VALUE-IN-USE AS CENTER FOR BUSINESS-TO-BUSINESS SEGMENTATION

A case study on segmentation in safety demanding industries

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The first three chapters were a joint-effort with J.I.R. Nelissen, a fellow-student. We performed a joint thesis project at IVM.

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1. INTRODUCTION

The safety service industry is a market that has become overpopulated with both small and big competitors. This industry is populated by organizations that provide services to ensure that safety rules on the job and work terrain are followed properly by providing safety consulting, safety trainings and / or posting professionals with adequate safety knowledge. One organization present in this overpopulated safety service industry is IVM. IVM (Instituut voor Veiligheid en Milieu) provides safety services as safety trainings, safety employees, and safety consulting. Mitchell & Wilson (1988) argued that segmentation is vitally important for organizations in such markets. According to Ellis (2011) using segmentation can help organizations to better target its marketing efforts. Sharip & Bonoma (1984) add to this that segmentation can help organizations to understand the market, select key markets, and manage the marketing department.

Kandeil, Saad & Yousseff (2014) provide a more recent description which implicates that B2B-marketing and segmentation is imperative to fully identify and understand the different groups of business customers, and that this should be done with the aim of increasing the customer value by the means of uncovering the customer needs and fulfilling these needs. This is also suggested by Vargo, Maglio & Akaka (2008), which reviewed the significant role of the customer perceived value-in-use in market segmentation. Value-in-use is a high understanding of the customer needs enables a company to position itself in such way to target the most valuable (potential) customers. Therefore, a company should clearly identify the needs and wishes of the customers in terms of value-in-use.

There is a knowledge gap in the literature regarding B2B segmentation and what role the value-in-use concept has in B2B segmentation. Also, how to identify possibilities to increase the value in-use for the customers in safety demanding industries remains unclear in the literature, or it has been difficult to assess in the past. This research entails a case study these possibilities and tries to enrich the literature regarding value-in-use as a source of business market segmentation.

Therefore, the purpose of this study is research how companies in safety demanding industries can improve their approach to customers based on the value-in-use segmentation approach and matching value propositions. Thus, the main research question is "*How can IVM improve their approach to customers based on the value-in-use segmentation and matching value propositions*".

Before answering on how IVM can improve their approach to customers, a clear understanding is needed regarding the theoretical concepts of B2B segmentation, value-in-use and value propositions. Literature research is done on how the relationship between value-in-use and value propositions is theorized, and also how value-in-use can be improved for customers from a theoretical point of view . Once these relations are known and these concepts are clarified the empirical research can begin.

The aim of the research is to identify how companies in the safety service industry can improve their approach towards customers based on value-in-use-segmentation

For this research the value proposition and value-in-use will be researched from a customer perspective. During the case study the value of the services are based on the customers perception, not the perception of the company that is offering the products/services. Based on these results, ways to segment the customers are identified for the company in the case study, and thus for both the providing and consuming organizations.

The data in this study will be gathered through semi-structured interviews with customers of the researched company. The focus of these interviews is to determine the customers' current value-in-use perspective on the safety services provided, and their value wishes. The analysis of these results will be done by cluster analysis. Through this method, market segments will be formed based on the customers' value-in-use. Afterwards, value propositions will be created to suit these segments.

The research contributes to the existing theory in the field of B2B segmentation and value-in use in B2B context. It gives both a theoretical and practical view on how value-in-use plays are role in customer segmentation. The literature review expands the current theory on the concepts of B2B

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segmentation and value-in-use, and how these can be put together and the case study gives a practical example on how to implement it.

The next chapter describes the theory regarding the several concepts that are discussed or that are used during this research. Following, the description of the research gap and the purpose of the research. Next, the methods that are used for this research are described and an introduction to the case study is given. After this, the results of the case study are presented, and a value proposition is proposed for the studied company. Finally, the conclusion combined with the managerial implications is presented.

2. RELEVANT THEORY

2.1 BUSINESS-TO-BUSINESS SEGMENTATION

Market segmentation is a marketing concept that enables organizations to divide (potential) customers into groups, based on similar characteristics or interests, target those groups, and to position itself to best serve these groups of customers. One of the first authors who described market segmentation were Schiffman & Kanuk (1978). They described segmentation as "The process of dividing a potential market into distinct subsets of customers and selecting one or more segments as a target market to be reached with a distinct marketing mix." (1978). Over the years, more authors elaborated on the concept of segmentation with new, or extended descriptions or definitions. Shapiro and Bonoma (1984) studied segmentation in industrial markets and described segmentation as a process which forms groups of customers who are more like each other than customers outside of this group. A more extensive definition is provided by Mitchell & Wilson (1998), who defined segmentation as follows: "segmentation is an ongoing and iterative process of examining and grouping potential and actual buyers with similar product needs into subgroups that can then be targeted with an appropriate marketing mix in such a way as to facilitate the objectives of both parties. the process has strategic and tactical marketing implications and should be periodically reviewed to incorporate the lessons of experience and the maintain an optimal cost/benefit ratio." (p. 431, 1998). Kandeil et al. (2014) argue that it is important to understand the characteristics of the different groups of customers, and that segmentation is done with the aim of increasing the customer value, by the means of uncovering the customer needs and fulfilling these needs. In the definitions of Schiffman & Kanuk (1979), Mitchell & Wilson (1998), and Kandeil et al. (2014), three key aspects of segmentation can be identified: segmenting, targeting, and positioning. First you should segment your customers into groups with similar needs, then target one or more of the created groups, and finally position your company in a way to best serve these targeted groups. Also, Shapiro & Bonoma (1984) identify these three key aspects in their research but describe them as the analysis of the market, the selection of key markets, and the management of the marketing department.

In marketing, a distinction can be made between three types of customers: consumer (B2C), business (B2B), or (semi)government (B2G). Since each of these three types has its own behaviour, this distinction is also important for the segmentation process (Ellis, 2011). Some authors such as Ellis (2011) combine businesses and government customers. However, since government organizations must comply to stricter rules in the buying process (Aanbestedingswet, 2012), this research will make a distinction between business and government customers. The most important differences between the different customer types are the buying process, the stakeholders involved in this process, and the buyer-seller relationship. [1] The differences for each of the customer types are described in table 1.

	Business-to-Consumer	Business-to-Business	Business-to-Government
Buying process	Impulse decision	Decision process	Tender
Stakeholders	Individual/Family	Purchasing teams	Tender committee
Relationship	Transactional	Relational	Mixed

Table 1 Buying process, Stakeholders and Relationship differences B2C, B2B, B2G

Consumers usually make a buying decision based on relatively little information, and in a short period of time (Ellis, 2011). The decision is made by an individual or in a family setting, and purchases are usually only transactional. Within business purchases, the decision is made through a buying process. With a long information gathering process, and with a medium to high complexity of the purchase, this process takes more time than the process consumers go through (Mencarelli & RIviere, 2015). Especially for the more complex purchases, this decision is made by multiple people. For more simple purchases, most companies have purchasers. Also, the relationship differs from consumers. In business-to-business purchases, companies try to engage in relationships which create value for both companies (Brennan & Turnbull, 1999). (Semi)government institutions such as municipalities, educational institutions, and public transportation in the Netherlands, must tender [2] their purchases (Aanbestedingswet 2012). In general, it means that companies can subscribe to public tenders from these institutions. A tender committee will then review these subscriptions and choose the best offer. Depending on the type of organization and the suspected amount of the tender, there are different types of tenders. For bigger amounts, companies have to publicly tender their purchases. This means everyone can submit an offer to this tender and the relationship between buyer and supplier depends purely on this tender, and the tender is won by the best offer. For smaller tenders, companies can choose to privately tender their purchases. In this case, the buyer invites at least three companies to submit an offer (Aanbestedingswet 2012). Similar to the public tender, the best offer wins the tender. However, to be invited for a private tender, an existing relationship could help being invited to participate in the tender. Since each of the different customer types behaves different, the segmentation approach for each customer type should also be different. A contrasting view is presented by Seth Godin. Godin stresses that the difference between b2b and b2c should not be exaggerated. According to Godin, at the end, the only difference between b2b and b2c is who pays the bill. Since this view of Godin is not supported by many other authors, this paper will proceed on the belief that b2b and b2c both have different characteristics, as is supported by the majority of the literature.

The criteria on which the (B2B) segmentation is based, depends on the focus of the buying organization. In the literature, the segmentation of customers is in most cases based on company size or industry. These criteria are based on the believe that companies in the same industry, and of the same size, have similar interests when engaging in a b2b relationship. These segmentation criteria, however, do not necessarily describe the customer's needs. In the literature, there are many different segmentation criteria. Fuentes-blasco, Moliner-vela and Gil-saura (2017) segment local travel agencies based on ICT use, relationship value, and benefits. Kandeil et al. (2014) segment their B2B-customers based on the length of the relationship, the recency of the last sale, the frequency of sales, and the average amount spent per transaction (monetary). Jaratt and Fayet (2012) segment their B2C customers based on two key variables: benefits and personal attributes. Their research focused on

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support decision making in changing environments. The key variable benefits contain: security, rate of return, ability to grow wealth, and desired level of personal control. Personal attributes contain: investment experience, customer life stage, and personality type. Shapiro and Bonoma (1984) identify several possible segmentation approaches. In their research regarding segmentation in industrial markets, Shapiro and Bonoma (1984) identified purchasing function, power structures, buyer-seller relationships, general purchasing policies and purchasing criteria as possible segmentation criteria. As seen in the previous studies, each of the studies used different segmentation variables. So far, there has been no research which uses value-in-use as a segmentation variable. However, since there is no clear set of variables necessary to perform segmentation, there is no indication that it is not possible to segment based on value-in-use.

