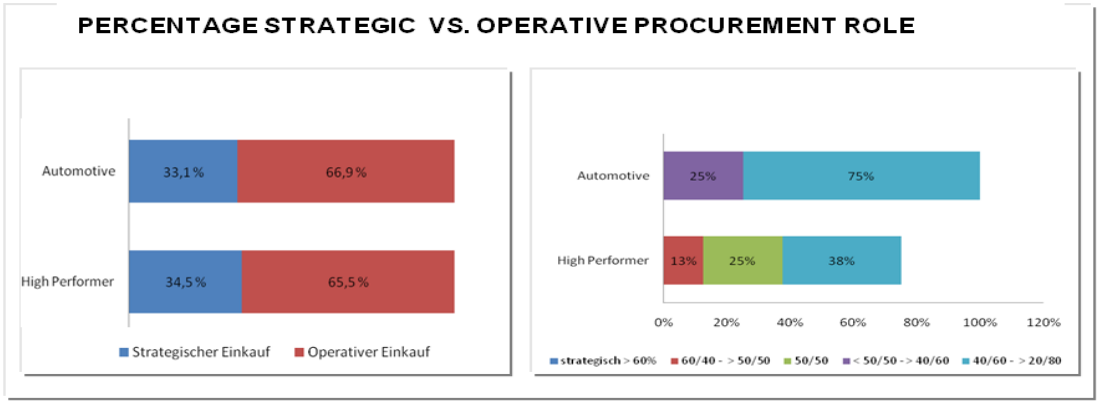
Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

1: The Role of Strategic Procurement

A clear consensus exists on the anticipated future role of strategic procurement in the next three years. The majority 80% of Austrian automotive cluster companies admit to expect an at least partial capacity shift from operative procurement tasks to strategic. High performer expect same tendency to an agreement of 67%.

Overall, a further emphasis on the strategic leveraged part in the procurement business can be assumed in regards to the > 30% of today's status quo.

Figure 53: Percentage strategic vs. operative procurement role



Source: Best Performer Einkauf, Fraunhofer Austria Research GmbH, 2011

2: The Role of Regional Sourcing and Supplier Availability

In discrepancy to the future role of strategic procurement the automotive cluster is reluctant to assume an increase in local sourcing as well as on the question if the range of suitable suppliers for sourcing and cooperation will increase strongly. 80% of the automotive respondents do not expect an expansion of suitable suppliers in the market at all, compared to only 10% of the high performers.

Even more disagreement can be observed in regards to the importance of regional sourcing within the automotive cluster. The question extremely polarized when looking at the answers: While 25% of automotive respondents agree totally to this statement, 50% totally disagrees. A clear direction on the regional sourcing is not applicable based on the results.

3: The role of E- procurement

A similar picture as for the topic of supplier availability occurs for the expected role of E-procurement. While E-procurement is an important topic for automotive participants with 60% full agreement, high performers only agree to 10 %.

4. Conclusion and Outlook

The final chapter of this master thesis aims to provide the reader with a holistic conclusion generated through the secondary data analysis of the study “Best Performer Einkauf 2011” conducted by Fraunhofer Institute Austria in regards to critical success factors for procurement in the Austrian Automotive Industry. Further, the objective is to give a clear recommendation towards the AAI how to master procurement in the future.

4.1 Conclusion

Fundamentally, the study revealed that automotive companies did not manage to achieve material cost reduction in procurement on a yearly basis in the past and do not anticipate a change of the situation in the upcoming three years, although material cost reduction has been identified as the top characteristic for measuring procurement function within a company. In relation to automotive companies high performers on the other side achieved a continuous yearly material cost reduction of 4.74% over the last two years as evaluated by the Fraunhofer study “Best Performer Einkauf 2011”.

The following sector of the conclusion accentuates the key drivers and restraining factors, based on the critical success factor comparison between “Best Practices” from high performers vs. automotive cluster companies.

First, it can be concluded that participating automotive cluster companies in the study “Best Performer Einkauf 2011” understand the important role of procurement controlling as a CSF and established a holistic foundation for a procurement controlling system. Key methods, and best practices companies use, are leveraged to monitor and review specific KPIs even on a higher extent than identified for high performers. On the other side, key KPIs monitored by 100% high performers are implemented by automotive cluster companies to a minor level.

