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Module Name: Strategic Management

Module Code: LCMB7003

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Submission Date: 6th May 2022

Word Count: 6200

Executive Summary

This report provides insights on the strategy implemented by SunPower, a California based sun power enterprise that specialises in making solar cells for varied customer groups. Its success factors and mission or values are presented besides industry analysis using industry life cycle theory. Frameworks such as PESTEL analysis and Porter's five forces are applied for external environmental evaluation. For internal analysis, the value chain model, SWOT tool, and others are applied. VRIO is used to identify business key competitive advantages. Based on the Ansoff matrix and Porter's generic strategy frameworks business key strategies are discussed. Finally, recommendations are provided as per the findings.

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Introduction

The strategic management process involves goal setting, determining objectives, and procedures for sustaining the competitiveness of a business (Fuertes *et al.*, 2020). This report will cover the strategic analysis of the selected organisation, SunPower Corporation. This is a publicly listed organisation headquartered in California, US. The major products traded and financed in SunPower are solar power deliverables including batteries, panels, monitoring software, and mounting hardware. It specialises in the manufacturing of residential solar systems, project development, and utility solar system, asset management, alternative energy, renewable energy, monitoring and photovoltaic (LinkedIn, 2022). In this study, necessary details of SunPower will be given along with information on its strategic objectives and mission, its success factors will be demonstrated along with industry, external, and internal analysis. The major resources or capabilities will be identified and the VRIO framework will be applied. The strategies to sustain competitiveness advantages will be identified using a relevant model besides the application of the growth framework. The organisational corporate social responsibility and green strategies will be explored before devising recommendations.

Company Background

The solar power company, SunPower was established in 1985 by Richard Swanson. It is served worldwide. It has around 3660 employees and generated around USD 1323.493 million in revenue as per the report of 2022 (Extracted from MarketLine report). The gross profit for the year has been USD 221.61 million. In the year 2022, January the business had revenue of 384.53 USD million with a gross profit of USD 51.05 million in the last 13 weeks. There was a net income of USD 20.20 million. SunPower has operations in Europe, the Middle East, the Americas, Asia Pacific, and Africa. The organisation has classified the operations into segments such as commercial and industrial, residential and light commercials as well as others.

The residential and light commercial category involves sell of solar energy solutions to other party deals resellers, cash and loan sales, storage solutions and long-term leases to end customers. It accounted for around 75% of the revenue of the business. The commercial and industrial solution includes sales of construction and procurement services, turn-key engineering, and energy power purchase agreements. This marked 22.6% of the revenue of SunPower. The others segment involves global power plant project development, US manufacturing and project sales. It accounted for only 2.4% of business revenue. The major services besides core products involve project finance, construction management, operation management, and financial consulting or analysis.

It has brands like Oasis, Maxeon, Tenesol, Greenbotics, Helix, Signature, and some others. Today, SunPower is the industry leader in social responsibility and solar sustainability (SunPower, 2022). It has received more than a thousand patents for solar innovation.

SunPower's Mission and Strategic Objectives

According to Spyropoulou *et al.* (2018), a strategic goal facilitates the determination of suitable business strategies and emphasises management attention to available resources to achieve the same. In the context of SunPower's strategic goals, the company must have guided the employees and managers.

As per LinkedIn (2022), the business has the purpose of increasing access to clean energy and storage for everyone y making solar storage simple for people. Thus, it designs and trades all in one solution with a comprehensive warranty backed by personal customers service. The business values govern it to make a strong culture of equity, diversity, and inclusion. The five major values are:

- Relentless innovation

The business takes risks, never settles, and learns from mistakes.

- Nimbleness and fastness

It stays positive, thrives on new opportunities, and adapts easily.

- Delivering superior experience

It leads by example, earns customer trust, and leads with them.

- Performing right thing

SunPower strives for diversity, inclusion, and equity along with the sustainability.

- Accountability

It fights as a team, hit targets, and takes safety seriously.

SunPower's strategy is to consolidate the business with fewer suppliers. It prefers to work collaboratively with quality companies that offer sustainable strategic advantages (SunPower, 2015).

Mission statement

SunPower corporation aims to transform the world is powered by providing efficient solar technology for businesses and residential homes.

SunPower has the corporation values of putting customers first, winning together, and leading decisively.

SunPower's Success Factors

There are varied strategies, decisions, and operations within SunPower led to its success to date. According to Henderson *et al.* (2007), solar power is the most efficient solar cells producer in the world that is also known as photovoltaics (PV). Based on the current forecast, it is estimated that solar power would experience high growth that contributes to business success. As solar power offers energy independence with environmental benefits, its presence in this industry gives SunPower an advantage.

The company has grabbed the opportunity to make large solar cells for Honda for manufacturing solar-powered race vehicles. Effective decision-making led to the company's reformation from research and development to a solar cell producer that operates 24 hours per day for three weeks since the initiation of the project. The success of this project made Honda win the race that increased SunPower's prospect of future projects. Soon after this, NASA approached the company to make cells for solar-powered airplane. The company then offered a 35 kW array of hand-made solar cells. This made NASA order more solar cells at less cost. The business then decided to scale

up the production by proper calculations. Thus, it made a factory model estimate the cost of making solar cells in large volumes. The cell's efficiency enabled the company to get more watts for each stage of the process and more watts for silicon gram. It increased business competitive advantage.

Thereby the company unable to convince the investors about its potentialities partnered with Cypress. This collaboration started in 2001 enabled the company to start a solar cell production commercial in 2004 and 2005. After this, the company went public on the NASDAQ stock exchange. The impact of the same on the company was profitable as its production of solar power increased by 20 MW and revenue grew from USD 6 million in 2004 to USD 78.8 million significantly in 2005.

