INSTITUTO
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DE LISBOA

WJ Company's Equipment Commercial Strategy

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MSc in Business Administration

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PhD, Pedro Fontes Falcão, Associate Professor with Habilitation
Iscte – Instituto Universitário de Lisboa

March，2025

BUSINESS
SCHOOL

Department of Marketing, Operations and General Management

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ACKNOWLEDGMENTS

Dear reviewers、advising professorand my family :

As my master's thesis is about to be completed, I would like to express my deepest gratitude to you. Thank you for your careful guidance and selfless support throughout my master's thesis research process.

First of all, I would like to thank the reviewers. It is you who spent precious time to review and evaluate my thesis in detail, and provided valuable comments and suggestions, which are very valuable to me.

Secondly, I would like to thank my supervisor, Prof. Pedro Falcão. Throughout the thesis writing process, you patiently and meticulously guided me to solve problems and gave me valuable advice and guidance. You always reply to my emails as quickly as possible. Every detail of your patient guidance and annotations on my thesis has greatly improved the quality of my thesis. Your wisdom and expertise have benefited me a lot and played an important role in promoting my academic growth. Thank you very much.

In addition, we would like to thank the University of Lisbon College for providing us with a good academic environment and educational conditions, and express our sincere gratitude to other professors and classmates. Your support and help have allowed me to grow and improve a lot during my master's degree.

I would also like to express my special thanks to my parents for their support and encouragement, which gave me the motivation to keep going.

I would like to express my sincere gratitude to all those who have contributed to the completion of my thesis. Without your help, I would not have been able to complete this thesis. I have encountered many difficulties and challenges on this academic path, but it is also because of your support and encouragement that I have persisted.

Finally, I would like to express my sincerest gratitude and best wishes to all those who have helped me in my academic career.

RESUMO

Os custos laborais e os custos de tempo na indústria varejo física tradicional estão aumentando constantemente. Os fatores tais como as limitações dos locais de negócio reais, a conveniência das compras dos consumidores, e o aumento gradual dos custos em linha, precisam expandir canais novos da circulação e das vendas. A inteligência totalmente automática do AI conduz ao modelo varejo novo, em que a máquina de venda automática é muito necessária.

Com base nos fatores acima, este trabalho apresenta uma análise do atual ambiente operacional do mercado do setor, considerando os modelos PEST e SWOT da empresa WJ.

Através de experimentos, questionários e entrevistas, nós podemos entender as condições reais de operação da máquina de venda automática automática WJ AI inteligente. Com base na teoria de marketing 4P, nós estudamos os principais aspectos de marketing da empresa, como produtos, preços, canais e promoções.

A análise dos dados obtidos através da aplicação do questionário permitiu identificar alguns problemas na operação real das empresas j.

Em resposta a essas questões, este trabalho se concentra na análise das principais causas dos problemas e apresenta uma proposta de melhoria de marketing para a j.

A primeira é a otimização tecnológica e a inovação de produtos.

Em segundo lugar, melhoria da estratégia de marketing.

Em terceiro lugar, a eficiência operacional.

Palavras-chave: Estratégia comercial; Máquina de venda automática; Inteligência artificial

JEL Classification: M31

ABSTRACT

The labor cost and time cost of the traditional physical retail industry are constantly rising, the limitations of the actual business site, the convenience of consumers shopping, the gradual increase in online costs and other factors, the new circulation and sales channels need to be expanded, fully automatic AI intelligence lead to a new retail model, where vending machines are very necessary.

Due to the above factors, this thesis takes WJ Company as the research object, and analyzes the current market operating environment of this industry in combination with PEST model and SWOT model. Through experiments, questionnaires, interviews, it aims to understand the actual operating status of WJ's fully automatic AI smart vending machines, and to learn from the 4P marketing theory, conduct research from the company's main marketing aspects such as products, prices, channels, and promotions. Through the analysis of the data obtained from the questionnaire survey, it finds out some problems existing in the actual operation of WJ company.

Aiming to solve those problems, this thesis focuses on analyzing the main reasons for the problems, and provides corresponding marketing improvement solutions for WJ.

First, technology optimization and product innovation.

Secondly, marketing strategy improvement.

Thirdly, operational efficiency.

Keywords: Commercial strategy; Vending machine; Artificial intelligence

JEL Classification: M31

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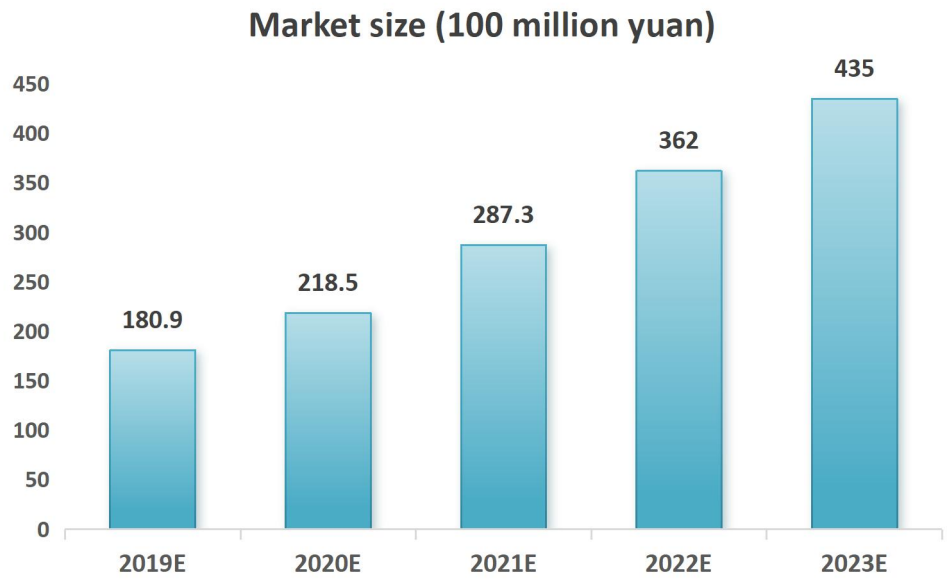
1. INTRODUCTION

Fully automatic smart vending machines began to enter the Chinese market in 1999. Nowadays, we can see the fully automatic vending machines of various products everywhere in airports, bus stations, subway stations, shopping malls, parks, hotels and other public places with relatively large passenger flow. vending machine. But even so, in China, the development of the vending industry is still relatively slow compared with Europe, America, Japan, South Korea and other countries. Since the Chinese market is only in the market introduction period, there is still no competition, so there is still a lot of market space.

China's vending machine market may be affected to some extent during the epidemic, but will resume growth later, especially driven by the increased demand for contactless services. There may be significant growth in 2021, and continued expansion in 2022, possibly reaching a larger market size. For example, the market size will exceed 25 billion yuan by 2022 and continue to grow in 2023. In addition, the number of vending machines will exceed 500,000 in 2023.

