



Report

INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION

“CLEANER PRODUCTION TOWARDS A SUSTAINABLE TRANSITION”

Case Study BrazilGlass - New business patterns

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Abstract

This report is produced in accordance with the method of SWOT analysis of the company BrazilGlass, the strengths identified throughout the study suggest that the company has a good vision and strategy practice new standards. The research is made of numerous interventions in the company throughout its existence in search of a Cleaner Production. The company is technologically updated and seeks to offer products with new materials, better design, energy saving and respect for the environment. It knows the importance of airtightness, insulation and durability in its products and therefore moves towards a new phase within the universe of locks of facades made in the industry.

The company provides its products in good lighting, minimizing the inconvenience caused by the incidence of the sun, wind and rain and developing systems that have gone through various stages of evolution. For this innovation in the production of laminated glass, tempered glass, screen printing, insulating glass and window frames and coatings. It is important that investments in advertising campaigns and reducing the cost of goods is on the order-paper in the company to make the process more sustainable and have more possibilities in front of their direct competitors.

We highlight environmental responsibility and cleaner production aiming for sustainability of their processes, including a margin of 100% reuse of materials and waste released into production

Keywords: *Glasses and Cleaner Production.*

1. Introduction

BrazilGlass, located in Ribeirão Pires in the metropolitan region of São Paulo, was founded in 1982 under the name SF Industrial, a family business whose family patriarch was responsible for all operations. The children from an early age were introduced to the company's routines learning and acting on all fronts of the company from the administrative part to production and thus preparing for the big company decisions.

In the period of the company's founding in the 1980s, Brazil passed through social and economic problems, this period became known as the lost decade in Brazil. It had high inflation and the country had debts to international creditors. In spite of this economic environment, the company's founder

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believed in the investment and had full belief that his business would thrive.

At the start of production, the industrial SF had a very lean staff table so it was considered to be a small industry, but even then they intended to become a reference in the Brazilian market.

When the financial sector in the country began to stabilize in 1995, there was an increase in product demand, and because of that, the company realized the need to increase the portfolio offered. As a result, the company's leadership sought a larger area in the same area, expanded the staff and acquired new equipment. This investment was crucial to leverage the company and launch it onto the national scene.

This investment allowed the company to increase its capacity and production quality, because the new equipment purchased sustained growth of the company and allowed them to innovate some production lines. Year after year, the company gained share in the national scene and consolidated the quality and diversity of its products.

With the consolidation of Brazil's economy and the country in a strong rise in the world economy, the industrial SF accompanied the growth in the 2000s and the company's management realized that the physical space it had was not enough, so they transferred it to a new area, where it is currently located, Ribeirão Pires. From that time the children have joined the staff and the company is now called BRAZILGLASS VIDROS PLANOS LTDA.

Currently the company is investing in window frames and flooring, with technology, infrastructure and trainings, they have created a new unit to design and execute facades. Developed using intelligent systems associate glasses of varied performances, a set of effective and diverse coating profiles.

1.1 Main Activities, Products and Services

The products offered by the company are: laminated glass, tempered glass, screen printing, insulating glass, frames and coatings. The BrazilGlass operates in three product line segments: glass for the furniture industry, glasses for white goods appliances and glass for construction.

In the furniture industry, it is possible to find their products in kitchen cabinets, wardrobes, living hacks and tables. In the appliances, the glasses are used in: stove, refrigerator, freezer, microwave and dishwasher. In the construction front, glasses are manufactured to be used from the storefront to the bathroom.

Currently 200,000m² of glass is processed yearly and the line of glasses for the furniture industry and the line of glasses for appliances is 60% of the production's total.

The main machines used during the production process are cutting table, lapping machine edges, washers, machine for painting, tempera oven and assembly line of laminated glass and double glazing.

These units are the most modern available in the market. Most of these equipments are from Italy and Austria. Because of this, the partners often visit the equipments' manufacturer and participate in fairs in Europe to see what's new and understand its functioning. The company also has some domestic equipment, such as tempera oven.

All machinery and equipment used are property of the company, which means that they don't rent equipment. The only partnership that exists for equipment is technical assistance, as well as ensuring that manufactures undergo preventive maintenance.

1.2 Data

Number of employees: 250 employees and 150 outsourced employees. The Head Office has a 12,000 m² area.

2. Detail case

The company has always had an uniqueness, the care for the environment. The company has a preserved area of 75,000 m² in its own building, assuming its responsibility to preserve the planet and the future of the country, it keeps sustainability in its processes, including maintaining a margin of 100% reuse of materials and waste.

To minimize the impacts on the environment the industrial park has the latest equipment for cutting and machining with Computerized Numerical Control (CNC), bilateral cutting, horizontal tempering, producing self-supporting plates for various uses, lamination line, horizontal washers, automatic dehumidification and fitting room with environmental control, dual calendaring, Nitrogen free autoclave, and screen printing with fabric and revolutionary equipment for digital screen printing, a novelty in the Brazilian market.