Another success factor of the company was its change in focus as it initially emphasised solar cells production and then integrated it into module manufacturing. It was followed by wafer manufacturing. DC Chemical, a South Korean company signed an agreement to support the silicon production facility the company. With this agreement, it gains a sustainable source of silicon supply during the times when there was a shortage of silicones. Thus, the company's strategic partnership enhanced its reach and gained its operational or production benefits. In the year 2006, it also joined in a joint venture with a Chinese enterprise to produce ingots. Later it acquired a California based installer company PowerLight that specialised in manufacturing large installations.

External Analysis

PESTEL Analysis

PESTEL analysis can be carried out on the solar power industry of the United States of America.

Political

Based on the report of The Global Economy (2020), the political stability of the United States stood at -0.02 points in 2020 which is reduced from 0.13 in 2019. The reduction in the country's stability insinuates that there is a high chance of government destabilisation or overthrown by unconstitutional means like violence. Thus, high political instability might have made the solar power industry reluctant to make an investment in entering new markets or new capital.

Economic

The gross domestic growth rate of the United States has declined from 7% in February 2022 to 6.9% in March in the same year (Trading Economics, 2022). The low prosperity of the country marks the downfall of the business and overall industry by reducing the opportunity of making investments and facilitating sales growth. This may have affected the business growth of SunPower's post-pandemic period resulting in lowering income and profitability.

Social

It is found that around 39% of electricity generation is carried out by solar power in the United States (Wright, 2021). This reveals that there is high demand for solar power among the citizens of the country. It may increase the opportunity of manufacturing solar cells for solar power producing industry including SunPower. It is found in the

case of SunPower that its production of solar cells has been increased thus raising its revenue.

Technological

The concentrator photovoltaic technology exceeded USD 790 million globally as of 2021. It is estimated to reach USD 1.20 billion by 2027 with a growth rate of 15% (Market Data Forecast, 2022). This uses lenses to focus the light emitting from the sun onto solar cells. The major drivers that increase the growth of this market include efficiency and reliability. Thus, the technological development in the solar power industry with such technologies increases the growth opportunities for the sector. SunPower benefitted by using technology to form different kinds of solar cells wherein metal contacts and grids were situated on the opposite side of cells. Through its application, efficiency has been increased enabling more sunlight to hit the silicon in the cell instead of bouncing off the metal grid.

Environmental

As fossil fuel burning for energy increased environmental and health concerns, the interest in solar power increased. The Kyoto Protocol is an international treaty that committed state parties to decrease the greenhouse gas emissions that are leading to global warming (UNFCCC, 2022). It made partnered countries contribute to a reduction in carbon emissions. Thus, the solar power industry of the USA flourished that contributing to larger than USD 33 billion of private investment in the USA economy (SEIA, 2021). It also paved way for SunPower to experience financial growth in the industry with the need of the situation and growing concentration of solar power use in the market.

Legal

At the federal level of the USA, the Federal Energy Regulatory Commission regulates the distribution and transmission of energy (ICLG, 2021). It regulates the electricity, hydropower, electricity, and natural gas industries. Based on its regulations, the solar power industry conducts operations to avoid facing legal litigation and sustain in the market. Thus, it also influences the operations and decisions of SunPower as it manufactures solar cells and solar panels besides other solar energy-specific products.

Industry Analysis

Industry Life Cycle

As per CFI (2022), industry life cycle reveals the different stages of business operation, progression, and decline within a sector; it includes five stages of initiation, growth, shakeout, maturity, and decline. The same can be applied in the context of SunPower.

Initiation

In the starting stage, there is underdeveloped distribution and an insufficient product portfolio that may create value for customers that limiting the company's profitability. The history of SunPower can be referred to align the industry life cycle model. It is found that the organisation started with the purpose of making cells more cost-effective. It could survive in the market with the financial support of the US Department of energy and Electric Power Research Institute for solar power explorations in 1990 (SunPower, 2022). It also received funding from other areas.

Growth

A bigger market segment is targeted where profitability starts to increase. With the development in products, customers' value increases. There is high customers' demand which results in growth in revenue. The growth in the SunPower marks in 1993 when it powered Honda with highly efficient solar cells. In the year 1997, it powered NASA's Pathfinder aircraft. The year 2007 marks the volume production of efficient solar cells with 22.4% conversion efficiency.

Shakeout/Consolidation

In this stage, companies follow the acquisition of merging strategy to obtain a larger market share. The revenue and profitability are lower at this stage. SunPower although did not face major revenue or profitability decline, it acquires PowerLight through vertical integration. It went public during 2000-2009. Many acquisitions were followed by this such as Greenbotics which offered robotic solar panel cleaning offerings (Singh, 2021). It also acquired SolarBridge Technologies for microinverter technology that gives flexibility and low-cost installation.

Maturity

The companies reach at a saturation point in this stage. There is consistent and high demand among customers. Products become common and popular among the public and the price is reasonable. In order to be competitive in this age, SunPower partnered with Total SA. Its Maxeon solar cell tech powered Solar Impulse in 2011. It also launches the C7 tracker. There have been investments in integrated technology solutions to aid customers to manage energy costs, reinforcing evolution in offering smart energy solutions for commercial, residential and utility consumers. The SunPower Equinox has been introduced in 2016 by integrating SunVault Storage. It thus created only a home solar plus storage solution, warranted and designed by the

enterprise (SunPower, 2022). The next year, it introduced the EDDiE for home solar to remove the complexity of purchasing and trading solar with the customisation of a solar system.