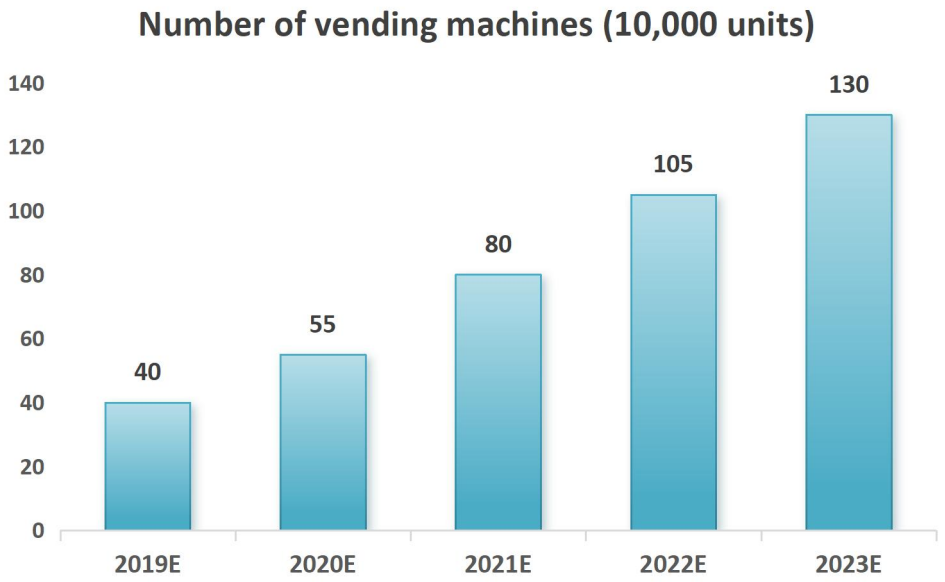
- **Market size and growth rate (2020-2023)**

Figure 1.1 - Market Size of the Vending Machine Industry from 2019 to 2023



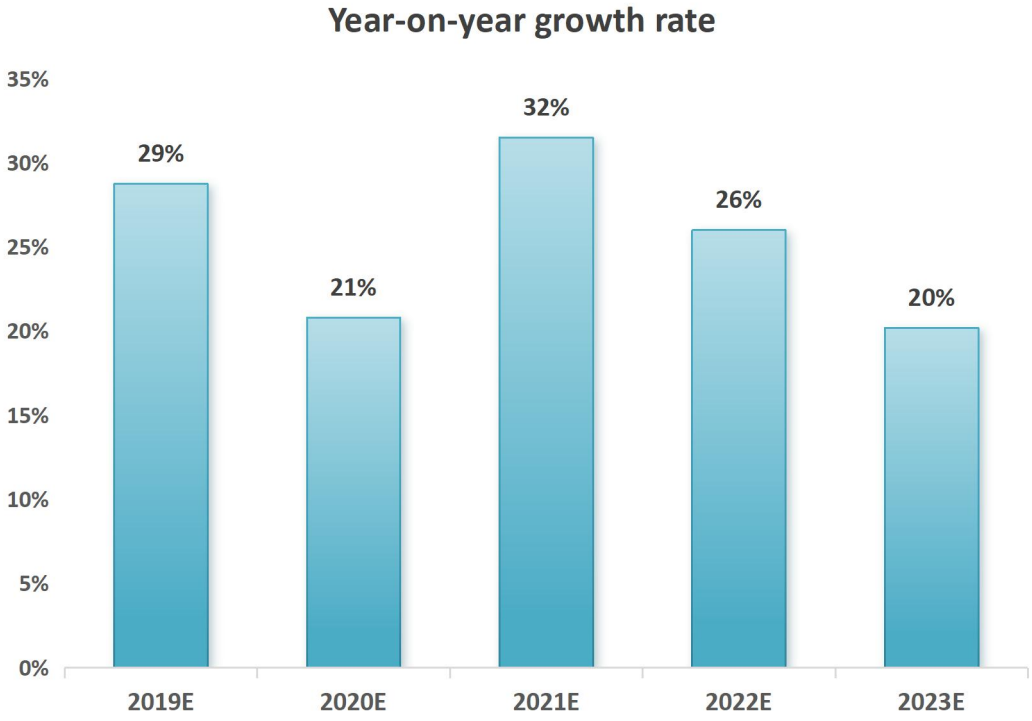
Source: self-made by the author(2025)

Figure 1.2 - Number of vending machines (10,000 units) from 2019 to 2023



Source: self-made by the author(2025)

Figure 1.3 - Year-on-year growth rate from 2019 to 2023



Source: self-made by the author(2025)

Data source: iResearch Consulting's "China Unmanned Retail Industry Report 2023" and China Business Industry Research Institute's "2022-2027 Vending Machine Market White Paper".

- **Changes in market penetration**

Urban population coverage:

As of 2023, China's urban population will be about 920 million (urbanization rate 65%), and the number of vending machines will be 1.3 million, corresponding to 1 vending machine for every 709 urban residents, a significant increase from "1 vending machine for every 10,000 people" in 2019.

Regional differences: The density of first-tier cities (such as Shanghai and Beijing) is 1 vending machine for every 300 people, while that of third- and fourth-tier cities is still below the national average.

- **Core factors driving growth**

Technology upgrade: In 2023, the proportion of smart vending machines will exceed **85%**(supporting AI recommendation, QR code/face payment, remote operation and maintenance).

Policy support: The State Council's "Opinions on Accelerating the Development of Circulation and Promoting Commercial Consumption" includes unmanned retail in the key areas of "new infrastructure".

Consumption habits: After the epidemic, the demand for "contactless shopping" has solidified, and more than 60% of consumers use vending machines ≥2 times a week (Meituan data in 2022).

- **Potential of benchmarking against international markets**

Penetration rate gap:

Japan (average 23 people/unit), the United States (average 40 people/unit) vs China (709 people/unit).

If China reaches 10% of Japan's penetration rate (230 people/unit), the market size will exceed 300 billion yuan (currently about 43.5 billion yuan).

- **Future trend forecast (2024-2025)**

Market size: It is expected to reach 60-70 billion yuan in 2025, with a compound annual growth rate of 15-18%.

Technology integration: AI vending machines combined with the metaverse (AR virtual shelves) and blockchain (product traceability) will drive a 30% increase in customer unit price.

Lower-tier markets: Counties and rural areas will become new growth points, and are expected to contribute 40% of the increase.

The above data show that China's vending machine market is still in a period of rapid expansion, and technology and policy dividends will continue to be released, but we need to be wary of operational risks brought about by uneven regional penetration.

This thesis is divided into eight chapters.

Chapter 1, the introduction part: Firstly, the background introduction of the automatic vending machine market, emphasizing the importance of the automatic vending machine market and research value. The present situation of domestic and foreign markets is summarized, and the relevant theoretical basis is expounded, the purpose and significance of the research thesis are clarified and the research ideas are expounded.

Chapter 2, domestic and foreign literature review: the origin of foreign automatic vending machines is earlier, when referring to foreign relevant literature, I mainly draw on foreign vending machine marketing status and the application and development of 4P theory related literature. When reading the relevant domestic literature, it mainly refers to the business model of China's vending machine in the industry and the research and application of the 4P theory of vending machine.

Chapter 3, methods and innovation: a brief introduction to the research methods of the automatic vending machine market, including market size, market classification, competition pattern, development trend and other relevant information collection schemes, to provide a theoretical basis for subsequent research. As well as elaborated the automatic vending machine marketing program in the future market innovation and so on.

Chapter 4, company profile and environmental analysis: This chapter describes the company's business overview, and uses PEST analysis and SWOT to analyze the market competition environment of WJ Company's automatic vending machine, and conducts market analysis to provide the basis and basis for the subsequent market strategy.

