PROFILE OF ETİ GIDA CRACKER PLANT

Company Name: ETİ Gıda San. ve Tic. A.Ş./Cracker Plant

1. Company, Plant Profile

1.1. ETİ Group



Figure 1.1. View of Eti Group Plants

Eti Group, with a total revenue of 1.255 billion \$/year, is one of the biggest food producers in Turkey. Eti Group produces, sales and distributes 378.000 tons of biscuits, cookies, crackers, cakes, breakfast products, frozen products, chocolate and chocolate bars annually. Eti's sales and distribution organization reaches up to 210.000 retail points. International sales to 74 countries worldwide accounts for the 17% of annual sales. Eti employs 7.284 white and blue collar workers in Eti Group. Eti Group consistently ranks among the top 100 industrial establishments in Turkey and the last announced rank is 37th.

Eti Group consists of 8 food production plants. Biscuit Plant, Chocolate Plant, Cake Plant, Bozüyük Plant, Cracker Plant, Grain Processing Plant, Milk Products Plant and Romania (Craiova) Plant. In addition, Eti has a Machinery Plant. The Machinery Plant is established to develop and adopt cutting edge technology in-house. Eti Marketing and Sales, is located in İstanbul, serving the global marketing and sales activities of Eti.

1.2. Eti Gıda Cracker Plant Profile

Cracker Plant is one of the ETİ Group's production plants. Cracker Plant has started to produce with 2 production lines in Eskişehir Industrial Zone in 1981. Today, Cracker Plant has 40.000 m² opened area, 11 production lines, 79.000 ton/year installed production capacity, 728 employees and 195 SKU's. Cracker Plant produced approximately 52.400 tons of crackers and biscuits in 2022. It indicates that 14 % of total ETİ's products and 12% of ETi's revenue comes from Cracker Plant.



Figure 1.2. ETİ Gıda Cracker Plant View

1.3. Eti Group Organization

Eti implemented a new organization in Europe, in order to extend it export activities by the strategy of GLOBALIZATION. The updated organization chart is shown in figure 1.3.

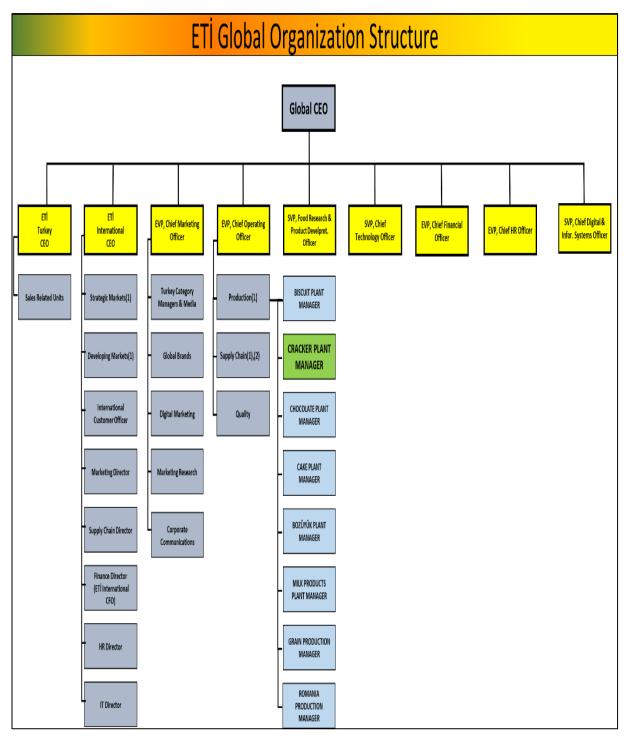


Figure 1.3. ETİ Group Organization Chart

1.4. Cracker Plant Main Products

ETİ Gıda Cracker Plant has two main product groups. These are crackers and biscuits. Cracker Plant has 16 brands and 195 SKU's.

51% of total production consists of crackers and 49% consists of biscuit products. The most important group in cracker products is the stick products produced under the Crax brand. In the biscuit category, Cicibebe product, which is one of the most important brands of both Cracker Factory and ETİ Group, has the most important share.

