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Assignment 1 – Written Report

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Table of Contents

Introduction	2
Health-Box Description.....	3
Porter's Five Forces	4
Threat of New Entrants	4
Bargaining Power of Suppliers	4
Bargaining Power of Buyers	4
Threat of Substitutes.....	5
Competitive Rivalry.....	5
VRIO Analysis	6
Team Management Structure	8
Marketing Plan and Strategy	10
Position and Differentiation	10
Marketing Mix	10
Location and target market	10
Funding Requirement and Allocation.....	12
Revenue, Profit and Break-even Point	14
Conclusion	16
References.....	17
Appendix	19
Appendix A	19
Appendix B	19

Introduction

The use of technology in healthcare services has increased dramatically in recent years, opening the door for creative approaches to improve accessibility and patient care. Among these developments, the introduction of medical vending machines is remarkable as an innovative approach for effectively and conveniently providing healthcare goods and services (DeMaria et al., 2022). This assessment report explores the emerging field of medical vending machines, evaluating its features, advantages, drawbacks, and effects on the healthcare system.

Furthermore, this evaluation examines the opportunities and obstacles for a company like Health-Box as well as providing detailed information for company's business plan, marketing strategy and funding requirements.

Health-Box Description

A company called Health-Box focuses on the creation, implementation, and maintenance of innovative medical vending systems with the goal of transforming healthcare accessibility and comfort. Health-Box is committed to offering state-of-the-art solutions that improve patient care, expedite healthcare delivery, and improve overall healthcare outcomes. It is a pioneer in the field of healthcare vending technology. The company also provides a selection of medical vending machines with modern amenities and features designed to satisfy the various demands of patients, consumers, and healthcare professionals. A broad range of healthcare products, such as over-the-counter drugs, first aid supplies, personal hygiene products, medical gadgets, and wellness products, are available in these vending machines (Bhande et al., 2021) (Harsha Vardhini and Sai, 2023).

Porter's Five Forces

Threat of New Entrants

Low to Moderate: While the technological and manufacturing barriers to entry in the vending machine market are low, entering the healthcare vending sector requires specialised knowledge of healthcare legislation, inventory control, and security measures. In addition, forming connections with healthcare providers and gaining the requisite certifications can be major obstacles for new entrants. However, the advent of modern technology and innovative business models has the potential to lessen entry barriers, hence increasing competition over time (Bruijl, 2018).

Bargaining Power of Suppliers

Low: There are several providers of vending machine parts, medical supplies, and inventory management systems, but Health-Box's bargaining leverage with suppliers is limited. The vending machine sector has a large number of suppliers that frequently compete with one another on both price and quality. This gives the business the flexibility to negotiate beneficial terms and acquire supplies from many providers. However, supplier bargaining power may rise if Health-Box depends on specialised components or proprietary technology (Petersen, 2020).

Bargaining Power of Buyers

Moderate: Depending on variables including contract terms, alternative choices, and amount purchases, buyers' bargaining strength may fluctuate. These buyers include corporate clients, retail drugstore chains, and healthcare facilities. Buyer power can be mitigated by Health-Box's creative vending solutions, reputation for quality and dependability, and value-added services, even though buyers still have negotiation power over pricing, service agreements, and product offerings. On the other hand, fierce rivalry and market saturation may eventually provide buyers more negotiating leverage (Petersen, 2020).

Threat of Substitutes

Low to Moderate: Although Health-Box's goods and services are specialised, there is not much of a risk of replacement. While they are still options, traditional ways of obtaining healthcare, such as going in-person to pharmacies or medical institutions, might not be as practical, accessible, or effective as Health-Box's vending machines. However, as substitute routes for obtaining medical supplies, developments in telemedicine, internet pharmacies, and home delivery services can be a minor concern (DeMaria et al., 2022).

Competitive Rivalry

Moderate to High: There is moderate to high levels of competitive rivalry among the established players and possible new entrants in the healthcare vending business as they compete for market share. The company faces competition from firms that supply healthcare technologies, and conventional healthcare providers that provide comparable goods and services. Product difference, technical innovation, pricing strategy, and consumer interactions all have an impact on an industry's rivalry. Health-Box has a competitive edge due to its standing for innovation and customer happiness, but opponents' aggressive marketing and expansion strategies might increase competition (Bhande et al., 2021) (DeMaria et al., 2022).