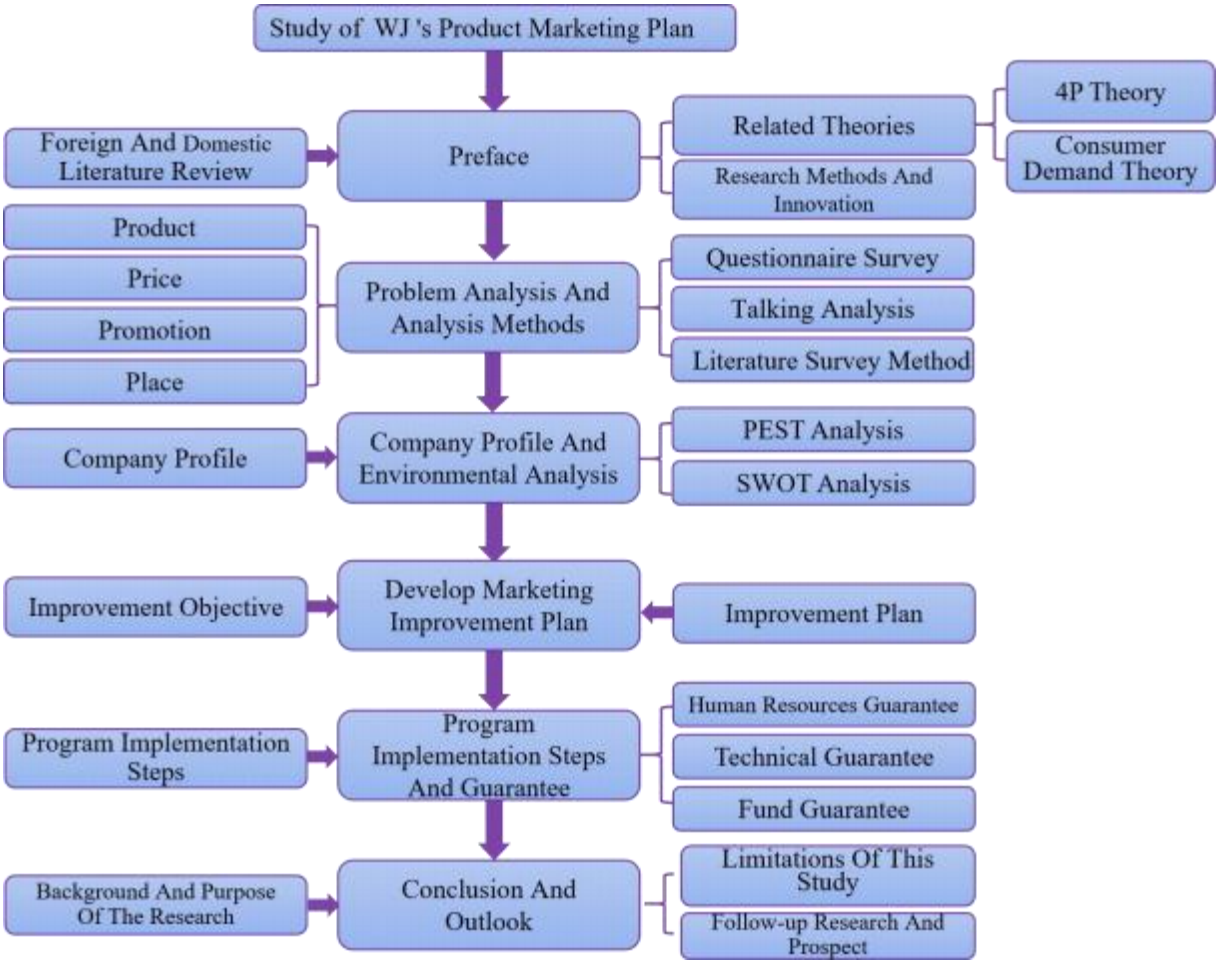
Chapter 5, the discussion and results of the company's marketing problems: Using the 4P theory model, through market research, the demand, characteristics and trends of the target market are analyzed, and the current situation and future development trend of the market are analyzed from many aspects such as consumers, competitors, laws and policies. Through the investigation results, we find out the main problems in WJ's automatic product marketing, and analyze the main reasons for these problems.

Chapter 6, the formulation of marketing improvement plan: Also using the 4P theoretical model, the improvement plan is proposed from four aspects, including marketing promotion, marketing publicity, brand promotion, etc., which is transformed into a specific market action plan to solve the problems in Chapter 5.

Chapter 7, implementation and guarantee of the company's marketing improvement plan: fully implement the marketing improvement plan, including advertising, promotion plan, brand promotion, marketing channels, etc., closely cooperate with the market situation to adjust and reflect on the market, and revise and adjust the problems through human resources, capital, technology and other aspects to achieve the market target.

Chapter 8, summary and outlook: Summarize the research results, describe the existing problems and shortcomings, and put forward prospects and suggestions, so as to further promote the development of the automatic vending machine market and improve its market share.

Figure 1.4 - Structure map of the thesis



Source: self-made by the author(2025)

2. LITERATURE REVIEW

According to the actual situation of WJ company, this thesis aims at the actual marketing problems encountered in the actual operation process of the existing products, and uses the relevant theoretical knowledge to analyze the marketing strategy of the marketing method, aiming at the existing problems.

2.1. Foreign And Domestic Literature Review And Related Theories

Marketing is an enterprise's marketing activities in the market in order to maximize the profit of the enterprise. Its origins can be traced back to ancient trading activities, but the concept and theory of modern marketing began to take shape in the early 20th century. Vending machines first appeared in European and American countries in the 1960s. It is reported that in the American subway system at that time, people could buy a piece of chewing gum from a vending machine for 1cent. As a new retail model, since the 1980s, fully automatic vending machines have developed very rapidly in developed countries such as Europe, America, Japan, and South Korea, and have a high penetration rate. Therefore, the status quo of industry development is of high reference value. When checking the status quo of foreign research, I mainly conduct research on the status quo of foreign automatic vending machine marketing and the application and development of 4P theory.

China's self-service vending machine industry developed relatively late compared with other countries such as Europe, America, Japan, and South Korea . However, with the rapid development of the domestic vending machine market in recent years, a series of problems will inevitably appear in the operation process. The status of industry development has certain reference value for relevant domestic enterprises. When reading relevant domestic literature, the main research direction is the business model of China's automatic vending machines in the industry and the research and application of the 4P theory of automatic vending machines.