Decline

The final stage includes declining competition. Some companies choose to acquire smaller competitors to survive while some focus on profitable products range or services to sustain and stay profitable in the market. In the year 2019, SunPower decided to separate into independent publicly traded organisations. To get over the impact of the decline, the company launched the OneRoof system a durable, efficient, and cost-efficient solar roofing system for new-home market. It also acquired Blue Raven Solar a residential solar enterprise to expand the footprint to meet the need quickly regarding reducing electricity bills to enable saving money (SunPower, 2021). It allows greater resilience and decreases climate change implications.

Porter's Five Forces Analysis

The model of Porter's five forces determines and analyses competitive forces that shape a sector and identifies the industry's strengths and weaknesses (Bruijl, 2018).

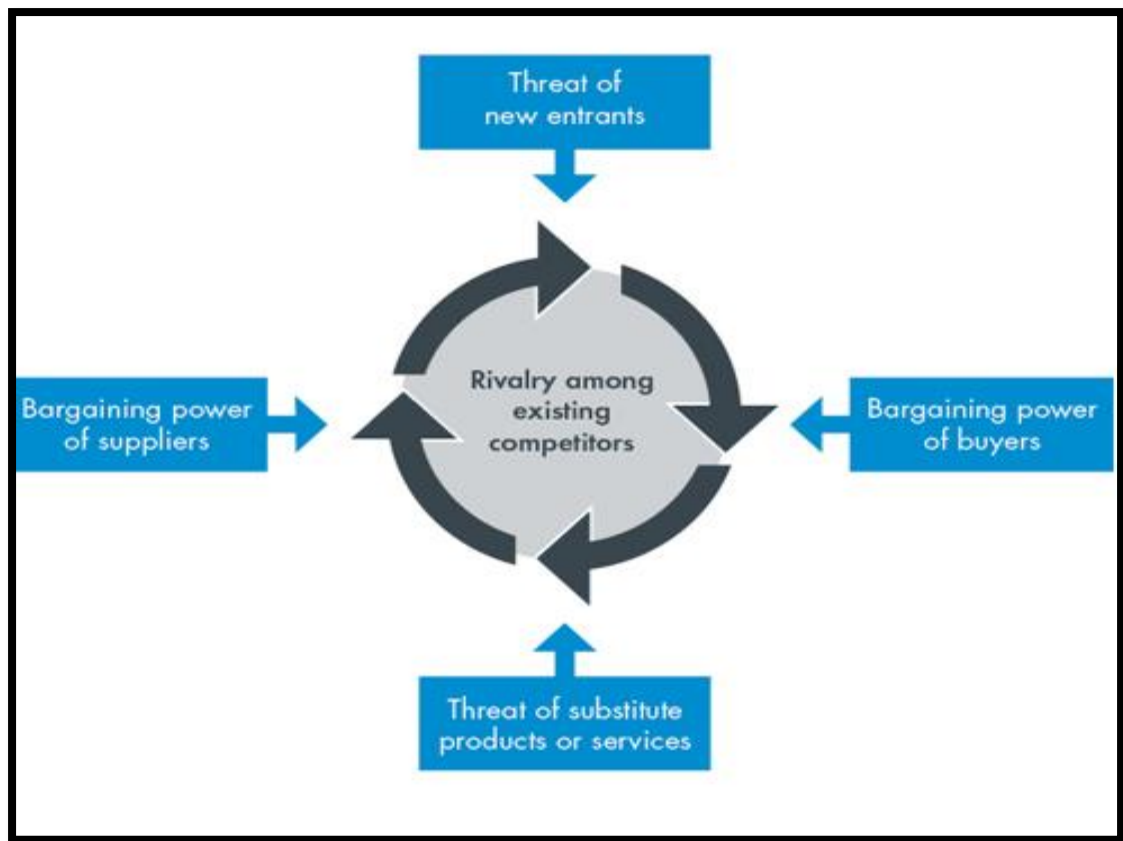


Figure 1: Porter Five Force

(Source: Cgma, 2013)

Suppliers' bargaining power

The bargaining power of suppliers is **high** as already stated previously that SunPower deal with a handful of suppliers who provide it with quality materials or resources for running the operations (SunPower, 2015). Intense supplier power increases its dependence on them thus giving them the advantage of determining the price of materials. Additionally, as it depends on third party suppliers, their failure in supplying the components in a timely manner impairs the business ability of manufacturing products to meet market demands. Thus, in order to tackle the high bargaining power of suppliers, SunPower can build an efficient supply chain with the number of suppliers

Bargaining power of customers

Customers have **high** bargaining power over SunPower as they have high demands. They want to purchase the best products or services at a minimum price possible. In order to deal with high customers' power, the company can invest in product development through innovation to offer new products to customers so that their bargaining power would become limited. As the company has the vision to increase the accessibility of solar power to people making it affordable for them, it can enhance diverse aspects of offerings and value provided to customers to lower their bargaining power.

New entrants' threat

There is a **moderate** threat of new entrants in the solar power cell manufacturing industry. This is for the reason that to establish and produce on large scale they require funds from different sources. Additionally, in the present era of innovation technology integration in the solar power industry, it needs huge investment, capabilities, and distribution networks. Therefore, SunPower may not face a major threat due to new entrants. In order to stay competitive in the market, it can spend on research and development to keep the standards making it difficult for the new entrant to enter the industry. SunPower can build an economy of scale to lessen the fixed cost per unit.

Threat of substitutes

Substitutes' threat is **high** in the solar power industry for SunPower. This is for the reason that around 61% of the electricity generation in the year 2021 has been from fossil fuels that include natural gas, coal, petroleum, and other gases. Around 19% of the electricity has been generated from nuclear energy while 20% from renewable

sources of energy including photovoltaic, solar thermal, hydropower, and wind power (EIA, 2021).

