



School of Management

BLEKINGE INSTITUTE OF TECHNOLOGY

WHAT MAKES INDUSTRIAL BUYERS LOYAL?
A STUDY OF LOYAL AND NON-LOYAL AGGREGATE PRODUCING CUSTOMERS IN SWEDEN.

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Abstract

This thesis examines which factors affect successful customer retention in the aggregate crushing business in Sweden. This sector has a crucial role for the construction industry and other related industries according to SBMI (The Swedish Aggregates Producers Association, 2012). Specifically, SBMI estimate an annual value of production in Sweden to six billion SEK in revenues. This industry is heavily dependent on crushers that can crush larger rocks into the sizes needed by the construction industry (SBMI, 2012). This thesis studies these industrial buyers. The research method chosen is quantitative and questionnaires were sent out to the production managers of active aggregate producers in Sweden. The thesis proposes and test loyal customers' perception of Original Equipment Manufacturers, OEMs and compares it to their perception of alternative suppliers, here called the SBs. This study finds that perceptions of true defectors (i.e. non-loyal customers) are different than the ones of loyal customers. As the products belong to conceptually complex industrial products with highly specified customer expectations, the findings have implications for sectors with these types of products. Firstly, to keep up with the production targets the aggregate industry is dependent on the availability and quality of the correct spare and wears parts. These factors together with brand, price, sales, service and overall satisfaction are, by the research literature, suggested to be important factors in the retention of customers. This probably also applies to the aggregate crushing business in Sweden. Secondly, both loyal and non-loyal customers agree that the brand recognition of the OEMs is superior despite being perceived as more expensive. Thirdly, loyal customers are convinced that they receive better quality and satisfaction from the OEMs compared to SBs, but the non-loyals do not perceive the OEMs to be better than SBs. The latter can be explained by the fact that knowledge communicated through well established relationships in delivering services also reflects their level of satisfaction while less loyal customers may have less perceived benefits from such a brand. Finally, this thesis states that important factors for loyal customers are quality and brand, as well as marketing activities, which lead to higher customer satisfaction. Thus, the conclusion for companies belonging to the industrial business-to-business sector is to concentrate on two things; their sales representatives and availability.

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1. INTRODUCTION

1.1 Motivation of research question

This thesis examines customer retention in the Swedish aggregate crushing business. Crushers are industrial products crushing rocks in quarries. According to The Swedish Aggregates Producers Association, SBMI, aggregates are a very important commodity for modern society. It is necessary for infrastructure such as roads, railways, ports and airports and thus a prerequisite for economic development, businesses and jobs. It is also needed for the construction of other facilities, like homes, offices, industrial buildings, hospitals and other public buildings and therefore also related to human health and wellbeing. The main use is for road construction where the material is used both for the road structure and the surface layer. Well-developed infrastructure facilitates environmentally friendly transports and thus it's increasing the economic competitiveness of a country. The material is also used as railway ballast and is the most important bulk material for concrete and asphalt where it represents about 80 and 90 percent of the content respectively. Total annual production in Sweden is approximately 90 million tons of rock. It makes aggregates the largest product in the country, by weight, (SBMI, 2012). If this entire Swedish yearly production were cut and stapled in cubes of 0.1m x 0.1m x 0.1 m the length it would make up would be equal to 8 times the distance between the earth and the moon. SBMI claims that the value of annual production in Sweden is around 6 billion SEK in revenue and about 9 billion SEK after delivery to the field. This industry is heavily dependent on crushers that can crush larger rocks into the sizes needed by the construction industry (SBMI, 2012). Conceptually industrial products are complex and are strongly related to highly specified customer expectations. These crushers are typically operated by skilled operators. Such operators are quite often also owners of crushers, i.e. having their own small business. Typical investments in such crusher machines include high involvement from the operator and all representatives of the small business. While qualities and performance of crushers are unknown to most people, these buyers are very aware of what to look and ask for. Thus, when industrial sales representatives approach both large and small businesses they also develop strong customer relationships. Through these relationships they convey convincing knowledge based arguments of efficiency, quality and performance of the machines.

To keep up with production targets, the aggregate industry is dependent on the availability and quality of the correct spare and wears parts. These factors together with brand, price, sales, service and overall satisfaction are suggested to be important factors in the retention of customers in the aggregate crushing business in Sweden.

Such relationship focusing on customers' knowledge is key elements in industrial selling. It is also academically valid as it represents one key dimension of how to create customer retention. There, such a point of view regarding customers is also in line with how Drucker (1974) define a valid business purpose – that is to create customers. To create customers also involves building a relationship and interacting with buyers of complex industrial products. This does not only create customers but also form ideas, qualities and expected outcomes of products. The latter since many machines are tailored to specific demands of the industrial buyer. Part of such a relationship is also to keep the customers and to make sure they do not leave the view shared by both partners but instead also recommend products to others. Because, costs of finding new customers to keep their customer base intact are a cost companies try to avoid. Research has provided some knowledge about how to retain

customers. For instance some claim keeping customers satisfied will eventually also enhance customer loyalty and profitability (Anderson, et al. 1994, Hallowell, 1996). Doyle showed that the more satisfied customers were the more they contributed to businesses' profits (Doyle, 2000). This understanding then lead to a significant interest in research regarding customer relationship management, also in B2B, particularly in the industrial and service area. Grönroos was one of the pioneers and he claimed that it is a two-step process to establish a relationship; first you have to attract the customer and only then you can build up the relation (Grönroos, 1994). Both things are necessary if a business wants to satisfy a customer and get a chance to build up a loyalty. Caceres later found in a B2B context that a satisfaction in a relationship leads to an increased loyalty (Caceres, 2005). Others developed this further by adding to "satisfaction" new constructs and found some of these, like quality and value, also to be antecedents for a repurchase (Molinari et al., 2008). However, Bennett and Rundle-Thiele meant that Customer satisfaction should not be the only goal and their results "indicate that satisfaction and loyalty in a business services setting are different constructs, and that, while the relationship is positive, high levels of satisfaction do not always yield high levels of loyalty" (Bennett and Rundle-Thiele, 2004:514). Reinartz and Kumar take it a step further claiming that loyal customers, who purchase steadily over time, not necessarily are the most profitable ones and "Instead of focusing on loyalty alone, companies will have to find ways to measure the relationship between loyalty and profitability so that they can better identify which customers to focus on and which to ignore (Reinartz and Kumar, 2002:87). It is of course logical to also look at the profitability when evaluating customers, but a company, as Malthouse and Blattberg stated, cannot be sure that highly profitable customers will remain so and low-profit will continue to deliver a low profit (Malthouse and Blattberg, 2005). To be able to pick the most profitable customers to focus on you first have to have the knowledge about how best to retain your customers. Already back in 1990 Reichheld and Sasser realized the value of "zero defections" and I quote "Defecting customers send a clear signal: profit slump ahead" (Reichheld and Sasser, 1990:105), they explained why customers are more profitable over time showing a 5% reduction in defections "boosts profits 25% to 85%" (Reichheld and Sasser, 1990). Gupta and Lehman were able to confirm this finding 13 years later by showing the 5% effect of customer retention and found it to be 22% and 37% for the two firms studied (Gupta and Lehmann, 2003). The reason for this is according to Ahmad and Buttle the relative lower cost of generating cash from old customers compared to new and the money saved by not spending them on replenishment of the customer base. "Many authors agree that it costs between one-fifth and one tenth as much to keep existing customers than to win new ones (Rosenberg and Czepiel, 1984; Fites, 1996; Vandermerwe, 1996, p. 24 cited in Ahmad and Buttle , 2001).

