Best combination, sequence or relative importance of variables in order to improve the level of business performance and the use of preferred customer status: A case study among Dutch-located firms in the transportation/truck sector.

Matthijs Jan Reint Seppenwoolde
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

ABSTRACT
This thesis has investigated the impact of market segmentation practices on the level of business performance, in order to provide a best combination, sequence, or relative importance of certain variables that lead to a higher level of business performance. This thesis also investigated on which bases companies assign a preferred customer status and what type of preferential treatment these customer receive. It was done by the analysis of five Dutch-located firms in the transportation/truck sector, which were independently interviewed about their segmentation practices as well as their granting of preferred customer statuses. The level of business performance was indicated via a score on their market orientation. The results of this study show that there is a positive relationship between an elaborated customer segmentation process and a higher level of business performance. It also shows the best combination, sequence or relative importance of variables to increase the level of business performance. The study further shows that all investigated companies grant some of their customers a preferred customer status. Four of the five investigated companies also translate this preferred customer status into a preferential treatment.

Graduation Committee members:
First Supervisor: Prof. Dr. H.H. Schiele
Second Supervisor: Dr. R.P.A. Loohuis

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Market segmentation, Business performance, Market orientation, Preferred customer status, Supplier satisfaction, Preferential treatment

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1. INTRODUCTION
Industrial market segmentation, or market segmentation in B2B markets, refers to the deviation process of business markets, consisting of current as well as prospective customers, into subgroups, segments, on the base of some shared characteristics. As defined by Wind (1978, p. 327), the ultimate goal of segmentation is the identification and creation of distinct customer groups, based on their homogenous needs. Market segmentation is important as it assists organizations in many different areas. (Shapiro & Bonoma, 1984, p. 104) Shapiro and Bonoma (1984, p. 103) state that it can improve an organization’s skills in their analysis of the market, creating an improved understanding of the market as its whole; it can improve their selection procedure of key markets, being better able to make a rational choice based on the company’s capabilities; and also contributes to the improvement of their practices concerning the management of marketing, developing better strategies to profitably meet the needs different market segments.

There has not been a lot of research done in the field of industrial market segmentation yet. There are scholars that have described the influence of variables and proposed models on how to use these variables. The most influential theories are the Two-Stage Approach and the Nested Approach. The Two-Stage approach builds on the idea that organizations must first identify macro-segments, based on the characteristics of the organization and the situation. Afterwards, these should be divided into micro-segments, based on characteristics of the decision making units. (Y. Wind & R. Cardozo, 1974, p. 156)

The Nested approach builds on the idea that segmentation should be done using five general segmentation criteria. A marketer should move from general, easily observable segmentation features to more specific, subtle ones. (T.V. Bonoma & B.P. Shapiro, 1984, p. 105)

There have been several studies that indicate a clear positive relationship between segmentation practices and customer satisfaction. (Pawanenthiren & Udarawana, 2015, p. 14; Athanassopoulos, 2000, p. 200) However, there is still no research paper that clearly studies the influence of market segmentation practices on the overall performance of a company. This research paper will search for this influence by looking at the relationship between the market segmentation process and the level of market orientation. Market orientation, in this case, is used as a tool to measure the overall performance of a firm. Knowing what practices are the most successful, makes it possible to conclude on the best sequence and combination of variables, keeping their relative importance in mind.

To conclude, this thesis aims to provide an answer on the following research question:

What combination, sequence or relative importance of variables used in a company’s market segmentation process; cause the highest level of business performance?

This answer is obtained by analyzing data from different firms on their segmentation practices and their market orientation. This data will be analyzed using different SPSS methods, as well as by comparing different methods of segmentation. This comparison will be made on the base of differences in variables and by checking the use of variables on importance, combination and sequence.

The answer to this research question might be of potential importance to all companies within business-to-business markets. However, as this thesis only focuses on the transportation / truck sector, it will be of higher importance to this sector then it is to other sectors. This thesis will also add to the current literature framework of ‘market segmentation practices within business-to-business markets’.

The second research question that will be answered in the remaining part of this thesis, is the following:

On what base do firms grant their customers a preferred customer status? Do these preferred customers receive preferential treatment? If so, in what form?

The answer to this research question will only add to the current literature framework, as it only investigates the practices of companies regarding the preferred customer status. It is not linked to a measurement tool and does not indicate a causal relationship.

The rest of this paper is structured as follows: chapter 2 will provide a review of the current literature and the theoretical framework used in this paper. Afterwards, chapter 3 will describe the methodology used in conducting the research. Next, the results of the research will be presented in chapter 5 and further discussed in chapter 6. Finally, chapter 7 will provide conclusions of the research and also provides the implications for theory and the implications for practice.

2. LITERATURE FRAMEWORK
2.1. Industrial market segmentation
As described by McDonald, M. (2007, p. 124) and Piercy, N.F. (2009, p. 277), market segmentation is a key area for businesses in all industries when it comes to strategic decision-making. The underlying logic, as described by Wind, Y. (1978, p. 327), is the fact that many customers show significant differences in their buying behaviour and in their product preferences. Segmentation theory proposes that groups of customers with homogenous needs and buying behaviour are likely to respond more similar to marketing programs.

Therefore, organizations that have applied an approach to market segmentation can deal with the heterogeneity of customer needs, by focusing resources on those customer groups that have quite homogeneous requirements. According to Wind, Y. (1978, p. 327), this allows for “a more efficient application of resources and ensures that customer offerings are carefully targeted.”

The STP of modern marketing, as described by Kotler, P. (1994, p.93), is a well-established process of market segmentation. The first stage of the process, segmenting, is the stage where customers are grouped on the base of one or more variables. The aim is to group customers into segments with similar needs and buying behaviour. The second stage, targeting, is the stage where decisions about the prioritization of resources are made. The final stage, positioning, is the stage where the marketing programs are designed in such a way, that it matches the requirements of the customers in the targeted segment.