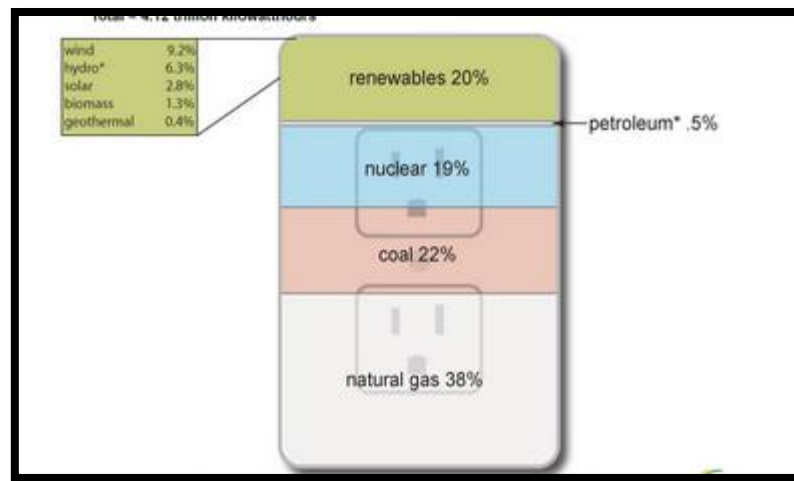


Figure 2: Energy sources

(Source: EIA, 2021).

Solar power accounted for 2.8% of the total energy generation in the USA. Thus, there is a high threat to the solar power manufacturing companies to stay competitive in presence of substitutes. SunPower can be service-oriented instead of product-oriented to tackle the threat of substitutes.

Threat or rival companies

There is **high** competition in the solar power sector that drives down the price of the products and lowers profitability. There are large numbers of solar cell manufacturers, solar companies and silicon-based cell production start-ups that give high competition to SunPower. For instance, *First Solar*, a company based in Arizona is a thin-film solar producer in the US (Henderson *et al.*, 2007). Its modules are more efficient than silicon-based modules by using Cadmium Telluride. Additionally, *Citizenre* based in Delaware uses new business model of manufacturing, installing, operating and maintaining solar

PV system installation wherein residents owners pay for electricity generated by PV panels at a fixed charge for a specific time. Some other competitors are *Sunrun Inc*, *Sempra*, *NRG Energy Inc*, and *NextEra Energy Inc*. SunPower can tackle the competition by building on the differentiation strategy. Furthermore, collaboration with competitors can help in leveraging the size of the market.

Internal Analysis

Financial and Business Highlights

Financial

There is a rise in the production volume of SunPower after a collaborative partnership with Cypress. Its production volume increased from 20.5 MW in 2005 to 65 in the year 2006. In the year 2007, it produced 125 MW of solar power while in 2008 it has been 250. In the year 2009, it was 2008 that rose up to 600 in 2010.

The growth in the income is found as well. It has generated USD 1092.23 million in 2019 which rose up to USD 1124.83 million in 2020 and USD 1323.49 million in 2021 (Extracted from the Market Line report). The gross profit has been USD 163.48 million, USD 167.13 million, and USD 221.61 million in 2019, 2020, and 2021 respectively. Based on the Interim financial statement of SunPower, it made USD 306.40 million in 13 weeks as of April 2021. In 26 weeks in July 2021, it made USD 615.33 million. In October 2021, SunPower generated revenue of USD 323.64 million in 13 weeks. Moreover, in the next 13 weeks in January 2022, its revenue has been USD 384.53 million.

Business highlights

Some of the key business developments are addition of innovative solar panel product lines to enhance reach to customer segments in the global market (SunPower, 2015). It has been named performance series for commercial residential and power plants. SunPower uses a proprietary production process to combine conventional silicon solar cells into the panel to increase reliability and efficiency. Another achievement has been the acquisition of Blue Raven Solar to increase its geographical presence (SunPower,

2021). It also expanded residential installation across more number of states (SunPower, 2021). SunPower has launched a whole home backup solution by expanding battery capacity solutions for SunVault storage (Sylvia, 2022).

Value Chain Analysis

The value chain analysis process includes the identification of both primary and support activities that add value to products (Fernandez-Stark and Gereffi, 2019).

Primary Activities

Inbound logistics

The suppliers of SunPower are classified into certified suppliers, strategic suppliers, and partner (SunPower, 2015). It deploys lean principles and applies strategic process control. Market competitiveness is maintained through technological integration and product development. Throughout the product lifecycle, carbon footprint, water generation, and energy are controlled. The suppliers' relationship is managed focused on customers' need.

Operations

As per the report of 2022, SunPower will no longer produce solar panels however; it will continue to distribute energy services while Maxeon Solar will manufacture solar panels (Solar Reviews, 2022). In this way, it has split the company into two. The purpose behind this is to reduce cost, simplify organisational structure, and improve efficiency.

Outbound logistics

The order fulfilment in SunPower is conducted to oversee order entry, shipping and administration processes. Daily activities are ensured in customers' service, accuracy, and quality standards (Salary.com, 2022). Order tracking system is used for maintaining customer information and monitoring agreements. It operates through Power Co and Dev Co segments that include post-system sales and recurring service as well as solar installation and origination revenue stream along with sales of solar power system (Market Watch, 2022).

Marketing and sales

Different marketing programs are used by SunPower. It launched a marketing campaign to make promises to customers of solar power advantages. Digital and radio advertisements have been used to reach businesses and residential customers. It also uses transit, outdoor, and airport advertising. Website marketing is incorporated to make customers more about sun power. It uses referral programs to increase customers' base (SunPower, 2022). Besides this, it has presence on social media platforms like Instagram, YouTube, LinkedIn, Twitter, and Facebook that enable it to reach mass by updating products information and generating their views. In the year 2018, it launched a radio campaign on 'solar transcend politics' (Cision, 2018).