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2.2 VALUE-IN-USE

For a long time, it has been found difficult to understand the meaning of customer value. Literature in the field of Service Dominant Logic (SDL) has reviewed the significant role of the customer perceived value-in-use (Vargo, Maglio & Akaka, 2008). They stated that the roles of the customer and producers in creating value are not distinct, and therefore are co-creating value. With other words Ballantyne & Varey (2006) explained it that the marketing timeline starts as pre-sale services interactions and develops to the post-sale value-in-use of the service. This seems similar to the definition of MacDonald, Martinez, Tossi & Wilson (2011). They defined value-in-use as a customer's outcome, purpose or objective that is achieved through service. In this definition service is defined as the provider's process of using it resources for the benefit of the customer (Vargo & Lusch, 2008).

Furthermore, their study suggests that to get a clear understanding of the value-in-use from the customer's perspective, it is necessary to involve several participants form the customers to ensure that the value is described in terms of organizational level and in terms of individual level (MacDonald et. al, 2011). They state that it is more difficult in B2B context since value-in-use is highly context specific, and therefore more important to assess more extensive. Also, a key priority for managers is to create and enhance tools that capture value-in-use for services and that can communicate the value to the customers (Ostrom et. al, 2010). Flint, Woodruff and Gardial (1997) described value as a combination of three pillars; values, desired value and value judgements. They delineate that value is created by delivering benefits that help customers achieve their goals.

The view of value has changed over the years. It is no longer seen as residing in a product or service offering, but in the customer's use experience. This also introduced the shift of the customer's role in the value-in-use creation. Instead of being a passive receiver of value, they became an active co-creator (Medberg, 2016). Customers are ready to pay for the value is offered. They are ready to pay for the presence of certain attributes, not because they exceed expectations, but because of their association with higher goals in the customer's mental model (Zeitham et. al, 1996). These goals, and perceived attributes may change of the time of a relationship with the customer (MacDonald et al, 2011). At the beginning, the customers are looking for solutions for the main pain points of their process. Once these solutions are found, customer delight becomes more important and the perceived goals more comprehensive. The perceived goals tend to switch from preventative goals to promotional goals. Shelton (2009) described product and service innovation in four stages. The first stage describes the innovator as a product-centric manufacturer, followed by the 'as-needed' service provider. The third stage is when the innovator becomes a full-line service expert, which is followed by the last stage, being an integrated solution provider. Through these stages the supplier starts as a product-centered solution provider but ends as a product-service integrated supplier. Through the extended services, new perceived goals of the customers may be met. Ballantyne and Varey (2006) go even further on this view. At the start of the relationship between a customer and supplier, several intentions are made by both parties. By building the quality of the relationship through relating, communicating and knowing, the value for both the supplier and customers can be translated in a proper value proposition. The enactment of this value proposition is what Ballantyne and Varey call the value-in-use.

Flint et al. (1997) described in their research what events may trigger changes in the perception of value from the customer's view. They identified three groups of trigger events; supplier located changes, customer located changes, environment located changes. Figure 1 gives an overview of events in each of the three groups that may occur that lead to a change in the perceived value perception.

From a perspective of IVM, they could influence the event within the Supplier Located Changes. For example, improve their quality of services, better price offering and increase the availability and offerings of various services.
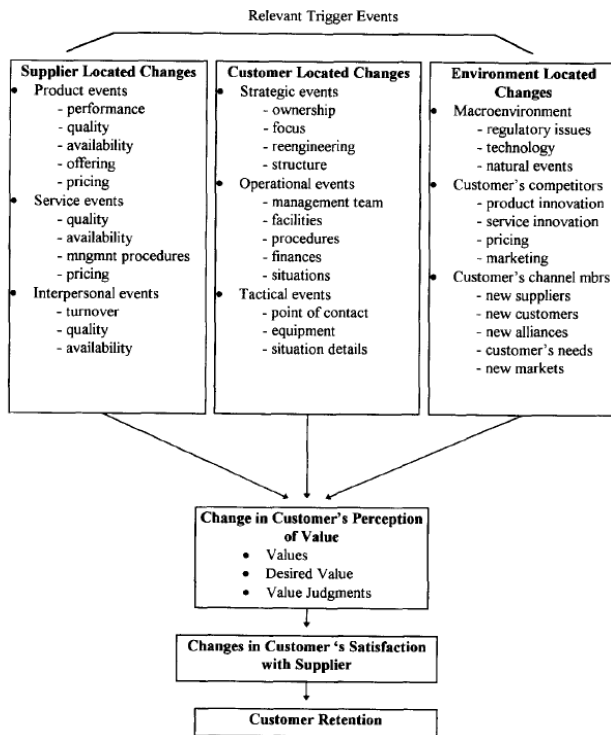
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Relevant Trigger Events

Supplier Located Changes	Customer Located Changes	Environment Located Changes

• Product events
  - performance
  - quality
  - availability
  - offering
  - pricing
• Service events
  - quality
  - availability
  - mngmnt procedures
  - pricing
• Interpersonal events
  - turnover
  - quality
  - availability
	• Strategic events
	  - ownership
	  - focus
	  - reengineering
	  - structure
	• Operational events
	  - management team
	  - facilities
	  - procedures
	  - finances
	  - situations
	• Tactical events
	  - point of contact
	  - equipment
	  - situation details
		• Macroenvironment
		  - regulatory issues
		  - technology
		  - natural events
		• Customer's competitors
		  - product innovation
		  - service innovation
		  - pricing
		  - marketing
		• Customer's channel mbrs
		  - new suppliers
		  - new customers
		  - new alliances
		  - customer's needs
		  - new markets

Change in Customer's Perception of Value
- Values
- Desired Value
- Value Judgments

Changes in Customer 's Satisfaction with Supplier

Customer Retention

Figure 1 Trigger events for changes in perceived value (Flint et al., 1997)

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2.3 VALUE PROPOSITIONS

The value proposition concept is used in both the goods-dominants logic (G-D logic) and the service-dominant logic perspectives (Skalen, Gummerus, Koskull, Magnusson, 2014). Since this research entails the service-dominant logic (S-D logic), the focus of this part will remain on the value proposition concept that are used in the S-D logics. The value proposition concept has not been clearly identified in the literature. However, several authors have argued the concept in the S-D logic perspective. An example is given by Grönroos and Voima (2013) which argue that the value proposition should be considered as a promise that customers can extract value from an offering. Skalen et. Al (2014) observed two major aspects of value propositions in S-D logic that differ from the G-D logic: (1) the focus on co-creation, and (2) the importance of resource integration.

To realize a value proposition, a company must co-create with its customers by means of direct interaction (Vargo and Lusch 2004, Grönroos and Voima 2013). The value proposition can be explained by the firm through direct interaction, how it can be used with other value propositions and, thus, it can be tried to align it with the firms and the customers processes. Some researches argue that firms and customers enter negotiation to communicate their senses of values to each other. Based on these negotiations reciprocal value propositions can be created (Ballantyne et al. 2011). Thus, it is suggested that value propositions are crafted by firms and customers that are influencing each other in the process, while the value is realized later on during interactions (Skalen et al., 2014).

The second aspect is resource integration. "S-D logic differentiates between operant resources, that is, knowledge and skills that operate on and integrate operand resources, which are tangible" (Vargo and Lusch, 2008). During the interactions between the customer and the firm that is offering the service, both actors integrate their resources in order to create value (Grönroos and Voima 2013). Meanwhile, the customer integrates recourses (products and/or services) in their own firm in order to create extra value for themselves (Vargo and Lusch, 2008). Grönroos and Voima (2013) also argued that the value-in-use for the customers is created during the usage, where the value is socially constructed through experiences.

Creating or developing existing value propositions is also defined as service innovation (Michel et al. 2008). Skalen et al (2014) extend this view by suggesting that service innovation takes place through developing/creating practices, and that these result in the development of new/existing value propositions.

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2.4 THEORETICAL CONCEPTS

The link between the theoretical concepts used in this thesis are shown in Figure 2. The segmentation based on value-in-use, will form several segments. For each of these segments, a value proposition will be created based on the values for each segment.
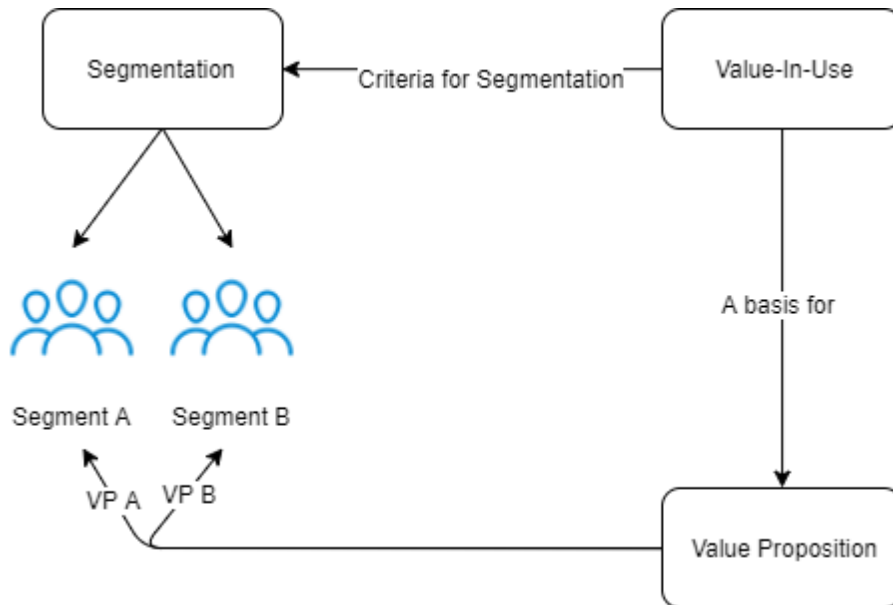

Figure 2 Connection of Theoretical Concepts

The theory discussed will form the foundation for this research. This section also answered the first two sub-questions:

1. What is the relationship between value-in-use and value propositions?
2. How can the value-in-use concept be used in B2B segmentation?