Other factors having effect on customer retention are related to product assortment, Bendoly et al. states "Reducing the risks believed to be associated with product availability can be critical to increasing consumer retention rates" when they discuss on-line, in-store availability and channel integration (Bendoly et al., 2005:313,). Borle et al. put it more bluntly "Simply put, retailers fear assortment reductions erode customer retention" (Borle et al., 2005:617). Salespersons' performances affect superior value creation (Guenzi and Troilo, 2006) and hence could be an important factor for customer retention. Service quality (McCollough et al., 2000, Lee-Kelley et al., 2002, Barry and Terry, 2008, Williams et al., 2010 and Yanamandram and white, 2010), are also a factor together with price (Dawes, 2009, Indounas, 2008 and Hidalgo, 2007) and brand (Wallay, 2007, Persson, 2010, Leone 2006, Taylor 2004 and Juntunen, 2011) affecting customer retention.

While most of this literature focused on the valid question of the relationship between satisfaction – quality – and loyalty, most of the studies are focused on consumer products. Few studies focus on customer loyalty of industrial products. This thesis focuses on determinants of customer retention (loyalty) of industrial buyers of complex products. This thesis is also adding new knowledge to the loyalty field of research by asking true defectors and not only asking customers if they intend to be loyal or not. Research question is thus:

What are the key determinants of customer retention in crushing business in Sweden?

This is an important question to ask for the OEM producers because during the lifetime of a crusher it generates more than three times the revenue compared to the initial equipment sale. Alternative suppliers Swemas and BNT are called “SB” in this thesis and the original suppliers are called, OEM, i.e. Original Equipment manufacturers which are represented by Metso and Sandvik.

1.2 Research objective

The research objective is to find out which are the most important factors for suppliers to concentrate on to achieve the best possible customer retention among aggregate producing customers in Sweden

1.3 Thesis' Structure

Chapter 1: Introduction

This section gives a background about the research objective, purpose and definitions.

Chapter 2: Theory

The theory behind each factor, which builds up the platform for this thesis, is presented and the 14 null hypotheses are presented.

Chapter 3: Method

Here is an exact description of the method used to solve the research question, so the study can be repeated by other researchers. Unit and level of analysis is presented and a discussion regarding the validity, reliability and generalizability of the study is presented.

Chapter 4: Results

Here the results from the survey described in chapter 3 are presented

Chapter 5: Analysis

Here the results from the survey presented in chapter 4 are analyzed.

Chapter 6: Conclusions

Here the implications of the results and analyzes from this theses are presented

Chapter 7: Limitations and further research

Here the limitations and suggestions for further research are presented.

2. THEORY

2.1 The importance of different factors for customer retention

The research about customer retention implies several different factors as antecedents to customer retention. This thesis will include and study the following factors; availability, sales, service, quality, brand, price and satisfaction and their impact on customer retention. In the following sections the factors will be described and conclusions from previous literature will be presented to support the conceptualization of this thesis.

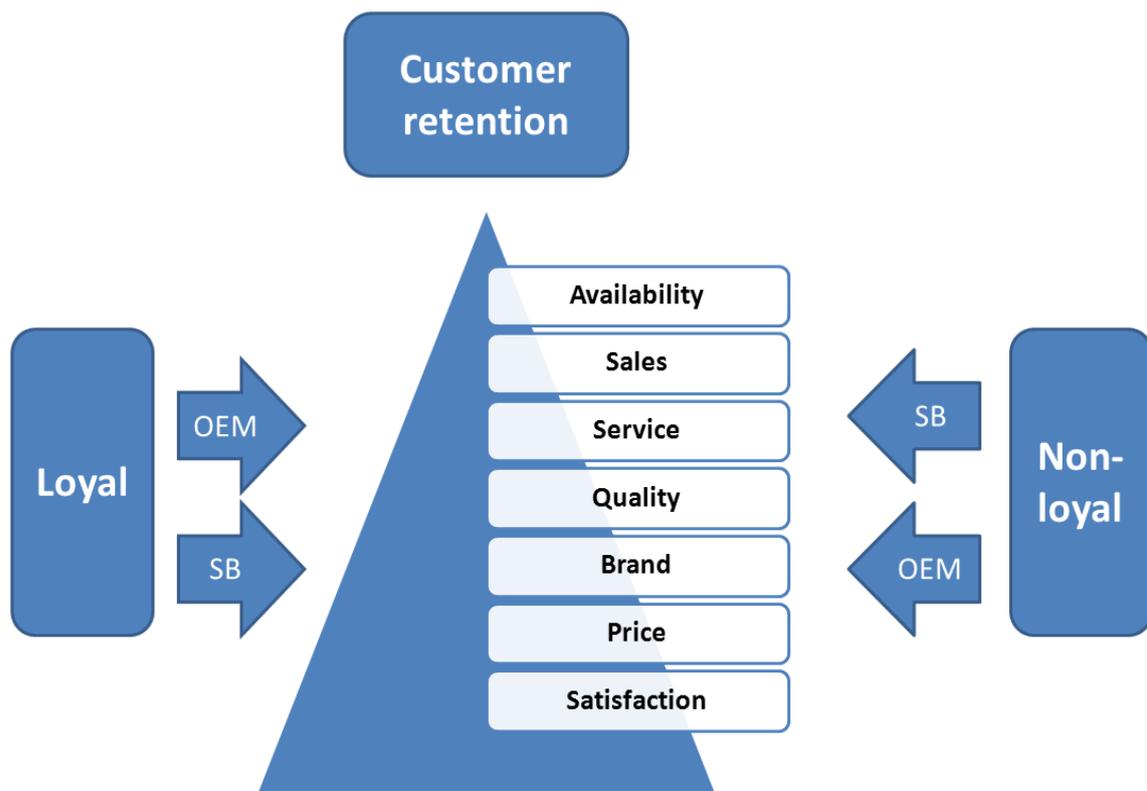


Figure 1: Which factors lead to customer retention?

2.2 Availability

If the good or service is not available a transaction might most likely not take place between a seller and buyer. This has a profound impact, in an industrial setting, not only on the sales side, but often particularly on the buyers side. When a larger quarry come to a stop because of lack of availability they miss around 250 000 SEK per day in lost revenue. A customer might not be willing to wait and therefore choose to buy a similar product somewhere else. While Bendoly et al., (2005:313) states “reducing the risks believed to be associated with product availability can be critical to increasing consumer retention rates”. Borle et al., (2005:617) argue “retailers fear assortment reductions erode customer retention”. Making these products available thus iscrucial. Part of making products available is logistics. Logistics has a vital impact on the customers’ perception of availability (Mentzer et al., 2004). Missing or incorrect goods, inefficient order processing l or slow transportation services will affect the

level of availability perceived by customers. Mentzer et al., (2004); Richey et al., (2007); and Saura et al., (2008) all showed how logistic quality is a significant positive antecedent to customer satisfaction and loyalty. Grant and Fernie (2008:661) say, in a retailing context, that “Items that are out-of-stock (OOS) results in customer dissatisfaction” and Corsten and Gruen conclude that “consumers’ reactions to OOS range from product substitution to “voting with their feet” and seeking products elsewhere (Corsten and Gruen, 2003). The literature on availability is outlined in table 1 below.

Table 1: The availability literature: authors, measurements and outcome.

