CREATING COMPETITIVE ADVANTAGE IN SHRINKING MARKETS:

THE CASE OF THE TURKISH CEMENT INDUSTRY

RÜVEYDA NUR ARSLAN

BOĞAZİÇİ UNIVERSITY

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Rüveyda Nur Arslan

Boğaziçi University

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Creating Competitive Advantage in Shrinking Markets:

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The thesis of Rüveyda Nur Arslan

has been approved by:

Assist. Prof. Mehtap Işık
(Thesis Advisor)

Assoc. Prof. Gökhan Akay

Assist. Prof. Fadime İrem Doğan
(External Member)

December 2019

DECLARATION OF ORIGINALITY

I, Rüveyda Nur Arslan, certify that

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Date R. Arslan

ABSTRACT

Creating Competitive Advantage in Shrinking Markets:

The Case of the Turkish Cement Industry

Creating competitive advantage became increasingly important in the Turkish cement industry due to market shrinkage caused by economic downturn in the third quarter of 2018. Product differentiation, pricing, promotion and placing opportunities are generally very limited in the cement industry. As a result, customer experience with cement brands is a key differentiator that generates competitive advantage. The main objective of this study is to analyse and understand customer behaviour in the cement market by using Net Promoter Score (NPS) methodology. The empirical information for this study was collected from case company surveys, which were compiled in 2015, 2016 and 2019 with 441 participants in total. Empirical evidence was used to gain insights into the way companies differentiate themselves at the market level on the basis of customer behaviour in order to gain competitive advantage. The findings of this study revealed that there was no statistically significant relationship between NPS and company revenues. Additionally, no statistically significant difference was found in the purchasing behaviours of promoters, passives and detractors. However, a positive correlation was observed between NPS and the number of active customers. Furthermore, product and marketing were found to be the main drivers causing customers to recommend the case company.

ÖZET

Daralan Pazarlarda Rekabet Avantajı Yaratma:
Türk Çimento Endüstrisi Örneği

2018'in üçüncü çeyreğinde başlayan ekonomik gerilemenin yol açtığı pazar daralması sebebiyle, çimento endüstrisinde rekabet avantaji yaratmak giderek daha önemli bir hal almıştır. Ürün farklılaşması, fiyatlandırması, dağıtım ve tutundurma faliyetleri, çimento endüstrisinde çok kısıtlıdır. Bu bakımdan müşteri deneyimi, çimento markalarının rekabet avantajı elde etmesi için anahtar bir belirleyicidir. Bu çalışmanın temel amacı, Net Tavsiye Skoru yöntemini kullanarak çimento pazarındaki müşteri davranışlarını analiz etmek ve anlamaktır. Bu çalışmadaki ampirik bilgiler, vakaya konu olan şirketin 2015, 2016 ve 2019 yıllarında toplam 441 katılımcıyla derlenen telefon anketlerinden toplanmıştır. Ampirik kanıtlar, şirketlerin müşteri davranışı temelinde kendilerini pazarda nasıl farklılaştırdıklarına dair fikir edinmek için kullanılmıştır. Bulgular Net Tavsiye Skoru ve şirket gelirleri arasında anlamlı bir ilişki olmadığını göstermiştir. Ayrıca, şirketi tavsiye eden, pasif kalan ve kötüleyen müşterilerin satın alma davranışlarında istatistiksel olarak anlamlı bir farklılaşma bulunamamıştır. Net Tavsiye Skoru ve aktif müşteri sayısında pozitif bir ilişki bulunurken, ürün ve pazarlamanın ise müşterilerin şirketi tavsiye etmesine sebep olan ana faktörler olduğu gözlenmiştir.

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ABBREVIATIONS

ANOVA: Analysis of Variance

CEMBUREAU: The European Cement Association

EBITDA: Earnings before Interest, Taxes, Depreciation, and Amortization

EKC: Environmental Kuznets Curve

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

IMSAD: Association of Turkish Construction Material Producers

KAP: Public Disclosure Platform

NPS: Net Promoter Score

R&D: Research and Development

RMC: Ready Mix Concrete

TCMA: Turkish Cement Manufacturers Association

TCMB: Turkish Central Bank

TSI: Turkish Statistical Institute

WOM: Word of Mouth

CHAPTER 1
INTRODUCTION

Competition is a race between two or more parties to acquire something that cannot be held by all parties at the same time. Competition can be evaluated in terms of type (trade, tender etc.), instruments (price, advertisement, R&D etc.) and purpose (profit, surviving in the market etc.). Competition among enterprises involves multiple factors: price, product quality, service, brand and technical support. Successful enterprises strive to outperform their competitors by maximizing their performance in the framework of the aforementioned criteria. Success in competition has typically been measured by production superiority, then quality and cost. However, success in competition has also become increasingly tied to service superiority.

Competitive advantage is achieved when a company creates more value for its customers than its competitors. Customers ultimately determine the value of a company's good or service and will pay a certain amount of money for that good or service based on their perception of its value. If the customer perceives the value of a company's good or service to be higher relative to competitors, then the customer will prefer that company. In other words, client preferences dictate competitive advantage between enterprises operating in a competitive market.

Increasing customer demands, global competition and shrinking markets have driven companies to search for new and innovative ways to achieve and retain competitive advantage. Over the past few decades, researchers have largely looked at leveraging internal resources within their organizations to maintain competitive advantage, such as high-quality management, re-engineering, downsizing and restructuring. However, inward orientation has not always been entirely sufficient.

An alternative source for competitive advantage is outward orientation, which focuses on customers and necessitates that organizations compete on the basis of superior customer value delivery (Woodruff, 1997).

Enterprises that successfully meet or even surpass customer needs and expectations will have demonstrated superior customer value delivery and won a satisfied, loyal customer. In other words, customer satisfaction yields customer loyalty. Customer loyalty can provide major competitive advantages in a market and eventually lead to increases in profitability, a large customer base and net growth. For example, a portfolio of loyal customers in a market can ensure repeat buying, which will reduce the cost of doing business; command higher prices, which leads to higher profits; financial and moral support in times of crisis; and favourable publicity by word of mouth, which helps build a company's brand and provides new market opportunities in the future. Lastly, satisfied customers are more likely to purchase other products and services. Therefore, customer satisfaction and loyalty are key drivers of competitive advantage in a market or industry.

Thus far, multiple studies have offered an array of metrics by which to measure customer loyalty based on the emotional engagement of customers. For instance, Korneta (2014) and Taylor (1998) attributed a customer's willingness to wait to purchase a certain product from a specific company to that customer's loyalty. Bloemer et al. (1999) connected customer loyalty with customer feedback. Reichheld (2003) found links between a customer's willingness to recommend a certain company to a friend or colleague and that customer's loyalty. Furthermore, there are alternative metrics such as Customer Satisfaction (CSAT), Customer Effort Score (CES) (Dixon et al. 2010) and the American Customer Satisfaction Index

(ACSI). Net Promoter Score (NPS) has also become globally popular, particularly amongst private companies as a way to measure customer satisfaction and loyalty. In fact, the NPS Index has become so popular that human resource departments have begun to use it to measure employee commitment.

Commodities such as cement make product differentiation and outward customer-oriented marketing activities geared towards superior customer value delivery more difficult in comparison to other types of goods and services. As such, customer experience with cement brands becomes the key differentiator to generate competitive advantage. In order to offer an outstanding customer experience, a company in the cement industry should collect customer insights. A cement company can, in turn, create a unique value for its customers based on these insights. Hence, unique value creation and positive brand experience that satisfies customer needs and expectations enables companies to obtain competitive advantage (Hunt and Morgan, 1995).

The Turkish cement industry is a prime example of the need for customer loyalty and satisfaction. Turkish cement manufacturing is a major employment generator and supports the Turkish economy with a 6.6% share in the country's GDP as of the third quarter of 2018. Given that the Turkish economy was hit by a currency crisis during that period, the percentage of the cement industry’s share is quite impressive (TSI, 2019). Moreover, the Turkish cement industry generates 7.9% of total employment in Turkey (KPMG, 2018). The industry started its journey with state-owned enterprises. First, private entrepreneurs entered the market following the Second World War. In 1989, the first privatization was realized, eventually evolving into 33 state-owned enterprises by 1998. In this period, foreign capital investment

played an important role as well (Müslümov, 2005). This privatization period of the Turkish cement industry generated increasing competition and cement companies underwent great efforts to obtain competitive advantage in the face of a rapidly evolving market. When the Turkish cement industry was under government control, cement companies were more product-oriented and they were not as efficient as they are today. They did not aim to achieve great EBITDA (Earnings before Interest, Taxes, Depreciation, and Amortization) or capture great market shares, nor did they break export records or create competitive advantage as they do today. The state-controlled Turkish cement industry was geared towards satisfying domestic demand and cement was transported to a central distribution point where it could be sold to customers. Before the privatization of the market, all other firms were also owned by the Turkish government. Consequently, manufacturing facilities and plants were identically constructed. Additionally, cement products were undifferentiated. However, after privatization and foreign direct investments, cement companies became increasingly oriented towards the competitive market and customers. Marketing departments, which coordinate various marketing activities such as advertising and promotions, increased sales, personal selling and sponsorships (Mbango, 2015). Finally, Turkish cement manufacturers moved a step further and carried out more customer-based strategies in order to achieve competitive advantage. They started to obtain customer insights through analyses, surveys and interviews.

This research aims to demonstrate how companies can maintain competitive advantage in a shrinking market through a focus on customer satisfaction and loyalty as measured by customer insights. The Turkish cement industry is an ideal case study

for this hypothesis for the following reasons:

- The Turkish construction sector has been shrinking since the third quarter of 2018
- Cement manufacturing is a locomotive industry in the Turkish economy,
- Turkey is a major global cement producer

Net promoter score is preferred as a methodology here due to its extensive usage in practice. The findings are expected to provide valuable insights that will help companies develop growth strategies in times of economic downturn.

While research has been done in the past on cement industry and customer behaviours, there is no research specific to the Turkish cement industry. Instead the current literature has investigated general market structure, concentration and privatization. This thesis endeavours to highlight the benefits – in terms of competitive advantage - of maintaining customer satisfaction and loyalty in shrinking markets as has been the case in the Turkish cement industry. As such, this study provides new insights into market dynamics as they pertain to competitive advantage based on the positive benefits of customer satisfaction and loyalty. Moreover, this research will help to identify opportunities for sustainable value creation for consumers and businesses. Furthermore, this research keeps NPS and its relationship with revenue, customer base and its applicability in cement industry in perspective. Last but not least, it answers the question of what makes customers willing to recommend a company in a shrinking market as happened in the case of the Turkish cement industry in 2018.

This thesis comprises several chapters, Chapter 1 is the Introduction. Chapter

2 includes a review of the literature of marketing strategies in challenging times, cement industry and its market structure. Chapter 3 examines the research methodology and its theoretical framework. Chapter 5 evaluates the findings and analyses the hypothesis. Lastly, Chapter 6 includes discussions and conclusions about the hypothesis and its practical implications, as well as a look into the limitations of the research and guidelines for future studies.

CHAPTER 2

LITERATURE REVIEW

2.1 Marketing strategies in challenging times

Value creation is hugely important for companies looking to win competitive advantage in a shrinking market. Struggling market conditions increase the importance of marketing assets, which play a key role in competitive advantage creation and sustainable growth. The current literature suggests that marketing knowledge, brand, customer satisfaction/loyalty and strategic relationships are the four most important marketing assets (Doyle, 2000).

Customer loyalty is immensely important in competitive markets. In fact, retaining customers can be even more important than acquiring new ones, especially in saturated markets or low growth markets. For instance, retaining loyal customers costs less than acquiring new customers (Ahmad, 2002). From 2018 to 2019, the Turkish cement industry suffered from low demand due to many customers declaring bankruptcy. As a result, Turkish cement manufactures focused on retaining customers in order to preserve strong market position and competitive advantage.

Customer loyalty and retention constitute the main objectives of relationship marketing, which facilitates the development of long-term partnerships over time in a specific industry. In other words, enterprises can utilize relationship marketing to gain competitive advantage (Kandampully, 1997). Relationship marketing-driven competitive advantage is based on creating superior customer-end value. If an enterprise provides superior value for its customers, then it will have established a loyal customer base that will be its life jacket in the event of economic downturn or

struggling market conditions. Loyal customers are not only supremely critical assets for enterprises during economic recessions, but they are also a channel through which to attract more customers via positive word of mouth.