Overall, the reasons for implementation of procurement controlling are in line with the high performers. Nevertheless, one essential factor, the “Identification and reach of potential cost savings” is not in the scope of automotive cluster companies, highlighting the only big discrepancy in regards to high performers.

Second, summarizing all learning's generated through the analysis in regards to the construct of a holistic strategic supplier relationships management including all integral sub parts as from design of supplier relationship until supplier auditing (ct. Figure 38) the automotive cluster companies show deficits to a certain extend in comparison with high performers. Although, automotive clustered companies claim to implement SRM with a 100% agreement, supplier integration is only implemented to the level of 60%. Further, automotive clustered companies seem to be highly dependent on a few suppliers while high performers have a broader portfolio of suppliers to cooperate (ct. Figure 49). This can be also observed given the strong dependency on monopoly situation and the amount of framework contracts implemented by automotive cluster companies vs. high performers.

In conclusion, the automotive industry companies within the study seem to be even stronger forced to establish a continuous risk management to secure product-, supply-, raw materials and price risks as this is a crucial foundation to succeed in the procurement business. Given the fact, that overall automotive cluster companies within the study are not able to achieve a material cost reduction on a yearly basis, all critical success factors need to be reviewed in detail, especially with focus on the construction of a holistic supplier relationship management.

Third, next to the status quo automotive cluster participants within the study have a clear perception of upcoming trends and their role for the automotive sector in the next three years. It can be concluded that a strong focus on increasing the orientation towards a strategic role becomes an essential part of the automotive procurement business and capacities in this direction will be further extended. Further emphasis will be put on the role and the influence of E-procurement. There exists some disagreement on the future role of local sourcing within the AAI.

4.2 Recommendation

Based on the overall conclusion a clear recommendation towards the Austrian Automotive Industry how to master procurement in the future comprises:

1: Further establish a holistic supplier relationship management process to improve the external value chain process and drive cost reduction!

Automotive players in the AAI should further emphasize on the external value chain process as the comprehensive coordination and the collaboration with all external related partners becomes a future bottle neck strategy. Interfaces, allocation of tasks and general processes with suppliers need to be maximized and SRM should become the “Steering Wheel”.

One of the quintessence’s of the „Best Performer Einkauf 2011“is to not isolate but leverage several critical success factors in combination. Having said this and having had a look at opportunities and potentials of a holistic supplier relationship management process, the method in total comprises all tools and elements for achieving a competitive advantage. In other words, a holistic supplier relationship management approach comprises several critical success factors identified in the theoretical framework, as i: supplier integration, ii: handling monopoly situations, iii: framework contract handling and iv: automation/EDP integration. Thus, SRM should be treated as the most crucial CSF, the bottleneck of a good procurement strategy in regards to external value chain business process.
Building on this point a press release of the automobile cluster in Austria from 2003 states that “supplier relationship management heisst das Zauberwort der Zukunft”! Even further Univ.-Prof. Dipl. –Ing. Dr. Ulrich Bauer mentioned that supplier relationships are a fundamental and key critical success factor. These statements underline the evaluated importance of SRM.

Ultimately, Austrian automotive companies should further implement SRM to the extent that suppliers are an integral and value adding partner for a whole product life-cycle from the idea generation until ongoing market performance of the new product. Special focus should be on the development of a suitable sourcing strategy to decrease the dependency on a few suppliers on the overall purchase volume thus initiating a lower dependency on monopoly situations in the given environment. Questions to be reviewed in each individual case are whether global vs. local and single vs. multiple sourcing is suitable as overall the supply risk is minimized when the same product can be sourced from different suppliers. Intensified networking with external parties becomes vital. Roadmaps and individualized cooperation concepts and contracts should be implemented with selected suppliers.

Furthermore, the topic of E-procurement and the relevance of online tenders are growing and here again SRM tools can adapt to these demands through web based integrated procurement systems.

Finally, a full 360° approach to understand, frame, and define the scope of a holistic supplier relationship management and its role and influence must be generated to enable a strong foundation. Again, it is the holistic approach and treatment of this critical success factor that will distinguish a high performer from a low performer in total and specifically in the AAI.

