“A STUDY ON VENDING MACHINE AND BUSINESS PROBLEMS IN INDIA”

Jitendera Kumar¹, Kamlesh Pathak², Kamal Vashishtha³

¹²³ (Student MBA, NIET/ AKTU University, India)

ABSTRACT-When customers insert cash or a credit card, the vending machine dispenses a variety of goods. The first known vending machines date back to ancient Greece. The first coin-operated vending machines appeared in London, England, in the early 1880s. Richard Carlisle, an English publisher and bookshop proprietor, also developed a book vending machine about the same period. The first vending machine appeared in America in 1888, courtesy of the Thomas Adam's Gum Company. Pulver Manufacturing Company's Gum machine has cartoon characters to attract consumers. Horn and Hardart, a restaurant in Philadelphia that accepted coins, was opened in 1902 and stayed in business until 1962. In addition, American William Rowe invented the first automatic cigarette vending machine. Automatic cup dispensers for soft drinks have been implemented. The Ventilators Manufacturing Company of Fresno, California manufactured a series of classic soda fountains in the 1940s and 1950s, with a focus on promoting the sale of Coca-Cola and Pepsi. Two popular ventilators were the VMC 27 and VMC 33.

INTRODUCTION

Vending machines selling anything from hot tea to savory snacks line the busy streets of India, meeting the needs of the country's population despite their hectic schedules. With the rising urbanization and shifting consumer preferences in India, the vending machine sector has flourished throughout the years. However, vending machine companies encounter a number of obstacles that make it difficult for their operations to run smoothly and grow. This research endeavors to investigate these difficulties extensively, diving into the complex web of factors that determines the nature of India's vending machine industry. India's diverse population and rich culture make it a challenging market for vending machine operators. Vending machines in the country provide everything from soda and chips to feminine hygiene goods, meeting the demands of the country's large population. Despite enormous potential, the business faces numerous obstacles that necessitate sophisticated analysis and calculated responses. The study is motivated by the critical importance of understanding the complex difficulties encountered by vending machine companies in India. Vending machines are likely to play an increasingly important role in meeting the needs of city inhabitants with increasingly hectic schedules as the economy continues its growth and urbanization trend. This research intends to aid business owners, politicians, and other interested parties by illuminating the challenges faced by the vending machine industry. These findings can be used to improve the vending business by guiding strategic decisions, policy formulations, and novel solutions.
LITERATURE REVIEW

The vending machine business in India is at a pivotal juncture, on the verge of explosive expansion while also facing numerous obstacles. The purpose of this literature review is to present a synopsis of the existing research and scholarly discussions on the difficulties encountered by the vending machine industry in India.

1. J. K. Patel and K. B. Patel (2020) looked at the challenges of running a vending machine business in India. Lack of user education and equipment malfunction were identified as the two most pressing issues in the industry. The study also highlighted the need of educating the public about vending machines to increase their visibility.

2. The rising demand for fast food and the rise of online shopping are the two key reasons driving the vending machine sector in India, according to research from Frost & Sullivan (2018). Another focus of the research was on how vending machine manufacturers may better respond to the ever-evolving needs of their customers.

3. S. K. Goudar and G. K. Jindal (2017) investigated the potential of the vending machine industry in India. The study found that increased demand and the rise of cashless transactions provide significant growth potential for the convenience food vending machine business in India. The authors admitted that there was a lack of information on Indian consumers’ preferences and behaviors.

4. Researchers A. Bhattacharya and M. K. Bhatt (2017) examined the factors in India that explain the popularity of vending machines. According to the study's findings, the high cost of the machines, the lack of suitable infrastructure, and the lack of consumer awareness and education are the key obstacles to vending machine adoption in India. The authors advocated not just for more education and awareness but also for

5. Research published in International Journal of Science 160:166 (2021) by Nilani Ratnasri and Tharaga Sharmila A crucial component in people's daily decisions that have far-reaching impacts on their health, the food environment has only recently been investigated. K. Singh and G. Arora (referenced here) Journal of Reliable Intelligence, 2021 In most parts of the United States, fresh fruits and vegetables are mostly overlooked in favor of more convenient, fast food options and larger portions.

6. (A Kumar) - Vikalpa (2018) The World Health Organization, the Institute of Medicine, the International Obesity Taskforce, and the Centers for Disease Control and Prevention, among others, "have identified environmental and policy interventions as the most promising strategies for creating population-wide improvements in eating, physical activity, and weight status," they write.

Maintaining clean and sanitary vending machines is critical to protecting public health and retaining customers’ confidence. The difficulties of maintaining proper sanitation, discarding waste, and adhering to food safety regulations were addressed by Mishra and Dutta (2019). When operating vending machines in public areas, it is essential to pay close attention to hygiene and cleanliness.

