

Case Study Simulation

ElectroTech and KrakenTech – Electronic Equipment retailers

Introduction:

In this business simulation, we will explore the operations of two electronic equipment retail companies operating in Portugal. The simulation spans the year 2024 and involves transactions between 10 customers located across five different Portuguese cities and five suppliers also distributed across these cities. The objective is to manage the sales, procurement, and operational expenses to achieve profitability targets.

Company Profiles:

1. **ElectroTech:** A well-established electronic equipment retailer with a strong presence in major Portuguese cities.
2. **KrakenTech:** A newly established retailer specializing in digital gadgets and accessories, aiming to carve out a niche in the market.

Market Share and Demographics:

In the vibrant landscape of Portugal's electronic retail market, ElectroTech and KrakenTech have strategically positioned themselves to capture a significant share of the burgeoning industry. With a total addressable market (TAM) estimated at €2,000,000,000, both companies employ distinct strategies tailored to cater to specific demographics and preferences, thereby carving out their respective niches within the market.

ElectroTech's Market Share and Demographics:

ElectroTech, as a seasoned player in the electronic retail arena, boasts a substantial market share reflective of its widespread popularity and brand recognition. With a focus on providing a diverse range of high-quality electronic products and exceptional customer service, ElectroTech appeals to a broad demographic spectrum spanning across age groups and income brackets.

The company's extensive presence in major Portuguese cities such as Lisbon, Porto, Faro, Coimbra, and Braga has enabled it to establish deep-rooted connections within urban centers, catering to the tech-savvy urban population seeking the latest gadgets, cutting-

edge technology, and premium customer experiences. ElectroTech's market penetration strategy revolves around leveraging its strong brand equity and expansive network of retail outlets to maintain a competitive edge in key urban hubs, where consumer demand for electronic devices is at its peak.

KrakenTech's Market Share and Demographics:

In contrast, KrakenTech takes a more targeted approach, focusing on capturing market share among specific demographic segments characterized by a passion for innovation, creativity, and digital exploration. As a newcomer to the electronic retail scene, KrakenTech aims to differentiate itself by appealing to a niche audience of tech enthusiasts, early adopters, and trendsetters who value authenticity, individuality, and unique product offerings.

KrakenTech's market share is reflective of its deliberate efforts to cultivate a loyal customer base among millennials, Gen Z, and digital natives who prioritize experiential retail experiences and seek out innovative, cutting-edge gadgets that resonate with their lifestyle and interests. By curating a carefully selected assortment of exclusive products and fostering a sense of community and belonging, KrakenTech endeavors to establish itself as the go-to destination for tech-forward consumers seeking inspiration, discovery, and connection in an increasingly digital world.

Remarks on City Importance:

The selection of Lisbon, Porto, Faro, Coimbra, and Braga as the focal points for both ElectroTech and KrakenTech is underpinned by several factors that underscore the strategic significance of these urban centers within the electronic retail landscape of Portugal:

1. **Population Density:** These cities boast significant population densities, with a diverse mix of residents representing various demographic profiles and consumer preferences. The concentration of potential customers within these urban hubs presents ample opportunities for ElectroTech and KrakenTech to reach and engage with their target audience effectively.
2. **Economic Activity:** Lisbon, Porto, Faro, Coimbra, and Braga serve as economic powerhouses, driving commerce, innovation, and technological advancement within their respective regions. As key centers of economic activity, these cities attract businesses, entrepreneurs, and consumers alike, creating a thriving ecosystem conducive to retail expansion and growth.
3. **Tourism and Hospitality:** Faro, as the gateway to the Algarve region, attracts a significant influx of domestic and international tourists throughout the year,

presenting a lucrative market opportunity for electronic retailers catering to travelers seeking digital gadgets and accessories. Similarly, cities like Lisbon and Porto, renowned for their cultural heritage and vibrant tourism industry, offer ElectroTech and KrakenTech a platform to showcase their products to a global audience of visitors.

4. **Educational Institutions:** Coimbra, home to one of Portugal's oldest and most prestigious universities, serves as a hub for academic excellence and research innovation. The presence of a large student population and academic faculty presents ElectroTech and KrakenTech with a unique opportunity to target tech-savvy individuals with a penchant for digital learning, exploration, and experimentation.

By strategically allocating resources and investing in market expansion initiatives within these key urban centers, ElectroTech and KrakenTech aim to solidify their market positions, drive brand awareness, and capitalize on the growing demand for electronic products and services across Portugal.

Kickstart simulation (for Lab classes)

Customers:

The 10 customers (actual simulation names for entities and products, should be provided by the students) are spread across five cities: Lisbon, Porto, Faro, Coimbra, and Braga. Each city represents a diverse demographic and purchasing power.

1. **Lisbon:**

- Customer A: [Profile]
- Customer B: [Profile]
- Customer C: [Profile]

2. **Porto:**

- Customer D: [Profile]
- Customer E: [Profile]
- Customer F: [Profile]

3. **Faro:**

- Customer G: [Profile]

4. **Coimbra:**

- Customer H: [Profile]

5. **Braga:**

- Customer I: [Profile]
- Customer J: [Profile]

Suppliers:

The five suppliers are also distributed across the same five cities and provide electronic equipment and accessories to the retailers.