2.1 The SWOT analysis

Nowadays the watchword for any type of business is Strategic Planning. This is exactly why the SWOT analysis is a widely used tool. This tool enables a structured analysis of external and internal environments, formulating business strategies for the company. We can identify the strengths and weaknesses of an organization, as well as the opportunities and threats which it is exposed.

Analyzing BrazilGlass identified for the internal environment forces: reputation, product quality, wide availability, facilities, and adherence to cleaner production programs. Also in the internal environment identified the weakness of advertising campaigns.

Analyzing the external environment the opportunity is the location of the company that has the processing capacity of approximately 18,000 tonnes of glass per year. The threat identified are direct competitors.

2.2 Relationship with customers and suppliers

The main suppliers of raw materials of the company are: the GUARDIAN, SAINT GOBAIN and PILKINGTON. The first company is based in the United States and the last two have their bases in France. The three suppliers are also located in Brazil.

In the customer list are: ELECTROLUX, CONSTRUCTION CYRELA, ODEBRECHT, BARTIRA, DAKO and SAINT GOBAIN. In the case of SAINT GOBAIN have a partnership. SAINT GOBAIN group is comprised of companies that provide the raw material and other companies that industrialize glasses. When these companies industrialize glasses are failing to meet all the demand, SAINT GOBAIN hire the service of BRAZILGLASS to process the glass. In this case, orders already leave BRAZILGLASS with SAINT GOBAIN packaging.

The BRAZILGLASS does not have branches and it is not part of a group of companies. However the company serves all of Brazil, and has sales representatives in all states. The majority of deliveries are made by trucks from the company's fleet, which represents 80% of total deliveries. The rest are made by contracted carriers.

The largest companies in this segment in the country are: SAINT GOBAIN, SCHOTT GLAVERBEL and Glasec, BRAZILGLASS currently ranks fourth in the market.

2.3 Leadership and investments

As previously described, the BRAZILGLASS is a family business, therefore your membership is composed of four people, the patriarch of the family with his three sons.

According to one of the partners, the financial situation of the company is on schedule, achieving significant growth year after year. But there wasn't much information provided by the company.

Good part of the invested capital comes from the company itself, but when the company needs loans, much of the capital comes from private banks. Some loans are also made with BNDES, but in this case the loan must be used to purchase domestic equipment. Most equipment is imported, this is the justification to obtain loans from private banks.

With the investment in the new industry, the company has an amount representing around 50% of its assets in obligations with third parties. And the expectation of payback is 10 years.

2.4 Cleaner production

The company invests in technology to look for the solutions to offer good lighting, taking into consideration the issues caused by the sun, wind and rain.

The search for new materials, energy savings, technology and respect for the environment continues. This gives the products and services a sense of quality, in which the airtightness, the isolation and durability of the products have been establishing a brand in the universe of airtight storefronts.

3. Final Considerations

BRAZILGLASS is a fairly new company. They have been around for only 28 years since the foundation of the Industrial SF, but they have been having a notorious growth. Despite of the head members being also family members, they have been trained to the positions they hold. Besides that, the other strategical positions are held by hired professionals that have a lot of knowledge in the area.

And when we take their physical structures into consideration, the company is very well equipped. Their lot has been fully availed and the city of Ribeirão Pires is under the law for environment protection that enforces that the lot in which the companies are built should be fully used.

In this market segment we have noticed some characteristics that need to be review in order to achieve a more precise attendance. The raw material is the best in the market, because it is bought from big industries around the world. Due to the high quality of their products, BRAZILGLASS has conquered important clients and also manages to maintain their position in the market. The competitors, though, should be watched closely, because even though they have a good position in the market, one of their main competitors is part of a bigger company group that has internation representatives. Another aspect that requires a more detailed research is the trucks' fleet. It might be more advantageous to get a partnership with a distribution company and direct all the attention towards the industrialization of glasses.

The critical point of SWOT analysis is the lack of clear definition of leadership in the company, which makes it harder to identify what are the threats, opportunities, strenghts and weaknesses. Some have been mentioned, but they lack details. The company cannot work towards improving themselves. The publicity and disclosure of the company name need to be better worked and, if necessary, to hire a company specialized in that area. Once the company has great products, expressive clients to prove

that and it is well positioned in the market, there is a need to advertise it in order to use this strength.

The management of human resources is well structured and managed. The turnover is small, but researches done among the employees have shown a good index of satisfaction towards the company. All the employees have complete freedom to talk to their bosses and the importance of each employee's work is recognized.

4. References

BrazilGlass. Available at: <http://www.brazilglass.com.br/sobre.html> Accessed in: Mar 01 2015