Adopting a market segmentation approach is associated with lots of benefits, as described by Shapiro, B.P. and Bonoma, T.V. (1984, p. 104). Businesses engaging in segmentation are encouraged to carry out detailed customer and competitor analysis. Such analysis allows the business to become more in
tune with customer and competitor behaviour. This leads to a better understanding of customers’ needs and wants, allowing greater responsiveness in terms of the product or service offer. A clearer appreciation of the competitive environment also helps the business to make more informed targeting and positioning decisions. Furthermore, a segmentation approach can add clarity to the process of marketing planning, by highlighting the marketing program requirements of particular customer groups.

The theories of Wind, Y., & Cardozo, R. (1974) and Shapiro, B.P. & Bonoma, T.V. (1984) have dominated the literature on industrial market segmentation. I therefore discuss these theories in dept and use them in the remaining part of this thesis.

2.1.1. The Two-Stage Approach

Wind and Cardozo proposed that the segmentation of industrial markets should be done in two stages. The first stage is about the formation of macro-segments. Macro-segments should be based on features of the buying organization and the buying situation. The second stage of this approach is about the deviation of those macro-segments into micro-segments. Micro-segments should be based on the features of the decision-making units (DMU’s).

Given a generic product/service, one should start with the identification of macro-segments based on key organizational characteristics, such as: size, usage rate, application of product/service, SIC category; end market served, organization structure, location and New vs. Repeat purchase. A marketer might use a variety of these variables, single or in combination. During the selection of “acceptable” macro-segments, one should keep the corporate objectives and resources in mind. After selecting a set of “acceptable” macro-segments, one should evaluate each the selected macro-segments on whether or not it exhibits distinct response to the firm’s marketing stimuli. If it does respond, one should stop and use the macro-segment as the target segment.

If it does not respond, one should identify the relevant micro-segments within each of the acceptable macro-segments. This should be done on the bases of differences and similarities between Decision Making Units within each macro-segment. DMU’s may differ with respect to their composition and position within a firm. They might also differ with respect to their decision-making behaviour. Variables that can be useful as criteria in this process are: position in authority and communications networks of firm; personal characteristics: demographic and personality; perceived importance of purchase; relative importance of specific determinants of buying decision; attitudes toward vendors; and decision rules. During the identification of appropriate target segments, the costs and benefits associated with reaching the segments should also be considered.

The final step in the approach is the identification of the complete profile of the segments, based on the organizational and DMU features.

2.1.2. The Nested Approach

Shapiro and Bonoma (1984) offered a clear approach in segmenting industrial markets. This approach integrated previous schemes of industrial market segmentation and build on them. It is seen an important analytical tool, since it not only enables the grouping of (potential) customers, but also that of purchase situations, events and personalities.

This approach is described as ‘the Nested Approach’, since it can be described as a nested hierarchy in which five general segmentation criteria have been arranged. Going from the outer most nest towards the inner nest, the criteria are sequentially: demographics, operating variables, purchasing approach, situational factors and personal characteristics.

The first nest, demographics, contains variables that can be observed without having to visit the customers. The variables within this nest give a broad description of the company and relate to general customer needs and usage patterns. These variables include the industry, since knowledge of the industry creates a bigger understanding of customer needs and how to approach purchase situations. Another variable included in this nest is company size. It might be worthwhile to segment on company size, since a large company might justify and require a specialized program. The location of the customer is also a variable that is included in this nest, as nearness in space, time or relationship might be a requirement for doing business.

The second nest, operating variables, contains variables that enable a more precise identification of the operation of existing and potential customers within demographic categories. These variables include a buying company’s technology, since it influences the determination of its buying needs. Another variable included in this nest, is whether a (prospective) customer already uses the product or service offered by the company or whether they purchase the same product or service elsewhere, the so-called product and brand-use status. The capabilities of a customer is also a variable which is included in this nest. It might be worthwhile to segment based on the known operating, technical, or financial strength and weaknesses.

The third nest, the purchasing approach, contains variables that involve the philosophy of the company and the approach to purchasing from consumers. These variables include the organization of the purchasing function, since it determines the size and operation of a company’s purchasing unit. Another variable that is included in this nest are the power structures, since the impact of influential organizational units varies and often affects purchasing approaches. Another included variable in this nest is the buyer-seller relationship. It might be worthwhile to differentiate between customers based on the strength of the relationship. The general purchasing policies of a customer is also a variable that is included in this nest. A company known for its high quality service, might want to identify a customer that prefers quality over price. The last variable in this nest, the purchasing criteria, gets affected by all of the other variables within this nest. Segmenting based on this variable approximates the benefit segmentation approach, which deals directly with customer needs.

The previous nests mainly focused on grouping the customer companies, whereas the following nests will consider the role of the purchase situation.

The fourth nest, situational factors, is the innermost nest and consists of temporary operating variables that require a more detailed knowledge of the customer and even consider the role of a single-line entry on an order form. These variables include the urgency of order fulfillment, since it might be worthwhile to differentiation between a product or service that is used on a routine basis and one that is used on a more urgent basis. Another variable that is included in this nest, is the product application. The same product or service might be used for a whole different purpose. The last included variable in this nest
is the size of the order. A company might segment their market so it can only focus on either large or small quantities.

The fifth nest, personal characteristics, is the inner-middle nest and consist of a buyers’ personal characteristics. These characteristics are perceived as important as not the companies make the purchase decisions but the people within the company. These people might, however, be constrained by the organizational framework and the policies of the company. Looking at these individuals that make the purchasing decisions, one can segment on base of similarities between buyer and seller, the motivation of the buyer, the perceptions of the individual and how the buyer perceives and handles risk.

2.2. Market orientation
As stated by Kohli, A.K. and Jaworski, B.J. (1990, p. 6), marketing orientation is “the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments and organization wide responsiveness to it.” Narver, J.C. and Slater, S.F. (1990, p. 21,22) agree on this definition, however, they emphasize “the creation of superior value to customers.”