In challenging market conditions, companies can follow several survival strategies in order to win competitive advantage. A company can invest in research and development (R&D) and implement new products in the market. On the other hand, a company can also invest in digitalization and improve agility to adapt to fast changing technology. Others can step up marketing activities to differentiate themselves from their rivals. For companies which operate in the cement industry, investing in customer relationships is worthwhile, especially during market shrinkage. Investing in customer relationships brings quick wins and is more effective than R&D and digitalization. Unfortunately, companies tend to cut down on customer-focused marketing activities in bad market conditions until they get back on their feet financially (Deleersnyder et al., 2009). While this reduction in marketing activities might facilitate short-term relief, it can cause companies to lose their customer base and share of the market. When the market recovers, those companies which have cut down on marketing activities may have to spend more money on attracting new customers in order to regain their old customer base and market share. According to O'Malley et al (2011), marketing activities yield more gain in times of recession than they do in ordinary and expected market conditions. If a company loses its market and customer orientation mentality amid a shrinking economy, then it can jeopardize its future sales, growth and profits. According to the research of O'Malley et al. (2011), they found that the companies which allocated the most attention to marketing initiatives and customer orientation tended to enjoy

higher rates of sales growth, profitability and market shares when the economy recovered from recession. Those who do not attach importance to market focus fell behind post-recovery. Kamber (2002) and Roberts (2003) produced research on the profitability of three types of companies which increase, keep same and reduce spending on marketing activities in shrinking market conditions. They found out that there was a negligible difference between their profitability. The profitability of companies that cut their marketing spending were 10%, those who maintained the same spending on marketing were at 9% and those who increased their marketing activities were at 8%. However, once recovery started, they observed that the profitability of the companies who cut down their marketing spending diminished. Moreover, the companies that had increased their marketing spending during economic downturn ended up multiplying their market share by three and surpassing the profitability of their competitors who had reduced or maintained their marketing activities.

Understanding customer needs, wants and value requirements helps companies survive in struggling markets. After understanding customer value requirements, if a company wants to create value for its customers, it has to collect and analyse customer insights. Market-oriented companies place importance on customer insights and there is a positive correlation between market orientation and organizational performance (Nasır, 2015). Especially in market shrinkage periods, the behavioural trends of customers changes. Consequently, companies must analyse customer behaviours through customer insights. In doing so, enterprises can detect patterns and leverage them to gain competitive advantage (Quelch and Jocz, 2009). Enterprises can adapt to the changing demands of customers by evaluating customer

insights to increase customer loyalty. Figure 1 shows management framework which enterprises can use to adapt themselves to rapidly changing market conditions.



Figure 1. Management framework in rapidly changing markets
Source: Cravens et al., 2009

According to Kotler and Caslione (2009), periods of economic downturn are not good periods for entering into new customer segments. Instead, loyal customer bases are the main source of the organic growth and cash flow by repetitive buying in shrinking markets (Quelch and Jacz, 2009). Rather than entering new customer segments, maintaining existing customers is a more effective profitability strategy in challenging periods. For example, loyal customers can do positive word of Mouth (WOM) and attract more customers. In essence, they function as a free marketing team to almost no cost (Reichheld et al., 1990; 1996). If an enterprise invests in its existing customers by remarketing and ask for referrals from them, then this enterprise can increase its sales 50% by pegging its marketing budget. Referrals are

the most effective marketing strategy in purchasing decisions (Nasır, 2015).

In summation, according to Kotler (2000) highly satisfied and loyal customers do the following:

- Stay longer
- Do positive WOM
- Pay less interest to competitors
- Are less price sensitive
- Tend to buy more
- Cost less
- Buy more if the company implement a new product
- Are predictable under the changing market conditions

Customer experience represents the total value that is given by a customer at touch points during direct or indirect contact. It is an internal and subjective response. If contact happens during purchase, use, and service, it is called direct contact. On the other hand, indirect contact typically includes unplanned encounters with a company's products, services, or brands and it can be taken from word-of-mouth recommendations or criticisms, advertising, news reports, reviews, and so forth (Meyer and Schwager, 2007). In the industries like cement, product differentiation is very limited. As a consequence, a customers' buying decision is affected by customer experience at the touch points such as price, logistics, service quality and post-sales services. In the periods when market shrinkage occurs, customers focus on mostly the price and can be less loyal to a company. Customers can enter into a new contract with another competitor that offers price discounts. A customer can easily pursue this course of action because commodity products like

cement are generally undifferentiated. Consequently, improving customer experience becomes important in B2B industries, especially in the cement industry. Losing current customers is costly and marketing activities are more limited compared to B2C industries. To that end, companies need to define and analyse the customer experience they provide before going about improving it. Customer experience should be thoroughly defined and analysed throughout all entire stages, not just as a snapshot (Richardson, 2010). Looking into the big picture and analysing the customer experience as a whole give companies the opportunity to understand the customer's cognitive, affective, emotional, social, and physical responses (Verhoef et al., 2009). In this regard, understanding customer experience and expectations has vital importance for customer loyalty and satisfaction. Before the development of technology as it is today, quality was the number one priority for customers. But as technology has become more commonly used and commoditized the importance of quality fades away as a consequence of customer loyalty (Gounaris, 2005).

Under the changing market conditions, enterprises need to understand customer needs, customer reactions and customer issues in order to gain competitive advantage and create superior customer in their industry. With increasing foreign direct investment (FDI), privatizations and increasing demand for cement due to significant growth in the construction sector, competition increased in the Turkish cement industry. The strategic goals of enterprises were geared towards developing a strong market position relative to the competition, sustainable growth in the long term and more return than used capacity (Houben et al., 1999). Creating competitive advantage in the market is related to efficiency, quality, innovation and good customer relations management (Bernroider, 2002). Especially in B2B industries like

cement, customers are the benchmarks. Therefore enterprises should evaluate and track the market as a whole. In order to track market as a whole, enterprises can follow marketing strategies which are indicated in figure 2.

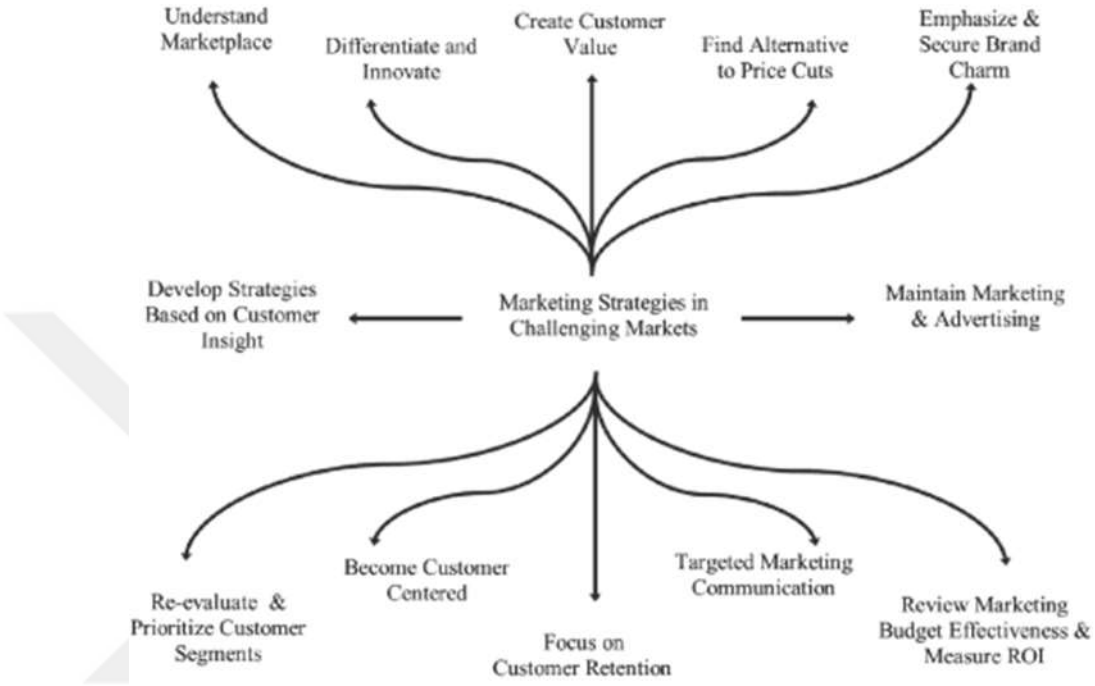


Figure 2. Marketing strategies in challenging markets
Source: Nasır, 2015

Briefly, they should not ignore their customers while they are tracking competitors, developing new products and focusing on digital transformation. In the book of Marketing Myopia, Theodore Levitt urges enterprises 'to define their industries broadly to take advantage of growth opportunities'. If an enterprise focused on a company's own needs in the short run and focuses on just internal strategies instead of consumer-oriented marketing, then this enterprise is going to miss out many growth opportunities and stay in the dusty pages of the history (Levitt, 1984).

2.2 World cement industry

Given the relatively simple characteristics of cement, it is not surprising that cement is widely produced across the world. However, national markets differ quite significantly with regard to size and rates of growth and production (Bianchi, 1982).

There is a relationship that applies to most of the world. It is named the concrete scowl as indicated in figure 3. The poorest countries of the world have very little infrastructure and construction. Yet, countries with modest wealth tend to spend more on construction than poorer countries. However, when wealth increases further, construction tends to decline again (Armstrong, 2013). This relationship with GDP per capita and cement consumption per capita is also connected with Ekins'(1997) environmental Kuznets curve (EKC).

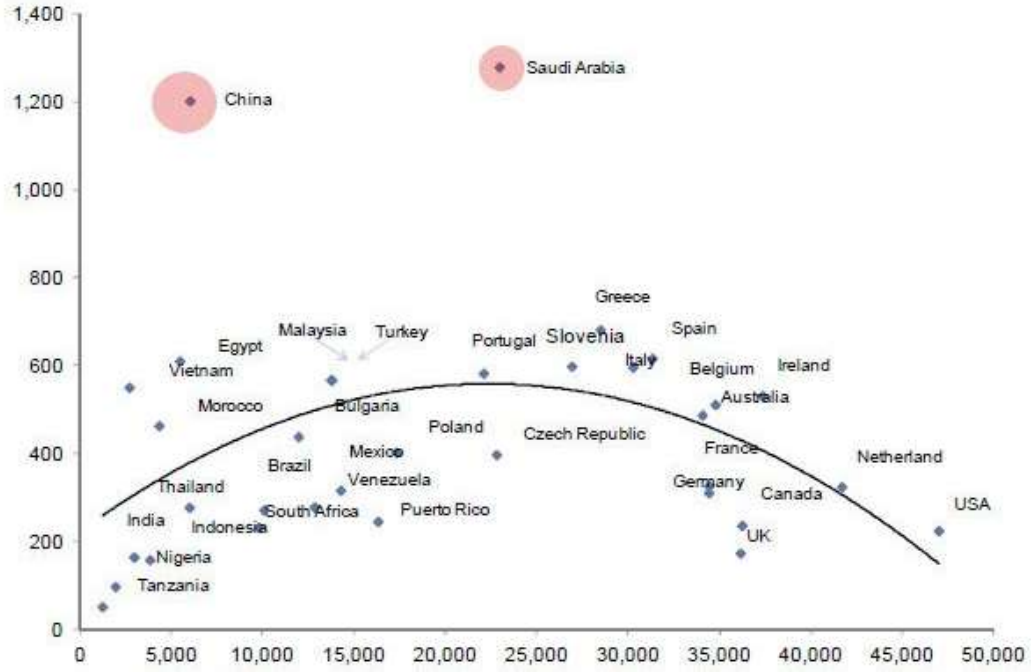


Figure 3. Cement consumption per capita vs. GDP per capita
Source: Armstrong, 2013

It can be seen in the table 1 that China has the number one in cement production and serves mostly the domestic market. Following China are India, USA and Brazil. Turkey is the 6th largest cement producer in the world according to 2018 expectations of The European Cement Association (CEMBUREAU).

Table 1. Top 10 Countries in Cement Production

Cement production (Million Tonnes)									
Country	2009	2010	2011	2012	2013	2014	2015	2016	2017
China	1644	1882	2063	2137	2420	2480	2350	2410	2316
India	205	220	240	270	280	260	270	290	280
EU28*	209	192	192	173	167	167	167	169	175
USA	64	65	69	75	77	83	83	86	88
Brazil	52	59	63	69	70	72	72	60	54
Turkey	54	63	63	64	73	71	71	75	81
Russian Federation	44	50	56	53	72	68	69	56	58
Indonesia	37	40	45	32	56	65	65	63	69
S. Korea	50	47	48	48	47	63	63	55	63
Japan	50	47	48	50	57	55	55	56	55

*EU28 data is compiled using latest available data
Source: CEMBUREAU, 2017

As it can be seen in the table 2, Vietnam is the number one exporter and following Vietnam are Turkey, Thailand, Iran and Japan according to 2018 expectations of United States Geological Survey.