VRIO Analysis

VRIO analysis is an approach for determining a company's competitive advantage based on the value, rarity, imitability, and organisation of its resources and skills. It assists firms in identifying their competitive strengths and weaknesses, as well as informing strategic decision-making.

- Value: Determine whether a resource or capability enhances the company's competitive position.
- Rarity: Identify how unusual or distinctive a resource or capability is in the industry.
- Imitability: Examine the difficulties of competitors replicating or imitating the resource or capability.
- Organization: Assess how well the organisation uses and integrates its resources and competencies (Nandy, 2023).

A comprehensive evaluation of resources and capabilities based on their Value, Rarity, Imitability, and Organizational alignment is shown below in Table 1.

Table 1: VRIO analysis of Health-Box

Resource	Value	Rarity	Imitability	Organization
Innovative technology	High	Rare	Moderate	Strong
Strong brand reputation	High	Rare	Moderate	Strong
Customized solutions	High	Rare	Moderate	Efficient
Strategic partnerships	High	Rare	Moderate	Effective
Management team	High	Common	Common	Skilled
Efficient operations	High	Common	Common	Streamlined

Team Management Structure

Figure 1 is illustration depicting the hierarchical organization and reporting relationships within the team, aiding in understanding roles and responsibilities.

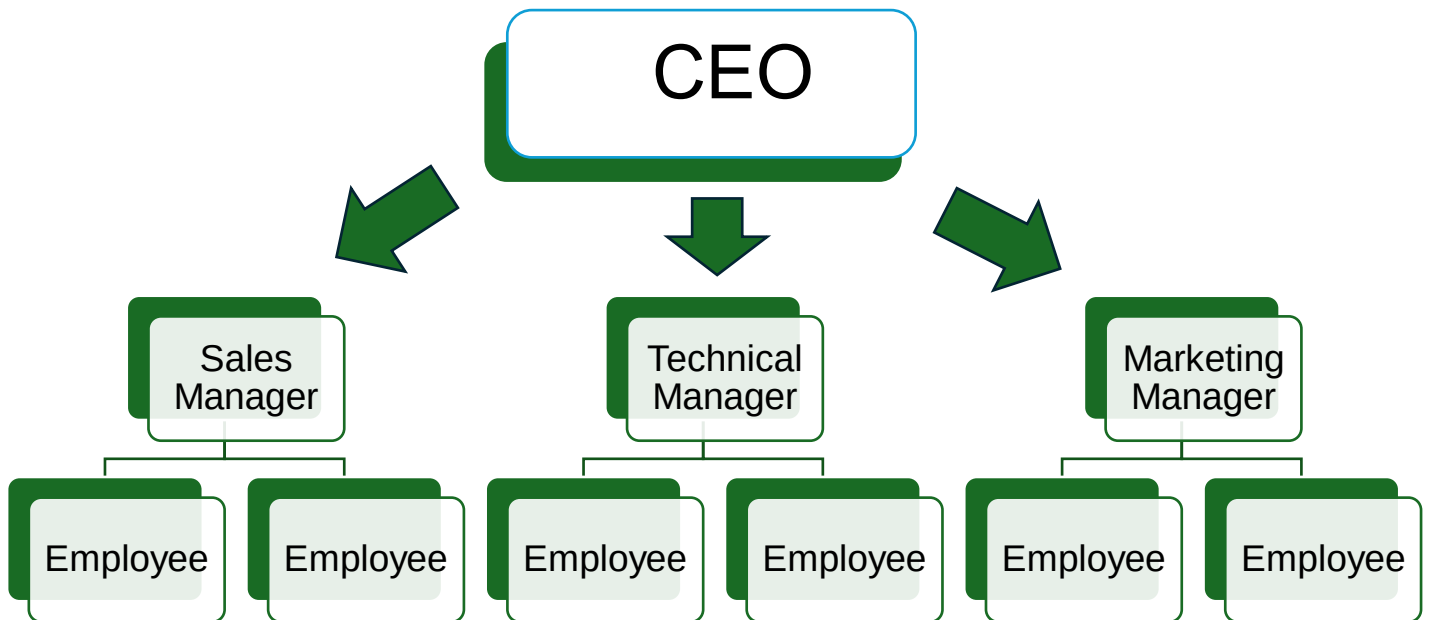


Figure 1: Management Structure of the Company

The Chief Executive Officer (CEO) is at the top of Health-Box's management hierarchy and oversees the company's overall operations and strategic orientation. CEO responsibilities include creating business plans, establishing goals, and making sure the company meets its targets and represents the business to outside parties like customers, shareholders, and government agencies.