Market orientation has been regarded as a source of competitive advantage and can be an important determinant of firm performance. Market orientation is commonly stated as to improve the performance of a business. (Kohli, A.K. & Jaworski, B.J., 1990, p.13) Organizations that are market oriented can better satisfy customers and therefore perform at higher levels. This relationship was supported by Lusch and Laczniak (1987, p.10) as well as by Narver and Slater (1990, p.32). Kohli and Jaworski (1993, p. 64) found large-scale evidence that “the greater the market orientation of an organization, the higher its business performance.” The result of their study provides support for a positive relationship between market orientation and business performance. The findings of their study suggested that: “regardless of the market or technological turbulence and the competitive intensity of the environment in which its operates, market orientation is an important determinant of its overall business performance.”

Superior organizational performance can be achieved as a market oriented firm is able to satisfy customers through tracking and responding to customer needs and preferences (Jaworski & Kohli, 1993, p.63). Further, a market oriented organization performs better in the market since the firm develops an organizational culture in delivering superior value to customers (Narver & Slater, 1990, p.32; Slater & Narver, 1994, p.22).

Customer segmentation practices are most commonly used to improve the tracking and responding to customer needs. We can therefore conclude that market orientation can be used as a tool to indicate the success of a firms segmentation practices.

2.3. Preferred Customer Status
Looking into the preferred customer concept, Hottenstein (1970, p. 46) was the first scholar to contribute to the concept by noting that “most businesses have a preferred customer’s list, which may be based on past orders or expectations of future business.” Other scholars referred to the concept as “reverse marketing” (Leenders & Blenkorn, 1988, p. 187) or “best customer” (Moody, 1992, p. 52). In 1978, Brokaw and Davisson (1978, p. 10) where the first scholars that gave an explicit explanation about the preferred customer concept.

Over the recent years, the amount of literature on the preferred customer status has increased tremendously. There has been a lot of awareness on the influence of a preferred customer status and on how customers can achieve such a preferred customer status.

Due to changes in the dynamics of the buyer-seller relationship (Schiele et al., 2012, p. 1178), there has been an increased dependency of the buying firms on their suppliers. This dependency gives suppliers the possibility to choose which customers to supply and which firms to award a preferred customer status. (Schiele et al. 2012; Steinle & Schiele, 2008) According to Schiele et al. et al. (2012, p. 1178), “a supplier awards a buyer with preferred customer status if this customer is perceived as attractive and if the supplier is currently more satisfied with this customer than with alternative customers.”

As a consequence of this satisfaction, a supplier reacts by providing privileged resource allocation to this preferred customer. In general, suppliers “respond first to the needs of his preferred customers” (p. 83), while the companies that are “forced to wait in a queue” (p.81), are the less preferred customers. (Williamson, 1991) In cases of uncertainty, suppliers first attend to their strategically important preferred customers and only subsequently conduct business with their regular customers. Large-scale empirical evidence that, in cases of uncertainty, a supplier will serve their strategically important preferred customers first, and their regular customers only subsequently, was provided by the contributions of Baxter (2012, p. 1249-1258) and Ellis et al. (2012, p. 1259-1269)

Pulles et al. (2016, p. 137) showed that “attractive customers are not necessarily preferred customers if they are unable to satisfy the supplier. Conversely, other buying firms might attain the best resources, despite their perceived lower attractiveness.” A case study of Vos et. al (2016, p. 4618), provided evidence that supplier satisfaction has a positive impact on the tendency to award the buyer preferred customer status and that having a preferred customer status has a positive impact on preferential treatment. This case study improved and build on the preferred customer status model by Hüttner et al. (2014, p. 711), which led to the updated model that can be found in Appendix 1.

3. METHODS
This thesis aims to provide an answer on the following two research questions:

1) What combination, sequence or relative importance of variables used in a company’s market segmentation process, cause the highest level of business performance?
2) On what base do firms grant their customers a preferred customer status? Do these preferred customers receive preferential treatment? If so, in what form?

This research therefore consist of two different parts. In the first part, the market segmentation practices and the level of market orientation will be investigated. The second part concerns whether companies grant preferred customer statuses and whether they reward them with preferential treatment.

The total research framework of the first part consist of two different descriptive researches, which together form a causal research. The first part is a quantitative research about the level of market orientation within the subject firms. The second part
is a qualitative research in order to enable the identification of certain practices and variables.

The research framework of the second part consist of a qualitative research to identify the bases on which companies grant their customers a preferred customer status and what kind of preferential treatment they received.

3.1 Sample
The research is composed of a small-scale survey, combined with an interview among five firms in the transportation/truck sector. From each company, one manager was selected to answer on behalf of the firm. Therefore, the sample size is five. The investigated companies, the units of observation, are all active within the transportation/truck sector. They are investigated to develop conclusions about the whole industry as its whole, the unit of analysis. To increase the reliability of this research, only persons with a high position within their company were selected to interview.

Validity in data collection means that your findings truly represent the phenomenon you are claiming to measure. This concept was formulated by Kelley (1927, p. 14) who stated that “a test is valid if it measures what it claims to measure.” In order to increase the validity of our research, I decided to only interview industry experts within the firms. From three companies I visited the director/owner and from two companies a top-level manager.

3.2 Data Collection
The data collection was done by visiting five managers at their offices and asking them to fill in a questionnaire concerning the market orientation of their firms. After filling in this questionnaire, they were asked questions about their segmentation practices; whether they assign preferred customer status to some of their customers and whether these preferred customers receive a preferred treatment in comparison with non-preferred customers.

All data collection was done by face-to-face interviewing, since this data collection method minimizes the non-response bias and maximizes the quality of the collected data. (Lavrakas, 2008) Expected problems concerning the interpretation of certain statements were also avoided, since the presence of the interviewer makes it easier for the respondent to either clarify answers or ask for clarification for some of the items on the questionnaire.