Table 2. Top 10 Countries in Cement Export

Cement export (Million Tonnes)			
Country	2016	2017	2018*
Vietnam	13.15	18.50	30.85
Turkey	11.36	12.79	13.65
Thailand	13.66	13.03	12.70
Iran	12.79	12.66	11.20
Japan	11.54	11.93	10.80
China	11.78	12.87	10.36
Spain	9.44	8.88	8.00
Germany	6.51	6.60	6.80
Greece	5.69	5.51	5.80
India	5.92	5.65	5.70

*Expected
Source: United States Geological Survey, 2018

2.3 Turkish cement industry

The Turkish cement industry started cement production in 1911 with 20,000 tons/year capacity in Darıca. The capacity of this first plant increased to 40,000 tons/year and three other plants were subsequently established by the 1950's. Additionally, total cement capacity reached 370,000 tons/year capacity in the 1950's. In those years, the Turkish economy was operating on the basis of import substitution economic growth strategy; Turkey was domestically producing cement in order to meet with only domestic demand. In that decade, Turkish Cement and Soil Products Industry Cooperation were established in order to decrease

transportation costs and to meet the increase in demand. Between the years 1963-1970, Turkey began to import cement to close the gap between production and consumption. After 1970, Turkey opened up its borders and has been pursuing export opportunities. From the beginning of the 1980's, Turkish economy liberalized and government interaction with the economy minimized. The idea of pulling government out of the market paves the way for privatization in the Turkish cement industry (Müslümov, 2005). Today, there are 54 integrated plants and 22 grinding units as indicated in figure 4 (TCMA, 2019).



Figure 4. Map of grinding units and integrated plants
Source: TCMA, 2019

Construction industry has been a locomotive industry of the Turkish economy. Thanks to urban transformation, infrastructural projects and the supportive policies of government, cement has become an industry that generally displays growth and is an attractive sector. Demand for cement is positively correlated with

the construction industry and national gross domestic product (GDP). Additionally, it is related to population density (Ponssard and Thomas, 2010). The most important indicator for cement industry is cement consumption per capita. In addition to cement consumption per capita, the country's demographic structure, population growth and urbanization rate are other important indicators. As shown in the figure 5, cement consumption per capita for Turkey in 2014 was around 837 kg and 808 in 2018 (TCMA, 2019; TSI, 2019).

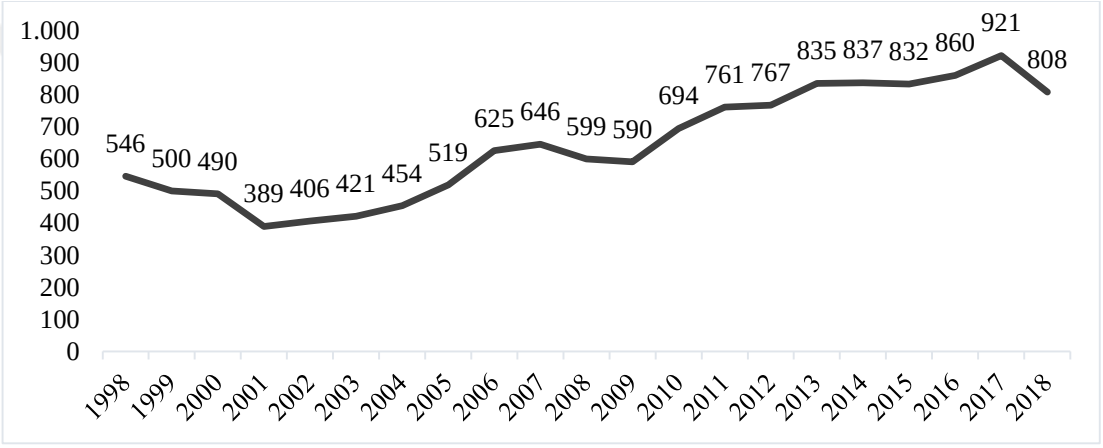


Figure 5. Turkey's cement consumption per capita (kg)
Source: TSI, 2019

In developing countries like Turkey, 1000 kg cement consumption per capita means that the industry reached a saturation point. In developed countries, industry growth started to decrease after 3-5 years of stability when cement consumption per capita reached 1000 kg (KPMG, 2018). According to the concrete scowl, Turkey was close to peak point of the curve in 2017. According to the indicators which are shown in figure 6, cement consumption per capita is expected less than 808 kg in 2019.

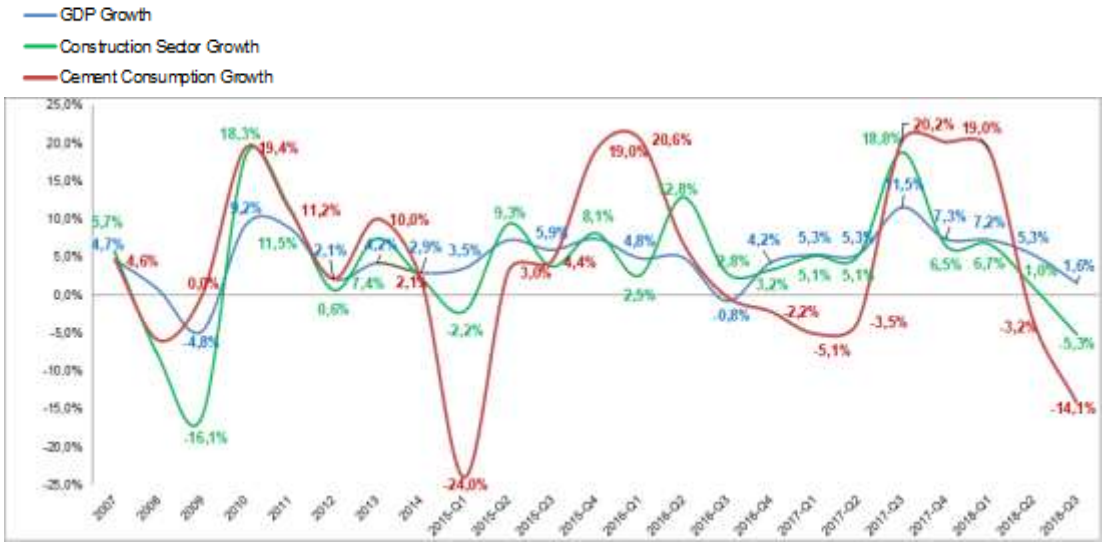


Figure 6. Turkey's GDP growth, construction sector growth and cement consumption growth
Source: TSI, 2019

In 2018, Turkish GDP growth was 4.5%, but however the construction sector grew only 0.1%, because of recession, which started in the third quarter. As indicated in table 3 that the building materials industry, with 113.4 billion dollar total market size and 95 billion dollars, is an enormous industry in Turkey (IMSAD, 2019).

Table 3. The Power of the Turkish Building Materials Industry

The Power of the Turkish Building Materials Industry	
Total Market Size	113.4 billion dollar
Domestic Market Size	95 billion dollar
Total Export of the Industry	18.4 billion dollar
Positive Contribution to the Current Account Deficit	203%
The Share in the Turkish Total Exports	11.2%

As an important constituent of building materials industry, the cement industry is one of the main actors in the Turkish economy, because it interacts with many other sub-sectors in its $2.3 billion turnover and $614 million in export revenues. The Turkish cement industry's total production was about 75.1 million ton in 2018 and it decreased by 9.3% compared to 2017's production. Besides total production, total domestic sales were 66.9 million ton and 64.4 million ton from TCMA members in 2018. Domestic sales decreased by 10.7% in total and 10.8% among TCMA members compared to 2017, first decline after 9 years of growth. Historical decreases in sales from 2018 to 2019 can be seen on the figure 7. Turkish domestic cement sales decreased 32% in total and reached 26.3 million ton as of July'19 (TCMA, 2019).

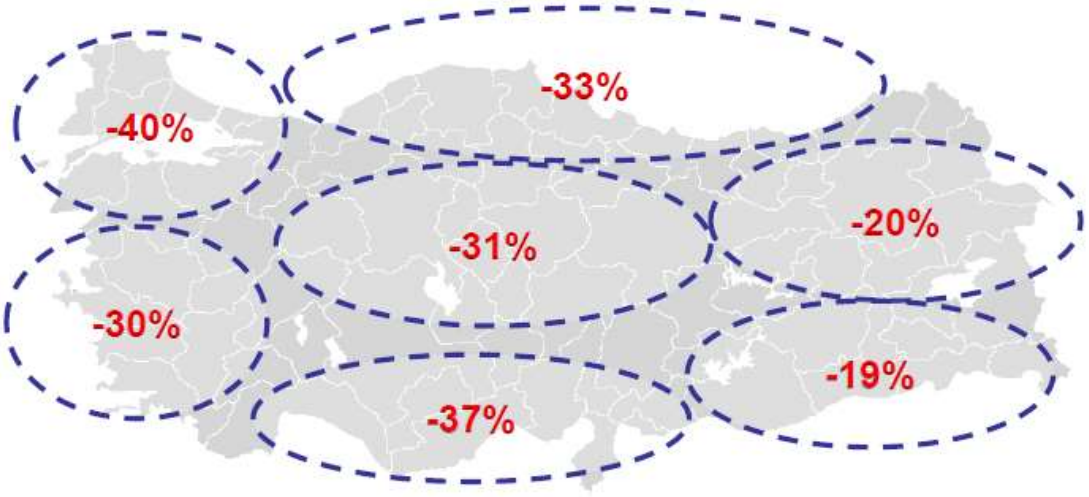


Figure 7. Cement sales volume change – 2019 vs 2018 (July-year to date)
Source: TCMA, 2019

In addition to domestic sales, Turkey has a really important role in cement export. From 2017 to 2018, Turkey's exports diminished by 3.6% and became 7.6 million ton of cement and 6.1 million ton of clinker. A decrease in mainly USA and

Israeli markets led to this diminishing amount of exported cement. Ghana was the main driver of the diminishing amount of clinker export. With 35-40% of market shares, MENA and America were the foremost export markets for Turkish cement in 2018 (CEMBUREAU, 2019). An expectation for future is an increase in cement production and consumption. At the end of 2018, new capacity installation was completed, total clinker production capacity hit 90 million ton and it was expected to increase by years due to on-going projects. The sector expected an increment usage of concrete roads and concrete barrier applications. With new technological developments, concrete roads, pavements and barriers are will find its place in Turkey's infrastructure. Low maintenance costs and resistance to environmental challenges will compel government to use concrete infrastructure rather than its current alternatives like asphalt roads (CEMBUREAU, 2019). Together with concrete infrastructure, 0-1% growth in 2019 is expected thanks to housing and infrastructure projects such as high-speed train, metro, highway. Although there is a temporal recession in the sector, TCMA forecasted that Turkish cement exports are going to rise while Turkey's capacity continues to increase by 2020 (TCMA, 2019)

2.3.1 2014-2018 comparison of the Turkish cement industry

One can see in the table 4 and table 5 that a really important capacity increase was observed in clinker capacity from 2014 to 2018, clinker production capacity is around 70 million tons in 2014 and it reached to almost 90 million in 2018, clinker capacity increased 29%. Similarly, cement capacity rose almost 25% from 113 million ton in 2014 to 142 million. Opposite to this increase in both clinker and cement capacity, capacity utilization rates decreased from 92% to 83% in clinker and

from 64% to 53% in cement between the same time periods (TCMA, 2019).