Service

Quality service is provided to customers such as 100% replacement or repair cost. It covers shipping, parts and labour cost for 25 years. Additionally, the panels are guaranteed to lose no more than 8% of original power point in 25 years. There is hassle-free reimbursement service for defective panel (SunPower, 2022).

Secondary Activities

Firm infrastructure

SunPower's legal profile shows trademarks such as IPSUN, SOLOC, and others. It has patent grants and patent applications (Justia, 2022). Altogether, the intellectual property of SunPower comprises 154 trademarks, 803 patent grants, and 321 patent applications. Regarding the officers, it is found that CEO is the head followed by CFO, CMO, people office, legal officer, accounting officer, operating officer, and others (SunPower, 2022). The board includes the CEO and directors (SunPower, 2022).

Human resource management

People management is effectively carried out within SunPower. It provides equal opportunity of employment in firing, hiring, training, demotion, or compensation (SunPower, 2020). SunPower prohibits illegal discrimination.or

Procurement

SunPower follows general terms and conditions of purchase that includes acceptance, shipping, packaging, delivering, pricing, inspection, invoice, warranty and other aspects (SunPower, 2022).

Technology

SunPower is recently using Google Cloud for creating a sustainable business. It has collaborated with Google Cloud to develop Instant design that enables businesses and homeowners to form their own design (Google Cloud, 2019). Thus, their buying experience increases, solar adoption rises, and barriers to solar adoption reduce.

SWOT Analysis

SWOT framework can be applied to SunPower to identify its strengths and weaknesses besides threats and opportunities.

Strengths

The revenue growth of the company provides it financial stability. It has been able in allocating funds for growth.

It has diversified customer base that includes financial institutions, investors, electric utilities, project developers, governmental and commercial bodies, independent power producers, residential owners, home builders, and small commercial building owners. The strong customers' base enables it to have cross-selling opportunities (Extracted from Market Line report).

The company's research and development activities enhance its products, development strategies and decrease complexity and production cost. This department works with production facilities, customers and equipment suppliers to enhance solar cell efficiency and design that lowers cost of solar cells, solar panel, assembly and product manufacturing.

Weaknesses

One of the major weaknesses of the business is its fixed-price contracts. If the materials cost rise the business cost will increase (Extracted from Market Line report). Thus, it is ineffective in covering dramatic changes in project life affecting its profits.

Another weakness of SunPower is that it depends on third party suppliers that increases risk of supply failure affecting production of the organisation. If it is unable to produce products on time due to supply chain issues, it may lower sales, lead to cancellation of orders, installation delays, and loss of market share and penalty payment.

Opportunities

The growth opportunity of electricity in the USA is high (Extracted from Market Line report). Moreover, as there is growing electricity consumption in the country, there are growth opportunities for SunPower.

The company has the chance to develop strategic initiatives of partnership or acquisition and merging with other companies. It will be helpful in increasing market share and strengthening current position in the market.

SunPower can focus on fulfilling the growing demand of customers for solar energy. It can make further investment in research and development, production, and marketing to meet the rising consumers demand for renewable source of energy.

Threats

The fluctuation in the climate may result in severe and frequent weather events that may impact negatively the business operations. As trapping solar energy would be more difficult during winter seasons, the productivity of the company may get lower along with reduction in sales.

As the company operates in USA, it has legal responsibilities towards regulations and laws such as Truth in Negotiation Act, federal Acquisition regulation, Federal Claims Act, and others (Extracted from Market Line report). Violation of laws may result in imposition of penalties, reduction in contract value, or suspension and termination.

There is threat of competitors in the solar industry. The solar electric industry is competitive with the presence of businesses like Sempra, Citizenre, and First Solar. There is stiff competition from distributing, manufacturing, equipment, construction, and installation of solar power companies. The rise in competition may lead to

reduction in margins, price, sales and market share. Besides this, solar power industry competes with traditional fossil fuels and other renewable energy sources.

SunPower's Strategic Resources and Capabilities

Based on Spyropoulou *et al.* (2018), the major driver of organisational ability to attain desired strategic goal is its capabilities to translate the goals and decisions into suitable strategies, resources deployments' and tactics to match the environment of the marketplace.

SunPower's strategic resources that enable it to reach customers and markets are:

- Human resources
- Technological resources
- Financial resources

Capabilities that influence the company's competitiveness include:

- Marketing capabilities
- Customer service
- Acquisition and merger strategy
- Product development capability

VRIO Framework for SunPower

VRIO tool is an internal analysis framework that helps in identifying the resource advantages towards competitiveness (Buzatu *et al.*, 2019). It stands for valuable, rare, inimitability, and organisational support. The following section will present a VRIO analysis of SunPower using its key resources or capabilities.

Resources/Capabilities	Valuable	Rare	Inimitability	Organised	Competitiveness
Financial resources	Yes	No	No	Yes	Competitive neutrality
Product development	Yes	Yes	No	Yes	Temporary competitive advantage
Merger and acquisition strategy	Yes	No	No	Yes	Competitive neutrality

Table 1: VRIO analysis

(Source: Created by the learner)

From the VRIO analysis presented above, it is identified that there are three major resources/capabilities that give the company competitive advantage in the solar power industry. They are:

Financial resources

During the review year, 2020, the company has exhibited a strong performance in finance in terms of revenue. It has shown growth in the revenue from last year with an annual growth rate of 3% (Extracted from the Market Line report). The financial growth

has been the result of sales of residential, light commercial segment and commercial and industrial solution segment. However, financial resources are not rated and the value can be imitated by its rival companies with the growth in their sales.

