

## A case study on the cracker city Sivakasi explaining the ‘chance’ factor of Michael Porter’s Diamond Model

Dr. Vidya Hattangadi

Professor, Maratha Mandir’s Babasaheb Gawde Institute of Management Studies, Mumbai.



---

**Abstract:** Michael Porter’s Diamond Model is also known as the Theory of National Competitive Advantage of Industries. It is a diamond-shaped framework that focuses on explaining why certain industries within a particular nation are competitive internationally, whereas many are not.

To maintain a country’s standard of living, organizations and citizens must learn to compete in an ever tougher world market which is called the VUCA (Vulnerable, Uncertain, Complex and Ambiguous) world. Organizations will sustain the competition in world with help of higher productivity and good product quality. The standard of living of a nation is measured by things that are easily quantified, such as income, employment opportunities, cost of goods and services, inflation rate, infrastructure, quality of education, poverty, life expectancy, and quality of healthcare etc. The government plays a big role in improving standard of living in a country.

Even though Porter originally didn’t write anything about chance or luck in his papers, the role of chance is often included in the Diamond Model as the likelihood that external events such as war and natural disasters can negatively affect or benefit a country or industry. However, it also includes random events such as where and when fundamental scientific breakthroughs occur. These events are beyond the control of the government or individual companies.

**KEYWORDS:** Michael Porter, Diamond Model, Chance Factor, Sivakasi, Fireworks and Crackers, Factories, Crackers Industry, Covid 19 Pandemic, Ban on crackers, Political Stunt.

---

Date of Submission: 10-02-2022

Date of Acceptance: 25-02-2022

---

The concluding element in the Michael Porter's Diamond model is chance. The Diamond Model explains that factors such as strategies adopted by a firm, demand condition, related and support industries, factor condition, Government in the country and chance which drive competitive advantage for a national market or economy over another. Among the factors, chance refers to random events that are beyond the control of an industry. These random events affect national and international competitiveness of a particular industry.

Even though Porter originally did not write anything about chance or luck in his papers, the role of chance is often included in the Diamond Model as the likelihood that external events such as war and natural disasters can negatively affect or benefit a country or industry. They can bring discontinuities affecting entire industry. On a positive note chance also includes random events such as fundamental scientific breakthroughs occur. These events are beyond the control of the government, industry or individual companies.

As already mentioned, the basic underlying view of the diamond model is that competitive advantage can be created. Therefore, nations can influence competitive advantage by systematically improving each of the elements of the diamond. In this connection, it is important to note that government interventions must be considered in terms of their impact on domestic company activities, because the underlying view in the diamond model is that "firms, not nations, compete in international markets.

I present hereby the case for explaining the 'chance' factor of Diamond Model of Sivakasi which is placed in South-west of Chennai which is known as 'cracker city'. Covid 19 and air pollution brought a ban on bursting crackers. In India the festival of Diwali is famous for cracker bursting. Since 2019 Sivakasi is facing gloomy business.

While the ban of crackers is a welcome step as it will cut pollution, the livelihood of lakhs of people, already reeling under the Covid-19 crisis, is at stake. Satellite images taken by US space agency NASA in October already show signs of deadly dust clouds restricting a vast area of north India. The images explain how crop residue burning in several fields in Haryana and Punjab has resulted in increased levels of air pollution.

Sivakasi town has turned its water scarcity problem to an advantage by making it a suitable place for firework manufacturing. It is the natural choice for fireworks production. Low rain fall and a dry turbid climate prevailing in the area contributed to persistent production. What usually used to get consumed in three hours of the Diwali Day is produced in 300 days, almost with overtime jobs throughout the year.

This is the leading destination for fireworks in our country and ninety per cent of the fireworks are manufactured here. This 'cracker city' is often in news but for wrong reasons. The fireworks that are produced for almost 300 days in the year are consumed in about three hours on Diwali night. Sivakasi is the largest supplier of fireworks, and it has a business of about Rs. 800–1000 crores, and this market grew at a rate of 10% per annum.