Table 4. Installed Capacity and Capacity Utilization Rate in 2014

Installed Capacity in 2014			Capacity Utilization Rate in 2014		
TON	Clinker	Cement	%	Clinker	Cement
Marmara	18,333,950	27,454,141	Marmara	95	68
Aegean	5,816,250	9,599,953	Aegean	93	60
Mediterranean	16,688,100	26,499,668	Mediterranean	93	61
Black Sea	7,513,440	13,509,149	Black Sea	101	72
Central Anatolia	10,062,690	15,657,027	Central Anatolia	87	67
East Anatolia	4,960,560	10,221,921	East Anatolia	83	49
S. East Anatolia	6,228,950	10,538,313	S. East Anatolia	88	65
TOTAL	69,603,940	113,480,171	TOTAL	92	64
Note: Installed Capacity figures contain all factories in Turkey, Utilization Rate figures contain only TCMA Members					

Table 5. Installed Capacity and Capacity Utilization Rate in 2018

Installed Capacity in 2018			Capacity Utilization Rate in 2018		
TON	Clinker	Cement	%	Clinker	Cement
Marmara	20,068,820	29,117,921	Marmara	94	67
Aegean	9,444,600	13,777,960	Aegean	66	43
Mediterranean	22,929,230	33,964,430	Mediterranean	86	50
Black Sea	8,672,550	18,359,839	Black Sea	92	49
Central Anatolia	15,025,890	22,315,866	Central Anatolia	82	58
East Anatolia	7,447,440	13,176,595	East Anatolia	68	47
S. East Anatolia	6,273,830	11,164,145	S. East Anatolia	75	47
TOTAL	89,862,360	141,876,755	TOTAL	83	53
Note: Installed Capacity figures contain all factories in Turkey, Utilization Rate figures contain only TCMA Members					

After cement is produced, it goes to the market through various channels. The tables below show the percentage of these channels by regions. In order to meet domestic demand, the cement industry uses 7 channels such as RMC (ready-mix concrete), construction firms, contractors, precast concrete, distributors, public and others. Turkish cement consumption increased 1.8% from 63 million tons in 2014 to 64 million tons in 2018. As of 2018 data, 50% of sales comes from Ready-Mix Concrete producers, 3.9% construction firms, 5.5% contractors, 5.7% precast

concrete, 32.5% distributors, 0.3 public and 2% others (TCMA, 2019).

Once cement is produced, it is released to the domestic market by 2 types, bulk or bagged. The ratio of bulk and bagged cement domestic sales are shown in table 6 and 7. South East Anatolia and the Mediterranean regions have the biggest shares of bagged in both 2014 and 2018. When we compare the years of 2014 and 2018 according to the tables 8 and 9, one can see that, with the exception of the Black Sea region, bagged usage shares decreased and Black Sea stayed stable. 83% of domestic sales were bulk and 17% was bagged in 2018.

Table 6. Sales due to the Packaging Type for 2014

Sales due to the packaging type for 2014					
TON	Domestic Sales	Bagged	%	Bulk	%
Marmara	16,061,927	2,509,253	15.62	13,552,674	84.38
Aegean	4,848,188	753,382	15.54	4,094,806	84.46
Mediterranean	11,408,933	3,150,342	27.61	8,258,591	72.39
Black Sea	9,279,124	1,862,264	20.07	7,416,860	79.93
Central Anatolia	10,531,092	1,578,407	14.99	8,952,685	85.01
East Anatolia	4,991,903	1,222,983	24.50	3,768,920	75.50
S. East Anatolia	6,054,763	1,879,145	31.04	4,175,618	68.96
TOTAL	63,175,930	12,955,776	20.51	50,220,154	79.49

Table 7. Sales due to the Packaging Type for 2018

Sales due to the packaging type for 2018					
TON	Domestic Sales	Bagged	%	Bulk	%
Marmara	16,496,531	1,906,755	11.56	14,589,776	88.44
Aegean	5,591,074	584,226	10.45	5,006,848	89.55
Mediterranean	10,402,520	2,694,095	25.90	7,708,425	74.10
Black Sea	7,829,074	1,574,341	20.11	6,254,733	79.89
Central Anatolia	12,937,908	1,589,135	12.28	11,348,773	87.72
East Anatolia	6,065,412	1,353,585	22.32	4,711,827	77.68
S. East Anatolia	5,041,492	1,320,668	26.20	3,720,824	73.80
TOTAL	64,364,011	11,022,805	17.13	53,341,206	82.87

In the research of Erşen and Erdoğan (2009), Marmara, Aegean, Central Anatolia regions bulk-bagged ratios are around 75%-25%, Mediterranean 50%-50% and South East Anatolia 44%-56% in 1990s. After a decade, bulk shares increased significantly. The reason behind this significant increase is rise in RMC usage with economic and technological developments (Arıöz and Yıldırım, 2019). Because Turkey is located on earthquake faults, new earthquake regulations obligate that the concrete which is used in a construction has to be above a certain concrete strength. In order to reach this certain strength, construction sector takes advantage of RMC technology. RMC became commonly used technology because the reason of strict computer based control mechanism of mixture of ingredients, quality of ingredients are appropriate for the standards, easy to transfer and transport via truck mixer with pump (Turkish Ready Mix Concrete Association, 2019).

Although there is no significant change in cement export from 2014 to 2018, there is a serious increase (105%) in clinker exports. It is shown on tables 8 and 9 that West African countries are raising stars in Turkish clinker exports.

Table 8. Cement and Clinker Exports in 2014

Cement Exports in 2014		Clinker Exports in 2014	
COUNTRIES	TON	COUNTRIES	TON
Libya	1,902,640	Egypt	632,360
Syria	1,068,034	Ghana	372,214
Iraq	801,652	Brasil	281,905
Israel	677,972	Moritania	214,925
Russia	592,008	Dominic	126,525
Ecuador Guinea	293,276	T.R.N.C.	112,305
Cameroon	251,933	Gabon	105,150
Georgia	175,295	Romania	101,142
T.R.N.C.	146,301	Spain	89,250
Egypt	142,883	Georgia	85,648
Romania	141,665	Greece	84,308
Congo	126,958	Belgium	75,425
Algeria	122,123	Benin	72,670
Italy	118,435	Sierra Leone	70,000
Sierra-Leone	115,475	Togo	62,206
Liberia	95,203	Canada	54,210
Burkina Faso	81,042	Italy	49,200
Colombia	75,673	Israel	47,100
Bulgaria	74,512	Cameroo	45,350
U.S.A.	72,531	Liberia	41,900
Antalya Free Trade Zone	66,212	France	40,800
Brazil	61,135	Ivory Coast	33,875
Spain	43,512	Azerbaijan	25,840
Ukraine	43,071	Colombia	16,900
Guinea	39,734	U.A.E.	12,000
Morocco	32,291	S. Arabia	4,536
Holland	31,458	Yumurtalık Free Trade	52
Others	259,533	U.S.A.	44
TOTAL	7,652,557	TOTAL	2,857,840

Table 9. Cement and Clinker Exports in 2018

Cement Exports in 2018		Clinker Exports in 2018	
COUNTRIES	TON	COUNTRIES	TON
U.S.A.	1,832,456	Ghana	1,656,629
Israel	1,229,838	Senegal	563,025
Syria	777,465	Ivory Coast	452,964
Haiti	384,549	Colombia	447,786
Ghana	354,634	Guinea	390,126
T.R.N.C.	285,128	Moritania	346,576
Iraq	210,615	Porto Rico	217,200
Bulgaria	193,489	Cameroon	194,571
Guinea	190,006	Togo	192,650
Sierra Leone	166,734	Brasil	177,020
Liberia	160,595	Haiti	172,195
Italy	130,304	T.R.N.C.	123,635
Palestine	129,402	U.S.A.	99,965
Colombia	118,929	Burkina Faso	99,000
Russia	117,116	Canada	87,310
Greece	104,752	Dominic	81,500
Porto Rico	98,066	Liberia	67,900
Spain	76,328	Italy	53,870
Yemen	75,777	Syria	48,543
Panama	67,789	Romania	45,250
Georgia	65,491	Russia	39,300
Brasil	60,419	Argentina	38,100
Romania	60,103	Mozambique	35,300
Morocco	59,469	Congo	34,870
Netherland	57,473	Israel	34,738
Albenia	57,020	Poland	31,757
Surinam	40,998	Equatorial Guinea	27,500
Cameroon	39,156	Guatemala	25,000
Mersin Free Trade Zone	36,247	Greece	23,040
Uruguay	32,158	Honduras	15,000
Libya	27,612	Sierra Leone	12,000
England	23,578	Mali	10,820
France	21,664	Georgia	4,408
Ukraine	20,964	Croatia	3,900
Others	160,401	Iraq	102
TOTAL	7,466,725	TOTAL	5,853,550

2.3.2 Turkish cement market structure and concentration

Players are spread all around the seven geographical regions of Turkey with 52 integrated cement plants. The reason behind geographical distribution is the logistics factor which connects production and consumption places. Producers aim to stay in the 250-300 km radius of circumference.

Sector is dominated by the big players. The biggest 10 players have around 71% clinker capacity and 74% cement capacity in Turkish cement industry (KPMG, 2016).

However, the rate of capacity utilization is low. In 2015, total cement capacity was 126.1 million ton but total cement production was 71.4 million ton. The main reason behind low rates of capacity utilization is fluctuations in cement consumption due to seasonal changes. In order to match with the high demand period, cement plants have to provide necessary capacity. Additionally to matching with high demand seasons, companies invest on installing new technology lines to decrease energy cost and doing so they idle the old capacities.

Although around 40% Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) and potential of market attracts new investors in Turkish cement sector, market entry barriers are still high. Producing 1 ton cement requires around 100 Euro investments and this equals 100 million euro investments for a 1 million ton production capacity plant. Production process takes place in a big plant and once a plant constructed; capacity increase cannot be possible without huge investments (Ponssard and Thomas, 2010). It is not finishing after installing the plant with huge costs, the biggest variable cost with 50-55% stems from energy. In Turkey, energy needs are supplied with petroleum coke, coal and alternative fuels.

Companies also invest in technologies which support efficient energy usage since caloric energy is used intensively in the production of clinker which is primarily used to produce cement. Additionally to all of these factors, well distribution of players on geographical regions and loyalty of the cement customers on their cement customers make market entry harder (KPMG, 2016).

Market concentration refers to the number and the size distribution of the units that control the economy or the market. In highly concentrated sectors, if an enterprise dominates the market, this may result in the inefficient distribution of resources, cause to harm customers and creates pricing applications without competition (Davies, 1998). Degree of the concentration determines the critical decisions and the marketing strategies of the companies in that industry (Matsuno and Mentzer, 2000). Additionally, concentration is an important tool to analyse the market in order to prevent unfair competition (Schmalansee, 1988).

Herfindahl-Hirschman (H-H) Index is one of the methods which are usually used to analyse the market concentration especially in mergers (Rhoades, 1993). Additionally to H-H Index, another mostly used analyses are M-Firm concentration ratio was shaped thorough Structure-Conduct-Performance (S-C-P) theory (Bain, 1956; Mason, 1939; Polat, 2007). According to Scitovsky (1955), concentration effects on income distribution, distribution of power, allocation of resources, efficiency of the firm and rate of technological progress. According to research on 84 sub-sectors in Turkish Manufacturing Industry for the year 2000, the scale economies and advertisement costs are very important factors on the concentration (Yolaç, 2007). In the light of this information, Kulaksızoğlu (2004) calculated Turkish cement market concentration rates. According to Kulaksızoğlu's research

about cement market structure between 1978 and 2002, there is competitive structure in Turkish cement market. Kulaksızoğlu used concentration rate and H-H Index analysis and he observed that from 1978 to 2002 market concentration rate increased. Polat (2007) analysed Turkish cement industry for the period between 2001 and 2005. According to this research, Turkish cement industry has been found on the border monopolistic competition and oligopoly for M-Firm concentration rate and competitive market according to H-H analysis. According to N-Firm concentration rate which is calculated by the shares of production in 2008, 4 cement companies generate 40% and 8 cement companies generate 62% of the concentration. As a result of this calculation, Turkish Cement Market can be defined as an oligopoly (Arıöz and Yıldırım, 2019). According to analysts' reports in 2007, 5 biggest cement companies generate 20% of total world market. Thus, world cement industry can be seen as regional oligopoly networks (Ponssard and Thomas, 2010).

Oligopolistic companies can be affected by the factors that they cannot watch and control over such as cost items, the market demand and the competitors strategic approaches (Yıldırım et al., 2009). The number of firms in the market can determine not only the pricing imposed on the market and also pricing of tenders' offers. If an industry has many companies that operate in the market, a strategic decision which is taken by one will not be able to affect others. However, if there are only a few firms in the market, just one of them can be inevitably effective on the decisions and strategies of others (Beveridge and Case, 2009).

2.4 Case company

The case company's customers are the small middle enterprises and corporates from the construction industry. The company operates in 3 regions of Turkey, Marmara, Aegean and Black Sea. Company's market share is around 25% in Marmara, 5% in Aegean, 10% in Black Sea and 7-8% in Turkey.