- Marketing status of foreign automatic vending machines

Banerjee & Dutt (2019) argue that the automation and convenience of vending machines make them highly profitable, while reducing labor costs and improving efficiency. Currently, vending machines using technologies such as artificial intelligence, automatic checkout and on-site food production are developing rapidly.However,while vending machines are widely used , there are also some problems , such as machine maintenance and management, food quality and

hygiene .These problems also need to be solved through new technologies and systems. Haghi & Baha (2019) believes that the prospect of smart vending machines is very broad, and there are many types and application scenarios , including snacks , drinks , ice cream , flowers, lunch boxes, pizza, medical supplies, etc. But at the same time , it also pointed out that smart vending machines need to pay more attention to profit models, logistics management, data privacy, personalization , food hygiene, etc., and also need to solve a series of technical, management and legal issues to achieve efficient and sustainable development. Kim (2020) pointed out that with the changes in consumer demand and the continuous upgrading of self-service technology, the application and development of unmanned vending machines in various industries are becoming more and more extensive, but at the same time the advantages and disadvantages brought by unmanned vending machines to the retail industry Challenges cannot be ignored, such as advantages such as improving customer experience and shortening shopping time, as well as challenges such as technical failures and safety issues. Wilson & Hughes (2020) believe that the development of intelligent vending machines has brought new opportunities for marketing, such as displaying individualized marketing information to consumers through screens with sensing technology , data collection and analysis related to intelligent vending machines Importance to gain insight into consumer preferences and trends. However, the authors also pointed out the challenges faced by smart vending machines, such as consumers' privacy concerns about personal information and the immaturity of machine technology. At the same time, the marketing strategies applied to smart vending machines also need to adapt to the new environment, such as creating precise shopping experience and cultivating loyalty. Khan & Ahmad (2020) pointed out the development direction of fully automatic vending machines after the COVID-19 epidemic and the possibility of adopting new technologies . machine has increased in importance. But at the same time, some consumers are worried about whether the vending machine is hygienic and safe, so the vending machine needs to take new measures to improve hygienic safety . The application of new technologies , such as machine vision, speech recognition, artificial intelligence and the Internet of Things, to achieve a more efficient, convenient, safe and hygienic shopping experience. For example, vending machines can use face recognition technology to verify identities, or use remote monitoring systems to manage and control the operation of vending machines. Yildirim & Kahyaoglu (2021) believes that the

application scenarios of vending machines are also different according to different technical applications of automated retail technology, which is leading a major change in the retail industry. A series of technical, management and marketing issues, as well as competition and coexistence with traditional stores still need to be paid attention to .

- Research and Application of 4P Theory Abroad

Marquardt (2019) used the 4P theory to discuss the marketing strategy of unmanned vending machines in detail, including product positioning, store design, payment methods, promotional activities, etc., and through field research and data analysis, the author proposed some unmanned vending machines. Suggestions on mobile marketing strategies, such as selecting popular products for sale, setting up scan code payment, etc. Massad & MacInnis (2019) used an experimental method, by manipulating different marketing strategies (such as pricing strategies, advertising strategies) of unmanned vending machines, and found that pricing strategies and advertising strategies have different effects on consumers' cognition and perception, and need to be based on target groups and Reasonable selection and adjustment based on environmental factors. Elizalde & Canon (2019) proposed a 4P marketing strategy through the analysis of the Philippine vending machine market and competitive environment. The product strategy includes diversification and differentiation. The price strategy includes factors such as flexible pricing and customer perception. The promotion strategy includes Coupons and advertisements and other means, channel strategies include networks and partnerships and other models. Kim (2020) pointed out that the core content of the marketing strategy mainly includes enhancing competitiveness, reducing operating costs, personalized services, consumer attitudes and behavioral intentions. Therefore, we suggest that through the effective use of consumer data, consumers' preferences and needs can be grasped, and customized products and services can be provided to consumers, effectively improving the competitiveness and operational efficiency of retail enterprises. After all, consumers ' behavioral intentions and product attitudes are the key factors that directly affect sales performance. Nguyen (2020) showed consumers' reactions to product mix and price levels in vending machines, thus discussing the application of 4P theory in vending machine business. The author studied the effect of product mix in vending machines on consumers through experiments. behavioral impact. For example, the diversity and novelty of products will make consumers more interested. In terms of price,

consumers are more inclined to choose products with relatively low prices. However, low prices may cause consumers to question the quality and authenticity of the product. Therefore, we believe that vending machines should provide preferential prices while ensuring product quality, thereby increasing consumer traffic and retention rates. In product promotions, rewarding points for redemption works better than one-off discounts because it encourages customers to return. Furthermore, vending machines should be placed in high-traffic crowd areas, such as airports, stations and large shopping malls, to attract more consumers and increase sales and liquidity. From the experimental results of the authors of this thesis, it can be seen that for the operation of the vending machine business, the 4P theory of product, price, promotion and location is still crucial, especially in attracting and retaining consumers. McLeod & Walker (2021) highlighted the impact of different product placement methods on consumers' purchase behavior, and the impact of different price levels on consumer purchase behavior. Influence consumer buying decisions by controlling products and prices to maximize vending machine sales. The author uses 4P theory as a research framework and deeply analyzes the influence of product and selling price as two important factors in marketing strategy .

- Domestic industry business model

Yang & Wang (2020) based on the construction of the unmanned vending machine business model, proposed to build an unmanned vending machine based on the unmanned e-commerce platform by using key elements such as supply chain management, logistics distribution, payment and settlement, and user experience. Specific practices of the business model. The advantages and challenges of the business model of unmanned vending machines are analyzed, including data management, information security, regulatory policies, market competition, etc. There is still a lot of room for improvement. Han, Liu & Sheng (2020). Taking the smart vending machine business overview of Keyun Innovation Company as an example , under the basic operation mode, Keyun Innovation's operation mode and competition mode , and from the aspects of management, sales and service, etc. Explore . And clearly put forward the problems and solutions in the operation of intelligent vending machines, including problems and solutions in equipment management, marketing promotion, payment integration, after-sales service, etc. Dong & Song (2020) The thesis pointed out that in China, the marketing model of vending machines mainly includes three aspects: value creation, channel management and customer relationship

management. Value creation mainly involves product design, brand marketing, innovative services, etc.; channel management mainly includes site selection, partners, channel maintenance, etc.; customer relationship management focuses on customer feedback, after-sales service, and data analysis . Zhao (2021) pointed out that the unmanned vending machine is easy to operate and unattended, which makes some merchants take advantage of its loopholes to sell fakes and false propaganda, and also exposes problems such as lack of supervision of unmanned vending machines. Li (2021) introduced the operating status and development trends of several unmanned supermarket brands. It analyzes the great advantages and innovative business model of unmanned supermarkets in terms of improving consumers' shopping convenience, saving labor costs, and expanding traffic entrances. Chen & Liu (2021) pointed out the improvement and practice of some innovative unmanned vending machines in the business model, such as the introduction of container management systems and self-service shopping apps. These innovative measures provide new ideas and new directions for the progress and development of the unmanned vending machine industry .

Combining the above content, I think that the operation mode of vending machines mainly includes three forms: independent operation, entrusted operation, and cooperative operation. Independent operation is relatively simple, but it has higher requirements for the quality and after-sales service of vending machines; entrusted operation can reduce the pressure on investors, but has higher requirements for operators; cooperative operation can quickly expand the market and reduce costs, but has a high impact on cooperation. The management and cooperation requirements of partners are relatively high.