Product development

The product portfolio of SunPower includes Equinox Solution, SunVault Storage, SunPower Helix, and others (SunPower, 2022). By merger and acquisition strategy, it generated the opportunity to develop its existing products' features or form new offerings. Other product development instances are introduction and launch of EDDiE and OneRoof system. The product development initiative is innovative and thus rare.

Merger and acquisition strategy

The organisation's merger and acquisition strategy are effective in increasing its competitive advantage in the solar power industry of the USA. It has acquired many companies to enhance its capabilities in production of solar cells and solar panels. SunPower has made acquisition of PowerLight, Blue Raven Solar, and Solarbridge (Extracted from the Market Line report). Yet, its acquisition or merger capability is not rare and can be imitated by its rival companies.

From the discussion, it can be said that the most effective and beneficial resource/capability of SunPower is its product development strategy. It allows the companies to bring innovation to the market and influence customers' decisions regarding using its offerings. It also helps in creating value in the market and extends its product line. With diverse product range, it is able to meet diverse customers' needs, thus customers' base and sales also increase.

Strategies to Sustain Competitive Advantage

Porter's generic strategy determines a company pursuing competitiveness across selected market scope. It has three generic strategies, cost leadership, differentiation, and focus (Islami *et al.*, 2020). Focus strategy is further classified as cost focus and differentiation focus.

Cost leadership

Achievement of cost leadership is made through either increasing profitability by decreasing cost by charging industry-average price from customers and leveraging share in marketing by charging lower price from customers includes making reasonable profit on every sale (Islami *et al.*, 2020). It requires technologies to bring cost down, efficient logistics, and low-cost base such as cheap labour, materials or facilities. Yet, it is tricky to maintain the quality perception among targeted consumers. SunPower is built on the cost-leadership strategy as its highly efficient cells and modules increased solar capacity lowering the installation cost. The balance of system has reduced the cost is residential retrofit installation which accounted for half of the selling price of installed system. It scaled up the production to reduce cost of making solar cells for NASA. With factory model, it achieved success in increasing production volumes and reducing cost in overall manufacturing process. The research and development unit of the business put effort into reducing cost in different operations.

Differentiation

This strategy involves making offerings different from competitors by enhancing appeal durability, support, and functionality that customers' value. It requires innovation, research and development, effective marketing and sales. For the same, high investment is therefore required. SunPower has used this technique for

development of solar cells wherein metal contacts and grids are situated on the opposite side of the cells allowing more sunlight to hit the material. This has been possible through use of solar concentrator technology.

Focus

Focus strategy concentrates on specific niche market by comprehending the market dynamics and differentiated needs of customers within it. This strategy has not been applied in SunPower as it aims to serve wider customer base to increase access to solar power. Focus strategy is highly risky besides it lowers scope. Its divisions are explained below.

Cost focus

It includes developing low-cost offerings for a specific market or group of customers to increase their brand loyalty. Focus strategy however limits focus on particular demographic.

Differentiation focus

In this, differentiation in products is made of specific targeted group of customers or market through which they can be served well yet it lowers equipment rate of utilisation.

Growth Strategies

Growth strategy is a plan of an organisation for overcoming future and present challenges to identify the goals for expansion. Ansoff matrix is a tool used for analysing and determining plan for strategic growth of a business (CFI, 2022). The matrix comprises four strategies to aid firms grow and analyse associated risks.

Market penetration

The first strategy in the grid or matrix focuses on penetrating existing market with current products (CFI, 2022). It has the lowest risk among other strategies present in the product or market grid. There is emphasis on increasing sales by decreasing price, increasing promotion, distribution channels, or acquiring competitor in the market. As SunPower has not put more emphasis on promotion of goods, it can be said that it did not follow the market penetration strategy. This strategy however lowers the scope of growth in market or product.

Product development

It focuses on introduction of new products in existing market by investing in research and development, extending product range, acquisition of competitors' products, and forming partnership with other organisations. Product development requires understanding of present market to offer the customers innovative solutions (CFI, 2022). SunPower has used this strategy extensively to increase product range for its varied customers' base including commercial, residential, solar projects, and so on. It has collaborated with other companies like Cypress and Total SA to extend its products' features and range. Acquisition of Greenbotics enabled the company to introduce solar cell cleaning products. Research and development moreover have

allowed it to enhance the installation system of solar cells. However, it might have incurred high-cost o the business.

Market development

Market development strategy includes decision of entering new market with current offerings. Expansion in new regions means entering new customer segments, international expansion, and other ways. As it is found that SunPower has expanded from the US to Asian, European, African, and Middle East regions, it has used market development strategy (Extracted from the Market Line report). Expansion in new regions however is risky without sufficient knowledge of the market.

Diversification

Diversification emphasises entering new markets with new products. It is regarded as the most risky strategy as there is lack of knowledge of proposed market or new offerings. New customers in the new market may not react positively to the new offering intended to be marketed by the marketers. SunPower has not made implementation of this strategy as it aims to increase access to its offerings of solar power energy to mass so that there can be conservation of energy sources. Therefore, diversification is not applied. It has entered diverse markets or continents with its offerings that are present in the native region.

Green Strategy and CSR

Green strategy facilitates transformation and decisions on initiatives to enhance environment. Corporate social responsibility involves policies and activities by organisations to influence positively the world. This management concept lets enterprises integrate environmental and social concerns in operations as well as interactions with stakeholders (UNIDO, 2022). Regarding SunPower, it aims to build a sustainable future. It understands the significance of inclusive and diverse workplace that took purposeful steps for creating strong culture of inclusion, diversity, and equity (SunPower, 2022).