The CEO is followed by the managers of sales, marketing, and technology, who are each in charge of departments inside the business. In addition to managing the sales force, the sales manager is responsible for bringing in money from the sale of goods and services. They create sales plans, establish goals, and supervise the execution of sales techniques. The company's branding, advertising, and promotional initiatives are all under the management of the marketing manager. They create marketing plans to draw clients, raise brand recognition, and boost revenue. In addition to overseeing the technical team, the technical manager takes control over innovation, technical assistance, and product development. They supervise the creation, improvement, and

upkeep of goods and services, making sure they live up to client expectations and quality standards.

Moreover, the managers should demonstrate robust abilities and expertise in their corresponding positions, so enhancing the organization's prosperity and expansion inside the healthcare vending sector. Their technical know-how, strategic thinking, leadership, and communication skills are essential for fostering innovation, raising consumer happiness, and accomplishing organisational goals (Merson, 2016).

Marketing Plan and Strategy

Position and Differentiation

Health-Box markets itself as a top supplier of innovative medical vending systems that improve convenience and accessibility to healthcare. The company eliminates the need for in-person trips to pharmacies or medical facilities by providing 24/7 access to necessary healthcare supplies. Vending machines from Health-Box are equipped with cutting-edge technology, including as real-time inventory tracking systems, touchscreen interfaces, and prescription scanning capabilities, digital display with digital menu making the use of the machines easy. Health-Box offers adaptable vending systems that are designed to meet the unique requirements of retail pharmacy chains, healthcare facilities, corporate customers, and other target markets (Nandy, 2023).

Marketing Mix

Health-Box provides wide range of medications in a selection of medical vending machines with advanced features and functionalities. Pricing plans consider variables including machine specs, needs for customisation, and contracts for continuing care and maintenance. Direct sales to healthcare facilities, retail joint ventures with drugstore chains, and internet sales for business customers are examples of distribution methods. The focus of marketing initiatives is on digital marketing platforms like email marketing, social media, and search engine optimisation. Trade shows, industry events, and targeted advertising are also added (Asyhari et al., 2019).

Location and target market

As the company aims to cover some of the busiest areas of London and other cities, the target market, and the people which Health-Box will rely on are tourists, travellers, students, working professionals, parents with kids and disabled people. Health-box aims to reach the active part of the population with age range between 18 and 50 years old and support them with medications on places where is hard to find pharmacies or grocery stores. Some of the locations are airports (Luton, Gatwick,

Heathrow etc.), bus and train stations (Victoria, Waterloo), business centres (Bluewater) and University campuses (DeMaria et al., 2022).

Funding Requirement and Allocation

Strategically distributing £379,000 across key areas will be crucial for Health-Box's growth and success if it manages to receive investment from Dragon's Den investors. As the company aims to cover busy areas in London and other cities, team management decisions are based on ten medical vending machines for beginning and have the opportunity for growth and expansion soon.

A large amount of the budget will go towards funding the business plan's initial investment, which will be the purchase of ten medical vending machines. The platform for providing clients access to healthcare products is made possible by these vending machines, which form the core of Health-Box's business strategy. A portion of the money will also go into buying first supplies so that the vending machines are stocked with necessary medical supplies. This investment in inventory guarantees that the machines are sufficiently equipped to satisfy client demand and offer a wide variety of items. Costs associated with maintenance must also be considered, since continuous maintenance is necessary to guarantee the vending machines' performance and reliability. To take care of any technical problems and maintain the equipment smooth operation, this includes routine servicing, repairs, and maintenance. Operating costs comprise all the expenditures related to managing the firm, such as utilities, permits, and other additional expenses. Salaries paid to employees, who manage day-to-day operations management as technicians, sales representatives, and administrative staff, constitute another major cost. To increase awareness and attract people to Health-Box's vending machines, marketing expenses are crucial.

General overhead costs like office rent, utilities, and supplies needed for administrative work that are required to support business operations are included in administrative costs. Insurance, such as property, liability, and compensation for employee's coverage, is essential to safeguarding the company against future risks and obligations. If Health-Box decides to put vending machines in rented or leased facilities, location fees will also be charged. Lastly, a contingency fund is set aside to deal with unforeseen costs, crises, and obstacles that can occur while a business is operating. This fund offers a financial safety net to handle unforeseen events and guarantee the company's resilience in the face of unanticipated circumstances.