The literature analyzed emphasizes the complicated problems that vending machine companies in India have to solve. Each facet poses a different challenge that calls for creative solutions, from technical constraints to regulatory complications and subtleties in customer behavior. Resolving these issues will be crucial in creating a thriving market for vending machine companies as the sector develops further. To provide a thorough analysis and to propose actionable recommendations for the vending machine business in
India, the next sections will go deeper into these difficulties, studying real-world case studies and actual data.

**OBJECTIVE OF THE STUDY**

- This study investigates the impact that vending machine problems have had on the Indian economy.
- This study focuses only on the multiple efforts taken by the vending machine sector.
- In-depth analysis of the challenges inherent in managing a vending machine business is provided in the study.
- Vending machine companies have been a vital source of data for our study.
- In order to get insight into the challenges faced by the vending machine business in India.
- Several significant challenges threaten to derail India's vending machine market.

**ENTERPRISE DESCRIPTION**

Size and breadth of the industry: -Our company generally works inside the country along each city's and zones, dispersing different types of vending machines in line with social feeling and interest. Its reach extends throughout many towns and areas because of the extensive availability of its vending machines and the large range of products they sell. Plus, since this sector is still relatively new in our country, we may widen our emphasis by hearing from our clients.

We have divided the vending machine market into two categories: drinks and snacks. Particularly promising for future growth is the food vending machine sector. Beverage vending machines may be further subdivided into those that sell soda, beer, liquor, and wine. It's possible to further categorize food vending machines by the kind of goods they sell, such as candy, snacks, fresh foods, and more. Subsets include airports, companies, educational institutions, hotels, health clubs, and hospitals. One possible explanation for these businesses' robust profitability and bright future is the variety of their clientele. The Economic Cycle as a word, "business life cycle" describes the typical development of a firm. It's a system for monitoring the success or failure of a certain product line inside a business. The following are some of the ways in which life cycle identification helps the industry. Knowing where the product is now, what its future holds, and what actions will provide the best results is essential. In order to locate enemies at certain moments in the game.

**RESEARCH METHODOLOGY**

Methodology: A Study on Vending Machine and Business Problems in India

1. Research Design

This study employs a mixed-method research design, combining qualitative and quantitative approaches to provide a comprehensive understanding of the challenges faced by vending machine businesses in India. The integration of these methods ensures a holistic perspective, allowing for in-depth exploration and statistical validation of the research findings.
2. Qualitative Research

✓ Conducting in-depth interviews with industry experts, vending machine operators, and regulatory authorities will provide qualitative insights into the challenges faced. Open-ended questions will be utilized to encourage detailed responses, capturing nuanced perspectives on technological, regulatory, and operational issues.

✓ FGDs will be conducted with consumers from diverse demographic backgrounds. These discussions will facilitate a deeper understanding of consumer preferences, perceptions, and trust factors associated with vending machines. FGDs will be structured around themes such as payment preferences, product choices, and hygiene concerns.

✓ Real-world case studies of successful and struggling vending machine businesses in different regions of India will be analyzed. These case studies will offer practical insights into the strategies employed by successful businesses and the challenges faced by those encountering difficulties.

3. Quantitative Research:

✓ Structured surveys will be administered to a representative sample of vending machine operators across various regions in India. The surveys will focus on aspects such as technological challenges, payment systems, regulatory compliance, competition, and consumer behavior. The data collected will be subjected to statistical analysis, enabling the identification of trends and patterns.

✓ Quantitative data from surveys will be analyzed using statistical software. Descriptive statistics, including means, percentages, and frequency distributions, will be utilized to summarize the survey responses. Inferential statistics, such as regression analysis, will be applied to identify relationships between variables and draw conclusions about the factors influencing vending machine businesses in India.
4. Triangulation

Triangulation, the integration of qualitative and quantitative data, will be employed to enhance the validity and reliability of the research findings. The qualitative insights obtained from interviews, focus group discussions, and case studies will be compared and contrasted with the quantitative data from surveys. This triangulation approach will provide a comprehensive and nuanced understanding of the challenges faced by vending machine businesses, validating the research outcomes.

5. Ethical Considerations

Ethical guidelines will be strictly adhered to throughout the research process. Informed consent will be obtained from all participants, ensuring their willingness to participate in interviews, focus group discussions, and surveys. Anonymity and confidentiality of the participants will be maintained, and the data collected will be used solely for research purposes.