It is diverse in ethnicity, gender, race, faith, sexual orientation, age, ability, and other aspects and it celebrates the differences. For managing the same, it carries out pay parity reviews annually for equity among employees (SunPower, 2022). Regular dialogue is maintained on such initiatives and priorities. To economy, it creates contribution by employing more than 2300 employees and constructors (SunPower, 2020). By production of solar energy, it reduces the demands of fossil fuels that emit carbon dioxide impacting human's health and environment. There is responsible disposal of waste. Health and safety are managed by setting objectives and targets. Guidance on using PPE is provided and safety and environmental performance is continually improved. Through employee development and engagement, their growth is ensured. SunPower's learning management system provides training programs. Holistic culture of wellness and health is managed by providing valuable benefits to staff. It also prohibits the practices such as bonded labour, forced labour, and exploitative practices among workforce. The SunPower Foundations enable giving donations to non-profit organisations.

Conclusion

It is concluded that strategic management within SunPower has been effective in ensuring growth in the solar power sector in the USA. Its aim to increase access to solar energy among individuals is met by cost-effective business model. Major decisions like product development and merger and acquisition strategy have enabled it to achieve success. From the external environmental evaluation, the positive impact of consumer demands and technological development is observed. SunPower faces high bargaining power from suppliers and customers moreover there is intense competition. Additionally, there is moderate threat from new entrants. The financial highlights reveal business is strong financially. The major resources and capabilities that drive its growth are acquisition strategy, product development, financial stability, and others. It has majorly used cost leadership strategy to sustain and grow in the industry that also led to production of new products. SunPower is a sustainable business concerned about society and environment.

Recommendation

Some recommendations to SunPower Corporation are:

- As it is found that SunPower faces high bargaining power of suppliers due to selection of limited number of suppliers, it can extend the number of receiving suppliers from large number of providers or contractors. This will be helpful in ensuring that it does not face shortage of supplies of materials needed for producing solar cells. In this way, it will be able to cater for the growing demands of solar energy in the global market which will continue to strengthen its financial position.
- SunPower can focus more on differentiation strategy to have competitive edge in the solar power sector over its competitors that hold large number of customers' base. In order to apply the same, there can be investment in R&D so that innovation can take place. It will be helpful in changing the features of current product or develop new product range.
- The firm can apply the market penetration strategy as well by penetrating the current market with present offerings. This cost-effective growth strategy may include using promotional campaigns or extending number of distributors.

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Appendices

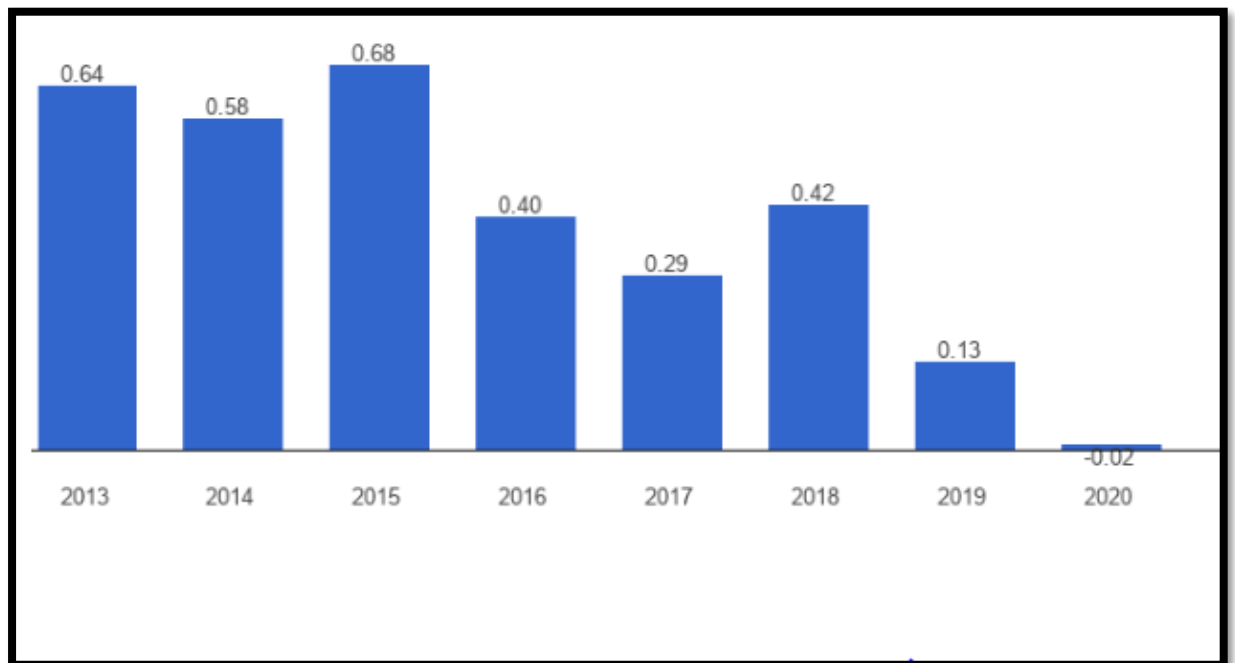


Figure 1: Political stability, USA

(Source: The Global Economy, 2020)