Authors	Measurments	Outcome
Bendoly et al, 2005	Availability	Retention rates
Borle et al, 2005	Assortment reductions	Customer retention
Mentzer et al, 2004	Logistic quality	Loyalty
Richey et al, 2007	Logistic quality	Loyalty
Saura et al, 2008	Logistic quality	Loyalty
Grant and Fernie, 2008	Out-of-stock	Dissatisfaction
Corsten and Gruen, 2003	Out-of-stock	Retention rates

2.3 Sales

Salespersons’ performances affect superior value creation (Guenzi and Troilo, 2006) and hence could be an important factor for customer retention. There are many factors having influence on a salespersons ability to gain a customers’ trust and therefore also the ability to retain the customer. For example; if a customer is involved in a high risk and high insecurity decision he or she is more likely to buy from the salesperson that has invested more time (Johnston and Lewin, 1996), has higher sales calls frequency, and overall competency (Doney and Cannon 1997). The aggregate producing customers are buyers of complex industrial products with a high risk of machine breakdown and production stops if they buy the wrong wear and spare parts putting high values at stake, as explained in paragraph 2.2 making the wrong decision can cost 250 000 SEK per day in lost revenue. The literature on sales is outlined in table 2 below.

Table 2 : The sales literature: authors, measurements and outcome.

Authors	Measurments	Outcome
Guenzi and Troilo, 2006	Salespersons time spent with customer	Customer retention
Johnston and Lewin, 1996	Salespersons performance	Sale
Doney and Cannon, 1997	Salespersons sales calls frequency and overall competency	Sale

2.4 Service

Service quality (McCollough et al., 2000, Lee-Kelley et al., 2002, Barry and Terry, 2008, Williams et al., 2010 and Yanamandram and White, 2010), is also a factor known to affect customer loyalty. Legnani et al see a trend where companies need to bundle their products together with service offers to increase their competitiveness on the market. “In this context, aftersales (AS) service has become increasingly important as a source of differentiation and market share for manufacturers and resellers, as well as a strategic driver for customer retention” (Legnani et al., 2009). In this study the critical role of the technical service personnel and their direct interaction with the customer is studied. The literature on service and loyalty/customer retention is outlined in table 3 below.

Table 3: The service literature: authors, measurements and outcome.

Authors	Measurments	Outcome
McCollough et al, 2000	Service quality	Loyalty
Lee-Kelley et al, 2002	Service quality	Loyalty
Barry and Terry, 2008	Service quality	Loyalty
Williams et al, 2010	Service quality	Loyalty
Yanamandram and White, 2010	Service quality	Loyalty
Legnani et al, 2009	Service & product bundle	Customer retention
Trasorras et al, 2009	Service	Customer retention

2.5 Quality

Molinari et al looked at quality constructs and found some of these, like quality and value, to be antecedents for a repurchase (Molinari et al., 2008). Saura et al showed that quality in logistics services, “associated to timeliness and personnel, information and order quality, has a clear, positive and significant influence on satisfaction and loyalty shown by customer companies” (Saura et al 2008). Mentzer et al., (2004) and Richey et al., (2007) showed how logistic quality is an antecedent to customer satisfaction and loyalty. The literature on quality is outlined in table 4 below.

Table 4: The quality literature: authors, measurements and outcome.

Authors	Measurments	Outcome
Molinari et al, 2008	Quality and value	Repurchase
Saura et al, 2008	Logistic quality	Loyalty
Mentzer et al, 2004	Logistic quality	Loyalty
Richey, et al, 2007	Logistic quality	Loyalty
Trasorras et al, 2009	Quality	Customer retention

2.6 Brand

Brand is according to Walley et al., found to be important in industrial marketing. In their study on the importance of brand in the UK tractor market they reveal that brand is most

important on influencing purchase decisions, ahead of factors like price and service. They continue that “Brands, it would appear, reduce the industrial customer’s perceived risk by providing reassurances regarding price and quality of the product, and when this trust becomes entrenched then there is a reluctance to try different products, and an inertia develops”. (Walley et al., 2007:385). Roberts and Merrilees also studied the role of brands in B2B services and meant that customers choosing between two companies, both equal, except for the brand, might prefer the stronger brand. They also mean that brand reputation has always been a factor in B2B purchasing decisions and found in their study that “brand attitudes were the most important influence on the contract renewal” in B2B services. These findings are in line with Mitchel et al who concludes; “There is wide usage of brand strategies, and wide agreement that product and corporate branding are key contributors to successful performance as sources of competitive advantage” (Mitchel et al., 2001). Bogomolova and Romaniuk meant that brand managers could not influence the majority of defectors in a B2B financial service and that defectors left in spite of being satisfied with the brand. Furthermore many defectors relates to price and because of attractiveness of competitors, but still being satisfied with the brand. Only a small fraction of customers defect because of dissatisfaction of the service provided (Bogomolova and Romaniuk, 2009). The literature on brand is outlined in table 5 below.

Table 5: The brand literature: authors, measurements and outcome.

Authors	Measurments	Outcome
Walley et al, 2007	Brand equity	Retention rates
Roberts and Merrilees	Brand attitudes	Contract renewal
Mitches et al, 2001	Corporate branding	Competitive advantage
Bogomolova and Romaniuk, 2009	Brand equity	Defectors
Trasorras et al, 2009	Image	Customer retention

2.7 Price

Shipley and Jobber (2001:301) stated that “Pricing is a critically important management activity with major strategic and operational implications”. Moreover, they continue, price is the only element of the marketing mix that directly generates revenue (Shipley and Jobber, 2001). Hellman means that “typically, business-to-business (B2B) promotions are price cuts that drain profits and erode brand equity for the sake of short-term volume gains” (Hellman, 2007). Dawes found that long relationships, tenure, between companies lower the sensitivity to price increases, but relationship breadth, “share of wallet”, had the opposite effect, particularly among when the companies had long relationships. He concluded that the “managerial implication is that marketers must pay extra attention to short-tenure and broad-breadth customers when implementing price increases (Dawes, 2010). Ranaweera and Neely showed: “The better the perceptions of price the better the level of repurchase intentions” (Ranaweera and Neely, 2003). The literature on price is outlined in table 6 below.

Table 6: The price literature: authors, measurements and outcome.

Authors	Measurments	Outcome
Dawes	Price increases	Retention rates
Ranaweera and Neely, 2003	Price perception	repurchase intentions
Trasorras et al, 2009	Price perception	Customer retention

2.8 Satisfaction

One thing to do in order to retain customers is to keep them satisfied; many authors have demonstrated the link between customer satisfaction, customer loyalty and profitability (Anderson, et al. 1994, Hallowell, 1996). Doyle showed that the more satisfied customers were the more they contributed to businesses' profits (Doyle, 2000). Grönroos meant that it is a two-step process to establish a relationship; first attraction and then relationship building (Grönroos, 1994). Caceres found later in a B2B context that satisfaction in a relationship leads to an increased loyalty (Caceres, 2005). Others developed this further by adding to "satisfaction" new constructs and found some of these, like quality and value, also to be antecedents for a repurchase (Molinari et al., 2008). Bogomolova and Romaniuk showed however, that only a small fraction of customers defect because of dissatisfaction with the service provided (Bogomolova and Romaniuk, 2009). The reasons why dissatisfied customers stayed with the service providers were, according to Yanamandram, the impact of alternative providers, switching costs, inertia, and investment in relationships, service recovery and others (Yanamandram et al., 2009). The literature on satisfaction is outlined in table 7 below.