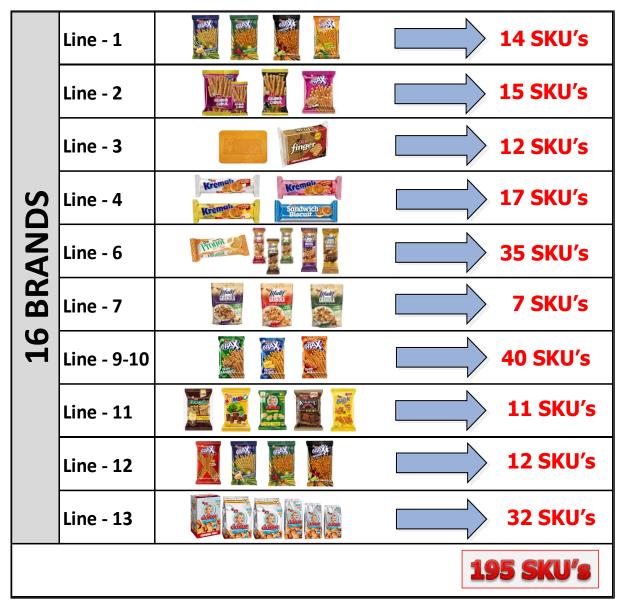


Figure 1.4. Distribution of Cracker Plant Products

1.5. Production Flow

The process starts by taking the raw materials from the raw material warehouses and making the dough by preparing the recipes. The dough continues to be formed, baked, cooled and packaged. In particular, crackers may be seasoned with powder or liquid flavors at different steps of the process. Especially in cracker-type products, the product may be subjected to more than one cooking process.

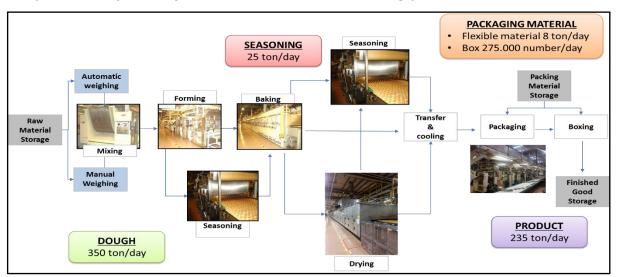


Figure 1.5. Cracker Plant Main Production Flow

2. Milestones on the Journey of Manufacturing Excellence

Our TPM journey is shown in figure 2.1.

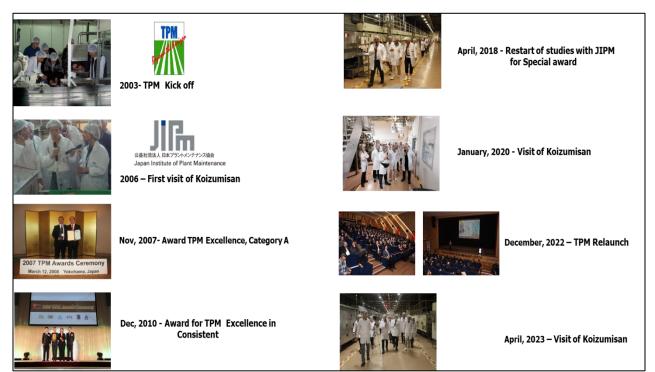
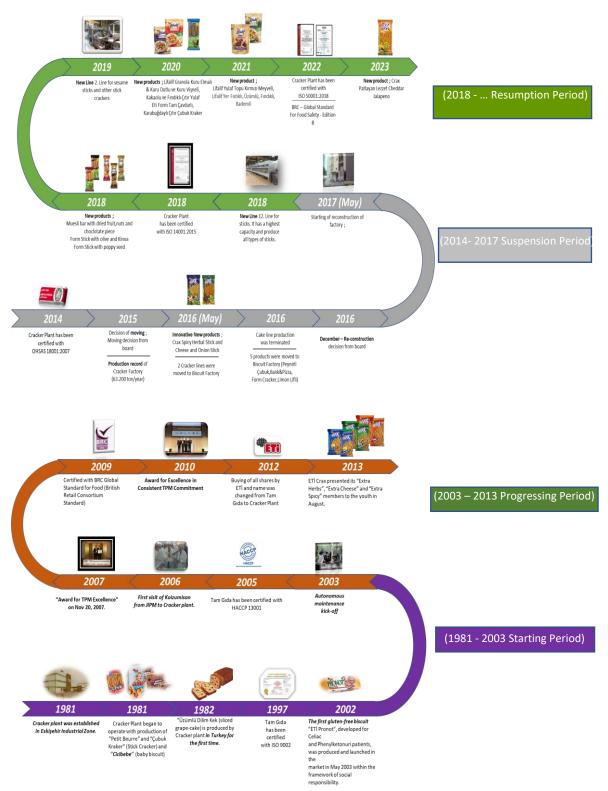


Figure 2.1. TPM Journey of Cracker Plant



2.1. Cracker Plant Chronological Progress

Figure 2.2. Chronological Progress

3. Benefits Achieved

3.1. TPM Effect from Overall Management Viewpoint

When we have launched TPM at the end of the year 2002, we were looking for means to inspire our people to deploy their problem solving capacity towards achieving our targets and goals. We were utterly aware that ever increasing wave of globalization was fast reaching to our shores in Turkey. Gone were the days of enjoying a nearly unchallenged position in domestic market which was duly shared with an aggressive yet predictable local rival. Turkey's economic integration with European Union and rest of the world presented both a challenge and an opportunity. Anticipating incoming global competition, we, as ETI's management team, have started exploring the right approach that can prepare ETI for the future. During our search we came across TPM and JIPM. At once, we recognized TPM's potential and decided to implement it in ETI under the guidance of JIPM. After three years of hard work, we are observing the effects of improvements and change triggered by the implementation of TPM in our organization.