- Research and application of domestic 4P theory

Zhao (2019) believes that the unmanned vending machine industry should formulate a differentiated 4P strategy based on market demand and competition, which is very necessary for companies to enhance their competitiveness and market share. Zhou (2020) conducted an in-depth discussion on the brand positioning and marketing strategies of the unmanned vending machine industry based on the 4P theory. He also pointed out that the unmanned vending machine industry should do a good job in brand positioning, and formulate products, prices, channels and promotion strategies that are in line with the actual situation according to market demand and target

consumer groups, so as to achieve the successful integration of the brand and the market. Xie (2020)believes that through reasonable product positioning, differentiated price strategy, diversified channel strategy and effective promotion strategy, the market competitiveness and marketing effect of unmanned vending machines can be effectively improved. Zeng & Chen (2020) analyzed the current situation of the unmanned vending machine market from various aspects such as market development trends, competition pattern, and consumer demand. The characteristics and advantages of the business model of the distributed unmanned vending machine system are analyzed from the aspects of business entities, commodity types, marketing strategies, and member services. Meng (2020) pointed out that unmanned

vending machine enterprises should strengthen the monitoring and analysis of various operation and management indicators, adjust the 4P strategy in a timely manner according to market demand and consumer feedback, and improve operating efficiency and customer satisfaction.

- Number and regional distribution of vending machines

2023 Publishing organization: The 2023 China Unmanned Retail Industry Development Report published by iResearch pointed out that ". In 2023, the number of smart vending machines in China will exceed 1.3 million, with a device density of 300 people per device in first-tier cities and a penetration rate of less than 50% of the national average in third- and fourth-tier cities."

- Analysis of regional economic differences

2023, Wang Lei and Zhang Ying published "Research on China's Urban Commercial Vitality Index (2023)"， "The density of commercial automation facilities in first-tier cities such as Beijing, Shanghai, Guangzhou and Shenzhen is significantly higher than that in low-tier cities, and their retail terminal coverage is 3-5 times that of third- and fourth-tier cities."

- International comparison and market potential

2023, Euromonitor International published the Global Vending Machine Market Analysis 2023, which pointed out that "Japan leads the global vending machine penetration with 23 people per device, while China's current ratio (709:1) indicates vast untapped potential."

- Consumer behavior data

The "2022 China Instant Consumption Behavior Research Report" published by Meituan Research Institute in 2022 pointed out that "60% of consumers use vending machines ≥2 times a week, among which the frequency of users in first-tier cities is 42% higher than that of users in lower-tier cities."

3. METHODOLOGY

In recent years, with the popularization of the Internet and social media, the ways and means of marketing have undergone a revolutionary transformation. Enterprises can interact with consumers through social media, search engines, and live broadcasts to understand their needs and preferences. At the same time, through big data analysis and precision marketing, they can achieve targeted marketing and increase sales and market share.

3.1. The Main Method

- Questionnaire survey **:** Survey target customers by making questionnaires to understand their awareness and acceptance of fully automatic vending machines, as well as their attention to vending machine products and purchase needs.

(1) Survey background **:** The subject of the survey is the marketing of the fully automatic cotton candy machine of WJ Company. The purpose is to explore the marketing factors that consumers pay attention to when purchasing this product, and to understand their purchase intention and behavior . Respondents were divided into different categories based on their attitudes and behaviors towards Automatic Cotton Candy Machines in order to better understand consumer demand and behavior for this product.

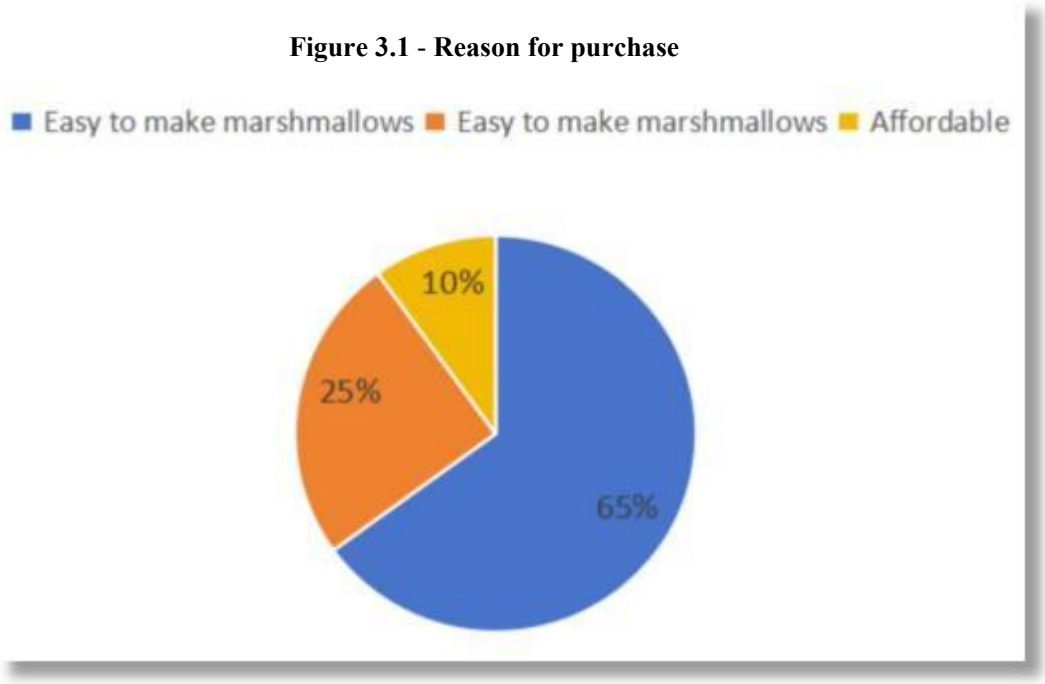
(2) Survey methods **:** From May to June 2023, surveys were launched on Weibo, WeChat and other social media and thesis questionnaires were distributed to consumers, and a total of 250 valid questionnaires were collected.

(3) Findings **:**

a. The main reasons for purchasing WJ's automatic cotton candy machine are:

convenience for homemade cotton candy (65%), beauty and appearance (25%), and affordable price (10%).

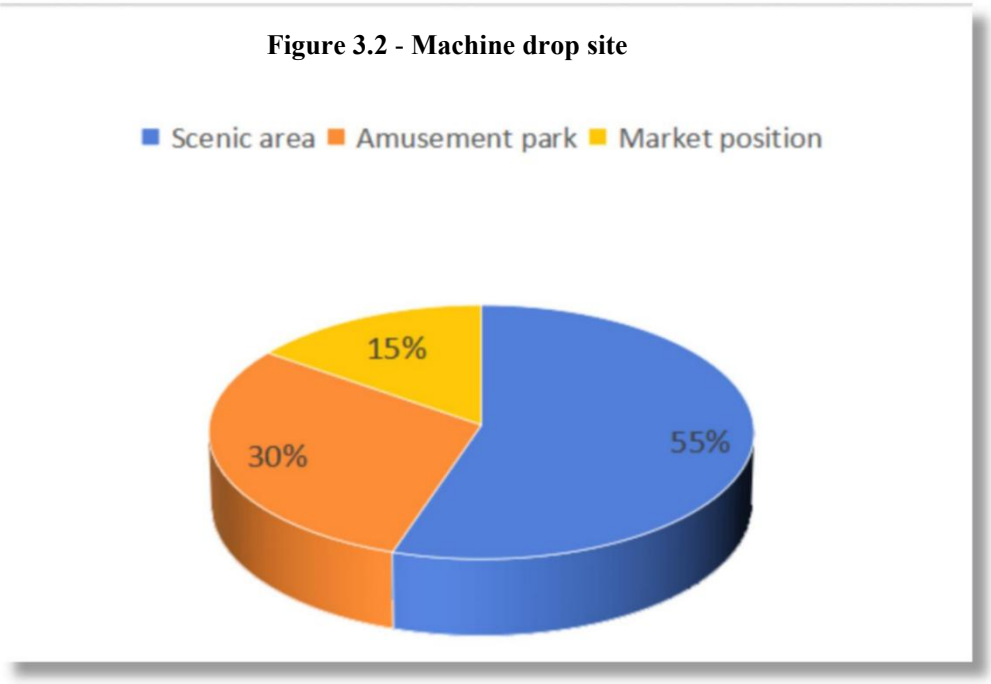
Figure 3.1 - Reason for purchase



Source: self-made by the author (2025)

b. Most of the respondents purchased cotton candy machines for 55% of scenic spots and 30% of amusement parks, and only a small number of 15% of businesses believe that cotton candy machines are suitable for use in shopping malls.