2: Further develop and leverage strategic procurement function to proactively support growth strategies through common direct material cost saving leavers and indirect strategic levers!

The study highlighted several indicators that support the conclusion derived from the comparison of high vs. low performers and the comparison of performance of high performers vs. automotive industry cluster companies:

Procurement performance is not only measured on decreasing materials cost but widened towards on-time-delivery of goods, quality and service, risk-management and development of long term strategic relationship – to these factors experts agreed at minimum of 77%.
High performers leverage indirect strategic levers, as holistic SRM to achieve ongoing cost reduction. As highlighted in the analysis an assumed 4.5% of reduction in material cost transferred to an increase in turnover of 30% which is exceptional in mature countries.

Currently high performers focus with 35% of procurement capacities on strategic tasks. The three years outlook shows that more than 50% will put an even stronger focus on development strategic procurement over operative. Automotive cluster companies who participated in the study agree to 80% to expect a capacity shift from operative procurement tasks to strategic.

To position procurement function as a strategic department and as an equal partner within a company and their different divisions becomes increasingly important. It has

to be seen as an essential foundation to stay mid- and long-term competitive and reach a competitive advantage for the AAI in the future.

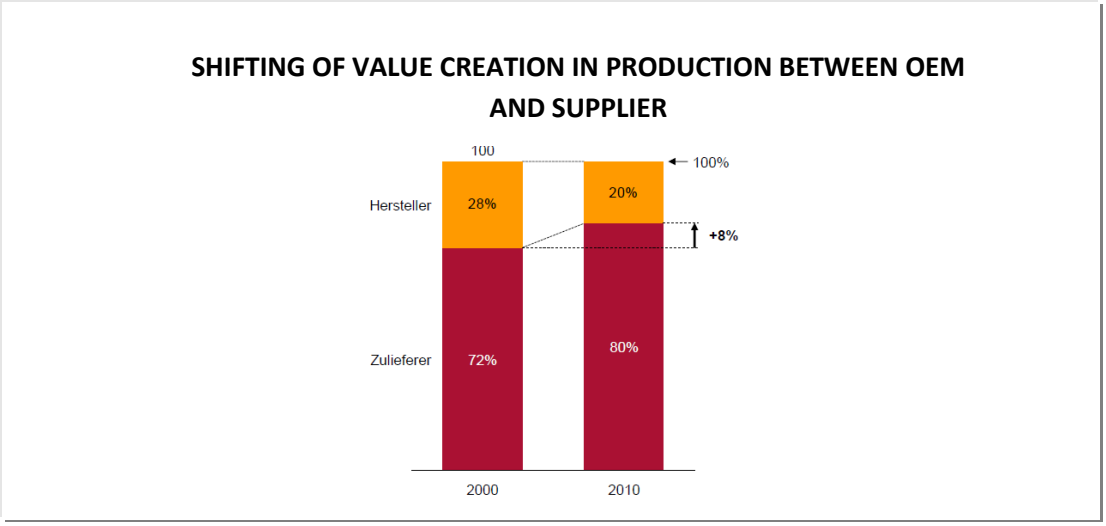
As highlighted in the problem statement of this thesis the automotive industry, which has always been a role model and early adopter of environmental changes, is facing new challenges such as i: increased globalization initiating stronger competition, ii: consolidation of OEMs, iii: shorten product life cycle, and v:environment changes and increased focus on sustainability.

These trends consequently initiate a change in the structure and the stability of the total value chain affecting the AAI.

In execution this means that while OEMs focus on downstream business the suppliers take over previous business part of OEMs such as, research innovation, production and logistic operational tasks.

Based on this fact the supplier role becomes more variable and the assignment spectrum broadens in regards to topics such as innovation development, production and operational tasks. This can be especially observed by a study conducted by Accenture in 2007 highlighting that until 2015 the suppliers will take over 63% of development cost for innovations showing a growth of 70% vs. 2002.