Table 7: The literature about satisfaction: authors, measurements and outcome.

Authors	Measurments	Outcome
Anderson, et al. 1994	Satisfaction	Loyalty
Hallowell, 1996	Satisfaction	Loyalty
Caceres, 2005	Relationship satisfactio	Loyalty
Molinari et al, 2008	Satisfaction	Repurchase
Trasorras et al, 2009	Satisfaction	Customer retention

2.9 The null hypotheses

There is thus a link between these factors, availability, sales, service, quality, brand, price and satisfaction, and customer retention among the aggregate producing customers in Sweden. The literature review above suggests that these factors have an impact on loyalty. The research idea is; if OEM is perceived by the defectors as poorer, compared to the opinion of the loyal, regarding any of these above mentioned factors, the factor is possibly an important reason for leaving and become non-loyal, i.e. the factor has an impact on customer loyalty. The same reason can be applied on the respondents opinion about SB (i.e. the non-OEM) if SB is perceived by the defectors as better, compared to the opinion of the loyal, regarding any of these above mentioned factors, the factor is possibly an important reason for leaving and become non-loyal, i.e. the factor has an impact on customer loyalty. Hence, the null hypotheses for the factors are; there are differences between loyal and non-loyals opinion

about OEM and SB regarding the above mention factors. For the factors; availability, sales, service, quality and satisfaction the null hypotheses are: The loyals and non-loyals regard their respective supplier as better than the other and for the factors; brand and price the null hypotheses are: The loyals and non-loyals regard the OEM as the better brand and having a higher price than the other, i.e. SB. The 14 different hypotheses are explained in table 8 below.

Table 8: The 14 hypotheses defined.

H1, Availability	Loyals perceive OEM > SB
H2, Availability	Non-loyals perceive SB > OEM
H3, Sales	Loyals perceive OEM > SB
H4, Sales	Non-loyals perceive SB > OEM
H5, Service	Loyals perceive OEM > SB
H6, Service	Non-loyals perceive SB > OEM
H7, Quality	Loyals perceive OEM > SB
H8, Quality	Non-loyals perceive SB > OEM
H9, Brand	Loyals perceive OEM > SB
H10, Brand	Non-loyals perceive OEM > SB
H11, Price	Loyals perceive OEM > SB
H12, Price	Non-loyals perceive OEM > SB
H13, Satisfaction	Loyals perceive OEM > SB
H14, Satisfaction	Non-loyals perceive SB > OEM

3. METHOD

3.1 Research approach

The research method chosen was quantitative, and questionnaires were sent out to the production managers of active aggregate producers in Sweden. The response rate was 44%. Statistical analyses of the responses of the returned questionnaires were performed by a t-Test: Two-Sample Assuming Equal Variances and conclusions were drawn based on these statistical analyses. The information needed was collected from production managers responsible for one or more quarries each. The questionnaires were sent by ordinary mail. With the exception of questions about their situation, all questions were of the seven-point Likert-type scales. The questionnaire was validated by Sandvik sales personnel, my supervisor, and by my close friend and contact within the quarry business. There are four main players in the Swedish aggregate business, Skanska, NCC, Peab and Jehander, together they employ 82 production managers. A further 137 production managers were employed in smaller and medium sized companies. Altogether 219 questionnaires were sent out and the empirical part of this thesis is based on the returned questionnaires. Out of these 219 questionnaires 97 was returned (response rate of 44.3%). Ten were not valid due to the fact that the respondents had left the crushing business, leaving 87 for analysis.

3.2 Questionnaire and measurements

There are two main suppliers of crushers in Sweden, Sandvik and Metso minerals. There are two other competitors, who focus only on the aftermarket business; Swemas AB and BNT Nordic AB. The questionnaire is shown in appendix 1. The strength of this thesis is that it measure the defectors opinions, which is different to most other work done before, where researchers ask current customers about their loyalty. Here the loyalty is gone and it is the opinions of this group which are compared with those of the loyal customers.

3.3 Sampling and Data Collection

The following activities were performed to collect the data: The responsible production managers working in an active quarry in Sweden were identified and their addresses were obtained. This was done using the internet sites www.allabolag.se, www.eniro.se, www.ratsit.se, and www.sbmi.se. I got inside help from all the major companies who gave me the names and contact data of their production managers. The trade association "Swedish Aggregate Producers Association" member roll was also a great source of addresses. Unfortunately all quarries are not a member of this association. Therefore other related associations were also scrutinized. Sveriges Dränerares Riksförbund, freely translated to "The association of Swedish Drainers" and Maskin Entreprenörerna, the "Association of Contractors in Sweden". The search words used on www.eniro.se and www.ratsit.se were bergkross = "gravel", ballast = "ballast", makadam = "macadam" and asfaltkross = "asphalt aggregate" and the hits were evaluated. All possible companies found were controlled on the site www.ratsit.se for their activity (SNI 08120=Extraction of gravel and sand pits, mining of clays and kaolin), yearly turnover (>2 000 000 SEK) and only incorporated companies were included. Altogether 219 production managers were identified. Of these 219 production managers of quarries with an ongoing aggregate production in Sweden, 82 belonged to the larger companies and 137 to smaller and medium sized companies. Ten respondents have

returned to me informing me that all aggregate production had either been outsourced or stopped.

The following measures were taken to improve the response rate:

- a. All responders were offered 20 SEK to give to a charity of their choice.
- b. This Master Thesis was also offered them if they gave me their e-mail address.
- c. Their anonymity was guaranteed.
- d. A reminder either by email or by postcard, 117 and 102 respectively, were sent out.

As mentioned above the number left to analyze was 87 respondents.

3.4 Unit and level of analysis

There are two main suppliers of crushers in Sweden, Sandvik, former Svedala industri and Metso minerals. These are defined as original suppliers. The groups compared are the respondents owning either Metso or Sandvik/Svedala who retained to the original equipment manufacturer, OEM, with those who have defected and now use Swemas or BNT as their supplier. The question is how the loyal and non-loyal respondents grade their perception of the OEM companies on the crusher aftermarket business in Sweden. Are there factors making the original manufacturers lose their customer to the competition or on the contrary make them stay? The opinion of the two groups, Loyals and Non-loyals regarding each supplier type, Original Equipment Manufacturer, OEM and Swemas and BNT, here called SB, on availability, sales, service, quality, brand, price and satisfaction, respectively, are compared. The analysis of brand, price and satisfaction are based on a single question, quality two; the quality of spare parts plus the quality of wear parts. Sales and service the analysis is based on by two questions, respectively. In both cases contact and knowledge. There are three questions about availability which are grouped together; availability of spare parts, availability of wear parts and the product range of spare parts. The data will be calculated by T-Tests: Two-Sample Assuming Equal Variances.

3.5 Validity, reliability and generalizability

Valaste and Tarkkonen, state that the concept of validity is raising the question; do the respondents represent the opinion of the whole population. In this study 44% of the population responded and there are no reasons to suspect that this subpopulation would differ from the total population. Valaste and Tarkkonen further stated that reliability is dealing with the quality of the data collected and measured raising questions like: “Are we measuring the right thing and how accurate are our measurements?” (Valaste and Tarkkonen, 2008). The studied groups are well defined and are relatively easy to gain following the description in section 3.3 Sampling and Data Collection. The accuracy of the measurements is also judged to be high considering the straight forward questionnaire and a well proven scale, the seven-point Likert-type scales. The relatively high response rate also supports the statement that it is an easy questionnaire to fill in. The result of the study should be possible to generalize considering that the factors measured are general to most, if not all, other business to business relations.