Health-Box may efficiently manage its resources and set itself up for long-term success in the healthcare vending industry by carefully distributing expenses across important sectors (Cremades, 2016) (Merson, 2016).

In table 2 is shown the allocation of all the required fundings, covering the start-up process, and successfully operating in term of one year.

Table 2: Funding Requirement and Allocation

QTY	Subject / Activity	Annual Cost in £
10	Purchase of Medical Vending Machines	£50,000
10	Inventory	£20,000
10	Maintenance cost	£10,000
9	Employee Salaries	£200,000
10	Operating cost	£10,000
N/A	Marketing cost	£20,000
N/A	Administrative cost	£5,000
10	Location fees	£10,000
10	Insurance and Security	£20,000
N/A	Contingency and Growth 10%	£34,500
TOTAL		£379,000

Revenue, Profit and Break-even Point

The Daily Revenue, Annual Revenue, and Annual Profit based on a £5 unit selling price and the number of units sold daily from each medical vending machine (30 units) are shown in the following Table 3.

Table 3: Daily Revenue, Annual Revenue and Annual Profit of Health-Box.

Daily Revenue	Annual Revenue	Annual Profit
Units Sold (300)	Daily Revenue (£1.500)	Annual Revenue (£547.500)
Selling Price (£5)	Days in one year (365)	Total Expenses (£379.000)
Total: £1.500	Total: £547.500	Total: £168.000

In addition, the company's profit during the first half of its operation is displayed in the Table 4 below, based on calculations.

Table 4: Profit for the First Half of Operation

	1 st Month	2 nd Month	3 rd Month	4 th Month	5 th Month	6 th Month
Revenue (may vary depend on items sold)	£45,625	£45,625	£45,625	£45,625	£45,625	£45,625
Expenses (Fixed & Variable cost)	£31,000	£32,000	£30,000	£31,000	£30,500	£35,000
Profit	£14,625	£13,625	£15,625	£14,625	£15,125	£10,625

Further calculations shown in Table 5, indicate that the business would require 821 days, or two years and 91 days, to reach break-even.

Table 5: Daily Profit and Break-even Point

Daily Profit	Break-even Point
£168.500 / 365	£379.000 / £461.64
Total: £461.64	Total: 821 days or 2 years and 91 days

Conclusion

To sum up, Health-Box's business plan presents a solid proposal to transform the healthcare vending sector. The company has a strong management team, a carefully designed marketing plan, and wise financial management. With a focus on ease of use, creativity, and client satisfaction, the company hopes to stand out in a highly competitive marketplace. Despite obstacles like startup costs and market saturation, Health-Box's dedication to innovation and flexibility puts it in a position for long-term success. By prioritising user satisfaction and prudent financial management, Health-Box is ideally positioned to capitalise on emerging opportunities and transform healthcare accessibility for modern consumers.

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Appendix

Appendix A

Explanation of how Daily Revenue, Annual Revenue and Annual Profit is calculated.

The Daily Revenue is calculated by multiplying the number of machines operating by the number of products sold, bearing in mind that the price of one unit is £5.

Daily Revenue - $10 \times 30 \text{ units} (\text{£}5) = \text{£}1,500$

The Annual Revenue is calculated by multiplying the Daily Revenue by the number of days in a year.

Annual Revenue - $\text{£}1,500 \times 365 = \text{£}547,500$

The Annual Profit is calculated by deducting from the Annual Revenue, all expenses (fixed and variable).

Annual Profit - $\text{£}547,500 - \text{£}379,000 = \text{£}168,000$

Appendix B

Explanation of how Break-even Point is calculated.

First, Daily Profit must be calculated, and the following formula is used.

Having in mind that the Annual Profit is £168,000, then dividing by the number of days in a year, the result shows the daily profit.

Daily Profit: $\text{£}168,000 \div 365 = \text{£}461.64$ per day

Break-even Point in days is calculated by dividing all the expenses to the daily profit.

Break – even in days: $\text{£}379,000 \div 461.64 = 821$ days

To make it clear for understanding the Break-even Point is usually presented in years and days.

BREAK- EVEN POINT IN 2 years and 91days.