Figure 3.2 - Machine drop site



Source: self-made by the author (2025)

c. Regarding the focus of marketing and promotion, 81% of the respondents think it is suitable to promote on the online platform, because the online platform has more traffic and audience; 19% of the respondents think it is suitable to carry out online marketing in physical stores, because they can visit the site product.

d. Regarding product promotions, more than half of the respondents believe that promotional prices and free gifts can promote their willingness to purchase fully automatic cotton candy machines.

e. In the end, 86% of the respondents said they would buy a fully automatic cotton candy machine, and only 14% said they would not.

From the above survey results, it can be concluded that for WJ Company's automatic cotton candy machine, the marketing focus should be on online platforms, such as Weibo, WeChat and Taobao, and at the same time strengthen promotional activities to attract consumers' willingness to purchase. In addition, attention should be paid to the design and appearance of products to visually attract consumers' attention and enhance brand recognition, thereby increasing sales and market share.

After proper experimentation, I chose to divide the interviewees into 4 categories, namely " Active Buyers " , " The undecided wait-and-see ", "No Purchase Intentions", and " Passive Buyers " :

(1) Active Buyer A : Accounting for 2.5 % of the total respondents , the most notable feature is that they have a relatively high evaluation of the automatic cotton candy machine, a strong willingness to buy, and the price has little impact on their purchasing motivation. Such consumers are suitable for formulating campaigns and promotional strategies for their purchasing decisions. At the same time, product quality and innovation should be strengthened in marketing to maintain the loyalty of such consumers.

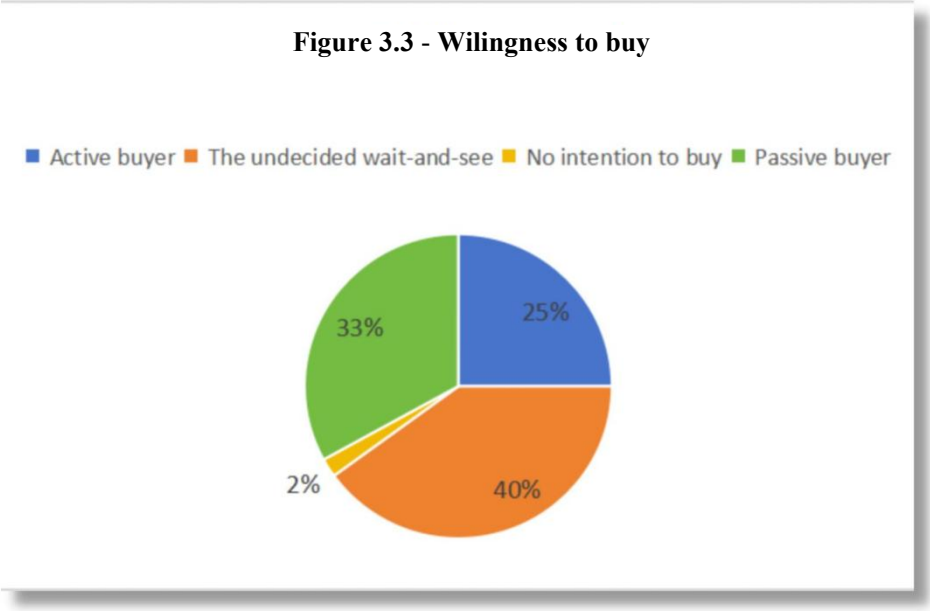
(2) The undecided wait-and-see B : Accounting for 40 % of the total respondents , the characteristic is that they agree with the value attribute of the automatic

cotton candy machine, but they are unable to purchase it immediately considering factors such as price and product attributes. Such consumers need more publicity and communication, as well as strategies such as price promotions and product demonstrations to increase their confidence and credibility in decision-making.

(3) No Purchase Intentions C: accounts for 2% of the total respondents , has no demand for fully automatic cotton candy machines, and will not consider buying them .

(4) Passive Buyer D : Accounting for 33 % of the total respondents , they have a low evaluation of the fully automatic cotton candy machine. Such consumers are not suitable for continued sales in the current market economy environment. Therefore, in the marketing plan , more attention should be paid to the first two types of consumers rather than the latter two types of consumers. Additional market research and surveys should be conducted in parallel to understand the wants and needs of the latter two categories of consumers.

Figure 3.3 - Wilingness to buy



Source: self-made by the author(2025)

Through analysis, it can be seen that the market demand for fully automatic cotton candy machines is mainly divided into two categories: "active buyers" and "waiting and watching". These two types of consumers have different needs and purchase decisions for products. Therefore, when formulating marketing plans , we should focus on these two types of consumers, and provide them with different sales plans, preferential measures and low-cost publicity. At the same time, it is necessary to improve product quality and carry out market competition to meet the growing demand of the market.

- Interviews：To understand the product development, production and sales of fully automatic cotton candy machine manufacturers, and to explore their future development direction and challenges.

(1) Interviewees : R&D, production, sales and other department managers and employees of the fully automatic cotton candy machine manufacturer.

(2) Interview time: June 2023.

(3) Survey method: face-to-face interview.

(4) The findings are as follows:

Table 3.1 - Product features and advantages of automatic cotton candy machine

Product features	The high degree of automation can reduce manual intervention and improve production efficiency and stability
	It can automatically control parameters such as temperature, rotational speed and syrup flow, and realize fully automatic operation through computer control
Advantages	Marshmallows can be produced in a variety of shapes, colors and flavors. And provide more choices
	The product has a compact structure, a small footprint, and is easy to install and maintain

Source: self-made by the author(2025)

Table 3.2- The production process and technical advantages of the automatic cotton candy machine	
Technical advantages	The automatic cotton candy machine adopts all stainless steel structure, which is corrosion-resistant, easy to clean, hygienic and reliable.
	Adopt high-performance frequency conversion motor and precision sensor to realize precise control and efficient operation.
	Adopting the separated sugar making technology can ensure the quality and sanitation safety of the finished marshmallows with different tastes.
	The automatic cleaning system and cleaning process are adopted to ensure the cleanliness of the equipment.
Production process	Core structure design and material selection
	Key component processing technology
	Machine assembly and debugging

Source: self-made by the author(2025)

Table 3.3- Sales market and experience of fully automatic cotton candy machines	
Sales marke	Core application scenarios
	Regional market priority
Sales channels and strategies	Channel layout
	Differentiated sales strategies

Operational experience and cost optimization	Profit model calculation
	Key points for cost reduction and efficiency improvement

Source: self-made by the author(2025)

Table 3.4- Future development direction and challenges of fully automatic cotton candy machine

Future development direction	At present, the update of new products of automatic cotton candy machines is relatively slow. It is necessary to continue to develop more new and more efficient automatic cotton candy machines and expand the product line to adapt to the diversity of market demand.
Challenges	Strengthen marketing and brand building to increase product awareness and market share
	Solve technical problems in the production process to ensure product quality and hygiene safety.
	Faced with challenges in terms of capital, talents and market expansion, it is necessary to continuously innovate and improve marketing strategies.