The combination of value-in-use and segmentation will be used in gathering of information and the processing of this information. Value proposition will be central in the sessions performed at IVM.

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3. METHODOLOGY

3.1 COMPANY FOR THE CASE STUDY

The Instituut voor Veiligheid en Milieu (IVM) was founded in 1985 and is a provider of safety services, providing services as safety trainings, safety employees, and safety consulting. Their services are separated into three different pillars: education and training, detachment, and consulting. The education and training pillar provides a wide variety of courses such as several safety degrees like EHBO, BHV, and VCA, but also courses for forklift trucks, asbestos detection, and offshore working. In the last few years, IVM also developed their own E-learning modules. The detachment pillar has a nationwide network that provides organizations that have employees working on a safety demanding worksite, with safety staff. These safety workers oversee the employees that are working on these worksites and make sure that they work in line with all the safety regulations. The detachment pillar of IVM is one of the biggest in the Country. The third pillar, consulting, helps organizations with making and implementing crisis management plans and emergency plans. The consultancy pillar also performs BHV-checks or helps with emergency drills. For the remainder of this research, the focus will be primarily on the education and training pillar and the detachment pillar since those two pillars account for over 95% of the revenue.

IVM has been a very successful company in the past, but in recent years they have struggled to turn a profit. Where detachment has been steady over the years, the revenues of the education and training pillar have been decreasing, despite the launch of their new E-learning platform. One of the possible causes is the lack of segmentation of their customers. Within IVM there is no clear distinction between the customers. Since there is no distinction between the different customers, they all are approached in the same way, with the same product or service portfolio. By better segmenting their customers, IVM should be able to approach the customers with a product portfolio better suited for the needs of the different types customers.

3.2 DATA COLLECTION

To determine how IVM can segment their B2B-customers based on a value-in-use perspective, this research will consist out of several semi-structured interviews, which will be conducted with customers of IVM). The goal of these interviews is to determine the customers' current value-in-use perspective on IVM's services, and their value wishes. Since the research targets on getting detailed, in-depth information, semi-structured interviews are preferred over structured interviews. To get a clear image of the situation and wishes of customers out of these interviews, some customers will have multiple employees interviewed. Ideally, a project leader responsible for the services delivered by IVM, and a trainee or employee who was directly related with IVM's services. Due to the limited timeframe, and the availability and willingness of IVM's customers, it will not be possible to conduct multiple interviews for all customers. The goal is to conduct multiple interviews for at least two customers for both education and detachment. The interviews for each of the business units will be conducted separately from each other.

To maintain the validity of this research, the research aims to reach its data saturation. Data saturation means that after several interviews, no more new information is gathered. Fursch and Ness (2015) define data saturation as follows: "Data saturation is reached when there is enough information to replicate the study when the ability to obtain additional new information has been attained, and when further coding is no longer feasible." (p. 1408). Numbers on when data saturation is reached

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vary from author to author with each their own argumentation: 30 to 50 (Morse, 1994), 20 to 30 (Creswell, 1998), 16 to 24 (Hennink, Kaiser & Marconi, 2016). Patton (1990) argues that there is not one number for data saturation, but rather that the sample size is best determined by the resources and time available. Fursch and Ness (2015) also argue there is no single number, and that there is no one-size-fits-all, but that interviews can stop when no new information is gathered. This research however will use the number introduced by Francis, Johnston, Robertson, Glidewell, Enstwistle, et. al (2010). Francis et al. (2010) argue that the minimum number of interviews for each of the two business units is 10 followed by more interviews until there are three consecutive interviews which give no new information. This method is a middle way between the authors who define a set number (Morse, 1994; Creswell, 1998; Hennink et al., 2016) and the authors who do not (Fursch & Ness, 2015; Patton, 1990). According to Francis et al. (2010) this way of determining data saturation gives 97% of the information available. This 97% is comparable with a α of 0.03 in quantitative research. This way of determining the sample size is a good fit for this research since customers in different sectors are interviewed. Because of these different sectors, it is, on forehand, difficult to determine if customers in these different sectors have the same perception of value and the same issues. If this saturation is not reached, a reasonable maximum number of interviews for this research will be 25 per business unit. This is based on the potential sample size which is: 1237 for education and 93 for detachment, and the limited amount of time for this research (Patton, 1990). From the 1237 customers of IVM, 23 customers have been contacted if they were interested to participate in this research. These companies were selected based on the type of education they bought and the size of the revenue. To make sure there were no outstanding issues between the customers contacted and IVM, the final list was compiled together with a representative of IVM. From those 23 customers 10 responded they wanted to participate in the research, 7 customers responded did not want to participate, and 6 customers have not responded to the request.

3.3 CLUSTER ANALYSIS

To examine the value-in-use perspective for the different segments within IVM, cluster analysis is the best suited analysis method. One of the applications of cluster analysis is the identifications of market segments (Jain, Murty, and Flynn, 1999). Since cluster analysis is a quantitative research method, this is not suitable for the qualitative data gathered in this research. However, according to Henry, Dymnicki, Mohatt, Allen and Kelly (2015) it is also possible to use this analysis with qualitative data. To prepare the qualitative information gathered from the interviews for the cluster analysis the data must be coded. Codes will be generated based on an analysis of the interview data. These codes will be factors named by the interviewees regarding either B2B segmentation or value-in-use. There will be three values of codes, 0, 1 and 2. A score of 0 gives the indication that the code is not applicable to the interviewee or that it is not mentioned during the interview and there is no specific reason to suspects its importance for the interviewee. If the code is scored with a 1, it means that the code is mentioned by the interviewee but that it is not of great importance. But, the code is also scored with 1 if there is good reason to believe that there is certain relevance of the code for the interviewee. Finally, the code can be scored with a 2 if the interviewee mentioned that the code is of real importance and/or is preferable. These codes can then be used to perform the cluster analysis (Henry et al., 2015).

There are several ways to define the number of clusters. One way to identify them is to look at the different dendrograms (hierarchical approach). Using the dendrograms from a hierarchical cluster analysis is a suitable way to determine the number of clusters, due to the limited number of

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observations (<300 observations) (Hair, Black, Anderson, and Babin, 2013). Dendrograms will form a visual presentation of the observations, and their relative distance to each other.

After identifying the segments with the cluster analysis, sessions are organized with employees from IVM. In these sessions the results of the interviews and the results of the cluster analysis are presented to some of the key employees of IVM with whom a discussion will be held regarding improvements for the current value proposition of IVM. The key employees that were involved during the discussions were management personnel for the knowledge of the industry and the business processes. Furthermore, employees that were often involved in contact with customers regarding the safety services offerings were involved.

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4. RESULTS

In order to create matching value propositions for each of the customers segments, that are based on value-in-use, at first a customer analysis should be done. Once this is done, a cluster analysis is used to identify the different segments that are based on the value-in-use characteristics that were identified during the interviews. The customers analysis and cluster analysis will be combined in order to get to the value propositions. Each analysis is discussed in below in this chapter, and the value propositions will be discussed.

4.1 CUSTOMER ANALYSIS

In the table 2 the customers of IVM that participated in the research are (anonymously) presented. The table provides information about the branch that the company competes in (a), the certifications that are required for employees working in the warehouses / factories (b), internal safety guidelines (c), the amount of employees working at the customers (d), the location that company offer their services (e), the amount of revenue (expressed in categories) that is generated by IVM (f), and the services that IVM provide to the customer (g). The Netherlands has several laws that companies need to comply to when performing certain procedures in their line of work. In order to comply to those laws employees need to be in the possessions of specific certificates to ensure that they know how to handle in specific situations, or how to operate specialized equipment. Besides the safety laws in the Netherlands, most companies also have internal safety regulations. An example of such a safety regulation is the request a VCA certificate for contractors they hire. Other frequent safety instructions are gate instructions in which visitors must see a short movie about the safety regulations on the worksite, or a certificate on how to deal with certain behavior of people on the work floor. Furthermore the companies can be divided into two groups of group size based on the amount of employees working at the company. A distinction is made between companies with 100 and less employees, and companies with more than 100 employees. Also, the revenue that is generated by IVM from the different companies is used to ensure that different types of companies are taken into account in the research. Three groups were identified; 1) Small, 2) Medium and 3) Large based on the amount of revenue generated per year. Next to the size and revenue that of the customers, the area / region that the company offers his services to is given. Among the population of this research a variety of region is established. It differs from regional service offering to service offering nationwide and even globally. Services that are delivered by IVM are: VCA, BHV (First Response), EHBO (First Aid), Evacuation Training, Fire extinguish courses, Forklift skills & practices, Hoist courses, Breath protection courses (Adembescherming), Gas measurement, Platform instruction courses (Hoogwerker), Telehandler (verreiker), and Flange Connection course (flensverbinding). Also some advisory services are provided by IVM. For example Crisis Management Team advisory, Company Emergency Plans, Evacuation advisory.