3.2.1. Part I – Questionnaire
The respondents were asked to indicate their perceptions about the market orientation of their firms. This was done via a survey that contained 32 statements. (Appendix 3) It was adopted from an established survey in Kohli and Jaworski (1993, p. 66). Among these 32 statements, ten were about market intelligence generation, eight about intelligence dissemination and fourteen about responsiveness at the business unit level. Seven out of the fourteen responsiveness questions, concern the extent to which an organization develops plans in response to market intelligence (response design) and the other seven questions concern the actual implementation of these plans (response implementation).

The respondents were asked to indicate their level of agreement and disagreement with each statement on a 5-point Likert scale. The possible answer options were: fully disagree, disagree, neutral, agree & fully agree. It was coded by using the numbers 1 till 5, were 1 meant fully disagree and 5 meant fully agree. In order to minimize response set bias, several questions were reverse-scored, which meant that they had to be turned around during the coding process.

Since the interviews were kept in Dutch, the questionnaire was also translated into Dutch. This was done in order to improve the understanding of the several statements.

3.2.2. Part II – Interview
The second part of the data collection is done via a qualitative method. An exploratory research in order to provide insight into the segmentation practices of the respondents’ companies. A qualitative research design was used, since it is a proven tool to uncover trends in thought and opinions, and it helps to uncover the deeper causes of a problem. In this case, the problem are either the segmentation practices of the respondents companies, or their use of preferred customer statuses.

Looking at the research questions, one can see that the variables are underdeveloped. Therefore, the expectations were to find unexpected information. Since the respondents were expected to lack a clear overview of their segmentation practices and their use of preferred customer statuses, the assumption that they would be unable to answer closed questions was made. This led to the decision to use a semi-structured individual interview as the data collection method. This method is a proven tool to get to know what the respondents know or think about their segmentation practices and their use of preferred customer statuses. (Van der Kolk, 2014)

According to Crescentini & Mainardi (2009, p. 433), one should keep in mind that “the peculiarity of qualitative goals reside in the way the question is framed – a need to describe, verify or understand. A qualitative research question must explore a qualitative argument in a qualitative way.” The questions were therefore framed in such a way, that it gave the respondent the need to describe, verify or understand something in their answer.

All of the interviews were recorded with consensus of the respondents. Recording avoids the necessity to take notes during the interview. As notes might be unclear in the coding process, or as taking notes draw away the attention from what the respondent is actually saying, recording was assumed to increase the reliability.

3.3 Coding
The data from the questionnaire were put into SPSS, in order to make it possible to do statistical analysis of these data. The data base was crosschecked by another student of the University of Twente. The data from the interviews were typed out and afterwards coded. The transcripts were first coded on what was said about their market segmentation practices used and afterwards on what was said about preferred customers statuses.

4. RESULTS
4.1 Market Orientation
The overall total scores on Market Orientation can be found in Table 1. The mean score of market orientation (μ) was 127.2, with a standard deviation (σ) of 6.14 and a range of 120 till 135, out of 32 till 160. As can be found in Table 1, Company E scores the highest on the overall score for Market Orientation. Further, we can
conclude that Company A and Company B have almost equal scores, as well as Company C and Company D.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
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<tbody>
<tr>
<td>1</td>
<td>Company E</td>
<td>135</td>
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<tr>
<td>2</td>
<td>Company A</td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>Company B</td>
<td>129</td>
</tr>
<tr>
<td>4</td>
<td>Company C</td>
<td>122</td>
</tr>
<tr>
<td>5</td>
<td>Company D</td>
<td>120</td>
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Table 1 | Overall Score Market Orientation

4.2 Market Segmentation

4.2.1. Company A

The first step in the segmentation process of Company A is the segmentation based on the location of their customers. Since they are an official Volvo dealer, they have a clear own contract territory. Next to this, they have multiple offices within this contract territory, so this is an important variable were it actually starts with. The follow up step in their segmentation approach is the fact that they segment based on the size of the company. Company A chooses not to approach large fleet owners, since it will cost him more than it will bring him. They also segment based on the industry, they distinguish between transport companies and companies that do their own transport. This is done in order to better understand the customer needs.

For Company A, product and brand-use status is a very important variable within the acquisition of new customers. They clearly segment their customers on whether they are already a customer, or whether they are using the product, a truck, from a different brand. They further segment their customers based on their capabilities, whether or not the customer is capable of doing their own maintenance, has its own garage and so on. This is based on the operational capabilities. They also segment based on the financial capabilities of their customers. Their financial strengths or weaknesses. The company takes less risk with customers that are heavily financed, that are almost bankrupt or customers that pay badly.

They also segment based on the fact whether the customer only has Volvos or whether they use a two-brand strategy. This can be seen as segmenting based on a company’s general purchasing policies. They further segment their market based on what the customer is looking for. Customers that only use the price as criterion in their purchasing decision are differentiated from those that also take the quality of the service into account. Differentiating between price and quality can be seen as segmenting on purchasing criteria.

Company A also differentiate between orders for a periodic inspection or for maintenance. However, segmenting based on urgency of order fulfilment is not a very important variable.

4.2.2. Company B

Company B is segmenting their customers on the type of transport the customer requests. They differentiate between customers that only request international transport, customers that only request exceptional transport, customers that only request covered transport, customers that request a mix of exceptional and covered transport, customers that request international, but also some exceptional transport and they have customers that have a total package, including warehousing.

The next step in the segmentation process of Company B is the segmentation based on the location of their customers. Since they are a transportation company that offers their services in the Netherlands as well as international, it is very important to know where their customers are located.

They further segment based on the size of the company. They have large customers for which they do all of the transportation, these customers however demand a different service level. A large company might for example ask for 20 trucks, something a small customer would never do. They also segment based on which industry their customer is in, since having knowledge about the product influences their acquisition of new customers.

They further segment their market on whether the companies are already a customer of Company B or not. They differentiate their customers from companies that use the same service as they provide but purchase it elsewhere. This can be defined as segmenting based on the product and brand-use status.