The case company is one of the leading companies in its industry with its well-known and respected brand name. Thanks to its strong brand name and reputation, the case company positions itself on premium segment than its competitors. Additionally, case company's products are used in prestigious mega projects, hence this mega projects strengthen its brand image all over Turkey. The renewed strategy of the case company is to be the leader in creating and producing advanced materials for delivering the best solutions to its customers' needs.

The company pursues to become the industry`s most preferred and recommended brand. In this context, the case company focused on premium product creation, occupational health and safety, education of sales team, digitalization and loyalty and rewarding programs for its customers in domestic, besides the case company focused on cement export to USA and clinker export to West Africa beyond borders. According to the company's business strategy, brand name, the product quality, delivery reliability and customer orientation are seen as strengths of the case company value proposition together with the technical expertise to ensure the best solution for the customer needs. Besides, case company invest on alternative fuels to decrease the cost of energy which holds a big portion of production cost.

As it was discussed above, the case company has established clear strategic

goals for transformation from a product based to customer based company. The company has also changed the organizational structure in alignment with the strategy. The transformation of the mind-set shift from product to customer focus or the company culture change implementation has not been completed. The aim of the new company culture is that the ownership of customers and customer relationships should be jointly shared with all organizational functions. Consequently, the new company culture and way of working is expected to foster the employees' capability to provide excellent customer experience and value creation for the customer. Since 2015, the case company has used NPS to capture customer experience to improve customer loyalty. NPS results are based on the phone interviews. They measure the customer loyalty and experience as well as the level of customers' willingness to recommend the case company as a preferred supplier based on their customer experience.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Net promoter score (NPS)

Companies constantly work to earn profits. However, all profits are not good profits according to Fred Reichheld (2006). In his book, *The Ultimate Question*, he says that there are bad profits and that these are not easy to recognize. Bad profit refers to situations in which profit is earned at the expense of a customer relationship. Bad profit makes a customer feels mistreated, ignored or unfairly charged. Generally, bad profits do not create long-term value for customers. These unsatisfied customers will no longer be the company's customer and, most critically, they will urge other potential clients to not do business with that company. Consequently, bad profit yields unsatisfied customers that will act as detractors.

A good profit, on the other hand, refers to situations in which a customer is not only willing to buy more, but also pay more and cooperate more. In fact, happy customers will recommend a company to friends and colleagues. As such, these satisfied customers become a company's natural marketers and loyal promoters. This loyalty, in turn, contributes to sustainable and profitable growth. Bain and Company research on the relationship between loyalty and growth shows a 5% increase in customer retention that could bring improvement in profits from 25% up to 100%. The companies that have the highest customer loyalty usually increase revenues at rates twice that of their competitors (Reichheld, 1996, 2000, 2006).

Calculating profits is easy on account of financial statements; however, accurately measuring loyalty is challenging. If a customer continues doing business

with you, the customer will have his or her own reasons. These reasons can be two dimensional. For example, one is rational and whiles the other emotional. In order to measuring both dimensions, Reichheld (2006) came up the ultimate question, *'How likely is it that you would recommend Company X to a friend or colleague?'* This question first engaged with the customer head, then second hearth. In order to score the responses, Reichheld established a scale from 0 to 10 (Zero means not at all likely and ten means extremely likely). As shown in figure 8, 10 and 9 indicate promoters; 8 and 7 indicate passives and customers who fall between 6 and 0 are detractors. At the calculation step, the percentage of detractors is subtracted from the percentage of promoters.



Figure 8. Net promoter score calculation
Source: Reichheld, 2006

Concerns arise here in the literature about the methodology of NPS. According to Grisaffe (2007) and Pingitore et al. (2007), although the scale is divided into three categories, passives are not included in the calculation. They are simply excluded and this can create measurement inaccuracies. Giraffe (2007) disagreed with the notion that 6 indicate detractors because NPS rates 5 as being

neutral. Classifying customers, who are neutral or slightly above neutral in terms of recommending a company as detractors, is one of the criticisms. Additionally, criticisms are directed towards the main question, the 'would recommend' part, because it can fail to detect detractors. Additionally, NPS does not necessarily reflect negative WOM. It tries to gauge negative WOM potential via detractors by asking a positive WOM-oriented question. As such, NPS can fail to accurately reflect potential negative WOM. Moreover, NPS calculates the given WOM rather than the received WOM. Measuring the received WOM can be confidential indicator, because a customer can recommend more than one time (East et al., 2011).

Turkish cement buyers are classified mainly as small-middle enterprises and corporations. These enterprises are quite connected with one another due to regional networks, corporations, associations and mostly these enterprises operate in not only cement market but also the whole building materials market. Sometimes they can be cement sellers in one region but be the constructor of a building and be a buyer of RMC or cement in another region. This is due to the fact that cement and RMC are local products subject to transportation limitations and costs. It can be sold within a certain radius before incurring significant additional transportation costs. As a result, WOM occupies an important position for acquiring new customers and improving customer experience for keeping those old ones who might engage with a competitor under the pressure of market conditions. In this sense, NPS is comprehensive for keeping track of customer satisfaction and enables companies to take immediate action in order to improve customer experience. It includes two ways, first for the calculation of customer satisfaction and worth of month and second for getting feedback from customer in order to improve their experience (Reichheld, 2006).

In business to business marketing for small middle enterprises, recommendations are crucial for doing good business. According to a File and Prince (1992) study that was applied to 325 medium-sized business owners in the USA, positive WOM is a contributing cause on the intention of buying financial services. Since potential clients seek advice and recommendations from associates who have had positive experiences within their networks, positive WOM can be really effective for expanding a client base. According to research that examined the effect of marketing mix on positive word of mouth, 4Ps of marketing (price, product, promotion and place) have significantly were found to have had different impacts on WOM. The 4Ps of marketing are recognized in the literature for having created competitive advantage (Cengiz and Yayla, 2007). In this research, customer relations, technical support, product, payment administration, logistics, marketing and ordering were viewed and tested as the key drivers that provided competitive advantage in the cement market.

3.2 Data collection

The data for this research was taken from non-distributed private survey information belonging to case company. The company had produced a questionnaire, which was inspired by NPS methodology and conducted a survey in Turkish in the years 2015, 2016 and 2019. Cement customers, typically small medium enterprises, took the survey in North Marmara region, East Marmara region, South Marmara-Aegean region and Black Sea region. From a geography standpoint, these regions represent half of Turkey. In 2015, 162 customers were selected, but only 87 participants completed the survey with a 54% response rate from when the survey was conducted

between October, November and December 2015. In 2016, 235 customers were selected and 230 participants completed the survey with a 98% response rate from when the survey was conducted between October, November and December. In 2019, 116 customers completed the survey out of 210 selected with a 55% response rate from when the survey was conducted between October and November.

The 2015 and 2016 survey results were different from 2019 in terms of methodology. In 2015, 2016 and 2019, the surveys were conducted over the phone. In 2015 and 2016, surveys were applied by professional and educated sales team from the company. 2019 survey was applied by professional third-party agents. First, selected customer companies' top managers or owners were called and informed about which names were called from the selected firm. After top management approved the names, all participants were informed about the average time needed to complete the survey and asked to schedule time in order to complete the survey. Before starting the survey, pre-tests were compiled by marketing and sales team of the case company and the agent was informed about possible questions that might come from participants. All selected participants were called seven times until they picked up the phone. In the case that a participant did not pick up seven times, he or she was marked as a non-responder.

3.3 Survey design

All surveys were designed by professionals with assistance from experienced sales representatives who considered the whole customer experience. Design thinking methodology was used during survey design (Johansson-Sköldberg et al., 2013).

Design thinking methodology is based on defining a customer journey map based on empathy to customers (Brown, 2008). In 2015 and 2016, 4 main touch point areas are defined such as technical support, marketing, logistics and customer relations. Touch point areas are defined by experienced sales and marketing teams that consider the whole customer journey. After companies were selected for the survey, a participant who is responsible for the most relevant touch point was identified. For instance, Company A was selected for the survey and participants from Company A were assigned to the relevant touch point that they were working with. If participant X was a marketing manager in Company A, then s/he will be responsible for answering specific questions under the marketing section. In 2015, there were 50 participants for customer relations, 25 for logistics, 9 for marketing and 11 for technical support. In 2016, there were 99 participants for customer relations, 55 for logistics, 39 for marketing and 37 for technical support. In 2019, all participants were asked to answer seven touch points such as technical support, marketing, logistics, customer relations and additionally to 2015 and 2016 product, ordering process and payment. After they pointed out seven touch points, the sub-questions of the lowest scored touch point are answered. In all three years, all participants answered the first question that is ‘‘how likely are you to recommend our company?’’. This question comes from NPS methodology and it is asked in order to calculate Net Promoter Score and Likert scale is used. The second and the third questions are open ended questions. The second question is ‘‘what is the primary reason you would recommend us?’’. This question is asked in order to understand the main drivers behind the promoters, thus it is asked to the participants who pointed 9 or 10 to the first question. The second question is ‘‘what improvements can we make

for you to recommend our company in the future''. This question is asked in order to understand the main drivers behind the detractors and passives, therefore it is asked the participants who pointed from 0 to 8. The first question and the second questions are the same in 2015, 2016 and 2019. Because of the method that is used in 2015 and 2016's surveys, the third question, ''on a scale of 0 to 10, to what extent do you agree with the following statements?'', is asked all of the participants, but the statements change according to the defined area that the case company touches to this participants. For instance, if a participant works in selected customers' company as a logistics manager, then the following statements are related to logistics. The statements that are used for each touch point area are written below and each statement is answered according to Likert Scale (from 0 to 10).

1- Customer Relations

- Sales representatives' visits are of good quality.
- I can reach my sales representative when I need.
- I value relationships with my sales representative.
- My sales representative understands my business needs.
- My sales representative supports my dealings with all names of the cement company's departments.

2- Logistics

- Loading can be done any time when I need.
- My truck loading on the agreed upon time.
- My orders delivered on time as I requested.
- Loading staff is helpful during the pick-up.
- Loading staff is helpful during the pick-up.

3- Marketing

- I can reach the information I need through X website.
- I am satisfied with the promotion materials provided to me by the name of the cement company.
- Marketing events organized by X are of value to my business.
- Promotional materials are delivered on suitable times.
- X organizes relevant event for all staff in my organization.

4- Technical Support

- Technical support team is readily available.
- Information provided about product quality issues meets my business needs.
- Complaints about product quality are resolved efficiently.
- I am satisfied with the range of the products offered.
- The quality of the product is stable.

The third question was asked by a different method that is used in 2019. In this question, “on a scale of 0 to 10, with "0" being "very poor" and "10" being "excellent", how would you rate our company for the following service areas? If you do not personally have experienced one of these service areas, please say 'no idea'.’’. The case company wants the participants rate touch points first and then the participant see lowest scored touch point’s statements. Seven touch points are defined, marketing, customer relations, technical support, ordering process, logistics, product and payment. Due to the fact that all participants are asked to point all touch points in 2019’s methodology differently than 2015 and 2016, ‘not applicable’ option also added on the answer scale. After the third question, a sub-question, “which of these services areas do you believe we can improve on most?” is dynamically

generated, based on lowest scores in the third question. This sub question only appears when two or more touch points' score equally low. For details, please see the surveys which are provided in Appendix A and Appendix B.

The statements are written below for each touch point.

1- Marketing

- I am engaged in my relationship with X.
- I feel proud to be a X's customer.
- X always delivers on what they promise.
- The marketing material/messages used by X are appropriate.
- The website of X suits my needs.
- X's loyalty program satisfies my expectations.
- I am pleased with the seminars and events organized by X.
- X is my preferred supplier.

2- Customer Relations

- The quotation process is efficient.
- The account manager understands me and my business.
- The visit frequency of my account manager is satisfactory.
- I am satisfied with the speed of response to my requests.
- The account manager brings new ideas that are relevant to my business and marketplace.
- Sales conditions are clear.
- The quality of service I get is satisfactory.
- Any complaints are taken care of and resolved satisfactorily.

3- Technical Support

- Technical support is an added value to my business.
- Technical support is available in a timely manner.
- Technicians are professional and helpful.
- Technical product knowledge meets my needs.
- Any complaints are taken care of and resolved satisfactorily.