1. **Lisbon:** Supplier A
2. **Porto:** Supplier B
3. **Faro:** Supplier C
4. **Coimbra:** Supplier D
5. **Braga:** Supplier E

Transaction Details:

The transactions are distributed throughout the year as follows:

- **1st Quarter (Q1):** 30% of total transactions
- **2nd Quarter (Q2):** 25% of total transactions
- **3rd Quarter (Q3):** 10% of total transactions
- **4th Quarter (Q4):** Remaining transactions

Product Master Table:

The product master table comprises 20 electronic equipment products, including but not limited to smartphones, laptops, tablets, accessories, etc. Each product has a unique identifier, description, standard cost (then will have an average cost), and selling price (then a price table).

Product ID	Description	STD Cost (EUR)	Selling Price (EUR)
1	Smartphone X	200	350
2	Laptop Y	500	800
...
20	Headphones Z	50	100

Financial Targets (for the kick start):

- Total Sales Target: €1,000,000
- Cost of Goods Sold (COGS): €500,000
- Total HR Compensation: €200,000
- Retail Store Rents and Utilities: €200,000

Market dynamics

Corporate Strategy

ElectroTech's International Expansion into Spain:

In a bold strategic move, ElectroTech, Portugal's premier electronic equipment retailer, is poised to embark on an ambitious journey of international expansion into the vibrant market of Spain. With a rich legacy of delivering cutting-edge technology and unparalleled customer experiences, ElectroTech seeks to replicate its success and establish a formidable presence across the Iberian Peninsula.

Rationale for Expansion:

The decision to expand into Spain is rooted in ElectroTech's overarching vision of becoming a leading player in the global electronic retail landscape. Spain offers a thriving consumer market characterized by a tech-savvy population, robust economic growth, and a burgeoning appetite for innovation and digital transformation. By capitalizing on these favorable market dynamics, ElectroTech aims to unlock new growth opportunities, diversify revenue streams, and solidify its position as a key player in the European electronics industry.

Market Analysis:

Extensive market research and analysis have revealed promising prospects for ElectroTech's expansion into Spain. With a population exceeding 47 million and a steadily increasing demand for electronic gadgets and accessories, Spain presents a vast and untapped market ripe for exploration. Major cities such as Madrid, Barcelona, Valencia, and Seville boast dynamic urban centers teeming with tech enthusiasts, young

professionals, and affluent consumers eager to embrace the latest technological innovations.

Strategic Approach:

ElectroTech's international expansion strategy is characterized by meticulous planning, market segmentation, and targeted localization efforts tailored to the unique preferences and cultural nuances of the Spanish consumer market. Leveraging its proven track record of delivering exceptional products and services, ElectroTech aims to differentiate itself from competitors by offering a curated selection of high-quality electronic equipment, personalized customer experiences, and innovative retail concepts that resonate with the Spanish audience.

Operational Considerations:

Key operational considerations for ElectroTech's expansion into Spain include establishing a robust supply chain network, securing prime retail locations in strategic urban centers, recruiting local talent, and adhering to regulatory requirements and cultural sensitivities. By fostering strategic partnerships with Spanish suppliers, distributors, and technology partners, ElectroTech aims to streamline logistics, optimize inventory management, and enhance the overall efficiency of its operations in the Spanish market.

Outlook and Future Growth:

As ElectroTech sets its sights on conquering the Spanish market, the company remains committed to its core values of innovation, excellence, and customer-centricity. With a steadfast focus on delivering value, driving innovation, and exceeding customer expectations, ElectroTech is poised to write the next chapter of its success story as it embarks on an exciting new chapter of international expansion into Spain.

Events :

1st Quarter Impact:

During the first quarter of the simulation, the chip shortage crisis had a profound impact on the quantities and prices of electronic equipment for both ElectroTech and KrakenTech. Due to the scarcity of semiconductor chips, the availability of smartphones, laptops, and other high-tech gadgets was severely constrained, leading to a reduction in product quantities available for sale.

As a result, ElectroTech and KrakenTech were forced to adjust their pricing strategies to reflect the scarcity of electronic components and the increased production costs associated with sourcing alternative chip suppliers. Consequently, product prices

experienced an upward revision to offset the rising procurement expenses and maintain profitability amidst supply chain disruptions.

2nd Quarter Impact:

In the second quarter, the repercussions of the chip shortage crisis persisted, further exacerbating the challenges faced by ElectroTech and KrakenTech. Despite efforts to mitigate the impact, both companies continued to grapple with reduced product quantities and prolonged lead times, resulting in heightened market volatility and uncertainty.

To cope with the ongoing supply chain disruptions, ElectroTech and KrakenTech were compelled to revise their pricing structures once again, reflecting the prevailing market dynamics and the heightened cost of securing semiconductor chips. Consequently, product prices experienced further adjustments, reflecting the increased production costs and the imperative to sustain profitability in a challenging operating environment.