We have seen ETİ's sales keep growing amid increasing competition. We are and have been closely observing the new trends in the market and ever changing customer expectations. Introducing superior new products is and has always been ETİ's priority. ETİ Group, to enhance its ability of developing successful products even faster and more efficiently, has been reorganizing its new product development processes since 2005. TPM's early management approach has been our guide during our reorganization. New processes and organizational structure were introduced in November 2006. We expect to keep introducing ever increasing number of successful new products in the future.

We realize this is only the beginning of a long, rewarding journey that requires sustained hard work. We are determined to follow the path of TPM under JIPM's guidance towards world class excellence.

3.2. Tangible Effects of TPM

Results	Way of Improvement	Unit	2003 (Starting TPM)	2023	Development Ratio (%)
Man.hour/ton		INDEX	100	88	12
OLE			100	109	9
Breakdowns			100	26	74
Major Accidents			0	0	100
Customer Complaints			100	69	31
Unit Product Cost			100	89	11
Rework			100	36	64
Scrap			100	125	-25
Suggestion			100	2509	2409
Energy			100	119	-19

Figure 3.1. Tangible Effects (This table contains 11 lines values)

4. Keys of our Manufacturing Excellence

<u>ETİ Way</u> is the main philosophy for company management and it gives guidance for ETİ's industrial journey.

By this philosophy, we have constructed an integrated system, based on the value from the consumer point of view, while keeping up the increase in quality with the optimum costs and prices.

In the scope of this philosophy, we focused on the whole value chain, with all employees' participation which contains coordination of all the departments of ETİ and suppliers.

In the scope of ETİ Way, we focus on six main elements, which are Innovation, Value Creation, Respect for Environment and People, Operational Excellence, Accountability and Adaptation to Change

We want to become a smiling organization with smiling people. Respect for Environment and People is very important in this sense.



Figure 4.1 Eti Way

Above in figure 4.1 you will see the elements of Eti Way. They are attached to each other, making in combination the values of Eti. Looking deeper to these values that make up Eti Way, the values are described as follows;

INNOVATION: "Innovation in all areas" is the motto in ETI. This concept is divided into product and process innovation activities in participation of employees and even suppliers, which improve ETI's position in business and leads to increase our quality, profit and growth.

VALUE CREATION: Eti increases its *competitiveness within the company to keep the* high level of *quality, profitability* and *sustainability*. The target is to maximize the value created, in which elimination of losses and non-value added activities have outmost importance

RESPECT FOR ENVIRONMENT AND PEOPLE: Eti is a smiling organization with all employees and a leading company with environmental and social responsibility.

OPERATIONAL EXCELLENCE: The basic element of ETİ Way is to increase our excellence in our operations by adapting the best in class methodologies in all our operations including, production, quality, safety, R&D, technology, logistics, purchasing and marketing & sales

r**ACCOUNTABILITY:** Accountability is an essential part of all activities performed in ETİ, among all departments, employees, customers and suppliers

ADAPTATION TO CHANGE: Eti is a adaptive company, that can flexibly adapt to volatile economic, social changes

With these elements, we aim to create value continuously, while monitoring all trends about sector and items of business. In the following part, Eti Operation System will be explained in detail.

4.1. Aim of Eti Cracker Plant

Main aim of Cracker Plant is to satisfy customer expectations with high quality and high food safety, continue to lead the market by introducing innovative, unique products with innovative technology.

4.2. Future Plans

- Achieve "Special Award for TPM Achievement" and continue with TPM under JIPM's guidance towards to Award for World-class TPM Achievement
- Achieve A Level at 7"0" at all production lines by kaizens with the active participation of operators in the Cracker Plant
- Expand TPM activities to downstream and upstream operations (i.e. suppliers, distribution etc.)
- Support ETI's aim of sharing experience and knowledge with the general public (universities and industry)
- Expand "Lean Philosophy" to all TPM activities
- Establish and improve "ETİ WAY"

5. Contact Person:

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