4- Ordering Process

- The ordering process of X is clear and easy.
- Phone calls are answered promptly when placing orders.
- Telephone operating hours suit my needs.
- When I place my orders, my requirements are well understood.
- Ordering staff is helpful and professional.
- X is flexible when I need to change my order.
- The online ordering tool at X is convenient.
- Any complaints are taken care of and resolved satisfactorily.

5- Logistics

- I am satisfied with the timeliness of deliveries.
- I receive reliable information on the status of my deliveries.
- Drivers' behaviours are professional.
- The queuing wait times during filling are acceptable.
- Loading speed when the silo bus comes under the silo, meets my expectations.
- X terminals are efficient for my business.
- Health and safety regulations are well respected.
- Any complaints are taken care of and resolved satisfactorily.

6- Product

- The quality of X's cement is consistent.
- Range of products meets my requirements.
- X is able to produce custom solutions when I need them.
- The available product information is sufficient.
- Product development department and process are meeting my requirements.
- I am well advised by X in using the supplied products.

7- Payment

- The credit process of X is clear.
- I can easily check my credit limits.
- The allowed credit limits are sufficient to run my business.
- The administrative process of X is clear and efficient.
- The administrative staff is easily available when I need them.
- The invoices are sent in a timely manner.
- X has enough number of payment methods.
- Any complaints are taken care of and resolved satisfactorily.

3.4 Customer selection

In 2015, based on volume and the combination of the criteria such as the cement company's operation size in each region, tons of cement that is bought by the customer, full customer or partial customer, direct customer or end customer of the firm, type of cement sold (bagged, bulk) and the customer's segment (RMC, contractor, industrial producer), the sample is created. The smallest region was set at

as close as a selection of 20 firms in order to reach a statistically significant numbers. According to sample size rules of thumb, for each region 20 is set as a sample size (Van Voorhis and Morgan, 2007). Because the sizes of East Marmara and Black Sea regions are small as the cement company's operation, the number of customers selected is also small compared to other regions. For these two regions, customers are selected slightly less than 20, because of the fact that numbers of customers were not enough in these regions. The sample is selected until at least 60% of total volume and total customers are covered. For all regions, threshold point which is 60% is crossed far better. Please see the details in table 10.

Table 10. Number of Selected Customers in 2015

Region	Number of Selected Customers
North Marmara Region	80
East Marmara Region	19
South Marmara and Aegean Region	45
Black Sea Region	18
Total	162

In 2016, based on volume and the combination of the criteria such as the cement company's operation size in each region, tons of cement that is bought by the customer, full customer or partial customer, direct customer or end customer of the firm, type of cement sold (bagged and bulk) and the customer's segment (RMC,

contractor and industrial producer), the sample is created. Again, the smallest region was set at as close as a selection of 20 firms in order to reach a statistically significant numbers. The sample is selected until at least 60% of total volume is covered. Because the sizes of East Marmara and Black Sea Regions are small as the cement company's operation, the number of customers selected is also small compared to other regions. In both years, the customers selected in each region are selected carefully by sales team based on the combination of the criteria such as the cement company's operation size in each region, tons of cement that is bought by the customer, 100% customer of the cement company or not, direct customer or end customer of the firm, type of cement sold (bagged or bulk) and the customer's segment (RMC, contractor and industrial producer). Please see the details in table 11.

Table 11. Number of Selected Customers in 2016

Region	Number of Selected Customers
North Marmara Region	106
East Marmara Region	32
South Marmara and Aegean Region	76
Black Sea Region	21
Total	235

In 2019, based on regional volume representation, the sample is created. The smallest region was set at a selection of 20 firms in order to reach a statistically

significant numbers. Other regions have sample according to their relative volume contributions. Volume contributions are calculated based on the first half of the year's sold amount. Similarly to 2015 and 2016, the data about selected customers collected carefully in each region by sales team based on the combination of the criteria such as the cement company's operation size in each region, tons of cement that is bought by the customer, 100% customer of the cement company or not, direct customer or end customer of the firm, type of cement sold (bagged, bulk or both) and the customer's segment (Dealer, RMC, contractor and industrial producer) Please see the details in table 12.

Table 12. Number of Selected Customers in 2019

Region	Share of Total Volume	Number of Selected Customers
North Marmara Region	41%	57
East Marmara Region	14%	20
South Marmara & Aegean Region	27%	37
Black Sea Region	18%	25
Total	100%	210

CHAPTER 4

EMPIRICAL RESULTS

This research is a quantitative research and data was analysed by quantitative methods. IBM SPSS 25 statistics viewer is used. Data size was 95 (in 2015), 230 (in 2016) and 116 (in 2019) respondents which is big enough to perform a quantitative analysis. 2015, 2016 and 2019 results are used for longitudinal examination to test correlation between NPS and revenues (past, current and future). 2016 and 2019 surveys are used to understand purchasing behaviour of promoters, passives and detractors. Only 2019 survey is used in ANOVA analysis to define differences between customer segment, region, customer and product type, and regression analysis to determine the main drivers of recommendation. Because, market shrinkage is observed in 2019, multivariable regression analysis was used in 2019 survey results to understand the main drivers for recommendation. When hypotheses are tested the significance level is counted. Significance levels are usually and in this research following: $P<0.001$= the result is statistically very significant; $P<0.01$ the result is statistically significant; $P<0.05$ the result is statistically almost significant (Ellis, 2016).

4.1 NPS and revenues

First, NPS and Company revenue relationship were examined by using Pearson correlation test. The Pearson correlation coefficient (r) represents the direction, degree, and significance of the relationship between two continuous variables. It

takes values between -1 and 1. The aim of correlation analysis; is to see in which direction the dependent variable (Y) changes when the argument (X) changes (Tolmie et al. 2011; Hair 2010).

Aggregate NPS and Company Revenue was previously investigated in literature (Keiningham et al. 2007; Morgan and Rego, 2006; Reichheld 2003; Van Doorn et al., 2013). Mecredy et al.(2018) compare the performance of aggregate NPS as a lagged, current and leading indicator- that is a correlate of past (t-1), current (t) and future (t+1) company revenue by using the data which is collected from a company offering business to business services to the New Zealand mainly products sector. In the research, the data are compared from 2010 to 2015.

In this part, Mecredy et al. (2018) followed and revenues data are acquired from the annual reports which are published on the company's website and Turkish Public Disclosure Platform (KAP, 2019). Because the company was applied NPS survey in 2015, 2016 and 2019, we have only the data of these years which make this research more interesting due to the fact that Turkish construction industry was hit by the 2018's currency crisis in Turkey. For this reason, 2019 became a tough year for construction sector compared to 2015 and 2016. After second quarter of 2018, construction sector share of GDP started to decrease (TSI, 2019).

Due to data structure, simple correlations are used as a data analysis method. Rather than using company's revenue directly, indexation is used to compare the indicated years' revenues. 2014 is used as a base year. 2014 revenue is indexed to 100 and following years are calculated according to base year revenue. Please see table 13 for revenue and NPS results.

Table 13. Past, Current, Future Revenue and NPS

Year	n	NPS	Rev. Index (t-1)	Rev. Index (t)	Rev. Index (t+1)
2014	-	-	-	100	104.08
2015	95	76%	100	104.08	103.56
2016	230	70%	104.08	103.56	103.44
2019	116	47%	117.42		-

According to the correlation table which is shown in table 14, there is a statistically significant perfect negative relationship between past revenue and NPS.

Table 14. Correlation Table of Past, Current, Future Revenue and NPS

		NPS	Past Revenue	Current Revenue	Future Revenue
NPS	Pearson Correlation	1	-1.000*	1.000**	1.000**
	Sig. (2-tailed)		0.018	.	.
	N	3	3	2	2
Past Revenue	Pearson Correlation	-1.000*	1	-1.000**	-1.000**
	Sig. (2-tailed)	0.018		.	.
	N	3	3	2	2
Current Revenue	Pearson Correlation	1.000**	-1.000**	1	1.000**
	Sig. (2-tailed)	.	.		.
	N	2	2	2	2
Future Revenue	Pearson Correlation	1.000**	-1.000**	1.000**	1
	Sig. (2-tailed)	.	.	.	
	N	2	2	2	2

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

The findings contradict Reichheld (2003) findings that NPS is positively correlated with past revenue. However, given the number of data is very small, nothing can be said about the relationship between future revenue and NPS. These revenues come from domestic and export sales. Since domestic sales decrease due to the market shrinkage and the export sales peak due to the significant depreciation of Turkish currency (TCMB, 2019). Rise in export revenue is much higher than domestic sales revenue decrease, as a result total revenue increases from 2014 to 2019.

Because of the reasons indicated above and NPS is applied only the domestic customers, domestic sales revenues and NPS are analysed additionally to company's total revenues as indicated in table 15.

Table 15. Past, Current, Future Domestic Revenue and NPS

Year	n	NPS	Dom. Rev. Index (t-1)	Dom. Rev. Index (t)	Dom. Rev. Index (t+1)
2014		-	-	100	75.44
2015	95	76%	100	75.44	79.03
2016	230	70%	75.44	79.03	85.76
2019	116	47%	84.89		-

We could not reach the statistically significant numbers due to the insufficient number of the data. As one can see in table 16, p value is bigger than 0.05. So, there is no relationship between past domestic revenue and NPS.

Table 16. Correlation Table of Past, Current, Future Domestic Revenue and NPS

		NPS	Domestic Past Revenue	Domestic Current Revenue	Domestic Future Revenue
NPS	Pearson Correlation	1	0.324	-1.000**	-1.000**
	Sig. (2-tailed)		0.79	.	.
	N	3	3	2	2
Domestic Past Revenue	Pearson Correlation	0.324	1	-1.000**	-1.000**
	Sig. (2-tailed)	0.79		.	.
	N	3	3	2	2
Domestic Current Revenue	Pearson Correlation	-1.000**	-1.000**	1	1.000**
	Sig. (2-tailed)	.	.		.
	N	2	2	2	2
Domestic Future Revenue	Pearson Correlation	-1.000**	-1.000**	1.000**	1
	Sig. (2-tailed)	.	.	.	
	N	2	2	2	2

** Correlation is significant at the 0.01 level (2-tailed).

Additionally to analyses above, I would like to investigate the number of customers that this case company has and NPS relationship. Because, if a company has a high NPS score, it means that this company can attract more customers and increase the total number of its customers by using promoters' positive WOM (Reichheld, 2006). Please see table 17 for number of customers' index and NPS.

Table 17. Current, Future Number of Customers and NPS

Year	n	NPS	Number of Customer Index (t)	Number of Customer Index (t+1)
2015	95	76%	100	92
2016	230	70%	92	85
2019	116	47%	68	-

In the table, number of 2015's customers is indexed to the 100 and following years are calculated according to base year (2015). From the table 18, it can be obviously seen that there is a positive relationship between NPS and number of customers that this cement company have and also this positive relationship is statistically significant. The correlation coefficient is lower than 0.05.

Table 18. Correlation Table of Current, Future Number of Customers and NPS

		NPS	Number of Current Customers	Number of Future Customers
NPS	Pearson Correlation	1	.999*	1.000**
	Sig. (2-tailed)		0.029	.
	N	3	3	2
Number of Current Customers	Pearson Correlation	.999*	1	1.000**
	Sig. (2-tailed)	0.029		.
	N	3	3	2
Number of Future Customers	Pearson Correlation	1.000**	1.000**	1
	Sig. (2-tailed)	.	.	
	N	2	2	2

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

4.2 NPS and average buy of sampled customers

This part is similar with Mecredy et al. (2018) research; it investigates behaviour of individual active customers. This can give more significant results since it includes a larger sample size. ANOVA is used in this part.

ANOVA (Analysis of Variance) is a statistical method in order to determine whether there is a statistically significant difference between 3 or more groups based on a variable. If there is a statistically significance between groups, this means that each group behave same in the group but behave differently between groups (Tolmie et al., 2011).

First, one-way analysis of variance (ANOVA) is conducted to compare means of different groups of people when there is no specific hypothesis. As a result of analysis, SPSS produce F statistics which is used to evaluate whether group means are significantly different than each other. In this context, ANOVA is applied in order to investigate whether loyal customers actually buy more volumes in the current year or not and volume represents tons of cement that is bought in the current year. Then ANOVA is used to determine that there is a significant difference or not among customer segments, customer types, customer regions and product types in NPS (Tolmie et al., 2011).

To be able to use ANOVA results, homogeneity of variance assumption should be met. In order to check this, Levene's test is applied, which is designed to test null hypothesis that ''variance of the groups is the same.'' If Levene's test is significant, it is inferred that variance of assumption is violated (Hair, 2010).