3rd Quarter Impact:

As the simulation entered the third quarter, the effects of the chip shortage crisis persisted, exerting sustained pressure on the availability and pricing of electronic equipment. Despite concerted efforts to address the issue, both ElectroTech and KrakenTech continued to confront inventory constraints and production delays, hindering their ability to meet customer demand effectively.

In response to the ongoing supply chain disruptions, ElectroTech and KrakenTech recalibrated their pricing strategies to align with market realities and mitigate the impact of rising procurement costs. Adjustments to product prices were implemented cautiously, balancing the imperative to remain competitive with the necessity to safeguard profitability amidst challenging market conditions.

4th Quarter Impact:

Resolution of Chip Crisis:

As the fourth quarter unfolded, there emerged a glimmer of hope for ElectroTech and KrakenTech as the prolonged chip shortage crisis finally came to an end. With supply chain disruptions abating and semiconductor manufacturers ramping up production, both companies breathed a sigh of relief as they anticipated a return to normalcy in the electronic equipment market.

Impact on Product Quantities and Prices:

- **ElectroTech:**

- Restoration of product quantities available for sale: Achieved projected levels.
- Price adjustments:
 - Smartphone X: Price reverted to pre-crisis level of €435.
 - Laptop Y: Price reverted to pre-crisis level of €1,115.
- Total revenue impact: Approximately €75,000 increase due to restored sales volume.
- **KrakenTech:**
 - Restoration of product quantities available for sale: Achieved projected levels.
 - Price adjustments:
 - Tablet Z: Price reverted to pre-crisis level of €400.
 - Headphones W: Price reverted to pre-crisis level of €228.
 - Total revenue impact: Approximately €125,000 increase due to restored sales volume.

Market Recovery and Business Outlook:

With the resolution of the chip crisis, ElectroTech and KrakenTech were poised to capitalize on the renewed stability in the electronic equipment market. Customer confidence rebounded, driving increased demand for smartphones, laptops, and other high-tech gadgets as consumers eagerly embraced the latest innovations and technological advancements.

Strategic Considerations:

Despite the challenges posed by the chip shortage crisis, ElectroTech and KrakenTech emerged stronger and more resilient, having navigated the turbulent market conditions with agility and perseverance. Moving forward, both companies remained committed to proactive risk management, diversification of supply sources, and strategic adaptation to mitigate the impact of future disruptions and ensure sustained growth and profitability in the dynamic electronic retail sector.

ElectroTech's Market Dynamics in Spain:

As ElectroTech, Portugal's leading electronic equipment retailer, expands its footprint into the vibrant market of Spain, the company faces a dynamic landscape characterized by unique challenges and opportunities. With a strategic entry plan targeting three key cities – Madrid, Barcelona, and Valencia – ElectroTech aims to capture a significant share of the Spanish market while leveraging its proven expertise and brand reputation to drive growth and profitability.

Market Penetration Strategy:

ElectroTech adopts a phased approach to market entry, focusing initially on establishing a strong presence in three major urban centers: Madrid, Barcelona, and Valencia. These cities are chosen for their high population densities, robust economic activity, and tech-savvy consumer base, offering ample opportunities for ElectroTech to showcase its products and services to a diverse audience of Spanish consumers.

Sales Distribution Strategy:

During the initial phase of expansion, ElectroTech allocates resources strategically to penetrate the Spanish market gradually. Sales to the Spanish market are phased in over the third and fourth quarters, representing 15% of ElectroTech's total sales during this period. This measured approach allows ElectroTech to gauge market response, optimize operational efficiencies, and fine-tune its marketing and sales strategies to align with the preferences and behaviors of Spanish consumers.

Market Share Projection:

Based on market analysis and sales projections, ElectroTech anticipates capturing a significant market share in the Spanish cities of Madrid, Barcelona, and Valencia. With a carefully curated selection of electronic products, competitive pricing, and a customer-centric approach, ElectroTech aims to secure a 10% market share in each city by the end of the fourth quarter, consolidating its position as a formidable player in the Spanish electronic retail sector.

Financial Impact:

The expansion into the Spanish market represents a strategic investment for ElectroTech, with anticipated revenue growth and incremental profitability over the third and fourth quarters. Assuming a total sales target of €XX (tbd by students) for each quarter, ElectroTech expects to generate €YY (tbd by students) in revenue from sales to the Spanish market during this period. This additional revenue stream contributes to ElectroTech's

overall growth trajectory and reinforces its commitment to international expansion and market diversification.

Operational Considerations:

To support its expansion into Spain, ElectroTech allocates resources for key operational functions such as logistics, inventory management, marketing, and customer service. The company establishes distribution centers and retail outlets in strategic locations within Madrid, Barcelona, and Valencia, ensuring efficient product distribution and accessibility for Spanish consumers. ElectroTech also invests in multilingual customer support and localized marketing campaigns to enhance brand awareness and engagement in the Spanish market.

Conclusion:

Throughout the simulation, ElectroTech and KrakenTech will strive to meet customer demands efficiently, manage supplier relationships effectively, and optimize operational costs to achieve profitability targets in the competitive landscape of the electronic equipment retail sector in Portugal and abroad.

This document provides a framework for the business simulation for the Laboratory classes of Sistemas de Informação Organizacionais (Business Information Systems).