4. RESULTS

Here the descriptive statistics of sample correlation and study of differences between loyals and non-loyals are presented. The 14 null hypotheses were tested to analyze if any of the seven factors; availability, sales, service, quality, brand, price and overall satisfaction is a factor influencing customer retention. For the factors; availability, sales, service, quality and satisfaction the null hypotheses are: The loyals and non-loyals regard their respective supplier as better than the other. For the factors brand and price the null hypotheses are: The loyals and non-loyals regard the OEM as the better brand and having a higher price than the other, i.e. SB.

4.1 Availability

Both hypotheses regarding availability are supported. H1 is supported because loyals believe OEMs has better availability than SB, see figure 2.

t-Test: Two-Sample Assuming Equal Variances

	<i>OEM</i>	<i>SB</i>
Mean	5.08	4.42
Variance	1.26	2.27
Observations	165	78
Hypothesized Mean Difference	0	
Mean Difference	.66	
P(T<=t) two-tail	.0002	p<.001
Null hypothesis	Supported	

Figure 2: H1 is supported; loyals regard their OEM supplier as having better availability than SB.

H2 is supported because non-loyal believe SB has better availability, see figure 3.

t-Test: Two-Sample Assuming Equal Variances

	<i>OEM</i>	<i>SB</i>
Mean	4.75	5.28
Variance	1.66	1.85
Observations	145	162
Hypothesized Mean Difference	0	
Mean Difference	.53	
P(T<=t) two-tail	.0006	p<.001
Null hypothesis	Supported	

Figure 3: H2 is supported; non-loyals regard their SB supplier as having better availability than OEM.

4.2 Sales

Both hypotheses regarding sales are supported. H3 is supported because loyals believe OEM has better sales representatives than SB, see figure 4.

t-Test: Two-Sample Assuming Equal Variances

	<i>OEM</i>	<i>SB</i>
Mean	5.39	4.76
Variance	1.70	2.27
Observations	123	46
Hypothesized Mean Difference	0	
Mean Difference	.63	
P(T<=t) two-tail	.008	p<.01
Null hypothesis	Supported	

Figure 4: H3 is supported; loyalists believe OEM is better in sales than SB.

H4 is supported because non-loyalists believe SB has better sales representatives see figure 5.

t-Test: Two-Sample Assuming Equal Variances

	<i>OEM</i>	<i>SB</i>
Mean	4.91	5.52
Variance	1.57	1.33
Observations	103	103
Hypothesized Mean Difference	0	
Mean Difference	.61	
P(T<=t) two-tail	.000	p<.001
Null hypothesis	Supported	

Figure 5: H4 is supported; non-loyalists believe SB is better in sales.

4.3 Service

Both null hypotheses regarding service are rejected. H5 is rejected because loyalists do not believe OEM has better service compared SB, see figure 6.

t-Test: Two-Sample Assuming Equal Variances

	<i>OEM</i>	<i>SB</i>
Mean	5.37	4.77
Variance	1.33	3.36
Observations	102	13
Hypothesized Mean Difference	0	
Mean Difference	.60	
P(T<=t) two-tail	.10	ns
Null hypothesis	Rejected	

Figure 6: H5 is rejected: loyalists do not believe OEM is better in service.

H6 is also rejected because non-loyalists do not believe SB has better service than OEM, see figure 7.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.09	5.43
Variance	1.84	1.30
Observations	91	58
Hypothesized Mean Difference	0	
Mean Difference	.34	
P(T<=t) two-tail	.11	ns
Null hypothesis	Rejected	

Figure 7: H6 is rejected; non-loyal do not believe SB is better in service.

4.4 Quality

H7 is supported because loyals believe OEM has better quality than SB, see figure 8.

t-Test: Two-Sample Assuming Equal Variances		
	<i>SB</i>	<i>OEM</i>
Mean	4.17	5.38
Variance	1.79	1.05
Observations	52	115
Hypothesized Mean Difference	0	
Mean Difference	1.21	
P(T<=t) two-tail	.000	p<.001
Null hypothesis	Supported	

Figure 8: H7 is supported; loyals believe OEM has better quality.

H8 is rejected because non-loyals do not believe SB has better quality than the OEM, see figure 9.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.23	4.93
Variance	1.29	1.61
Observations	102	109
Hypothesized Mean Difference	0	
Mean Difference	.30	
P(T<=t) two-tail	.07	ns
Null hypothesis	Rejected	

Figure 9: H8 is rejected; non-loyal do not believe SB has better quality.

4.5 Brand

H9 is supported because loyals has the opinion that OEM's brand is better compared to SB's, see figure 10.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.42	4.12
Variance	.94	.83
Observations	50	26
Hypothesized Mean Difference	0	
Mean Difference	1.30	
P(T<=t) two-tail	.000	p<.001
Null hypothesis	Supported	

Figure 10: H9 is supported; loyals believe OEM is the better brand.

H10 is supported because non-loyals has the opinion that OEM's brand is better compared to SB's, see figure 11. N.B. The hypothesis 10 is that also non-loyals regards the OEM brand to be better.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.46	4.85
Variance	.94	1.28
Observations	59	60
Hypothesized Mean Difference	0	
Mean Difference	.61	
P(T<=t) two-tail	.002	p<.01
Null hypothesis	Supported	

Figure 11: H10 is supported; non-loyal also believe OEM is a better brand.

4.6 Price

H11 is supported because loyals has the opinion that OEM's price is higher compared to SB's, see figure 12.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.30	4.13
Variance	2.18	2.52
Observations	60	31
Hypothesized Mean Difference	0	
Mean Difference	1.17	
P(T<=t) two-tail	.0007	p<.001
Null hypothesis	Supported	

Figure 12: H11 is supported; loyals believe OEM's prices are higher.

H12 is supported because non-loyals also has the opinion that OEM's price is higher compared to SB's, see figure 13.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.65	4.14
Variance	1.66	1.46
Observations	60	64
Hypothesized Mean Difference	0	
Mean Difference	1.51	
P(T<=t) two-tail	.000	p<.001
Null hypothesis	Supported	

Figure 13: H12 is supported; non-loyal also believe OEM's prices are higher.

The two hypotheses regarding price are both supported, both loyals and non-loyals share the opinion that OEM has higher prices.

4.7 Satisfaction

The H13; loyals has the opinion that OEM deliver better satisfaction compared to SB is supported, see figure 14.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	5.14	4.39
Variance	1.35	1.44
Observations	63	36
Hypothesized Mean Difference	0	
Mean Difference	.75	
P(T<=t) two-tail	.003	p<.01
Null hypothesis	Supported	

Figure 14: H13; loyals has the opinion that OEM delivers better satisfaction.

H14; however, is rejected because non-loyals do not believe SB delivers better satisfaction than OEM, see figure 15.

t-Test: Two-Sample Assuming Equal Variances		
	<i>OEM</i>	<i>SB</i>
Mean	4.92	5.32
Variance	1.81	1.73
Observations	60	62
Hypothesized Mean Difference	0	
Mean Difference	.41	
P(T<=t) two-tail	.09	ns
Null hypothesis	Rejected	

Figure 15: H14 the non-loyals do not believe SB delivers better satisfaction

5. ANALYSIS

5.1 The findings of the results in the descriptive statistics are analyzed and compared with earlier findings in the literature.

