

# Business Analysis

*High Computing Manufatura Inc* is a company specialized in manufacturing and selling electronics, with a particular focus on computer equipment. The company operates with aggressive profit margins and, although the marketing investment is modest, it is continuous. It has several stores across Brazil and employs about 400 people.

Each store carries a variety of electronic products, including desktops, notebooks, tablets, and smartphones, which are the company's main items. In addition to these, other products such as TVs, sound systems, and peripherals are also sold. In total, there are approximately 150 products distributed across 15 categories.

A warehouse located in Barueri - SP receives products imported or sourced from factories in São Paulo and Minas Gerais. There, the products are cataloged, tagged with RFID labels, and shipped to stores nationwide. Each product has a unique SKU code and details stored in the product registration system, including name, brand, dimensions, and technical specifications.

Whenever a sale is made in one of the 18 stores across Brazil, the salespeople are instructed to create a customer record and request authorization to send future promotions and marketing campaigns. Name, phone number, address, and email are mandatory information in the record, while other information such as current employment, income, length of residence, and number of children may be requested, especially for installment sales.

In each store, employees serve customers both in the showroom, where products are displayed, and over the phone. Each establishment has salespeople, cleaning staff, and a supervisor, working in two shifts. The company plans to start selling online, although no date has been set yet.

All employees are registered in the company's internal system, with a registration number, personal data, and specialties. Sales are always made by salespeople, who receive commissions for the sales made, and the registration number of the responsible salesperson is linked to each sale. The values and quantities of sales are included in the company's daily reports, which are used for different decisions throughout the week. However, these reports are manually generated in Excel and often contain errors.

The company maintains a detailed record of each store, currently managed in an Excel spreadsheet. This spreadsheet contains the name (a nickname for identification), address, region, city, and state of each store, as well as a unique code. This spreadsheet is periodically updated in the company's sales system, as each transaction is linked to a specific store. Each regional director needs to monitor sales by region to track the performance of their stores and compare them with other regions.

All stores sell all products, but the stocks are differentiated to reduce logistical costs, avoiding the excessive dispatch of products to stores with lower sales volume, which could require later redistribution to stores with higher demand. Each store has a carefully registered postal code, as the company frequently implements logistical optimization algorithms using graph analysis. Recently, they adopted a new system based on Artificial Intelligence, which promised to reduce fuel costs by up to 25% by optimizing delivery truck routes.

The company conducts many sales of products in packages or combos, which can include different items. For example, a desktop can be sold together with a monitor, keyboard, and mouse. Although sold as a package, each product has its own SKU, individual value, and contributes differently when a discount is applied. The company calculates the percentage contribution of each product in package or combo sales.

## Business problems presented

- Are there product categories that are not profitable? If so, which ones?
- Draw up expansion strategies.
- What new product categories should be considered for future sales?