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Company	Branche	Certifications	Internal Guidelines	Company Size	Location	Revenue IVM	Deliverd Services
C1	Infrastructure, Water and Nature	VCA, Ademlucht	-	< 100	NE	S	BHV, VCA
C2	Food Production	VCA, ERP	Internal Operational Regulations,	> 100	M	M	(G)BHV, VCA
C3	Machine Piping	Lasserscertificaten	Internal regulations, Locatie gebonden certificaten	>100	Nationwide		BHV, VCA, Lasser
C4	Production	BHV, Hijsen, Heffen, Bovenloopkranen	-	-	NE	S	Bovenloopkranen, Hijsen, Heftruck, Hoogwerkers
C5	Education	VOG	Trainingen tegen agressie en geweld, Veiligheidsplan	>100	E	S	BHV
C6	Petrolchemical	-	Workcertificates, Medewerkers VCA, Trainingsdag, eigen procedures	>100	Nationwide	S	Gasmeten
C7	Petrolchemical	-	Workcertificates, Aannemerspraktijkplan, Medewerkers VCA	>100	Nationwide	S	VCA
C8	Production		10 Life Securities Rules, Workcertificates	>100	Worldwide	L	Heftruck, VCA, Hoogwerker, Kleine blusmiddelen, MW training, CMT
C9	Education	BHV, VCA		>100	E	-	-
C10	Maintenance	-	Safety Trainingen	-	NE	M	Heftruck, BHV

Tabel 2Overview of Customers IVM that participated

The data obtained by the interviews by the interview showed that there are two main categories of services that provided by IVM to their customers; 1) Labor Skill Courses and 2) Company Safety Regulations and Advisory. The first category ,the Labor Skill Courses are the courses that are required for employees to be allowed to perform their job. These courses involve training in specific skillsets that are required for performing in a save manner. Examples are the Forklift skills course, Gas measurement and Platform instruction courses. The second group, Company Safety Regulations and Advisory are more focused on the First aid, First Response teams and the Emergency Plans of the customers. The services are often focused on situations that require safety personal or first aid responses. It often occurs that the courses and training provide to these customers are tailored for the customers and that during the year IVM evaluates the emergency plan(s) of the customer. Based on these evaluations recommendations are given by IVM or following trainings are tailored in order to address any shortcomings.

Furthermore, the type of industry can be seen as a divider between the customers. Two main industries can be stated: 1) Education & non-technical production and 2) Infrastructure, Raw materials procurement and production. The first category involves companies that produce, procure and operate with raw materials in order to produce products that are used in infrastructure or other building projects. The second category is more focused on the production of consumer products that are consumed directly by customers or are focused on enhancing a non-tangible skill of people (education).

Table 3 shows how the companies are divided among two categories, based on the interviews.

Company	Service Category	Industry Category
C1	Company Safety Regulations and Advisory & Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C2	Company Safety Regulations and Advisory	Education & non-technical production
C3	Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C4	Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C5	Company Safety Regulations and Advisory	Education & non-technical production
C6	Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C7	Company Safety Regulations and Advisory & Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C8	Labor Skill Courses	Infrastructure, Raw materials procurement and production.
C9	Company Safety Regulations and Advisory	Education & non-technical production
C10	Labor Skill Courses	Infrastructure, Raw materials procurement and production.

Table 3 Categories per company

4.2 VALUE-IN-USE

During the interviews, customers were asked where they saw value in the services of IVM or similar services that were used from other suppliers. A problem that often occurred during the interviews was that the terminology of value-in-use was not known or barely known by the interviewee. Even when explained during the interview, it remained hard for the interviewee to point out what the exact value-in-use of the services is. In order to get the needed results some modifications were made regarding the questions during the interviews.

From those ten customers, nine value-in-use characteristics were identified. The identified characteristics are summed below with some short explanations.

Training Location Nearby
This characteristic was mentioned regarding the location were the trainings were given. Some of the customers mentioned they would like to have a training location nearby their own office in order to loose less time on traveling for a training. Furthermore, some of the customers mentioned that is a pre to have the training on their own office.

Flexibility in Training Planning
For some of the customers it is important that they have the possibility to follow a course/training within a short period of time. For example, new employees cannot wait for a long time to complete their training in order to start working according all the safety regulations.

Online Training
Some of the customers mentioned that for some trainings, such as courses for repeating theory, are well suited to do online in the spare time of the employee. However, most of the customers also mentioned that they prefer the courses to be given in physical sessions. The lack of the possibilities to asks questions to the instructor is for several customers an issue, and for some firms the trainings are also part of teambuilding. One interviewee mentioned: "An online training is preferred for people that are already doing their job for many years and therefore completed a similar training often before, however for someone that has just started with their job, the lack of a supervisor to direct their question too is decreasing the quality of the learning".

Support Besides the Training
For some of the courses, such as the course for first response teams, customers prefer/appreciate that there is some kind of extra support besides the course. This could vary from some extra advice regarding specific situations within the company, to the complete support with planning and training.

Tailor-made Training
Roughly, it can be said there are two sides of this characteristic. Some customers do not have any wishes regarding a tailor-made training, they believe that the courses should comply to the safety requirements that are set by law, for example the first response team courses. However, another interviewee said: "For the practical side of the First aid team we would like have it performed at our own location, with our own team. So that the team now how to handle at our own location."

Higher Safety Standards
Almost all of the interviewed customers mention that they handle higher standards regarding the safety regulations on the work floor. They often have their own safety regulations, for both the customers and employees, that apply to the location that they work on. Also, they prefer that the courses that they follow do not only apply to the safety demands from the law, but that the course also has higher safety regulations.

Total Unburden for Trainings
Only a few of the customers mentioned that they would prefer to be totally unburdened regarding safety trainings. This entails the administration, planning of trainings and if wished other support regarding the training. However, most of the costumers did not mention this characteristic or did not find it that important as long as the administration was somehow compatible with the administration of their own firm.

Large Scala of Trainings
Several of the customers mentioned that it is preferred that the supplier of the safety training has a large offer different courses that they can follow and use in their work. With a large offer of courses it makes the administration, planning and contact regarding courses far more easier if everything is centralized at one supplier instead of several different suppliers. An interviewee mentioned: "At the moment we have several suppliers of safety courses due to the limited offering. We often consider to switch to another supplier of safety courses if they have a large offering that complies to our demands'.

Extensive Knowledge of the Organization
This characteristics was mentioned by most of the interviewed customers. They wish that their supplier has extensive knowledge of the organizations because of various reasons. It could be either because they wish to have specialized support regarding certain situations, or because they wish to have a training that is tailor-made to their offices and/or processes. Besides, for some processes in the field it is wished that the trainee gain some extra knowledge outside the basic information that may be of use for specific processes in the organization.

Table 4 shows the scores of the different customers on each value-in-use characteristic. There will be three scores; 0, 1 and 2. A score of 0 gives the indication that the characteristic is not applicable to the interviewee or that it is not mentioned during the interview and there is no specific reason to suspects its importance for the interviewee. If the characteristic is scored with a 1, it means that the characteristic is mentioned by the interviewee but that it is not of great importance. But, the characteristic is also scored with 1 if there is good reason to believe that there is certain relevance of the characteristic for the interviewee. Finally, the characteristic can be scored with a 2 if the interviewee mentioned that the characteristic is of real importance and/or is preferable. Table **X** is also the basis for the segmentation of these customers.

Company	Training Location Nearby	Flexibility in Training Planning	Online Trainings	Support Outside Training	Tailormade Trainings	Higher Safety Standards	Total Unburden for Trainings	Larga Scala of Trainings	Extensive Knowledge of the Organization
C1	2	2	0	0	0	1	0	2	1
C2	1	0	0	2	2	2	1	0	2
C3	2	2	0	0	0	1	0	2	0
C4	2	1	1	0	0	0	0	1	0

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C5	2	0	0	2	2	2	0	0	2
C6	0	0	0	2	1	1	2	2	2
C7	0	0	0	0	1	2	0	0	1
C8	0	1	2	1	2	2	2	2	2
C9	2	0	1	2	2	2	1	0	2
C10	0	0	0	0	0	1	0	0	1

Tabel 4 Overview Value-in-Use Scores per Company

4.3 CLUSTER ANALYSIS

To form customer segments out of the information gathered in the interviews, a cluster analysis was performed. The cluster analysis consists of several steps. The first step is to review the data to identify missing values or outliers. Next, the number of clusters must be defined. Then, the differences between the different clusters must be identified. Finally, the outcome of the cluster analysis will be compared to the available information of the customers, such as the sector, internal safety regulations, services used etcetera..

In de data presented in Table 5, it is shown that VIU3, Online Training, is not in one of the clusters. To identify the outliers in the data, multiple hierarchical cluster analyses were performed. Using dendrograms is a suitable way to identify outliers. A dendrogram shows the relative distance between the different observations. Identifying outliers is done by looking at single observations on the outside of the dendrogram, or observations with a very high distance to other cluster centers (higher than 20).

The dendrogram shown in Figure 2 shows that company C6 and C8 are in the center of the Dendrogram, however they have a distance bigger than 20 to other cluster centers. Also company C7 has distance further than 20, however it is closely related to company C10. These outliers could heavily disturb the analysis since the analysis is built on a limited number of observations. However, the decision was made not to exclude these two companies from the research. Despite the risk that these companies disturb the data, there is also the possibility that due to the limited number of observations, there are more clusters not represented in the companies interviewed.

Final Cluster Centers

	Cluster	
	1	2
VIU1	2	1
VIU2	2	0
VIU3	0	0
VIU4	0	1
VIU5	0	1
VIU6	1	2
VIU7	0	1
VIU8	2	1
VIU9	0	2

Table 5 Value-in-use characteristics per cluster

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Figure 2 Single Linkage, Identifying outliers by looking at the relative distance of the observations

There are several ways to define the number of clusters. One way to identify them is to look at the different dendrograms. Using the dendrograms from a hierarchical cluster analysis is a suitable way to determine the number of clusters, due to the limited number of observations (<300 observations) (Hair, Black, Anderson, and Babin, 2013). Clusters can be found by looking at groups in the different dendrograms. The smaller the distance between different observations, the more similar observations are to each other. Figure 3 to 7 show dendrograms performed by different clustering methods. What the different dendrograms show is that mainly two clusters should be defined. To define the definite number of clusters, a cluster analysis alone is not sufficient. The definite the definite number of clusters, each cluster should have external validation. (Hair et al., 2013). The definite clusters will be formed during the creation of the value proposition. By linking this cluster analysis to the customer analysis, the final number of segments will be defined.