Here the 14 null hypotheses are analyzed to evaluate if any of the seven factors; availability, sales, service, quality, brand, price and overall satisfaction influences customer retention. In table 9 below, a summary of the results are presented.

Table 1: Summing-up the findings in section 4. Results

	Loyals: OEM ≠ SB		Non-loyals: OEM ≠ SB	
	Mean difference *	Significance	Mean difference *	Significance
Availability	.66	***	.53	***
Sales	.63	**	.61	***
Service	.60	ns	.34	ns
Quality	1.21	***	.30	ns
Brand ¹⁾	1.30	***	.61	**
Price ¹⁾	1.17	***	1.51	***
Satisfaction	.75	**	.41	ns
*** = p<.001 and ** = p<.01				
For the factors; availability, sales, service, quality and satisfaction the null hypotheses are: The loyals and non-loyals regard their respective supplier as better than the other.				
¹⁾ For the factors; Brand and price the null hypotheses are: The loyals and non-loyals regard the OEM as the better brand and having a higher price than the other, i.e. SB.				
*) The mean difference is absolute				

The research idea is; if the defectors have a poorer perception than the loyals about the OEMs regarding any of these above mentioned factors, the factor is possibly an important reason for leaving and becoming non-loyal, i.e. the factor has an impact on customer loyalty. The same reason can be applied on the respondents opinion about SBs (i.e. the non-OEMs) if SBs are perceived by the defectors as better, compared to the opinion of the loyals, regarding any of these above mentioned factors, the factor is possibly an important reason for leaving the relation and becoming non-loyal, i.e. the factor has an impact on customer loyalty.

5.2 Availability

Both hypotheses are supported. H1 is supported because loyals believe OEM has better availability than SB and H2 is supported because non-loyals believe SB has better availability, see figure 2. Loyals have the opinion that the availability is significantly better at the OEMs and the non-loyals opinion is that the SBs have better availability. This study confirms earlier studies by showing a significant positive relationship between availability and customer retention, when non-loyals perceive the availability to be better at the SBs they have a very good reason to defect. Availability of spare and wear parts is absolutely crucial for an aggregate producer.

5.3 Sales

Loyal customers have the opinion that the sales representatives from the OEMs are significantly better than those from the SBs and the non-loyals have the opposite opinion and think that the SBs sales representatives are better. So both H3 and H4 are supported and this study confirms earlier studies by showing a significant positive relationship between sales and customer retention. In a complex industrial sales situation with substantial values involved and therefore also high risk and high insecurity involved, a good relation between the sales representative and the customer is crucial to make the customer feel more secure in making the purchase. This is in line with previous research by Guenzi and Troilo, 2006, Johnston and Lewin, 1996 and Doney and Cannon, 1997, where sales representatives who have invested more time, with a higher sales calls frequency and overall competency, will get the sale.

5.4 Service

Here loyals agree with the non-loyals that there are no significant differences between them regarding the service levels from the OEMs compared to the SBs, i.e. H5 and H6 are rejected. The response of non-loyals is in line with current literature, they do not think the OEMs provide better service and has therefore a plausible reason to defect. The opinion of loyals is not in line with the literature where service quality is regarded to be linked to customer retention. There are two reasonable explanations regarding why the loyals do not mark the OEMs higher than the SBs regarding service. The first one is that many companies service their crushers themselves and do not use external services. The other one is that the average difference is high but only 13 of the loyal respondents had an opinion about SBs service and this can explain why the difference is not significant. However, Brax (2005:142) emphasize how important service is and will be for the industrial sector: “Manufacturers have several reasons to include more services in their total offering to: facilitate the sales of their goods; lengthen customer relationships; create growth opportunities in matured markets; balance the effects of economic cycles with different cash-flows; and respond to demand”.

5.5 Quality

Regarding quality the loyals are convinced that the OEMs have better quality than the SBs, supporting H7, which is in line with earlier research findings, saying that quality is an antecedents for repurchase and loyalty (Molinari et al., 2008, Saura et al., 2008, Mentzer et al., 2004, Richey, et al., 2007 and Trasorras et al., 2009) and therefore a plausible good reason to stay loyal. The non-loyals have a different opinion; they do not see any difference in quality. Thus their opinion gives them no reason to stay loyal, which is also in line with earlier findings. H8 is rejected, the non-loyals does not perceive SBs to have better quality, but nor do they consider the OEMs to be better. The non-loyals consider the quality of OEMs and SBs to be comparable, and as one can see in paragraph 5.7. also perceive the price of the SBs to be lower. With this in mind the non-loyals choice and behavior can be explained.

5.6 Brand

The loyals perceives the OEMs' brand as stronger than that of the SBs, supporting H9. This result strengthens the idea that also brand equity is an antecedent for loyalty. This is in line with earlier findings by Walley et al., 2007, Roberts and Merrilees, Mitches et al., 2001, Bogomolova and Romaniuk, 2009 and Trasorras et al., 2009. The Non-loyals share this view, regarding the OEMs' brand, supporting H10 and also perceive the brand of OEMs as stronger. If brand was the most important antecedent for the aggregate crushing customers in Sweden, the non-loyals would have stayed loyal.

5.7 Price

When it comes to perception of price both loyals and non-loyals share the same opinion, supporting both H11 and H12. The prices of OEMs are perceived as higher. Ranaweera and Neely, 2003 and Trasorras et al., 2009 both reason about price perception and showed that fair prices is an antecedent for repurchase intentions and customer retention, respectively. In section 5.8. one can see that loyals perceive that OEMs gives them better satisfaction than the SBs, and hence are loyal. The non-loyals, however, believe that SBs can give them the same level of satisfaction as the OEM's and therefore have a valid reason to become non-loyals.

5.8 Satisfaction

Loyal customers are convinced that OEMs will give them higher satisfaction than SBs, Supporting H13, which is also in line with earlier research findings Anderson, et al., 1994, Hallowell, 1996, Caceres, 2005, Molinari et al., 2008 and Trasorras et al., 2009. The non-loyals are, however, convinced that the SBs can provide them with the same level of satisfaction as the OEMs do, rejecting H14. The non-loyals do not consider that the SBs can give them better satisfaction than the OEMs, but good enough, and together with their perception of price, this might give them a good reason to become non-loyals.

6. CONCLUSIONS

This thesis asks; what are the key determinants of customer retention in the aggregate crushing business in Sweden? The fact that these machines are complex industrial products explains some of the findings. Firstly, there is some support for the idea that availability is an important factor for this type of products. Many customers may perceive processes and lag times, due to no availability of a critical part, before getting machines up and running after a break down or a planned maintenance stop, and this, to a significant expense. Such lags before goods are delivered typically cause significant problems to deliver at their end to their customers. A loyal customer thus value activities that help them deliver their services and therefore stick to providers that help them in this respect. Both loyals and non-loyals have the opinion that their respective supplier provides them with better availability and thus confirming earlier findings and this is a conclusion that can be generalized. Furthermore, the fact that these are industrial products supports the differences in perceived sales activities. The sales activities concerning complex industrial products depend on personal relationships and loyal customers are more likely to value such activities to lower the sense of insecurity while purchasing industrial product with potentially large economic consequences for the buyer. Again, both loyals and non-loyals perceive their supplier to have the best sales activities, which is a conclusion that most likely can be generalized to other industrial supplier-sales relationships.