The buyer-seller relationship is also very important at Company B. They segment their customers based on the relationship they have. Customers that want to build a partnership with Company B are differentiated from those that do not want it.

4.2.2. Company C

Company C segments their customers based on the type of transport the customer requests. They differentiate between companies that request road transport, companies that request airfreight, companies that request ocean freight and companies that request urgent transport.

The next step in the segmentation process of Company C, is the segmenting based on the location of their (prospective) customers. They even have a different division that focuses on Spain and Portugal. They also have an active marketing strategy that focuses on the Netherlands and Germany.

They continue their segmentation process by differentiating on how often a company makes use of Company C’s services. Segmenting based on the usage rate.

Another step in their segmenting process is the segmentation on the organization of the purchasing function. A customer that has an own logistics department, often has ten employees all busy with the arrangement of transport. Customers that do not have this, are a different group since they just want their goods to be transported. This is an important variable in the segmentation practices of Company C.

This is actually in combination with the fact that they also segment their customers based on the way the request is placed. Whether they have personal contact with the customer or whether they get reached via e-mail, together with twelve other companies. This can be seen as segmenting based on the purchasing policies of the customer and goes, in this case, almost hand in hand with the organization of the purchasing function.

This company also looks at the financial strengths and weaknesses of their customers. They do a credit check on each of their customers and also makes decisions on whether to approach these companies based on these data. This is called, segmenting based on ‘Customer Capabilities’.
Company C clearly segments on the urgency of order fulfilment, since they differentiate between a urgent delivery and a normal delivery. They even have a different division for Urgent Transportation.

4.2.4. Company D
Company D exist of three divisions: transport, recycling and earthworks. They segment their market according to these three different activities.

They continue their market segmentation process by segmenting based on the location of their customers. This is a very important variable since they, in case of transport and recycling, do not work outside the Dutch province ‘Overijssel’, they outsource this labour to other companies.

The next step is the segmentation based on the usage rate. Company D differentiates their customers on how often they make use of their services.

The size of the customer also plays an important role in the segmenting process of Company D. They have two large customers that require a specialized program. One customer for which they have a special trajectory, which includes the transportation and installation of compactors and one customer for which they transport all kinds of materials used in construction. They also have special trucks for this customer.

The buyer-seller relationship also plays a role in the segmentation process of this company, it is not very important, but a customer that has strong ties with Company D is differentiated from a customer that has not.

They distinguish based on the purchasing policies of the customers, since some companies make arrangements with this company about when they have to change the container on beforehand and some companies only call when there is a direct need.

Company D looks at the financial capabilities of a customer, before doing business with them. Next to this, they also differentiate based on the term of payment of their customers. They differentiate between customers that pay within 30 days, between 30 and 90 days and after 90 days.

4.2.5. Company E
Since Company E is a company that is specialised in the transportation of machines, they are keen to companies that deal with machines and therefore differentiate the companies that are within the manufacturing industry

Within the manufacturing industry, they distinguish between several types of industry. They segment their customers into four different segments: the plastic industry, the metal industry, the wood industry and the paper industry. They choose not to approach companies from which they do not know the product. We can therefore state that the type of industry is the most important variable and also the variable where the segmentation process of Company E starts.

They continue their segmentation process by segmenting on the location of their customers. Since Company E is a transportation company, location is an important variable. They offer their services in the Netherlands as well as international.

The next step is the segmentation on the base of a company’s usage rate. How often a customer makes use of the company’s services determines whether Company E is prepared and ready to go. However, this variable is not assumed as very important, since they want to be prepared and ready to go for all of their customers, when possible.

Company E always checks the credit worthiness of their customers. This gives them an overview of the financial capabilities of their customers. When a company is financially unhealthy, Company E will not approach and do business with them.

The final step in the segmentation process of Company E is the segmentation based on whether there is a contract with the customer.

4.3. Preferred Customer
4.3.1. Company A
At Company A, ‘Golden Customers’ are the customers that are the most loyal and have the highest profitability, they can be found in the upper right corner of Figure 1. ‘Silver Customers’ are the customers in the three boxes that flank the upper right corner. Aftermarket loyalty is mostly based on whether they also let Company A do the maintenance, financing, insuring, damages, the body work, etc.

Silver customers are not privileged. Golden customers get privileged by the fact that they get a vast amount of visits a year. This is followed up by their Customer Relationship Management (CRM) system, which makes sure that these visits will take place. No matter what. When a golden customer gets onto the market to buy new trucks, these customers get privileged by the fact that they will be visited by the directors of Company A and not just a sales person. Company A further does everything they can to keep this customer from leaving, they will talk to the importer, everything in order to make sure this golden customer will stay a customer of Company A.

4.3.2. Company B
At company B, customers are classified by the amount of turnover they produce each year. The top 5 customers can be seen as preferred customers, but they only get the privilege of having more intensive contact. Preferred customers at Company B also get the option of a special offering in the form of an online portal in which they can put their orders.

4.3.3. Company C
At Company C, they do have preferred customers, top customers. These customers are the biggest sources of turnover for Company C and get a special treatment in the form of a vast amount of visits a year. They are privileged by the fact that the past year will be evaluated with the top customers and not with the other customers.

![Figure 1 | Preferred Customer Matrix Company A](image-url)
4.3.4. Company D
At Company D, they also have preferred customers, that are the largest customers and the customers that pay within 30 days. The largest customers, those who cause the highest amount of turnover, get privileged by the fact that they can get discounts. Another privilege what the largest customers get, is the fact that they will have contact with the board and not with the planning. The customers that pay within 30 days, get the privilege of being served faster than a customer that pays after 90 days.

4.3.5. Company E
At Company E, they have a top five customers. These are treated as preferred customers, since they procure work during the whole year. They also help in the acquisition of new customers. They get privileged by the fact that Company E is always prepared and ready to go for them.