4.2.1 2016 survey results

Are promoters, passive and detractors statistically different than each other? For finding answers to this question, we tested firstly homogeneity of variances. After the result of this test, we decided to run ANOVA or not.

Net Promoter score itself is an interval scale, but it was transformed into a nominal scale where the numbers 1-6 get the value 0 (detractors), 7-8 get the value 1 (passives) and 9-10 get the value 2 (promoters). With this way, we were able to group the scores. As indicated in table 19, significance of homogeneity of variances is bigger than 0.05 for current year purchased amount but smaller for next year purchased amount. This shows that we can use ANOVA for further analyse of just 2016.

Table 19. Test of Homogeneity of Variances for Promoter, Passives and Detractors of 2016 and 2017

		Levene Statistic	df1	df2	Sig.
volume2016	Based on Mean	2.416	2	227	0.092
	Based on Median	0.99	2	227	0.373
	Based on Median and with adjusted df	0.99	2	224.563	0.373
	Based on trimmed mean	2.282	2	227	0.104
volume2017	Based on Mean	4.255	2	227	0.015
	Based on Median	0.908	2	227	0.405
	Based on Median and with adjusted df	0.908	2	197.865	0.405
	Based on trimmed mean	3.392	2	227	0.035

There is no statistically significance between current year purchased amount and NPS type (promoter, passive and detractor) as it is indicated in table 20. Please see post hoc Scheffe test result in table 21. Although it is expected in the literature that promoters purchase more than detractors, we could not find any significant difference between these groups.

Table 20. ANOVA Results among Promoter, Passives and Detractors of 2016

		Sum of Squares	df	Mean Square	F	Sig.
volume 2016	Between Groups	4926478988	2	2463239494	2.661	0.072
	Within Groups	210096113764	227	925533541		
	Total	215022592752	229			

Table 21. Homogeneous Subsets for Promoter, Passives and Detractors of 2016

volume2016		
Scheffe[a,b]		
		Subset for alpha = 0.05
NPS type	N	1
passive	38	18743.184
promoter	177	18778.17
detractor	15	37516.133
Sig.		0.057

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 30.416.
b. The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

4.2.2 2019 survey results

We applied same statistical analysis into 2019 results as well. We tested homogeneity of variances between promoter, passives and detractors. As one can see in table 22, significance of homogeneity of variances is bigger than 0.05. We can reject the null hypothesis that variances of the groups are homogeny. This shows that we can use ANOVA for further test.

Table 22. Test of Homogeneity of Variances for Promoter, Passives and Detractors of 2019

		Levene Statistic	df1	df2	Sig.
Current Volume	Based on Mean	2.014	2	111	0.138
	Based on Median	0.783	2	111	0.46
	Based on Median and with adjusted df	0.783	2	104.129	0.46
	Based on trimmed mean	1.322	2	111	0.271

According to ANOVA results which are shown in table 23 and also we applied the post hoc test in table 24, there is no statistically significant difference between type of NPS (promoter, passive and detractor) and current year purchased amount (the first half of 2019's volumes purchased by customer).

Table 23. ANOVA Results among Promoter, Passives and Detractors of 2019

Current Volume (tons)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	729478573.9	2	364739287	0.908	0.406
Within Groups	44604442328	111	401841823		
Total	45333920902	113			

Table 24. Homogeneous Subsets for Promoter, Passives and Detractors of 2019

Current Volume		
Scheffe[a,b]		
		Subset for alpha = 0.05
NPS Type	N	1
Detractor	8	4337.5
Promote	64	13352.875
Passive	42	14741.0714
Sig.		0.297

If we could have found statistically significant difference among promoters, passives and detractors in 2015 and 2016 but not in 2019, we will be able to connect it with changing customers' behaviours with market shrinkage. As a result, there is any statically significant difference among promoter, passives and detractors in purchasing behaviours whether the market performs well or shrinks.

4.2.2.1 Being full or partial customer

Full customer means that the case company is the only supplier, partial means that the customer purchases the cement not only from the case company but also from the other suppliers.

T-test is applied in this time because we have 2 groups. If we had more than 2 groups, ANOVA must be used (Hair, 2010). According to the table 25, significance ratio is bigger than 0.05. So we reject the null hypothesis. There are different means for partial and full customers.

Table 25. Independent T-test Results among Full and Partial Customers of 2019

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
NPS	Equal variances assumed	1.011	0.317	1.102	114
	Equal variances not assumed			1.094	107.513

As it can be seen in table 26, full customers' NPS is higher than partials. In this context, our expectation was that full customers' recommendation score is much higher, because partial customers' score is much lower. However, no big difference is observed in means. Full customers' mean (8.79) is slightly higher than partial customers' mean (8.49)

Table 26. Descriptive Analysis of Full and Partial Customers of 2019

	Full or Partial	N	Mean	Std. Deviation	Std. Error Mean
NPS	Full	61	8.79	1.343	0.172
	Partial	55	8.49	1.55	0.209

4.2.2.2 Customer segment

We tested homogeneity of variances for customer segments of 2019. As it is shown in table 27, significance ratio is smaller than 0.05. The resulting p-value is under 0.05 means that variances are not equal and further parametric tests such as ANOVA are not suited. We accept null hypothesis that ‘‘variance of the groups is equal’’. We also run a post hoc test as can be seen in table 28. We could not find any difference between groups.

Table 27. Test of Homogeneity of Variances for Customer Segments of 2019

		Levene Statistic	df1	df2	Sig.
NPS	Based on Mean	3.87	2	113	0.024
	Based on Median	2.677	2	113	0.073
	Based on Median and with adjusted df	2.677	2	104.618	0.073
	Based on trimmed mean	3.598	2	113	0.031

Table 28. Homogeneous Subsets for Customer Segments of 2019

NPS		
Scheffe[a,b]		
		Subset for alpha = 0.05
Segment	N	1
RMC	55	8.45
Dealer	41	8.71
Ind.Prod.	20	9.05
Sig.		0.256

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 32.407.
b. The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

4.2.2.3 Regions

As it can be seen in the table 29, ANOVA can be used because significance ratio is bigger than 0.05. ANOVA can be applied.

Table 29. Test of Homogeneity of Variances for Regions of 2019

		Levene Statistic	df1	df2	Sig.
NPS	Based on Mean	2.379	3	112	0.074
	Based on Median	0.95	3	112	0.419
	Based on Median and with adjusted df	0.95	3	96.333	0.42
	Based on trimmed mean	1.986	3	112	0.12

Significance ratio of ANOVA is bigger than 0.05 as indicated in table 30. In this situation, we can reject the null hypothesis and there is no statistically significant difference between regions. Although region might seem important due to the raw material differences in each region's plant, according to this analysis region does not seem to be a significant factor. As the region is not an issue, no region groups were formed to this research.

Table 30. ANOVA Results among Regions of 2019

NPS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.485	3	2.162	1.034	0.38
Within Groups	234.024	112	2.09		
Total	240.509	115			

Because we have unequal group sizes, we applied Scheffe test, as illustrated in table 31. Scheffe test is a conservative test. It has a lower probability of type I error as compared to other post hoc tests. However, it also has an increased probability of type II error and less statistical power that is less an ability to detect a difference that is truly there.

Table 31. Homogeneous Subsets for Regions of 2019

NPS		
Scheffe[a,b]		
Region	N	Subset for alpha = 0.05 1
NMR	47	8.47
BSR	27	8.48
SMR & AEGEAN	25	8.88
EMR	17	9.06
Sig.		0.549

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 32.407.
b. The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

4.2.2.4 Product type

We also run test of homogeneity of variances for product types as shown in table 32.

Since significance ratio is bigger than 0.05, ANOVA can be used for further test.

Table 32. Test of Homogeneity of Variances for Product Types of 2019

		Levene Statistic	df1	df2	Sig.
NPS	Based on Mean	0.56	2	113	0.573
	Based on Median	0.235	2	113	0.791
	Based on Median and with adjusted df	0.235	2	108.411	0.791
	Based on trimmed mean	0.428	2	113	0.653

As significance ration is bigger than 0.05, there is no statistically significant difference between product types. Details are shown in table 33. The product types might seem important due to the different customer types who purchase different product types. For instance, bulk cement customers are mostly medium size enterprises, on the other hand bagged cement customers are mostly small size enterprises and bagged cement's transportation is not as limited as bulked. According to this analysis product type does not seem to be a significant factor. As the product type is not an issue, no product type groups were formed to this research.

Table 33. ANOVA Results among Product Type of 2019

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.357	2	0.179	0.084	0.919
Within Groups	240.152	113	2.125		
Total	240.509	115			

Because we have unequal group sizes, we applied Scheffe test which is shown in table 34. Scheffe test is a conservative test. It has a lower probability of type I error as compared to other post hoc tests. But it also has an increased probability of type II error and less statistical power that is less an ability to detect a difference that is truly there. Since significance is bigger than 0.05, there is no difference among groups.

Table 34. Homogeneous Subsets for Products of 2019

NPS		
Scheffe[a,b]		
Product Type	N	Subset for alpha = 0.05
		1
BULK	80	8.61
BAGGED	19	8.68
BOTH	17	8.76
Sig.		0.936

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 32.407.
b. The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

4.3 Drivers of NPS

The aim of this part is to understand the main drivers behind a customer promote a cement company. Drivers are defined based on cement business and the cement customer journey. According to each touch point, cement customer experience and NPS is shaped. Therefore, we conducted seven hypotheses. Hypotheses are;

H1: Marketing effects positively on NPS.

H2: Customer relations effects positively on NPS.

H3: Technical support effects positively on NPS.

H4: Ordering effects positively on NPS.

H5: Logistics effects positively on NPS.

H6: Product effects positively on NPS.

H7: Payment effects positively on NPS.

Table 35 shows the descriptive statistics of touch points. While ordering has the biggest mean with 9.00, payment has the lowest mean with 7.47

Table 35. Descriptive Statistics of Drivers

Touch Points	N	Mean	Std. Deviation	Std. Error Mean
Marketing	105	8.24	1.614	.158
Customer Relations	114	8.60	1.474	.138
Technical	105	8.18	2.018	.197
Ordering	115	9.00	1.298	.121
Logistics	107	8.74	1.667	.161
Product	114	8.96	1.379	.129
Payment	102	7.47	2.420	.240

Multivariable regression is used to analyse each touch point variables. The correlation coefficient is an indicator of strength and the direction (positive and negative) of a linear relationship between two variables (Tolmie et al., 2011). In order to understand the relationship and the direction between a set of drivers and NPS Index, regression analysis is set. Our independent variables are marketing, customer relations, technical, ordering, logistics, product and payment. The correlation coefficients are indicated in the table 36. Product and marketing reach statistical significance. These variables have a statistically significant impact on the outcome variable. So, H1 and H6 are accepted. Product's coefficient is 0.326 and marketing coefficient is 0.302. Therefore, if product score increases by a value of one for every one unit of change for product score, NPS will increase by 0.326 point. If

marketing score increases by a value of one for every one unit of change for marketing score, NPS will change by 0.302. Thus, first product is effective positively on NPS score and marketing follows it.

Table 36. Drivers Impact on NPS and Coefficients Test

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.178	1.024		-.174	.862
	Marketing	.302	.101	.322	2.989	.004
	Customer Relations	.156	.123	.150	1.263	.211
	Technical	.056	.082	.071	.677	.500
	Ordering	.223	.138	.186	1.609	.112
	Logistics	-.151	.089	-.181	-1.706	.092
	Product	.326	.091	.297	3.568	.001
	Payment	.111	.065	.168	1.693	.095

a. Dependent Variable: NPS

R square is a measure to calculate the explanation power of the regression between dependent variable and independent variable or variables. For multivariate regression, which has more than one variable, looking at adjusted R square will be more accurate (Tolmie et al., 2011). Adjusted R Square is 0.538 as shown in table 37. This indicates that 53.8% of the variance in the dependent variable is explained by the independent variables.

Table 37. Model Summary of Regression Analysis

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579	.538	1.036

In order to understand marketing and product touch points in details, each statement is analysed. These statements are asked after a participant gives the lowest score for the related touch point. Therefore, in fact, marketing statements table represents the answers of people who gave the lowest score for marketing in table 38 and product statements for product in table 39.