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Figure 3 Centroid Linkage, Identifying Number of Clusters by Identifying Groups of Observations
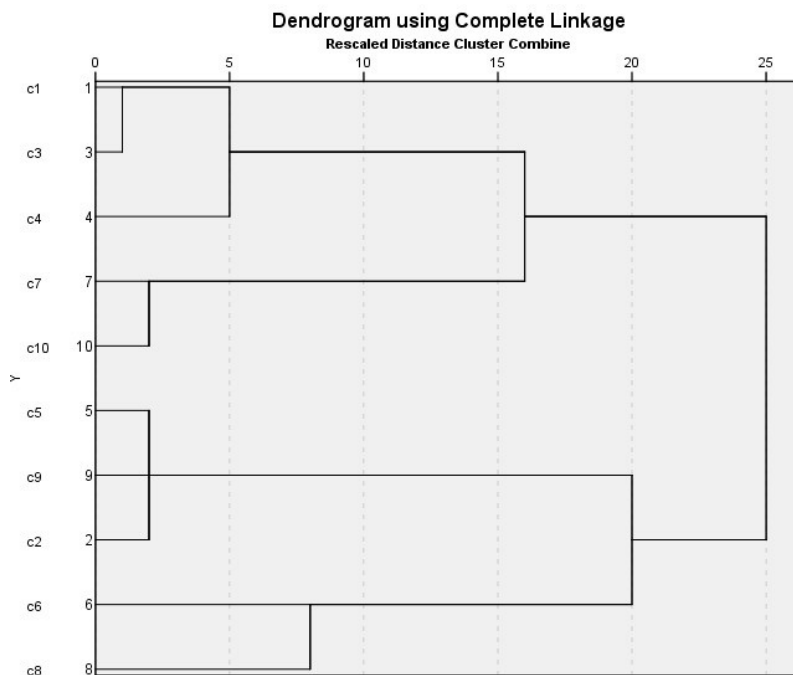
Figure 4 Complete Linkage, Identifying Number of Clusters by Identifying Groups of Observations

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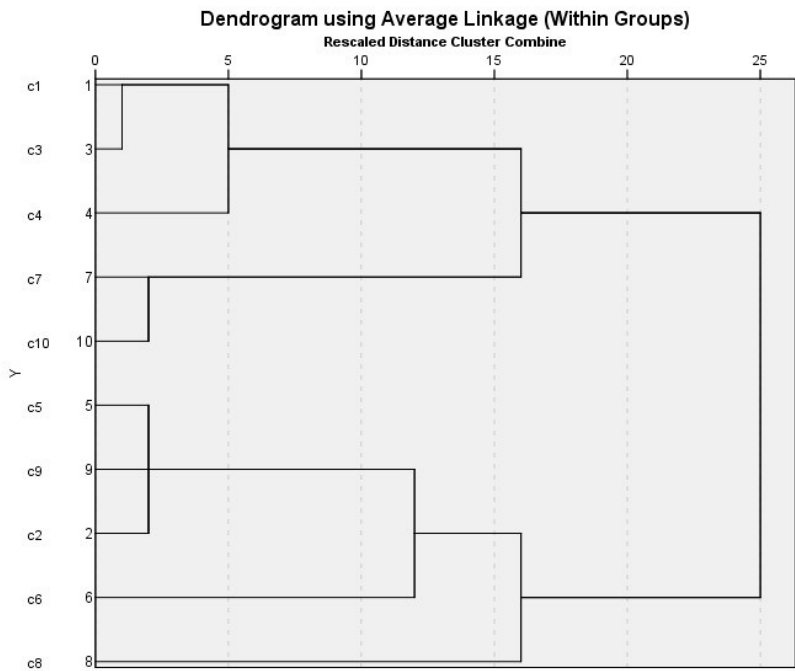
Figure 5 Average Linkage (within Groups), Identifying Number of Clusters by Identifying Groups of Observations
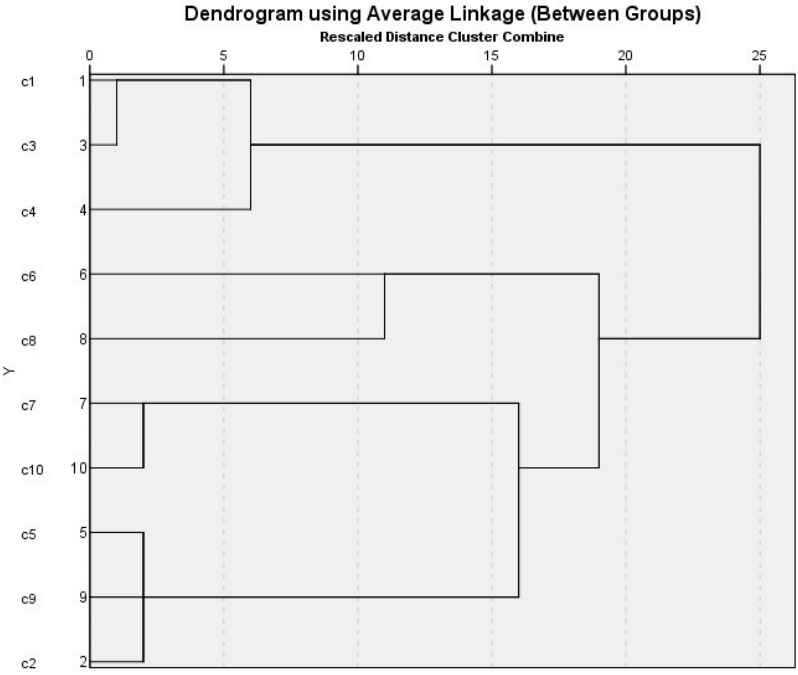
Figure 6 Average Linkage (between groups), Identifying Number of Clusters by Identifying Groups of Observations

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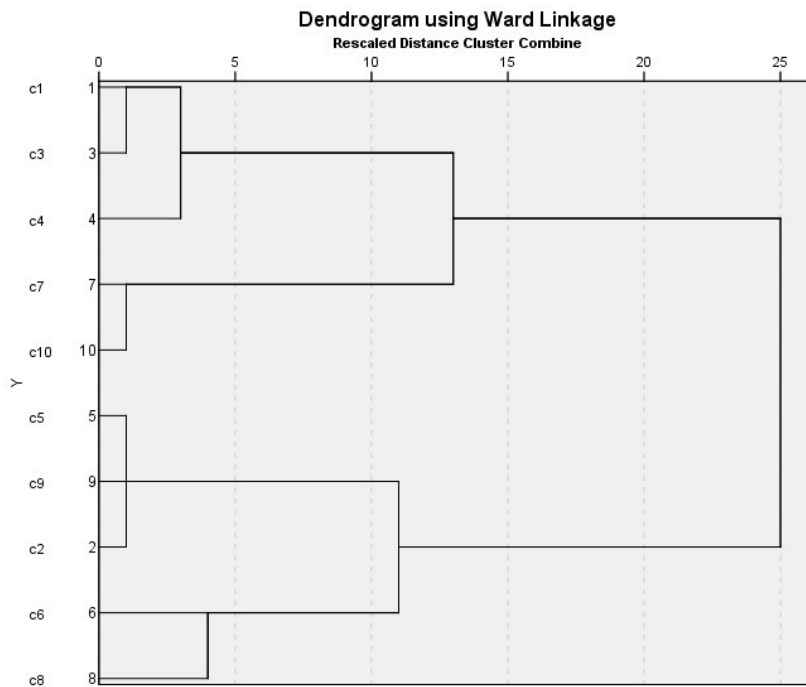
Figure 7 Ward Linkage, Identifying Number of Clusters by Identifying Groups of Observations

Two clusters that returns in each of the dendrograms is the cluster that includes the companies C1, C3, C4 and the cluster that includes the companies C2, C5 and C9. In four of the five dendrograms, both C6 and C8 are close to the centers of the cluster with companies C2, C5 and C9. The same phenomena is visible for company C7 and C10. These companies are more closely related to C1, C3 and C4. Based on the above two clusters are defined using Ward Linkage.

In table 5 the underlying value-in-use characteristics are shown per cluster, see table 6 for the translations of the 'VIU' codes. Cluster 1 is mainly defined by the following Value-in-use characteristics:

- Flexibility in training-moment
- Training Location nearby
- Large range of trainings

The characteristic 'Higher safety standards' is also important for this cluster, but has a less significant impact. The other identified value-in-use characteristics are not significant for this cluster. For example, during an interview with one of the customers it was mentioned that the quality of the training is important, but that is not the main factor on which a decision is made regarding the purchase of the services.

The second cluster is mainly identified by the following characteristics:

- Higher Safety Standards
- Knowledge of the organizations.

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Furthermore, there are five characteristics that are important for this cluster but in a less significant way:

- Training Location Nearby
- Support Outside Training
- Tailor-made Training
- Total unburden for training
- Large range of trainings.

The two most important characteristics were mentioned as main drivers for selecting the provider of the services. One of the interviewees mentioned that quality stands above the costs for selecting the provider of the services. Also, it was favorable that the provider of the services (in this research IVM) has knowledge of the organization. The other five characteristics are also important to this cluster, and are taken into account when customer make a decision on the provider of services, but are not leading for the decision.

VIU1	Training Location nearby
VIU2	Flexibility in training-moment
VIU3	Online training
VIU4	Support outside training
VIU5	Tailormade training
VIU6	Higher safety standards
VIU7	Total unburden for training
VIU8	Large range of trainings
VIU9	Knowledge of the organization

Table 6 Value-in-use characteristics

VIU3, the capability of following courses online, is not included in one of the clusters (see table 5). Following online courses could be useful, but it depends on the situation. During an interview with a company of cluster 1 it was mentioned that when an employee is already working for 20 years at the company and is performing the same procedures all the time, an online courses is sufficient to recap the theoretical part of the courses. The practical side of the courses would be fine to do on a separate day. However, for new employees it is preferred to follow physical courses instead of online courses. It is easier to ask question about theory in-person, and the setup for applying the theory under guidance, on the same day, is more successful on the long-term.