Service did not come out as expected when asking the loyals, mainly because only few loyals had an opinion about the service quality of SBs. However, there is a trend among crusher suppliers to add more services in their total offer. This can be seen at both Metso and Sandvik (Authors personal experience). Recall also that quality is an important determinant for customer retention. Thus, loyals perceive OEM quality to be better than non-loyals do, which is in line with earlier literature. It is therefore plausible to draw generalized conclusions regarding applicably to other industrial supplier-sales relationships. The brand is not that decisive as a factor when it comes to customer retention in the Swedish aggregate crushing business. The defectors explicitly state that the brand of the OEM is stronger. In addition, availability, sales, quality and satisfaction seems to be more important. The importance of brand has also been recognized in earlier literature. Swedish aggregate crushing industry opinion about brand might be a business specific trait of this business and therefore it cannot be generalized.

Price levels presented by the OEMs are considered as higher than those of the SBs, no matter if you ask loyals or non-loyals. As long as the customers are satisfied and they feel they get value for their money, price, like brand, is not the most important factor in the Swedish aggregate crushing business. This is in line with the literature and is therefore possible to generalize. Loyals are more satisfied with the OEMs and non-loyals think that there are no significant differences in the ability of suppliers to satisfy. This is in line with earlier findings in the literature and can be generalized to other industrial supplier-sales relationships.

7. LIMITATIONS AND FURTHER RESEARCH

This study has given some relevant knowledge regarding key factors determining customer retention in the aggregate crushing business in Sweden. Although the factors are taken from literature one could suggest a qualitative study to get more detailed answers and perhaps also discover other factors which influence customer retention.

In addition, as many of the findings may offer insights to industrial customers and their behavior, new studies could expand this approach to other type of products and/or services. As industrial procurement for instance involve highly specified documents, teams of expert individuals (i.e., maintenance, sales, and distribution etc.), multiple suppliers and customers with different expectations there are also many other aspects still to consider.

8. REFERENCES

- Ahmad, R. and Buttle, F. (2001). Retaining business customers through adaptation and bonding: a case study of HDoX. *Journal of Business and Industrial Marketing* 16(7): 553-573.
- Anderson, E. W., Fornell, C., and Lehmann, D.R. (1994). Customer satisfaction, Market Share, and Profitability: Findings From Sweden. *Journal of marketing* 58:53-66.
- Bendoly, E., Blocher, J. D., Bretthauer, K.M., Krishnan, S. and Venkataramanan, M. A. (2005). Online/In-Store Integration and Customer Retention. *Journal of Service Research* 7(4):313-327.
- Bennett, R., and Rundle-Thiele, S. (2004). Customer satisfaction should not be the only goal. *Journal of Services Marketing* 18(7):514-523.
- Bogomolova, S., and Romaniuk, J. (2009). Brand defection in a business-to business financial service. *Journal of Business Research* (62):291-296.
- Borle, S., Boatwright, P., Kadane, J. B., Nunes, J. C. and Shmueli, G. (2005). The Effect of Product Assortment Changes on Customer Retention. *Marketing Science* 24(4):616–622.
- Brax, S. (2005). A manufacturer becoming service provider – challenges and a paradox. *Managing Service Quality* 15(2):142 – 155.
- Caceres, R. C., and Pappas, N. G. (2007). Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European Journal of Marketing* 41(7/8):836 – 867.
- Corsten, D. and Gruen, T. (2003), Desperately seeking shelf availability: an examination of the extent, the causes, and the efforts to address retail out-of-stocks, *International Journal of Retail and Distribution Management* 31(12):605-17
- Grant, D. B., and Fernie, J. (2008). Exploring out-of-stock and on-shelf availability in non-grocery, high street retailing. *International Journal of Retail and Distribution Management* 36(8): 661-672.
- Cross, E. C., Brashear T.G., Rigdon, E.E., and Bellenger, D. (2007). Customer orientation and salesperson performance. *European Journal of Marketing* 41(7/8):836-867.
- Dawes, J. (2009). The Effect of Service Price Increases on Customer Retention: The Moderating Role of Customer Tenure and Relationship Breadth. *Journal of service research* 11(3):232-245.
- Doyle, P. (2004) Value-Based Marketing. In Roger J. Best (Ed.). *Market-based management: strategies for growing customer value and profitability*. (pp 5-33). Pearson Education, Inc., Upper Saddle River, NJ 07458. (Original work published 2000).

Drucker, P.F. (2001). Management, Tasks, Responsibilities, Practices. In Peter F. Drucker (Ed.) *The essential Drucker*. (pp18-39). HarperCollins Publishers Inc., 10 east 53rd Street, New York, NY 10022. (Original work published 1974).

Grant, B.G. and Fernie, J. (2008). Exploring out-of-stock and on-shelf availability in non-grocery, high street retailing. *International Journal of Retail & Distribution Management* 36(8):661-672.

Guenzi, P., and Troilo, G. (2007). The joint contribution of marketing and sales to the creation of superior customer value. *Journal of Business Research* 60:98-107.

Gupta, S., and Lehmann, D. R. (2003). Customer as Assets. *Journal of interactive marketing* 17(1):9-24.

Grönroos, C. (1994). Quo Vadis, marketing? Toward a relationship marketing paradigm. *Journal of marketing management* 10(5):347-360.

Hallowell, R. (1996). The relationship of customer satisfaction, customer loyalty, and profitability: an empirical study. *International Journal of Service Industry management* 7(4):27-42.

Hellman, K. (2007). Strategy-driven B2B promotions. *Journal of Business and Industrial Marketing* 20(1):4-11.

Johnston, W.J. and Lewin, J.E. (1996). Organizational buying behavior: toward an integrative framework, *Journal of Business Research*, 35:1-16.

Legnani, E., Cavalieri, S. and Ierace, S. (2009). A framework for the configuration of after-sales service processes. *Production Planning and Control* 20(2):113-124.

Malthouse, E. C., and Blattberg. R. C. (2005). Can we predict customer lifetime value? *Journal of Interactive Marketing* 19(1):2-16.

Mentzer, J.T., Myers, M.B. and Cheung, M-S. (2004). Global market segmentation for logistics services, *Industrial Marketing Management* (33):15-20.

Michell, P., King, J. and Reast, J. (2001). Brand Values Related to Industrial, Products. *Industrial Marketing Management* (30):415-425

Molinari, L. K., Abratt, R., and Dion, P. (2008). Satisfaction, quality and value and effects on repurchase and positive word-of-mouth behavioral intentions in a B2B services context. *Journal of Services Marketing* 22(5):363 – 373.

Ranaweera, C. and Neely, A. (2003). Some moderating effects on the service quality-customer retention link. *International Journal of Operations & Production Management* 23(2):230-248.