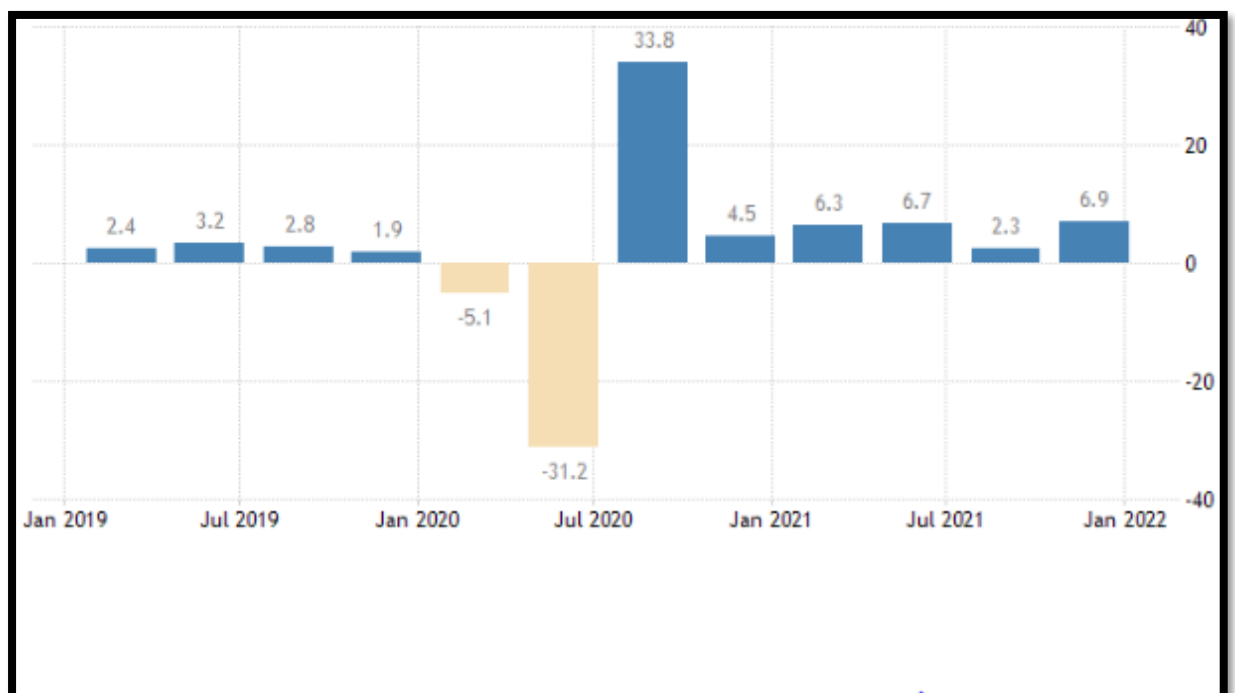


Figure 2: GDP growth rate, USA

(Source: Trading Economics, 2022)

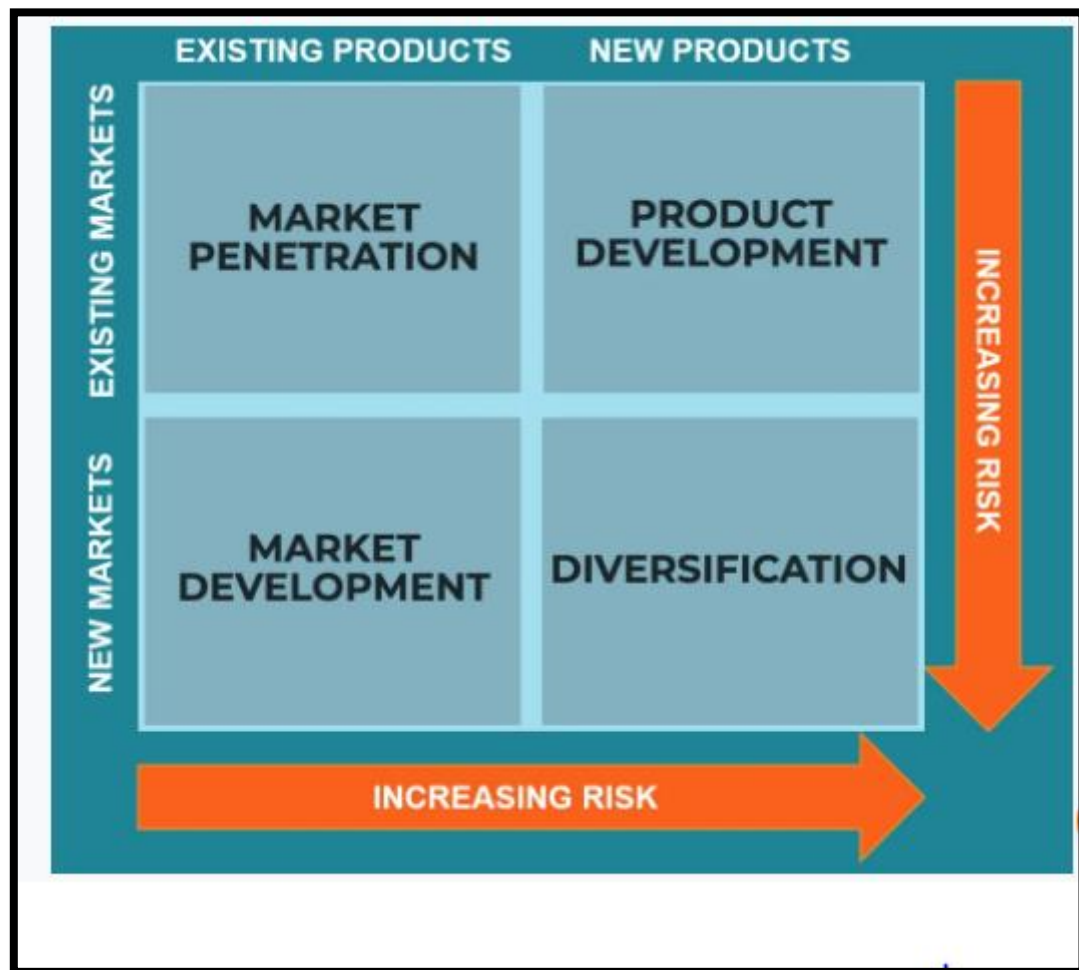


Figure 3: Ansoff matrix

(Source: CFI, 2022)