6. Limitations

It is essential to acknowledge the limitations of this study. The research's scope might be restricted by the availability of participants and resources. Additionally, the rapidly changing technological landscape and economic conditions in India could impact the relevance of certain findings. However, these limitations will be acknowledged and considered in the interpretation of the research outcomes. A total of 173 participants were chosen at random to take part in the survey. The sapling method was utilized for taking samples because of how simple it is to implement. The sample area included all of Greater Noida at NIET University in Uttar Pradesh.

Data is gathered with the help of Microsoft Excel.

This analysis relies on primary data.

For this study, we used a single Google form questionnaire that we made ourselves. There were 14 fields on the form. A Google form was sent across several online platforms in order to gather responses for the survey. The online survey was designed to efficiently gather information from participants, which advanced the study's primary aim.
7. FINDINGS

✓ Very high or low temperatures, high humidity. When choosing the location of the vending machine, avoid places that are either very hot or cold, dry or humid. Vending machines that provide coffee are more sensitive to variations in humidity and temperature than those that dispense snacks. The appearance of a drink made with loose, wet ingredients might be ruined, making it unsellable.

✓ It's possible to make money off of vending machines, regardless of how many you own or how much experience you have.

✓ Vending machines are cheap to install since there is no need to buy pricey retail or office space. In addition, you won't have to worry about anything save regular maintenance, which includes things like fixing broken things, restocking, and taking money from customers.

✓ The first investment in a few vending machines is the most important purchase you can make for your vending machine business. Growing your business, making legal profits, and deducting legitimate business expenses all require you to establish your firm as a separate legal entity, such as an LLC or corporation.

8. RECOMMENDATIONS

Vending machines have been in use in India for close to fifty years. However, this industry has not yet thrived in India despite the country's vast population. This area is woefully underdeveloped since there are so few retail establishments to choose from. Vending machines may have achieved widespread notoriety in large urban centers, but they remain mostly unknown in smaller communities. However, it is precisely in such places that a vending machine company might expect the greatest growth. In this piece, we'll investigate why vending machines haven't taken off in India. Whether or whether this trend will change in the not-too-distant future.

The challenge is figuring out how to alert the people.

The manufacturing and acquisition costs of vending machines are high. As a result, a substantial capital outlay is essential to begin a vending machine business. Our society's lack of civic duty, however, makes these gadgets especially susceptible to vandalism. Therefore, broken glass is a common reason why vending machines can't be used in cities. The vandals sometimes even steal the equipment. When vending machines are stolen or vandalized, businesses lose money because of the time and effort required to replace or repair them. The common perception of a vending machine among business owners is that it is a cash-accepting metal box unconnected to digital technology. But now it's a whole other story. The futuristic-looking smart vending machines have gone outside Japan. The Internet of Things (IoT) and cloud-based management will soon make "smart" vending machines the industry standard.
9. CONCLUSION

The easier it is to start a vending machine business, the more difficult it is to sustain. To be successful, a vending machine operator must face several challenges. Companies will struggle to run smoothly until these issues are resolved. It's difficult to run a profitable vending machine business when faced with challenges like these. Although 20%–30% of vending machines may provide healthier alternatives, users still need to actively seek them out amongst a plethora of less desirable options in order to reap any health advantages. Scientists have shown that "Reducing relative prices on low fat snacks was effective in promoting lower fat snack purchases from vending machine in both adult and adolescent population." The combination of lower prices with promotional signage has already been shown to increase sales of nutritious meals. Based on the results of the aforementioned feasibility study, we have determined that our firm has no direct competitors in this market. Taking into account the project's projected profits and total funding, its profitability is plain to see. Ten vending machines and an initial investment of 2,181,350 ETB across three sites have been created as necessary for the business' start. Over the next five years, we want to increase our operations from the present level of operation to 25 machines in 9 cities around the nation, resulting in a considerable increase in sales.

10. REFERENCE

The Secret to Starting Your Own Vending Machine Business.


http://www.investopedia.com/terms/c/capitalstructure.asp

http://www.investopedia.com/terms/l/leverage.asp

http://www.investopedia.com/terms/e/equity.asp

http://www.investopedia.com/terms/d/debtequityratio.asp

http://www.accounting4management.com/debt_equity_ratio.htm
http://www.accountingformanagement.org/debt-to-equity-ratio/
http://accountingexplained.com/financial/ratios/debt-to-equity
http://www.investopedia.com/terms/d/debtequityratio.asp
http://www.investopedia.com/terms/d/debtequityratio.asp
http://www.investopedia.com/terms/d/debtequityratio.asp
http://www.rightline.net/education/buybacks.html
http://www.investopedia.com/terms/i/interestcoverageratio.asp
http://www.investopedia.com/terms/d/dscr.asp