Through internal interviews and surveys of relevant staff in various departments of the WJ company's automatic cotton candy machine company, it was found that the company paid attention to product quality and hygiene in the development of automatic cotton candy machines, fully automated manufacturing, and realized efficient, convenient and hygienic production processes ; At the same time, it also focuses on improving product customization and user experience to meet the needs of different consumers in the market. In the future, the company will continue to maintain the spirit of innovation and improve the functionality and cost performance of products to meet the tastes and needs of different consumer groups. Although the current market prospect of fully automatic cotton candy machines is broad, it is also

necessary to continuously improvement and improve the content of products and services, and establish a strong, agile and sophisticated sales team that can convert information into opportunities, understand the market, formulate strategies, And actively engage with potential customers to maintain a competitive edge and meet market challenges.

- Literature survey method : Collect, identify and sort out the relevant literature, and form the method content analysis of the scientific understanding of the facts through the research of the relevant literature.

This thesis mainly refers to the relevant literature of the marketing status of automatic vending machines in foreign countries, as well as the research and application of the 4P theory of automatic vending machines in foreign countries. The domestic literature mainly refers to the domestic industry business model and the domestic 4P theory research and application of relevant literature.

In the early marketing mainly focused on advertising and sales activities, enterprises through media advertising, promotional activities, store layout and other means to attract consumers' attention and purchase desire, in order to achieve the purpose of sales and profit. Marketing in this period focused on the products and sales of enterprises, with relatively little understanding of consumer demand and purchasing behavior.

With the intensification of market competition and the constant change of consumer demand, marketing theory began to focus on consumer demand and satisfaction, emphasizing factors such as brand image, product quality and after-sales service, in order to enhance the market competitiveness of enterprises. "Principles of Economics" dates back to the end of the 18th century and was published in 1871 by the Austrian economist Menger. This book is considered a milestone in the theory of supply and demand in modern economics and has had an important impact on the development of economics. Menger explained in the book that consumer demand is the core factor that determines the value of commodities, and put forward the theory of marginal utility. He believed that "*consumers ' subjective value judgments and individual choices play a decisive role in the market supply and demand relationship*

and resource allocation. Function. Consumer demand for commodities not only depends on its overall utility, but also depends on the marginal utility of the last consumption." "Principles of Economics" laid the foundation for later consumer theory and demand analysis methods.

Consumer demand involves consumers' consumption decision-making, consumption behavior and consumption psychology. The consumer demand theory mainly studies the following aspects:

- Consumption decision-making process: Consumers' consumption decision-making includes identification of needs, information collection, evaluation and selection, and subsequent behavioral evaluation. These are important factors that affect consumer purchasing behavior and consumption.
- Consumer Behavior: Consumer behavior mainly refers to the decision-making and behavior of consumers in choosing and purchasing commodities in the market. Consumer behavior includes aspects such as purchase frequency, purchase quantity, and purchase time.
- Consumer psychology: Consumer psychology has an important impact on its purchasing behavior, which involves aspects such as consumer attitudes, values and beliefs.

The theory of consumer demand studies the changing law of consumer demand for different commodities, and provides a theoretical basis for enterprises to formulate strategies such as products and pricing, which is of great significance for the realization of corporate marketing goals and consumer satisfaction.

Among them, the most representative is the 4P marketing theory proposed in the 1960s, namely product, price, advertisement and sales network. The "4P theory" was first proposed by American marketing scholar McCarthy and published for the first time in his book "Basic Marketing" (1960). This theory has become the standard theory of marketing management, helping businesses to seek and take advantage of market opportunities.

"*4P refers to Product*、*Price*、*Promotion and Place*" .He believes that "*these four elements are the most important decision variables in marketing, which can help*

companies achieve marketing goals and meet consumer needs. ” The theory follows the accepted marketing process that involves developing a product, determining its price in the market, choosing appropriate promotional methods, and selling it through specific channels.

Figure 3.4 - 4P theoretical model



Source: self-made by the author（2025）

This theory has wide-ranging implications in marketing, advertising, and the business world as a whole. Advertisers or marketers who follow the 4P theory can meet consumer needs by developing products, formulating effective price strategies, formulating promotional strategies and related sales activities, and formulating channel and sales strategies.

3.2. Research Innovation

As an emerging sales channel, fully automatic vending machines need continuous innovation in their marketing methods to meet market demand. The following are several innovative methods of automatic vending machine marketing:

- Product innovation

(1) Enhance competitiveness: There are already many unmanned vending machines in the market, and consumers have a certain degree of awareness of unmanned vending machines. If new unmanned vending machine products do not have obvious innovations and advantages, it will be difficult Differentiate from competitors in the market.

(2) To meet different consumer needs: With the increasing dependence and demand of consumers on unmanned vending machines, only by continuously introducing innovative products can we meet the different needs of consumers and attract more consumers to use them.

(3) Create new business models: Product innovation can help companies create new business models, and bring consumers different experience in product design, marketing, services, etc., so as to achieve business development.

(4) Continuously improve product technology: Product innovation can promote technological progress and continuously promote the advancement of unmanned vending machine technology. For example, with the continuous development of technology, unmanned vending machines can realize more intelligent functions, improve the performance and efficiency of the machine, and meet the different needs of consumers.

(5) To sum up, fully automatic unmanned vending machines require product innovation. Only through continuous innovation can we continuously improve the competitiveness of products and meet the different needs of consumers, thereby promoting the healthy development of the unmanned vending machine industry.

- Innovation in marketing methods

(1) Enhance competitiveness: With the increasing number of similar products in the market, product innovation has been unable to meet the competitive needs of vending machine companies in the market. Therefore, innovation in marketing methods can make the corporate image more distinct and can also increase the influence and popularity of the brand, helping the company break through numerous resistances, and a good market image can also attract more consumers' attention.

(2) Improve product popularity: Marketing innovation can greatly increase the company's popularity, thereby promoting the promotion and popularization of product marketing. Through ingenious marketing innovation, consumers can learn more about and understand fully automatic unmanned vending machines, thereby promoting the sales and use of products.

(3) Attract young people: Young people are the main consumer groups of unmanned vending machine products. Therefore, innovative marketing methods can better attract young people. For example, marketing and promoting products on social media can better attract the attention of young people and increase product awareness.

(4) Increase user stickiness: Innovation in marketing methods can not only attract more consumers, but also improve user stickiness. For example, by providing customized services and enhancing the personalized experience of products, consumers can be better attracted, thereby increasing user loyalty and stickiness.

To sum up, fully automatic unmanned vending machines require innovative marketing methods. Only through continuous innovation can the brand's popularity and influence be improved, thereby attracting more people's attention and improving user stickiness, and promoting the healthy development of the vending machine business .