5. DISCUSSION
Looking at the segmentation practices of our investigated companies, we see that they all differ when it comes to the segmentation practices. This can for some extend be explained by the fact that there are differences between the five companies. Company A is a company that sells trucks and repairs them, whereas company B, D and E are transportation companies. Company C is a shipping agent, who arranges the shipment of any kind of good to anywhere in the world, what makes them also different from company B, D and E. The transportation companies differ in the sense that company E only transports machines, company D has three different divisions, where transportation is one of them and only concerns the transportation of containers. Company B is a company that only focuses on transportation, but they transport anything to almost everywhere.

This comes clear in the first step of the segmentation process, as the three companies that have multiple activities first segment their market on the base of what activities the customer needs from them: type of transport, or type of work. However, these are not variables on which these companies segment their markets, since Wind and Cardozo (1974, p. 156) stated that you first identify “a generic product or service”, before you start the segmentation process.

Table 2 shows the differences in the market segmentation variables that each company uses. What this table reveals is the fact that most of the companies do start their segmentation process with the more easily observable variables, the demographics. This is in line with the approach from Wind and Cardozo (1978) as well as with the approach from Shapiro and Bonoma (1984).

Our results also revealed the fact that some variables are perceived as more important than others. These variables are bold in Table 2. It also reveals that most of the companies do not take the role of the purchasing situation in consideration when segmenting their markets. They only focus on the grouping of customer companies.

As shown in Table 1, Company E scored the highest on Market Orientation. Based on our theory, which suggests that better market segmentation practices increase the level of market orientation, we can therefore conclude that the segmentation practices of Company E are the most successful. However, Table 2 shows that Company E makes use of the least amount of variables. This gives reason to believe that the score on Market Orientation of Company E might be biased and therefore incorrect. To investigate this further, the scores on the three different domains (Intelligence Generation, Intelligence Dissemination and Responsiveness – which consist of Response Design and Response Implementation) were calculated.

Looking deeper into the first section, ‘Intelligence Generation’ (Table 3.1), we see that Company A and Company B score the highest on this section. Company E is close to them, but Company C and Company D are further away. This indicates a clear difference between A, B and C.D.

Table 3.1 | Total Score on Intelligence Generation

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company A, B</td>
<td>43</td>
</tr>
<tr>
<td>2</td>
<td>Company E</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>Company C</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>Company D</td>
<td>34</td>
</tr>
</tbody>
</table>

µ = 39.4 | σ = 4.159327

The different company’s total score on the section about ‘Intelligence Dissemination’ (Table 3.2), show that all companies score almost equal on this section. We could conclude that there is as good as no difference in the level of intelligence dissemination between these firms.

Table 3.2 | Total Score on Intelligence Dissemination

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company B</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>Company A, C, D</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
<td>Company E</td>
<td>30</td>
</tr>
</tbody>
</table>

µ = 31 | σ = 0.707107

The same counts for the section on ‘Response Design’ (Table 3.3), where it also shows no difference in the level of response design between these firms.

Table 3.3 | Total Score on Response Design

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company B, D, E</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Company A</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Company C</td>
<td>27</td>
</tr>
</tbody>
</table>

µ = 28.4 | σ = 0.894427

Looking deeper into the section ‘Response Implementation’ (Table 3.4), it shows that Company E scores significantly different from the rest of the firms. Company A and Company C score higher than respectively Company D and Company B.

Table 3.4 | Total Score on Response Implementation

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company E</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Company A, C</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Company D</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>Company B</td>
<td>25</td>
</tr>
</tbody>
</table>

µ = 28.4 | σ = 3.911521
Going back to the overall score, it showed that Company E has the highest score on market orientation. However, looking deeper into the different sections, it shows that they only score the highest on ‘Response Implementation’. The difference with the runner-up on this section is 7 points. Since this difference is exceptionally large compared to the other sections, we might argue that this section is biased. Appendix 2 clearly shows that Company C’s score on the Response Implementation section is deviant. The fact that ‘Response Implementation’ is the last section of the (relatively large) questionnaire, might be a possible explanation that this section is skimmed by the respondent.

Based on these findings, we conclude that Company E does not score the highest on Market Orientation and therefore does not have the best segmentation practices. When looking at the other overall scores, we can conclude that the segmentation practices of Company A are the best. This makes sense, as Table 2 shows that this company has the most elaborated segmentation process.

### 5.2 Preferred customer

As Table 4 reveals, in four of the five companies, Company B, C, D and E, the amount of turnover caused by the customer is the most important determinant in whether a customer gets a preferred customer status, or not. Whereas Company B, D and E only look at turnover, Company C also looks at the term of payment, which will be discussed later on.

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>A</td>
</tr>
<tr>
<td>Profitability</td>
<td>A</td>
</tr>
<tr>
<td>Turnover</td>
<td>B, C, D, E</td>
</tr>
<tr>
<td>Term of Payment</td>
<td>C</td>
</tr>
</tbody>
</table>

According to the theory (Vos et al., 2016, p. 4619; Hüttlinger et al., 2014, p. 711), ‘the amount of turnover they process each year’ is not a factor that influences a company’s level of customer satisfaction. Economic factors are definitely influencing the level of customer satisfaction, but turnover is not one of them. As can be seen in Appendix 1, profitability and growth potential are the two economic factors that influence the level of customer satisfaction.

However, company B, C, D and E are very satisfied with the customer that has a large amount of turnover and therefore grant them a preferred customer status. Since four of the five researched companies use this criterion, we could argue that there has not been enough attention to the influence of turnover on customer satisfaction in the model of Vos et al. (2016)

As stated before, company C also take the term of payment, the billing process, into account when granting a customer a preferred customer status. Company C is more satisfied with customers that pay within 30 days and therefore grant them with a preferred customer status. The billing process, as described by Vos et al. (2016, p. 4619), influences the companies perception of ‘operative excellence’. Operative excellence is one of the four first-tier’s that have a positive influence on customer satisfaction. (Appendix 1) Granting a customer a preferred customer status on this base is therefore in line with the theory.