The foundation for producing crackers was laid in the year 1934 when the Central Excise Duty on Matchboxes was propagated. Until the outbreak of World War II in 1939, there were only a handful of factories in Sivakasi, Trichur and Rimjalakuda in Kerala State. From 1938 to 1944 the import of fireworks and firecrackers was obstructed by war. This shortage gave a stimulus to the indigenous industry, which was in its infancy stage.

During the year 1940, the Indian Explosives Rule was passed whereby a system of licensing was introduced for manufacturing, possession and sale. Therefore the first organized factory with several precautions and safety measures was built. The shortage in the market helped these, then seasonal, factories to work even during off-season and build up stocks. With World War II coming to an end and the gateway for import of raw materials having been reopened, the indigenous industry enlarged itself.

The founder of the fireworks industry in Sivakasi was Mr. P. Iyya Nadar, who along with Mr. N.R.K. Rajarathna Nadar, started the production of raw materials for the fireworks. They slowly expanded their business to the production of Safety Matches, Star Matches and Colour Matches and then ventured upon production of sparklers. Some of the famous brands of fireworks came into existence such as Vasuki Traders, National Fireworks and Standard Fireworks. These three factories marketed their products throughout India.

Now, there are about 450 fireworks factories in Sivakasi, which are giving direct employment to about 40,000 workers and indirect employment to about one lakh people. The firework factories in Sivakasi also produce training weapons for military. These training weapons are used by the armed forces to train new officers.

Before the pandemic around 300,000 people worked in the industry directly and another 500,000 indirectly. Over 6.5 lakh families, directly and indirectly are dependent on this industry for their livelihood. Once a thriving industry, the firecracker manufacturing units in the city are facing an economic crisis and uncertainty as several states have announced a ban on crackers.

In 2018, the Supreme Court ordered to sell and manufacture only green crackers. In 2019, most manufacturers had not obtained any formula for green crackers therefore were in slip-up state. The raw material was purchased in lesser quantity and the sale was affected. The year 2020 experienced the global pandemic in which four states banned firecrackers which affected the business at Sivakasi. Fireworks are not the cause of

pollution and neither are they hazardous. The pandemic affected this industry badly; its procurement was reduced from 80 per cent in 2018 to 60 per cent in 2020. In the year 2021, the industry saw procurement of only procured 60 per cent.

Manufacturers called the ban on crackers unreasonable, claiming Sivakasi was producing one of the cleanest crackers in the world. They say 365 days of the year there are pollutants everywhere and none of the environmentalists talk about it. They feel there is a hidden agenda to close down the fireworks industry.

The Supreme Court has said that the paramount need is the right of people to breathe and a cleaner air. Sivakasi has started manufacturing a cleaner product. This is how Sivakasi has been fighting a long battle to sell its firecrackers in the country for the last few years. Cracker manufacturers say the demand for a ban on fireworks is a "political stunt" and a "fashion statement". They claim that at least 30 to 40 per cent of the firecracker industry will shut down permanently if the sales won't happen this year (2021) as well during Diwali.

According to reports, the firecracker industry is estimated to have an annual turnover of over Rs 4,800 crore from 2,200 big and small factories in India employing over 9 lakh people in manufacturing units directly and indirectly. As an age-old tradition during the festivities, firecrackers are common on many occasions in India. Thus, a blanket ban during the festive months can be avoided, says the Confederation of All India Traders (CAIT), an apex trade body that represents 8 crore Indian traders and 40,000 trade associations.

The pathetic situation calls for a desperate need for a long-term plan. And, the biggest strength of crackers industry has been adapting to the times. I am sure; this industry will strive ahead by innovating new and clean products.

Dr. Vidya Hattangadi. "A case study on the cracker city Sivakasi explaining the 'chance' factor of Michael Porter's Diamond Model." *IOSR Journal of Business and Management (IOSR-JBM)*, 24(02), 2022, pp. 45-47.