Also, for the second cluster, online courses were not preferred. The customers believe that by following the online course for first response teams not all the knowledge is transferred sufficient. Some of the procedures that are taught during the courses need more extensive practicing. When an employee learns the theory on day X, and it has to perform the procedure once or twice several days later, it is harder to perform than when both the learning and performing are on the same day. Also, for example, the evacuation exercises are preferred to be done with a group of own employees, the let the people get used to each other.

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4.4 Value Proposition

In order to create value propositions for each different segment, the information gathered from the customer analysis should be combined with the cluster analysis from above. Firstly, the segments will be defined, which will be followed by the value proposition for the specific segment. In order to form the value proposition, session were held at IVM with key employees of IVM. The results of the customer analysis and cluster analysis were presented, which was followed by a discussion in order to make a matching value proposition on these segments. Based on the cluster analysis below, two main segments can be identified.

The first segment is based on the cluster that is shown in Figure 8. The cluster consist of companies C1, C3, C4, C7 and C10. This cluster can be matched to the external data found in table 3. The table shows the companies included in this cluster provides service in the industry category 'Infrastructure, Raw materials procurement and production'. Furthermore, they can be linked to the service category 'Labor Skill Courses'.

As discussed above (and seen in table 5) this cluster focus mainly on the characteristics flexibility in training-moment, a training location nearby, and that the provider has a large range of trainings available. During interview with the companies that are included in this clusters several aspects were specific mentioned. For example one interviewee mentioned 'If we search for a provider of a training and we can choose between two providers, we base our decision on the location of the training facility. For example, if a facility is located right next door but is a bit more expansive than a facilitator that is a 1,5 hour drive away, we choose the more expansive facilitator.' Another interviewee mentioned that due to their working environment the flexibility of the training moments is important. Sometimes it is required that an employee can quickly follow a training in order to start with his employment. They cannot wait for a long time, for example due to a lack of participants for the training the provider. Lastly, the last characteristics 'A broad range of trainings' is mentioned by an interviewee as a favorable factor. From administrative perspective it is easier of several kinds of trainings can be followed at the same provider. Communications etcetera can be done through one contact persons instead of having contact with several providers.
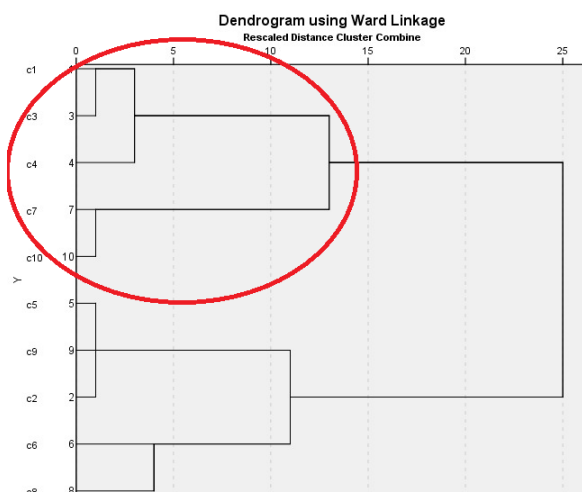

Figure 8 Segment 1 based on cluster analysis

The second segment is based on the cluster that is shown below in Figure 9. The cluster consist of companies C2, C5, C6, C8 and C9. This cluster can be matched to the external data found in Table 3.

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The companies that are segmented in this cluster can be found in 'Company Safety Regulations and Advisory ' as service category. Also, this segment can be linked to the Industry category Education & non-technical production. As mentioned in the previous chapter this cluster focusses on the characteristics a Higher Safety Standard, and knowledge of the organization. An interviewee mentioned that the quality of safety standards of the trainings is one of the key decision factors for choosing a supplier. As company they set a high standard regarding the safety on the workflow, both for production facilities as for office buildings. Therefore, they demand that the training is also of a high standard. Furthermore, the same interviewee mentioned that it is important for them that the provider of the training / advise is has knowledge of the organizations. This comes together with characteristics tailor-made training. A training can be made according to the wishes of the customer, and even more specialized when the provider knows the organization. For example, evacuation of the buildings are different for each customer. If certain difficulties are known by a customer, this can be addressed in a tailor-made training.

Also, the following characteristics are taken into consideration training location, support outside the training, tailor-made trainings, large range of training offers, and total unburden regarding training by the supplier.

The characteristic 'Training location' is somewhat important for these companies. They would prefer a location that is nearby, because otherwise they need to send their employees further away which will cost a lot of time. However, it is not the main priority. Some companies even mention the trainings as part of teambuilding. Another interviewee mentioned large offer trainings would be preferred, but it should not go at the expenses of the quality.
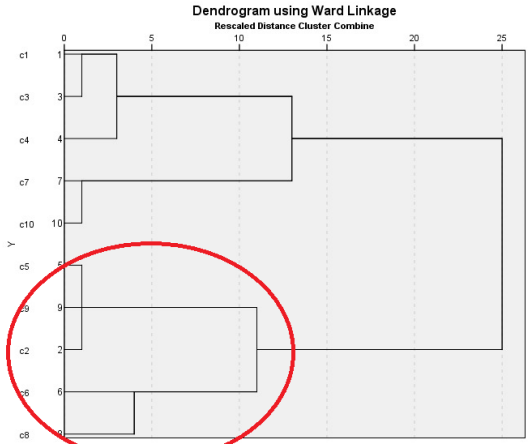

Figure 9 Segment 2 based on cluster analysis

Worth mentioning is that companies C6 and C8 are also part of this cluster. Both companies are competing in an industry of the procurement of raw materials or in the processing of raw materials. Therefore, based on industry it could be expected that they would be included in cluster 1. However, both companies both mentioned that they prefer a high safety standard, and they prefer to have additional support outside the training.

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During the sessions held with the key employees of IVM, these market segments were discussed. By the interviews with customers the key value-in-use characteristics were identified. For cluster 1 the following three characteristics were identified as kay characteristics:

- Flexibility in training-moment
- Training Location nearby
- Large range of trainings

During the interviews IVM was evaluated on those aspects. Due to planning issues and lack of participants IVM is not able to comply to the wishes regarding the flexibility in training moments. Therefore, IVM should try to focus on providing courses regarding labor safety skills on a short notice of the request. Secondly, for the customers in the cluster it was important that the training facility is close to the office. Customer cannot afford to have their personnel to travel for a long time. IVM already has several training facilities in the North-East and East of the Netherlands. However, for customers in the West and Middle of the country, customers have to travel for a longer time. If IVM wants to gain more customers in this segment they should consider to open an extra facility which is located in the Middle of the country.

The interviewees reactions were mixed regarding the range of available trainings at IVM. Some interviewees were familiar with range of available trainings at IVM. However, some customers were not familiar with the available courses. IVM should consider to promote their courses by doing more cross-selling to their customers. This could be done by providing extra advertisements next to providing the initials services.

The second clusters key characteristics were identified as:

- Higher Safety Standards
- Knowledge of the organizations.

Most of the interviewees recognized IVM for their high quality of trainings. They also said that compared to other providers IVM is more expensive, but that the quality of the courses and the higher standards regarding safety compensate for that. Therefore, IVM should remain their current strategy and try to differentiate themselves from competitors by delivering courses with higher standards. Furthermore, it was stated that customers for first aid / first response teams prefer a supplier that invests time in getting to know the organization. They believe that the delivered services are more optimal if the supplier is involved in developing safety plans, and reviewing the current state of safety in offices / on the work floor. Therefore, IVM should consider to offer a broader service when customers consume courses regarding First Response teams. This service should exist of a more extensive research on the current state of safety at the facilities and how the safety procedures can be improved.

Furthermore, there are five characteristics that are important for this cluster but in a less significant way:

- Training Location Nearby
- Support Outside Training
- Tailor-made Training
- Total unburden for training
- Large range of trainings.

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Both the training location and the large range of trainings can be compared to the reasons given by the companies of cluster 1. However, they are not the main characteristics for the companies of cluster 2 on which they base their decision of supplier. The level of support from the supplier outside the training by means of extra advice, support in planning, support in developing new safety regulations / plans is also an important factor for customers in the 2nd cluster. A sole interviewee also mentioned to be totally unburdened as customer is preferred, but this is a next step compared to the support outside the training. IVM could extend their basis services within the first response team trainings with a standard level of advice for each of their customers and perform assessment on the current standard of safety within the companies more often. These assessment could lead to improvement of the trainings given at the customer and improved satisfaction of the customer(s).