Company A differs completely from the other four companies, since it only takes a customers’ loyalty and profitability into account. Company A is more satisfied with customers that are very loyal and very profitable. Based on these criteria, they grant their customers a preferred customer status. As can be seen in Appendix 1, ‘profitability’ and ‘relational behaviour’ are two of the four first-tier’s that have a direct, positive influence on the level of customer satisfaction. The procedure of Company A therefore confirms that these two first-tier’s have a positive impact on the level of customer satisfaction.

The big differences between Company A and the other four companies can partly be explained by the fact that Company A is not a transportation company. Company A sells and repairs trucks, which makes it a complete different organization from the companies that only stores and transports goods for other companies.

### Table 5 | Type of preferential treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Amount of Visits/Intensity of Contact</td>
<td>A, B, C</td>
</tr>
<tr>
<td>Contact with Directors</td>
<td>A, D</td>
</tr>
<tr>
<td>Discounts</td>
<td>A, D</td>
</tr>
<tr>
<td>Extra Service</td>
<td>B</td>
</tr>
<tr>
<td>Served faster</td>
<td>D, E</td>
</tr>
</tbody>
</table>
What we can conclude from Table 5, is the fact that four out of the five companies have a real preferential treatment for their preferred customers. This confirms the model of Vos et al. (2016, p. 4620), which can be found in Appendix 1. It differs from a higher amount of visits to an online portal. These companies, Company A, B, D and E have some form of ‘extra service’, which they only grant to their preferred customers. These companies provide their preferred customers with a real ‘added value’ in the form of contact with directors, an online portal, discounts or faster servings.

As stated in the previous section, Company C only grants customers a preferred customer status on the base of ‘the amount of turnover they process each year’. Since only a higher amount of visits, or a higher intensity of contact is nothing more than logical when the customer takes account for a large amount of the company’s turnover, we can conclude that Company C does not grant a real ‘added value’ to their preferred customers. Preferred customers at Company C do not get a preferential treatment.

6. CONCLUSIONS & IMPLICATIONS

6.1. Conclusions
The main focus of this thesis has been on the impact of market segmentation practices on the level of business performance. The segmentation practices were investigated by an interview with the companies. The level of business performance was measured through the level of market orientation, which was investigated through a questionnaire. A higher level of market orientation indicates a higher level of business performance. Results of this measurement provided us with a best combination, sequence, or relative importance of certain variables that lead to a higher level of business performance.

This thesis has also focused on the bases for assigning a preferred customer status and the type of preferential treatment these customer received. It was investigated via an explorative interview.

6.1.1. Market Segmentation
The results of this research showed that the practices of Company A were the most successful. This company had the most elaborated process of market segmentation, which indicates that customer segmentation does have a positive influence on the level of market orientation.

Based on our findings, a company should identify a generic product or service before they start their segmentation process. Given this product or service, a company should look at the more demographic variables of their customers, which gives them a broader image of their needs: location, size and industry. Where they are located, should be the most important within the transportation / truck sector.

Whether a (prospective) customer is already using the product or service they offer, and whether that service is purchased elsewhere, is the next step on which a company should segment their market. This is a very important variable, since our findings show that only the two companies that score significantly higher than the others use this variable.

This is followed by the capabilities of their (prospective) customers. A company should segment their market on whether a company is financially strong enough. They should also segment based on what activities a (prospective) customer cannot do itself and thus needs their company. This is seen as a very important variable, as it really helps in understanding a customer’s needs.

A company should then look at the purchase situation and segment their markets based on the (prospective) customer’s general purchasing policies and the criteria on which they make their purchasing decision. This helps in targeting the right customers, since it gives insight in the needs of the customer and in which companies will value your type of service.

The final step in the segmentation process, with little importance, should be segmenting based on the order itself, differentiation based on the urgency of order fulfillment might be very helpful to your company.

This led to the following ‘best practice model’, as found by this research, which can be found in Figure 2. The bold variables are the more important variables, and the smaller variables are the less important variables. The sequence is also of importance, one should follow this order.

6.1.2. Preferred Customer Status
We can conclude that all investigated companies grant some of their customers a preferred customer status. They all grant this status based on the level of satisfaction with their customers. As most of the companies only look at the amount of turnover, there have also been two companies that have a clear process. One company has a model based on the profitability and loyalty of their customers and one company looks at the billing process.

Preferred customers of four of the five investigated companies get a preferential treatment in the form of a real ‘added value’. These differ from discounts, an extra service, contact with directors, to faster servings.

An interesting “nugget” that was found, was the granting of a preferred customer status on the base of their billing process. Customers that pay their bills fast, get faster service.

![Best practice model](image-url)

Figure 2 | Best practice model
6.2 Implications for practice
The investigation into the segmentation practices of the five different companies has shown that most of them lack a well developed process of market segmentation, which also resulted in a lower score on market orientation. Several companies stated that they segment their markets on type of transport, type of work. However, literature shows that this is only a phase before starting the segmentation process. This shows us that there is clearly a lack of knowledge about what segmentation practices can contribute to an organization.

As market orientation is a measure of business performance, they should further develop their market segmentation process to perform at a higher level. It might be helpful for them to look at the practices of the companies that score higher on market orientation in order to improve their market segmentation process.

6.3 Implications for theory
The investigation into the segmentation practices of the five different companies showed that all of them follow a process that starts with variables that broadly describe the buying organizations. This confirms both the Two-Stage approach and the Nested approach. This research has revealed an optimal combination, sequence and relative importance of variables, which adds to the existing literature framework. Since there has not been much attention to what variables cause the highest level of overall business performance in practice yet, this should be further investigated under a larger sample size in further research.

This research also showed that companies do perceive some variables more important than others. When looking into the current research framework, we see a lack of well developed theory on the influence of the relative importance on a company’s segmentation process. This is therefore a suggestion for further research.

It is also important to keep in mind that however a company might score higher on market orientation, it does not directly mean that it is better market orientated, in terms of quality, than a company who scored lower on the market orientation scale. Developing a model that also takes the quality of these different sections into account would create a more solid base for comparing different companies on the base of their market segmentation.