Figure 54: Shifting of value creation in production between OEM and supplier



Source: Accenture 2007, High Performer in the Automotive Supplier Industry

In consequence the role of efficient networking becomes a vital factor, including the coordination and interplay with all external partners. In order to meet these new requirements, challenges and demands it can only be recommended that Austrian automotive players further redefine the role of procurement towards a strategic function within their enterprise.
Ultimately, the strategic positioning could lead in the future to a point where procurement division will take over the lead for the total external value chain process.

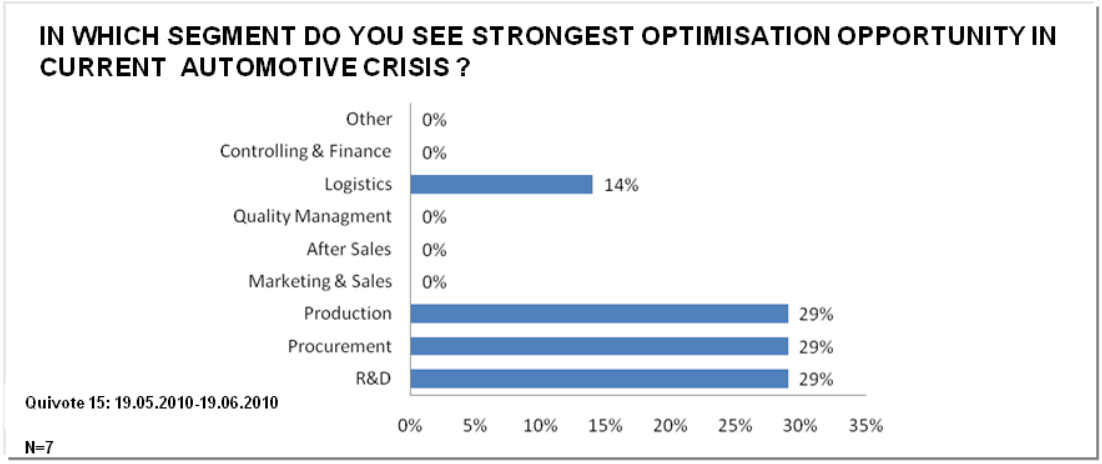
4.3 Outlook

Procurement structures generally, have changed tremendously over the past decades in business, and given the identified relevance of the function – will further change in the future. In the future, successful procurement lies in the holistic value chain view based on a strategic process!

Initially, procurement became increasingly important since management realized its contribution to reach a competitive advantage and to influence a company's profitable growth.

From a general changing role of procurement in business the following table underlines the importance of improving performance within the procurement sector in the automotive industry in Austria. Out of a questionnaire conducted by Austrian automotive cluster experts, 29% clearly state that main optimization potential lies in the increased performance within the procurement segment

Figure 55: Process optimizing potential in automotive crisis



Source: Automotive Cluster Austria

More than other industries the automotive industry is challenged to reinvent the procurement structures towards a full supply chain optimization including a holistic outsourcing strategy and the focus on the cooperation with suppliers on product development aspects.

The origin forcing enhanced focus on procurement is driven through external influences such as i: globalization, ii: increasing product Individualization, iii: stronger competition, iv: shorten product life cycle, and v: environment changes.

The process of change for the role of procurement within a company, meaning the preparation, establishment and placement towards new demands to guarantee competitiveness and influence profitable growth must be based on the commitment of top management. Once initiated the re-conceptualization of the purchasing function from an operational focused function towards a strategic business function consequently implies a re-location of procurement within the organization. On a strategic level, procurement responsibilities must belong to a company's top management, centrally led, including authority's influencing the long term competitiveness.

To give a perspective i: setting general guidelines and procedures for procurement, ii: developing auditing and controlling programs to review performance, iii: developing future outsourcing activities and related long term contract development, and iv: driving major investment decisions for procurement must be covered.

Finally, on an organizational perspective procurement must become a centrally led division, represented in top management. The "linchpin" of cross functional networking with internal customers and external suppliers.

Final Statement

The Austrian Automotive Industry needs a strong procurement organization and processes with clearly defined critical success factors focusing on the long-term strategic orientation. Key performance indicators measuring permanently the follow through of the critical success factors keep the total company and its top management on the right track. This will be a vital element of the Austrian Automotive Industry future.

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Figures

Appendixes

Fraunhofer Austria Research Institute Study “Best Performer Einkauf 2011”