The value proposition for each of the clusters and the value-in-use characteristics are shown in figure 10 below.
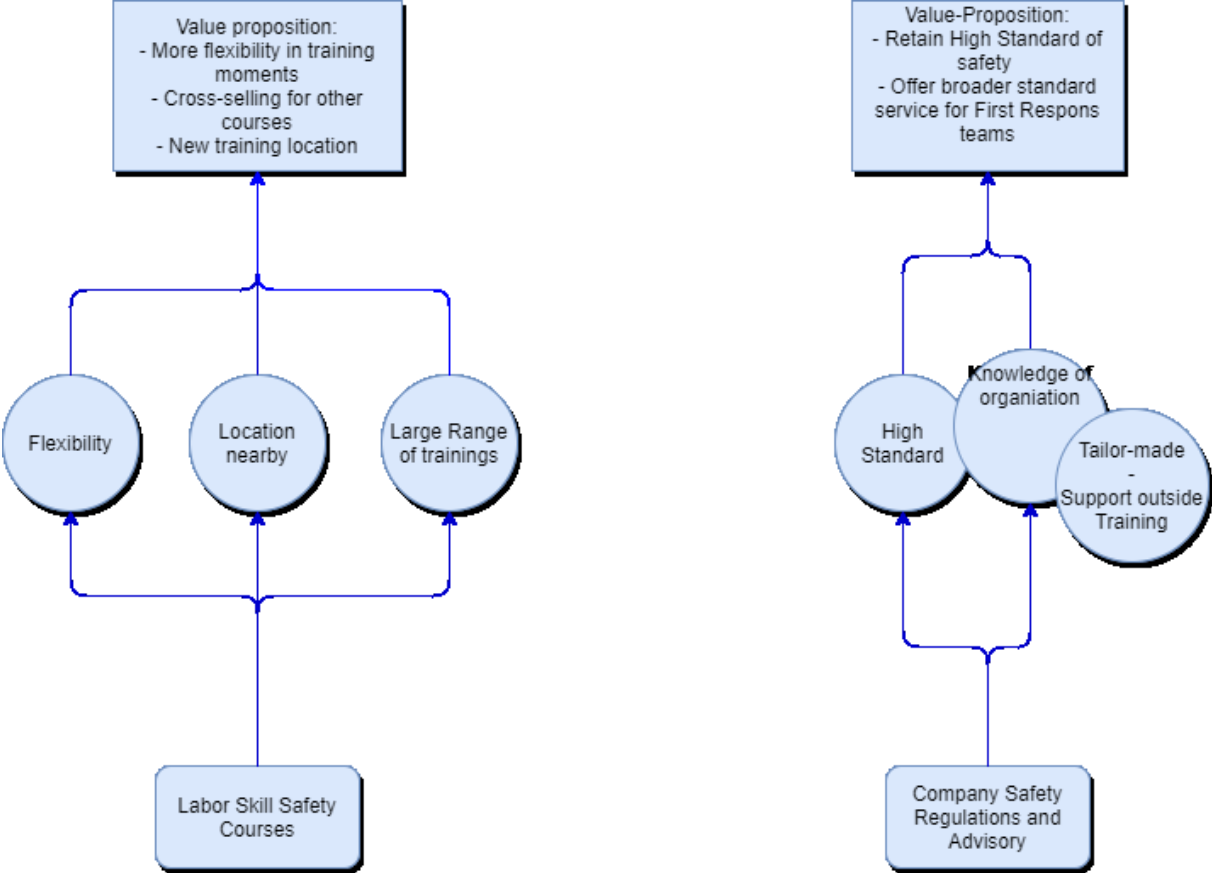
Figure 10 Value propositions linked to the value-in-use characteristics per cluster

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5 DISCUSSION

Research often matches B2B to criteria such as company size, revenue generated from the customer or the industry. However, value-in-use was not mentioned before in the literature as a criteria for B2B segmentation. Value-in use was however, already a familiar concept in the literature in relation to value propositions. The concept of value-in use as a base for value propositions for (individual) customers is already a well-know concept. This concept was however not used and well-known for making value propositions for entire segments of customers. Therefore, the goal of this research was to explore the possibility to use perform B2B segmentation based on the customers value-in-use and to turn them into value propositions for these segments.

This research made use of the theoretical base regarding the relation between value-in-use and value propositions that was already available in the literature. Since, we relied on this base we did made any specific contribution to the existing theory regarding the relation between value-in-use and value propositions.

Furthermore, this research is based on a limited number of observations. This is partially due to the choice of gathering qualitative information by interviewing customers. This choice for using qualitative data was made for a couple of reasons. The first reason was that for an exploratory research, we felt it was better to gain a thorough understanding of the customers' value-in-use preferences, which we gathered by personally interviewing the customer. Second reason was that customers don't understand what value-in-use means, so it was important to ask customized questions to gather the right information. Lastly, it was experienced that the customers that were contacted most of the times did not want to participate in the research. Many of the customers did not want to cooperate in the research due to higher priorities within their own company, or they did not want to participate due to the amount of other researchers that they participated in over the last couple of months/years.

Where there are several techniques to cluster, this research has chosen for the dendrogram approach. The choice fort his technique was driven by the limited number of observations. Due to this limited number of observations, the dendrogram technique provides a visual image of the clusters. In an ideal situation, several types of cluster analysis are performed, to see whether all techniques provide the same results. This was however, not possible due to the limited number of observations. The outcome of the analysis was however very positive. Since cluster analysis is sort of a "black-box", it was a great result that the result of this cluster analysis, which was based purely on value-in-use, produced results that could be linked to the customers' characteristics which were identified during the interviews.

The overall contribution to the literature is the combination of value-in-use and (B2B) segmentation. Since this combination was not yet studied by existing literature, this research provides a starting point for future research.

5.1 MANAGERIAL IMPLICATIONS

This research provides insights for services providers on how they can use value-in-use as a basis for creating value propositions. It goal with the services that are provided is to comply to the customers' wishes. This research offers managers an idea on how to identify the customers value within their market, and how the could/should use these values to create proper value propositions. If the value propositions are aligned with the customer value, there will be mutual benefits in the relation.

This research demonstrates that it is possible for service providers, to create value propositions based on the value-in-use of their customers. For service providing companies, what service they provide determines the success of such company. Identifying customer wishes and value, helps companies to fulfil these wishes and values. Basically matching supply and demand.
What this research shows is that by listening to the customer, you can identify groups within your customer base. By specifically targeting the values of each of these groups, you as a company gain a stronger position in retaining your customers (since you provide what they want). But it also helps to find new customers based on the communalities of the groups within the original customer base. Furthermore for this case, the research demonstrates that creating specific value-propositions for each of the customer groups, it is possible to leverage one of your company strengths for one segment to relieve a pressure point for another segment.

5.2 LIMITATIONS AND FUTURE RESEARCH

The results found in this research are very promising regarding the use of value-in-use as a basis for (B2B) customer segmentations. Out of these customer segmentation the studied company was able to create value propositions for each of the segments found. Since the study only contains 10 observations, the results might not be representative for the entire customer populations. As for future research, the concept of this research should be reused with a larger sample base. Also, a more differentiated customers base should be used in the sample. This sample of this research only took the larger companies in the industry into account, while there are many SME customers in the market as well. Based on this larger sample base conclusion should be made on whether the values that were identified in this research still apply on the industry. If there are new or other values identified, the cluster analysis should be done again in order to develop the appropriate segments. The results gathered will provide a more conclusive image regarding the possibility of using value-in-use as a basis for customers segmentation.

Another limitation is that the interviews were conducted with the primary contact persons for IVM of the customers. These people are the persons that are might give an unbiased answer or are not the persons directly involved with the services. Therefore, it is possible that they do not represent the true value-in-use characteristics.

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6 CONCLUSION

This research focused on how IVM can improve their approach to customers based on the value-in-use segmentation and matching value propositions? This question is answered by answering three sub-questions. Part of answering this question is a case study performed at IVM. In this case study, interviews with customers were conducted to get in depth knowledge of the value-in-use wishes of IVM's customers.

Based on the interviews 9 value propositions were identified and for each company that attended, the results regarding the value propositions were coded. These codes were the base for the cluster analysis which we performed to identify possible clusters / segments. Based on these clusters and their matching value propositions we identified value propositions for both segments and how IVM can improve their value propositions towards the customers of each segment.

The abovementioned lead to an answer to the main research question of how IVM can improve their approach to customers based on value-in-use segmentation and matching value proposition. During these sessions the following was concluded;

- *There should be more flexibility in the planning of training*

For one of the clusters it is important that customers can quickly sign up an (new) employee for a course. Due to the workload, it is not possible for them to wait long on a training that is necessary to perform at the job according the law and regulations.

- *More after-sales should be done with both current and new customers.*

Currently, there are many customers that follow a single training/course every now and then, or they will not return after they have finished the training. During the sessions it was mentioned that most of the times the account managers did not do any / almost none after sales at the customer. Therefore, the customer will not know what other services might be provided by the company

- *Retain the high standard of safety for the courses in first aid / first response teams*

Customers already recognize the high standard of safety for the courses of IVM. Therefore, IVM should remain to deliver this standard in order to differentiate themselves for competitors.

- *Offer broader standard services with First Response Team courses*

IVM should consider to offer a broader service when customers consume courses regarding First Response teams. This service should exist of a more extensive research on the current state of safety at the facilities and how the safety procedures can be improved.

- *Use online training only for appropriate situations*

Before offering online services, it should be sorted whether the training is suited for online education. Not all courses are suited for online education. Courses that are taken for the refreshment of theory are often more suited for online education than the courses that include large component of practical use of difficult theory.

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APPENDIXES

1. APPENDIX A – INTERVIEW QUESTIONS

General Questions
What is your function within your company?
Wat is uw functie binnen het bedrijf?

What type of activities or proceedings does your company perform?
Wat voor werkzaamheden voert uw bedrijf uit?

Which safety regulations are necessary to perform your companies activities or proceedings?
Wat voor eisen betreffende veiligheid zijn er voor het uitvoeren van deze werkzaamheden verplicht?

Value-in-Use
Which safety services does your company use to create a safe work environment?
Welke veiligheidsdiensten/trainingen heeft uw bedrijf om een veilige werkomgeving te garanderen?

Which of the abovementioned services are provided by IVM for your organization?
Welke van de eerder genoemde services neemt uw bedrijf af bij IVM?

Why do you make use of IVM's services?
Waarom worden deze services afgenomen? (verplicht vanuit de wet? Vanwege eigen policies etc?)

What is the value of safety services for your company?
Wat is de waarde van veiligheidsdiensten voor uw bedrijf?

Why was IVM chosen as service provider?
Waarom is er destijds voor IVM gekozen als leverancier van de services?

Which services or processes in your organization rely on the services provided by IVM?
Welke services of processen in uw eigen bedrijf zijn afhankelijk van de door IVM geleverde diensten?