The investigation into the bases of granting a preferred customer status confirmed the model of Vos et. al (2016), as all of the five companies decide on the base of customer satisfaction. Two out of the five companies also confirmed that their customer satisfaction gets influenced by one or two of the first-tier determinants within the model. However, we argue that there should be further research in the influence of the amount of turnover on the level of customer satisfaction.

7. LIMITATIONS
Since this case study is based on the investigation of five companies within the transportation / truck sector, the identified findings of this analysis, due to its small sample size, are only valid for this case and cannot be generalized. Next to this, the interviews have been conducted and analyzed by only one student, which could not exclude the possibility of a biased analysis of the relationships.

8. ACKNOWLEDGEMENTS
I would like to thank my first supervisor Prof. Dr. Holger H. Schiele and second supervisor Raymond Looijuis for their support during the development of this Thesis. I further want to thank the department of Purchasing and Supply management for making it possible to write a thesis in their area of interest. I also want to thank the investigated companies for their cooperation and my family and friends for their support.

9. REFERENCES


9. APPENDIX
9.1 Appendix 1
Vos et al. (2016, p. 4620)

9.2 Appendix 2

Average score per section of the market orientation scale

9.3. Appendix 3

Questionnaire

Vragenlijst Markt Oriëntatie – A

1. Binnen dit bedrijf komen we minstens één keer per jaar samen met klanten om te uit te zoeken welke producten of diensten zij in de toekomst nodig hebben.

2. Individen van onze productieafdeling communiceren rechtstreeks met klanten om te leren hoe we hen beter kunnen helpen.

3. Binnen dit bedrijf doen we veel intern marktonderzoek.

4. We zijn traag in het detecteren van veranderingen in de productvoorkeuren van onze klanten.

5. We nemen minstens één keer per jaar poolshoogte bij de klanten van onze producten en diensten om de kwaliteit hiervan te beoordelen.
6. We hebben vaak contact met mensen (verbaal of d.m.v. een vragenlijst) die de aankopen van onze klanten kunnen beïnvloeden.

7. We verzamelen informatie over de (transport)sector via informele kanalen. (bijvoorbeeld lunchen met vrienden uit de industrie, gesprekken met handelspartners etc.)

8. Binnen ons bedrijf wordt informatie over onze concurrenten op onafhankelijke wijze verzameld door verschillende afdelingen.

9. We zijn traag in het detecteren van fundamentele verschuivingen binnen onze (transport)sector (bijvoorbeeld concurrentie, technologie, regelgeving).

10. We beoordelen periodiek het (waarschijnlijk) effect van veranderingen binnen de (transport)sector (bijvoorbeeld regelgeving) op klanten.

**Vragenlijst Markt Oriëntatie – B**

1. Veel informele ‘gesprekken bij de koffieautomaat’ in dit bedrijf gaan over de tactieken of strategieën van onze concurrenten.

2. We hebben minstens één keer per kwartaal vergaderingen tussen de afdelingen van het bedrijf om markttrends en markt ontwikkelingen te bespreken.

3. Marketing personeel in ons bedrijf besteedt tijd aan het bespreken van de toekomstige behoeften van klanten met andere afdelingen.

4. Binnen ons bedrijf worden er periodiek documenten gecirculeerd (bijvoorbeeld rapporten, nieuwsbrieven) die informatie over onze klanten verstrekken.

5. Wanneer er iets belangrijks gebeurt met een belangrijke klant of markt, weet het hele bedrijf hiervan in een korte periode.

6. Gegevens over klanttevredenheid worden op alle niveaus in dit bedrijf op regelmatige basis verspreid.

7. Er is minimale communicatie tussen marketing- en productieafdelingen met betrekking tot marktontwikkelingen.

8. Wanneer een afdeling iets belangrijks over concurrenten ontdekt, duurt het lang voordat andere afdelingen gewaarschuwd zijn.

**Vragenlijst Markt Oriëntatie – C**

1. Het kost ons altijd enorm veel tijd om te beslissen hoe we op de prijsveranderingen van onze concurrenten reageren.

2. Marktsegmentering principes stimuleren de ontwikkeling van nieuwe producten binnen dit bedrijf.

3. Om de een of andere reden negeren we de veranderingen in de product- of servicebehoeften van onze klanten.

4. We evalueren regelmatig onze inspanningen voor productontwikkeling om ervoor te zorgen dat ze aansluiten bij wat klanten willen.

5. Onze bedrijfsplannen worden meer gedreven door technologische ontwikkelingen dan door marktonderzoek.

6. Verschillende afdelingen komen periodiek samen om een plan te maken m.b.t. de wijze waarop wij gaan reageren op veranderingen die zich voordoen in onze sector.

7. De productlijnen die we verkopen, zijn meer gebaseerd op wat wij intern besluiten dan op echte marktbehoeften.

**Vragenlijst Markt Oriëntatie – D**

1. Als een grote concurrent een intensieve campagne zou lanceren die was gericht op onze klanten, zouden we hier onmiddellijk op reageren.

2. De activiteiten van de verschillende afdelingen in dit bedrijf zijn goed gecoördineerd.


4. Zelfs als we met een goed marketingplan zouden komen, zouden we het waarschijnlijk niet binnen afzienbare tijd kunnen verwezenlijken.

5. We reageren snel op belangrijke veranderingen in de prijssstructuren van onze concurrenten.
6. Wanneer we ontdekken dat klanten niet tevreden zijn met de kwaliteit van onze service, nemen we onmiddellijk corrigerende maatregelen.

7. Als we merken dat klanten willen dat wij een product of dienst aanpassen aan hun behoeftes, doen de betrokken afdelingen daar gezamenlijk inspanningen voor.

1 = sterk mee oneens
2 = mee oneens
3 = niet mee eens/niet mee oneens
4 = mee eens
5 = sterk mee eens