- Reichheld, F. F., and Saser, Jr. W. E. (1990) Zero Defections: Quality comes to services. *Harvard Business review*, September – October:105-111.
- Reinartz, W., and Kumar, V. (2002). The Mismanagement of Customer Loyalty. *Harvard Business review* July: 86-94.
- Richey, R.G., Daugherty, P.J. and Roath, A. (2007), Firm technological readiness and complementarity: capabilities impacting logistics service competency and performance, *Journal of Business Logistics* 28(1):195-228.
- Roberts, J., and Merrilees, B. (2007) Multiple roles of brands in business-to-business Services. *Journal of Business and Industrial Marketing* 22(6):410–417.
- Saura, I. G., Francés, D. S., Contri, G. B. and Blasco, M. F. (2008) Logistics service quality: a new way to loyalty, *Industrial Management and Data Systems* 108(5):650-668.
- SBMI: The Swedish Aggregates Producers Association, 2012. <http://www.sbmi.se/>
- Trasorras, R., Weinstein, A., and Abratt, R. (2009) Value, satisfaction, loyalty and retention in professional services, *Marketing Intelligence & Planning* 27(5):615 – 632.
- van Riel, A. C. R., de Mortangesa C. P. and Streukens, S. (2005). Marketing antecedents of industrial brand equity: An empirical investigation in specialty chemicals. *Industrial Marketing Management* 34 (2005):841– 847
- Walley, K., Custance, P., Taylor, S., Lindgreen, A., and Hingley, M. (2007). The importance of brand in the industrial purchase decision: a case study of the UK tractor market. *Journal of Business and Industrial Marketing* 22(6)383 – 393.
- Yanamandram, V., White, L. and Ryde, N. (2006). Switching barriers in business-to-business services: a qualitative study. *International Journal of Service Industry Management* 17(2):158-192.
- Valaste, M., Tarkkonen, L. (2008). Clarifying the concept of reliability, validity and generalizability. Presented at 2008 Workshop on survey sampling theory and methodology August 25-29 in Kuressaare, Estonia.
<http://www.ms.ut.ee/samp2008/Presentations/MValaste1.pdf>

APPENDIX 1

Skicka in enkäten innan fredagen den 8 maj! Fyll gärna i den direkt!! ;-)

Marknadsundersökning av leverantörer till stenkrossar på den svenska marknaden våren 2009

Bäste stenkrossare!

Jag, Thomas Hedin (tel. 040-40 91 19), ber dig om ca 10-15 minuter av din tid.

Enkäten är en del av mitt examensarbete, som kommer att avsluta mina ekonomistudier (MBA) vid Blekinge Tekniska Högskola. Syftet med arbetet är att ta reda på vilka faktorer som avgör om man stannar kvar som eftermarknadskund hos krosstillverkaren eller söker upp alternativa leverantörer för sina inköp av slit- och reservdelar. Dina svar kommer att behandlas anonymt och konfidentiellt.

Tack redan nu för att du tar dig tid att svara på denna enkät. För varje inskickad och besvarad enkät donerar jag 20 kr till en av följande organisationer efter ditt val.

Vilken organisation vill du stödja? Kryssa i ditt val.

- BRIS
- Cancerfonden
- Hjärt-lungfonden
- Röda korset
- Rädda barnen
- Läkare utan gränser



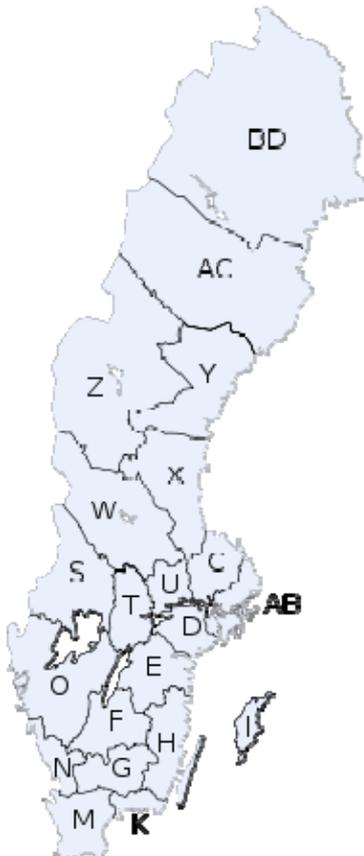
School of Management

BLEKINGE INSTITUTE OF TECHNOLOGY

Då börjar vi!

Arbetar du på NCC, Peab, Skanska eller Jehander? Ja Nej

Denna fråga ställs enbart för att jag ska kunna bedöma om de inkomna svaren kan sägas representera hela den svenska marknaden eller ej.



I vilket/vilka län har du stenkrossar som du är ansvarig för?

Har du dina krossar i t.ex. Kiruna skriver du BD här;

Är du Man eller Kvinna

Din ålder är under 25

25-34

Vem är din huvudleverantör idag när det gäller mangan till dina stenkrossar från Metso?

Jag har inga krossar från Metso

BNT

Metso

Sandvik

Swemas

Annan I så fall från vem?.....

Kommentar.....
.....

Vem är din huvudleverantör idag när det gäller reservdelar till dina stenkrossar från Metso?

Jag har inga krossar från Metso

BNT

Metso

Sandvik

Swemas

Annan I så fall från vem?.....

Kommentar.....
.....

Vem är din huvudleverantör idag när det gäller mangan till dina stenkrossar från Sandvik/Svedala?

Jag har inga krossar från Sandvik/Svedala

BNT

Metso

Sandvik

Swemas

Annan I så fall från vem?.....

Kommentar.....
.....

Vem är din huvudleverantör idag när det gäller reservdelar till dina stenkrossar från Sandvik/Svedala?

Jag har inga krossar från Sandvik/Svedala

BNT

Metso

Sandvik

Swemas

Annan I så fall från vem?.....

Kommentar.....
.....

Vem är din huvudleverantör idag när det gäller teknisk underhåll och service till dina stenkrossar?

BNT

Metso

Sandvik

Swemas

Annan I så fall från vem?.....

Kommentar.....
.....

Hur nöjd är du med tillgängligheten på reservdelar och mangan i från resp. leverantör?

	Mycket missnöjd			Neutral			Mycket nöjd	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....
.....

Vad anser du om respektive företags bredd på sitt mangansortiment?

	Mycket dåligt			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags bredd på sitt reservdelssortiment?

	Mycket dåligt			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Hur nöjd är du med kundservicen i från respektive leverantör?

	Mycket missnöjd			Neutral			Mycket nöjd	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Din kontakt med respektive företags säljare/representant, hur nöjd är du med den?

	Mycket missnöjd			Neutral			Mycket nöjd	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags säljare/representants kunskaper inom kross och sortering?

	Mycket dålig			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Din kontakt med respektive företags servicetekniker, hur nöjd är du med den?

	Mycket missnöjd			Neutral			Mycket nöjd	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags servicetekniker kunskaper inom kross och sortering?

	Mycket dålig			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags tekniska kvalitet på mangan?

	Mycket dålig			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags tekniska kvalitet på sina reservdelar?

	Mycket dålig			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags varumärke?

	Mycket dåligt			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad anser du om respektive företags priser?

	Mycket låga			Neutral			Mycket höga	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Hur bra tycker du att respektive företag är på att ge "värde för pengarna"?

	Mycket dåligt			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Vad är din totala helhetsuppfattning om respektive företag?

	Mycket dåligt			Neutral			Mycket bra	Vet ej/Ingen uppfattning
	1	2	3	4	5	6	7	
BNT								
Metso								
Sandvik								
Swemas								

Kommentar.....

Hur viktigt anser du att leveranstiden är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....

Hur viktigt anser du att en god relation med säljaren/representanten är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....

Hur viktigt anser du att kvalitet är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....
.....

Hur viktigt anser du att varumärket är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....
.....

Hur viktigt anser du att ett lågt pris är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....
.....

Hur viktigt anser du att kvaliteten på den tekniska servicen är för dina inköpsbeslut?

Mycket oviktigt			Neutral			Mycket viktigt	Vet ej/Ingen uppfattning
1	2	3	4	5	6	7	

Kommentar.....
.....

Tack så hemskt mycket för din tid och hjälp, lägg enkäten i det bifogade frankerade kuvertet och posta det, gärna idag!

Vill du få min rapport så skriv ner din e-mail adress här under så skickar jag den så fort den är klar.

Ha en skön sommar!

E-mail adress:.....