How are your services or processes influenced by IVM's services?
Hoe worden uw eigen processen en/of services beïnvloed door de IVM geleverde diensten?

Are all the demands, by law or by company regulations, regarding safety met?
Zijn alle behoeftes omtrent veiligheid voldaan? zowel die van de overheid, als die door het bedrijf zelf gesteld

How can the current services provided by IVM altered to meet all demands?
Hoe kunnen IVM's huidige services worden aangepast om al uw behoeftes te vervullen?

How could IVM's revise its services to positively influence your services or processes?
Hoe zou IVM zijn diensten kunnen veranderen om zo een positieve invloed te hebben op de services en processen van uw bedrijf?

General IVM questions
For how long is your company affiliated with IVM?
Hoe lang zijn jullie al verbonden aan IVM?

Does your company use similar products/services which are not provided by IVM? (Company name is not relevant)
Gebruiken jullie vergelijkbare producten/diensten die niet door IVM worden geleverd? (bedrijfsnaam niet van belang)

Why does your company did not choose for IVM as service provider?
Waarom worden deze producten/diensten niet bij IVM afgenomen?

What are the strong and weak points of IVM as a company?
Wat zijn de sterke en zwakke punten van IVM als bedrijf?

What are the strong and weak points of the products and services provided by IVM?
Wat zijn de sterke en zwakke punten van de services van IVM?

Are you/Is your company satisfied with the communication between IVM and your company?
Bent u/is uw bedrijf tevreden over de communicatie tussen IVM en uw bedrijf?

How could this communication, if necessary, be improved?
Hoe zou deze communicatie, indien nodig, kunnen worden verbeterd?

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2. APPENDIX B – PRESENTATION AT IVM

Value-in-Use als Basis voor Segmentatie
Universiteit Twente & IVM

Inhoud
- Introductie Onderzoek
- Resultaten Analyse
  - Detachering
  - Trainingen
- Discussie Toepassen van Resultaten
  - Detachering
  - Trainingen
- Algemene Feedback IVM

Introductie Onderzoek

Introductie Onderzoek
Huidige situatie
- IVM onderscheidt zich met name met een hoog kwaliteitsniveau als standaard
- Groot scala aan opleidingen & detacheringsmogelijkheden
- Toonaangevend en ervaren in de industrie

Introductie Onderzoek
Huidige situatie (2)
- (Trainingen) Veelal als duur beschouwd
- Geen/nauwelijks klantensegmentatie
- Markt voor (BHV) trainingen is makkelijk te betreden

Introductie Onderzoek
Segmentatie
- Door middel van segmentatie kunnen we kijken of groepen van klanten op elkaar lijken.
- Aan de hand van de overeenkomsten binnen deze groepen een gemeenschappelijke aanpak maken
- Door nieuwe klanten te kunnen linken aan een van de segmenten kunnen de wensen van nieuwe klanten op voorhand beter worden ingeschat

Introductie Onderzoek
Value-in-Use
- Co-creating value tussen klanten en leveranciers
- De ervaring die de klant zoekt en ervaart bij het gebruik van een product/service
- Gedurende de klant-leverancier relatie verandert de rol van de leverancier
  - Intentie tot product/service levering → Expliciete toegevoegde waarde

Introductie Onderzoek
Veranderingen in Value-in-Use
- Meerdere mogelijke redenen voor veranderingen `customer value´.
- Environment changes:
  - Pricing
  - New suppliers
  - Customer's needs
- Supplier changes:
  - Quality
  - Availability

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Introductie Onderzoek
Interviews

- Inventariseren welke veiligheidseisen er voor het bedrijf gelden
- Inzicht krijgen in het benodigde personeel en opleidingen
- Bepalen wat de value-in-use van veiligheidstrainingen en veiligheidspersoneel voor de klanten is
- Algemene feedback met betrekking tot IVM verkrijgen

Resultaten van de Analyses

Resultaten van de Analyses
Detachering

- Interviews met 10 klanten met meer dan 60% van de omzet (deta)
- 12 Value in Use karakteristieken*
  - Flexibiliteit van duur werkzaamheden
  - Communicatie op de werkvloer
  - Op maat gemaakte services
  - Uitleggend optreden op de werkvloer
  - Werkzaamheden klant afhankelijk van services IVM
  - Lean werken
  - Milieubewust werken
  - Proactiviteit op de werkvloer
  - Ondersteuning vanuit planning IVM
  - Evaluatie met IVM tijdens/na werkzaamheden
  - Vooraf geïnstrueerd personeel
  - Bekende mensen op de werkvloer

*Willekeurige volgorde

Resultaten van de Analyses
Detachering

- Drie type werkzaamheden:
  - Maintenance stop
    - Langere tijd van tevoren bekend/aangevraagd
  - Projectwerk
    - Op korte termijn verschillende diensten nodig
  - Veiligheidskundigen/QHSE
    - Eventueel ook bij stop en projectwerk

Resultaten van de Analyses
Detachering

Bij alle klanten interviews geanalyseerd en aangegeven of dit voor de klant belangrijk, enigszins belangrijk, niet belangrijk (of niet genoemd) was.
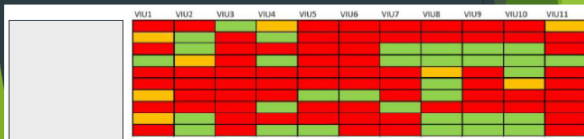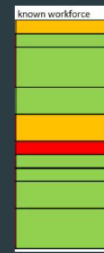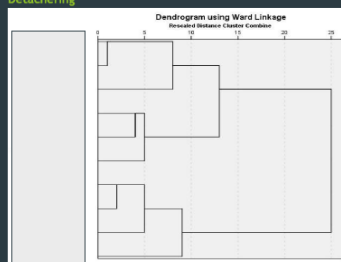

Resultaten van de Analyses
Detachering

Belangrijkste value voor (bijna) alle klanten:

"we hebben het liefste mensen die weten hoe het hier werkt"

Resultaten van de Clusteranalyse
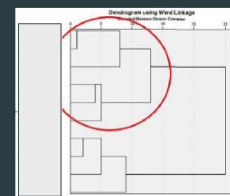### Detachering

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Resultaten van de Clusteranalyse
Detachering

Cluster 1/2:
- Communicatie
- Proactiviteit

Onderhoudsstops & Veiligheidskundigen met langere aanvraagtijden tevoren

"Mensen moeten wel hun mond open durven te doen als er iets mis gaat"
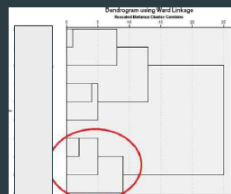

Resultaten van de Clusteranalyse
Detachering

Cluster 3:
- Flexibility
- Support vanuit planning
- Op maat gemaakte diensten

Veelal korte aanvraag tijd

"we kopen flexibiliteit in"

Trainingen
Waardes uit de interviews

- Flexibiliteit in trainingsmomenten
- Fysieke sessies voor praktische trainingen
- Breed scala aan trainingen
- Trainingslocatie in de buurt van eigen locatie

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Trainingen
Waardes uit de interviews(2)

- Veilige werkomgeving voor personeel en klanten
- Hogere veiligheidsnorm dan voorgeschreven
- Ervaring deskundigen voor maatwerktrainingen & adviezen
- Ontzorgen in planning & administratie
- Kennis van de processen

Trainingen

Bij alle klanten interviews geanalyseerd en aangegeven of dit voor de klant belangrijk, enigszins belangrijk, niet belangrijk (of niet genoemd) was.

Company	VIU1	VIU2	VIU3	VIU4	VIU5	VIU6	VIU7	VIU8	VIU9
c1									
c2									
c3									
c4									
c5									
c6									
c7									
c8									
c9									
c10									

TRAININGEN

- Cluster 1
  - Trainingen voor verkrijgen van gespecialiseerde skills
- Cluster 2
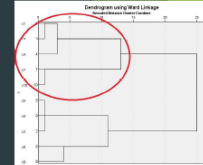 - Trainingen waarbij extra adviezen en locatie-gerichte trainingen gewenst worden
  - Ontzorgen

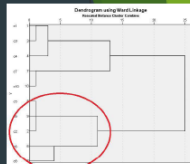*"Kwaliteit staat hoog in het vaandel bij ons"*
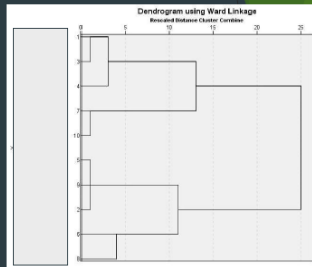
Trainingen
Cluster 1

- Trainingslocatie in de buurt
- Flexibiliteit in trainingsmoment
- Breed scala aan trainingen

Trainingen
Cluster 2

- Extra advies buiten trainingen om
- Kennis van de organisatie
- Maatwerk trainingen

Discussie Toepassingen

Discussie Toepassingen
Wat→ Communiceren→ Toepassen

1. Hoe gaan we dit aanpakken?
2. Hoe gaan we dit communiceren, zowel naar de eigen organisatie als naar de klant?
3. Hoe gaan we zorgen dat dit geïntegreerd wordt binnen de organisatie?

Algemene Feedback IVM
Trainingen

Sterke punten

Contact via accountmanager goed en vlot

Hoge kwaliteit trainingen

Ervaren instructeurs

Verbeterpunten

Administratieve zaken nauwkeuriger

Meer initiatief tonen voor evaluatie van trainingen

Flexibiliteit voor kleine groepen

Uitbreiden bij huidige klanten

Algemene Feedback IVM
Detachering

Sterke punten

Kwaliteit van de services

Contact met de accountmanagers

Verbeterpunten

Planning

Instrueren wat waar verwacht wordt van mensen op de werkvloer

Administratieve handelingen op de werkvloer

EINDE

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