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Table 38. Marketing Statements Descriptive Statistics

Marketing Statements	Low scoring	Medium scoring	High scoring	Sum	Avg. score
I am engaged in my relationship with X.	2 (11.1%)	0(0.0%)	16(88.9%)	18	9.2
I feel proud to be a X customer	2 (11.1%)	1(5.6%)	15(83.3%)	18	8.9
X always deliver on what they promise	2 (11.1%)	5(27.8%)	11(61.1%)	18	8.7
The marketing material/messages used by X is appropriate	3 (17.6%)	6(35.3%)	8(47.1%)	17	8.1
I am pleased with the seminars and events organized by X	3 (20.0%)	7(46.7%)	5(33.3%)	15	7.9
X is my preferred supplier	0 (0.0%)	2(12.5%)	14(87.5%)	16	9.6
The website of X suits my needs	1 (7.7%)	6(46.2%)	6(46.2%)	13	8.5
X's loyalty program satisfies my expectations	2 (13.3%)	3(20.0%)	10(66.7%)	15	8.7

Table 39. Product Statements Descriptive Statistics

Product	Low scoring	Medium scoring	High scoring	Sum	Avg. score
The quality of X's cement is consistent.	6 (40.0%)	5(33.3%)	4(26.7%)	15	7.0
Range of products meets my requirements.	1 (6.7%)	4(26.7%)	10(66.7%)	15	9.0
X is able to produce custom solutions when I need them.	1 (7.7%)	6(46.2%)	6(46.2%)	13	8.4
The available product information is sufficient.	1 (6.7%)	6(40.0%)	8(53.3%)	15	8.5
Product development department and process are meeting my requirements.	1 (8.3%)	5(41.7%)	6(50.0%)	12	8.2
I am well advised by X in using the supplied products.	4 (26.7%)	6(40.0%)	5(33.3%)	15	7.3

CHAPTER 5

CONCLUSION

The main purpose of this research was to elucidate how a cement company can create competitive advantage in shrinking markets by improving customer experience and by using customer insights in the context of the Turkish cement market. Even though there have been many studies focused on customer experience, loyalty, satisfaction and WOM, there has not been specific research on the Turkish cement industry from a marketing point of view and thus the data is really limited. Prior studies were mentioned in the literature review and because we used NPS methodology, we touched on market structure as well.

NPS was used as a measure of customer loyalty and satisfaction due to the fact that it is widely and globally used in business environments by enterprises. We tested NPS surveys which are conducted in 2015, 2016 and 2019. Unlikely the Reichheld (2006), we could not found a positive relationship between revenue and NPS through the years 2015, 2016 and 2019. In this context, we agreed upon Reichheld's finding, which highlights that NPS cannot work properly in monopolistic industries and because that market structure is not competitive enough, NPS will not show its positive impacts on financials. Although we mentioned that Turkish cement industry involved from oligopolistic market structure to monopolistic competition in Turkey, a cement company can be a regional monopoly. NPS will not be effective on rise of revenues. The structure of cement business leads that customers may get stuck in a certain cement supplier, since it can be sold in a certain radius of circumference - high transportation cost restrictions.

We could not find any statically significant differences between groups such as customer segment (Dealer, RMC and Industrial Producer), customer type (partial or full), and regions (North Marmara, East Marmara, South Marmara and Aegean and Black Sea). We observed that there is a positive relationship between NPS and total number of customers through the years. At the end we tried to find out what can be the main touch point areas which can effect on NPS and we observed that product and marketing are the drivers what make customers willing to recommend a cement company.

To sum up, this study would be beneficial for cement companies which try to increase their customer numbers by increasing NPS. Doing so, cement companies can create competitive advantage especially in shrinking markets. The cement companies can examine thoroughly and dig down on marketing and product touch points. In order to improve marketing and product touch point through the cement customers experience journey, cement companies can organize more events and seminars for marketing activities; they can provide consistent quality and good advices on sold products for product. They can learn the main reasons as we done in the survey. Further research can be done on future revenue with a longitudinal examination and other satisfaction indicators results can be analysed. Additionally, this study can be applied on other countries cement industries in order to see country based differences.

APPENDIX A

SURVEY QUESTIONNAIRE

Q1: “On a scale of 0 to 10, where “0” means “not at all likely” and “10” means “extremely likely”, how likely are you to recommend our company?”
Q2: “What is the primary reason you would recommend us?”/ “What improvements can we make for you to recommend our company in the future?”/ What can our company do to further improve?”/” Do you have any other suggestions?”
Q3a: “On a scale of 0 to 10, with "0" being "very poor" and "10" being "excellent", how would you rate our company for the following service areas?”
“If you do not personally have experienced one of these service areas, please say 'no idea'.
Marketing
Customer Relations
Technical Support
Ordering Process
Logistics
Product
Payment
Q3b: “Which of these services areas do you believe we can improve on most?”
Q4: “On a scale of 0 to 10, with "0" being "strongly disagree" and "10" being "strongly agree", to what extent do you agree with the following statements:”
Marketing
• I am engaged in my relationship with X.
• I feel proud to be a X’s customer.
• X always delivers on what they promise.
• The marketing material/messages used by X is appropriate.
• The website of X suits my needs.
• X's loyalty program satisfies my expectations.
• I am pleased with the seminars and events organized by X.
• X is my preferred supplier.
Customer Relations
• The quotation process is efficient.
• The account manager understands me and my business.
• The visit frequency of my account manager is satisfactory.
• I am satisfied with the speed of response to my requests.
• The account manager brings new ideas that are relevant to my business and market.
• Sales conditions are clear.
• The quality of service I get is satisfactory.
• Any complaints are taken care of and resolved satisfactorily.
Technical Support

• Technical support is an added value to my business.
• Technical support is available in a timely manner.
• Technicians are professional and helpful.
• Technical product knowledge meets my needs.
• Any complaints are taken care of and resolved satisfactorily.
Ordering Process
• The ordering process of X is clear and easy.
• Phone calls are answered promptly when placing orders.
• Telephone operating hours suit my needs.
• When I place my orders, my requirements are well understood.
• Ordering staff is helpful and professional.
• X is flexible when I need to change my order.
• The online ordering tool at X is convenient.
• Any complaints are taken care of and resolved satisfactorily.
Logistics
• I am satisfied with the timeliness of deliveries
• I receive reliable information on the status of my deliveries
• Drivers' behaviours are professional.
• The queuing wait times during filling are acceptable.
• Loading speed when the silo bus comes under the silo, meets my expectations.
• X terminals are efficient for my business.
• Health and Safety regulations are well respected.
• Any complaints are taken care of and resolved satisfactorily.
Product
• The quality of X cement is consistent.
• Range of products meets my requirements.
• X is able to produce custom solutions when I need them.
• The available product information is sufficient.
• Product development department and process are meeting my requirements.
• I am well advised by X in using the supplied products.
Payment
• The credit process of X is clear.
• I can easily check my credit limits.
• The allowed credit limits are sufficient to run my business.
• The administrative process of X is clear and efficient.
• The administrative staff is easily available when I need them.
• The invoices are send in a timely manner.
• X has enough number of payment methods.
• Any complaints are taken care of and resolved satisfactorily.
Q5: “May we call you back to better understand your answers?”

APPENDIX B

SURVEY QUESTIONNAIRE (TURKISH)

0 en düşük, 10 en yüksek olacak şekilde şirketimizi çevrenize 0'dan 10'a kadar kaç puanla tavsiye edersiniz ?
Bizi tavsiye etmenizdeki temel sebep nedir ? / Şirketimizi gelecekte çevrenize tavsiye etmenizi sağlamak için neler yapabiliriz ? / Bunlara ek olarak başka öneriniz var mı ? / Başka tavsiyeleriniz var mı ?
0 en düşük, 10 en yüksek olacak şekilde şirketimizin aşağıdaki hizmet alanlarına 0'dan 10'a kadar kaç puan verirsiniz ?
Eğer ki ilgili hizmetimizi şuana kadar hiç deneyimlemediyseniz lütfen bilgim yok cevabını veriniz.
Pazarlama
Müşteri İlişkileri
Teknik Destek
Sipariş Süreçleri
Lojistik
Ürün
Ödeme Süreçleri
En düşük puanı verdiğiniz aşağıdaki süreçlerden özellikle hangisini düzeltmemizi isterdiniz ?
0 en düşük, 10 en yüksek olacak şekilde lütfen size söyleceğim yargılara 0'dan 10'a kadar puan veriniz.
Pazarlama
• X'yla aramızdaki ilişkiye çok bağlıyım.
• X müşterisi olmaktan gurur duyuyorum.
• X verdiği sözleri her zaman tutuyor.
• X tarafından kullanılan pazarlama materyali ve mesajları her zaman amacına uygun oluyor.
• X websitesi ihtiyaçlarımı karşılıyor.
• X müşteri sadakat programı beklentilerimi karşılıyor.
• X'nın düzenlediği seminer ve organizasyonlardan memnunum.
• X benim en çok tercih ettiğim tedarikçi firmadır.
Müşteri İlişkileri
• X'nın etkili bir fiyatlandırma süreci var.
• Müşteri temsilcim beni ve işimi anlıyor.
• Müşteri temsilcimin ziyaret sıklığı memnun edicidir.
• İsteklerime yapılan geri dönüşlerin hızı memnun edicidir.
• Müşteri temsilcim işime ve pazara uygun yeni fikirler öneriyor.
• Satış koşulları çok açık ve nettir.
• Aldığım hizmetin kalitesi tatmin edicidir.
• Şikayetlerimle etkili bir şekilde ilgileniliyor ve çözüme ulaştırılıyor.

Teknik Destek
• Teknik desteğin işim için bir katma değer sağladığını düşünüyorum.
• Teknik desteğe istediğim her zaman ulaşabiliyorum.
• Teknik destek uzmanları profesyonel ve yardımseverdir.
• Ürün teknik bilgisi ihtiyaçlarımı karşılıyor.
• Şikayetlerimle etkili bir şekilde ilgileniliyor ve çözüme ulaştırılıyor.
• Sipariş Süreçleri
• X'nın sipariş verme süreçleri net ve kolaydır.
• Sipariş verirken telefonlarıma hemen cevap veriliyor.
• Telefonla sipariş alma saatleri beklentilerimi karşılıyor.
• Sipariş verirken ihtiyaçlarım X tarafından tam anlamıyla anlaşılıyor.
• Siparişi ilettiğim çalışanlar yardımsever ve profesyoneldir.
• Siparişimi değiştirmek istediğim zaman X esnek davranıyor ve taleplerimi karşılıyor.
• X'nın online sipariş verme sisteminin kullanımı rahattır.
• Şikayetlerimle etkili bir şekilde ilgileniliyor ve çözüme ulaştırılıyor.
Lojistik
• Teslimatların zamanında yapılmasından memnunum.
• Teslimatlarımın durumu hakkında güvenilir bilgi alıyorum.
• Silobas şoförlerinin tutumu ve davranışları profesyoneldir.
• Araçların dolum sırasında bekleme süreleri kabul edilebilir.
• Aracın siloya girdikten sonraki dolum süresi beklentilerimi karşılıyor.
• X terminalleri işimi daha verimli yönetmemi sağlıyor.
• Yükleme ve boşaltma sırasında İSG (İş Sağlığı ve Güvenliği) kurallarına uyuluyor.
• Şikayetlerimle etkili bir şekilde ilgileniliyor ve çözüme ulaştırılıyor.
Ürün
• X çimentonun kalitesi istikrarlıdır.
• Ürün çeşitliliği ihtiyaçlarımı karşılıyor.
• X, ihtiyaç duyduğumda özel çözümler üretebiliyor.
• Mevcut ürün bilgisi yeterlidir.
• Ürün geliştirme departmanı ve süreçleri beklentilerimi karşılıyor.
• Aldığım ürünlerin kullanımı hakkında X tarafından bilgilendiriliyorum.
Ödeme Süreçleri
• X'nın kredi süreçleri açık ve nettir.
• Kalan kredimi kolayca kontrol edebiliyorum.
• İzin verilen kredi limitleri işimi devam ettirmek için yeterlidir.
• X idari süreçleri açık ve etkilidir.
• İhtiyacım olduğunda X idari personeline kolayca ulaşabiliyorum.
• Faturalar doğru zamanda gönderiliyor.
• X'nın ödeme alternatifleri yeterlidir.
• Şikayetlerimle etkili bir şekilde ilgileniliyor ve çözüme ulaştırılıyor.
Sizi cevaplarınız hakkında daha detaylı konuşmak için daha sonra bir kez daha arayabilir miyiz?

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