4. COMPANY ANALYSIS

4.1. Company And Business Overview

WJ company is an enterprise focusing on the R&D, manufacturing, sales and service of intelligent vending machines. The company was established in 2001 and is located in Guangzhou, China. At present, it has developed into a large enterprise with many branches and R&D centers, with more than 500 employees and a professional R&D and manufacturing team.

In the early days of the company's establishment, it was mainly engaged in the business of software development and Internet services. In 2007, the company began to deeply cultivate the field of mobile Internet, developed and launched a variety of mobile applications and game products, and achieved good market response. In 2010, the company began to set foot in the field of artificial intelligence and developed a series of AI-related products and technologies.

The main business of WJ company includes R&D, manufacturing, sales and service of intelligent vending machines. Its product categories cover beverage vending machines, snack vending machines, fresh fruit and vegetable vending machines, fresh food vending machines and other fields. Including automatic cotton candy machine, automatic popcorn machine, automatic balloon machine, automatic milk tea machine, automatic vending machine and other machines. And set up a distributed sales and service network in many cities in China to provide customers with high-quality, stable and reliable products.

In addition to the product itself, WJ company also pays attention to the research and development and practice of energy conservation and environmental protection, compliance certification, application solution innovation, etc., and strives to create a brand image with high quality, stability and reliability, as well as intelligence and environmental protection concepts. Constantly improvement product performance and user experience has won the trust and support of consumers, merchants and investors. In the future, WJ Company will continue to be committed to technological innovation and service upgrades, with the help of technological innovation, extensive

domestic and international cooperation, to provide customers in various industries with more high-quality and efficient digital solutions and services to meet the needs of consumers, businesses and investors Diversified needs, help the development of the digital economy, and promote the construction of a smart society. Make greater contributions to the development of the automatic vending machine industry.

At present, the main product of WJ company is a fully automatic intelligent cotton candy machine independently developed and operated by the company in 2019. The more mature and stable. However, according to the current policy environment, market demand and the update and iteration status of new products, the market for this fully automatic cotton candy machine is still in a state of development, and the marketing environment is relatively lacking, so there is still a lot of room for improvement.

Table 4.1 - WJ company's main product category list

Serial number	Model number	Product name	Picture	Price (Yuan)	Size (L * W * H cm)	Product features Operation process
1	CB525	Third generation fully automatic latest appearance		38800	1320mm*670mm*2090mm Overhead card 40cm	Flower types: 32 types (continuously updated) Sugar box capacity: 4 sugar boxes (about 200 marshmallows) Paper stick capacity: about 250 sticks Storage tank capacity: 20L large capacity Cleaning water consumption: about 20-25 sugar/L Payment method: Wechat Alipay scan code payment Voltage/power: AC220V 800w-2500w
2	CB-328	Second generation double cabinet automatic cotton candy machine		36800	1320mm*650mm*2020mm Overhead card 40cm	Flower types: 32 types (continuously updated) Sugar box capacity: 4 sugar boxes (about 200 marshmallows) Paper stick capacity: about 250 sticks Storage tank capacity: 20L large capacity Cleaning water consumption: about 20-25 sugar/child Payment method: Wechat Alipay scan code payment Voltage/power: AC220V 800w-2500w
3	CB-368	Second generation double cabinet automatic cotton candy machine		34800	1320mm*800mm*2180mm Overhead card 40cm	Flower types: 32 kinds Sugar box capacity: 4 sugar boxes (about 150 marshmallows) Paper stick capacity: about 150 sticks Storage tank capacity: 20L large capacity Cleaning water consumption: about 20-25 sugar/child Payment method: Wechat Alipay scan code payment Voltage/power: AC220V 800w-2500w
4	CB235	The first single cabinet semi-automatic marshmallow machine		29800	900mm*670mm*2100mm Overhead card 35cm	Flower types: 32 kinds Sugar box capacity: 4 sugar boxes (about 200 marshmallows) Paper stick capacity: about 200 sticks Storage bucket capacity: 12L capacity Cleaning water consumption: about 20-25 sugar/L Payment method: Wechat Alipay scan code payment Voltage/power: AC220V800w-2500
5	CB-218	First generation self-service marshmallow machine		18800	620mm*580mm*1650mm	Flower types: 8 kinds Language type: Chinese and English Sugar box capacity: 4 sugar boxes (about 150 marshmallows) Paper stick capacity: about 150 sticks Storage bucket capacity: 12L capacity Cleaning water consumption: about 20-25 sugar/L Sugar making mode: self-service stick stick Payment method: Wechat Alipay scan code payment Voltage/power: AC220V800w-2500w

Source: Company internal data（2025）

4.2. Company Industry Operating Environment PEST Analysis

WJ Company is an enterprise engaged in computer software development and artificial intelligence application. Its external business environment is mainly affected by the following factors: P is Politics, E is Economy, S is Society, T is Technology. PEST model is a strategic analysis tool, it is widely used in the field of market and environmental analysis.

Information about the exact origin of the PEST model and its first citation is unclear. Although it has been claimed that the PEST model is used in Francis A. Bokings' book *"Strategic and Competitive Analysis: Methods and Techniques for Analyzing Business Competition"* was first proposed, but this statement is controversial because there is no clear evidence.It may be formed in the integration and development of multiple research and academic fields.

Political Factors

- Political factors mainly include factors such as political stability, government policies and laws and regulations.
- Political factors such as government policies, laws and regulations have a direct or indirect impact on the company's business, operations and development.
- The state provides certain policy support and encouragement for the development of artificial intelligence technology, but some restrictive measures will also be introduced. Companies need to pay close attention to policy trends and make timely adjustments.
- For example, in recent years, the state has proposed plans and policies for the development of artificial intelligence, which provides opportunities for the development of the company's artificial intelligence business.
- For example, the government's policies such as encouraging artificial intelligence technology and strengthening data protection have a direct impact on the company's product development and data security.

Economic Factors

- Economic factors refer to the influence of macroeconomic and market factors on enterprises. Economic factors include the global economic situation, national fiscal policies, inflation, interest rates and exchange rates, etc. The

macroeconomic environment affects a company's market size and market demand. The economic downturn will lead to a decline in market demand, and the company's business operations may be affected to a certain extent.

- For example, the current economic slowdown and trade protectionism have a negative impact on reducing the company's sales and profits.
- For example, the economic cycle affects market demand, and companies need to adjust product strategies and marketing methods to adapt to market changes.

Social Factors

- Social factors mainly refer to factors such as culture, education and population structure, which have an impact on corporate marketing, brand image and social responsibility.
- The widespread application of artificial intelligence technology needs to pay attention to social issues such as consumer privacy, and companies need to continuously improve their corporate image and social responsibility.
- Demographic changes and differences in cultural customs can have an impact on a company's marketing and product design.
- Talent is an important factor for the development of an enterprise, but the talent market is highly competitive. Companies need to attract and retain talents by providing generous salaries and benefits, providing a good working environment and training opportunities.
- Before releasing new products, companies need to consider the scope of application of different robots in different social environments.

Technical Factors

- Technical factors mainly include technological innovation and development, as well as technological policies, application of new technologies and other factors. The development and innovation of technology is crucial to the company's business and product development. Companies need to keep up with technological development trends and conduct in-depth research and

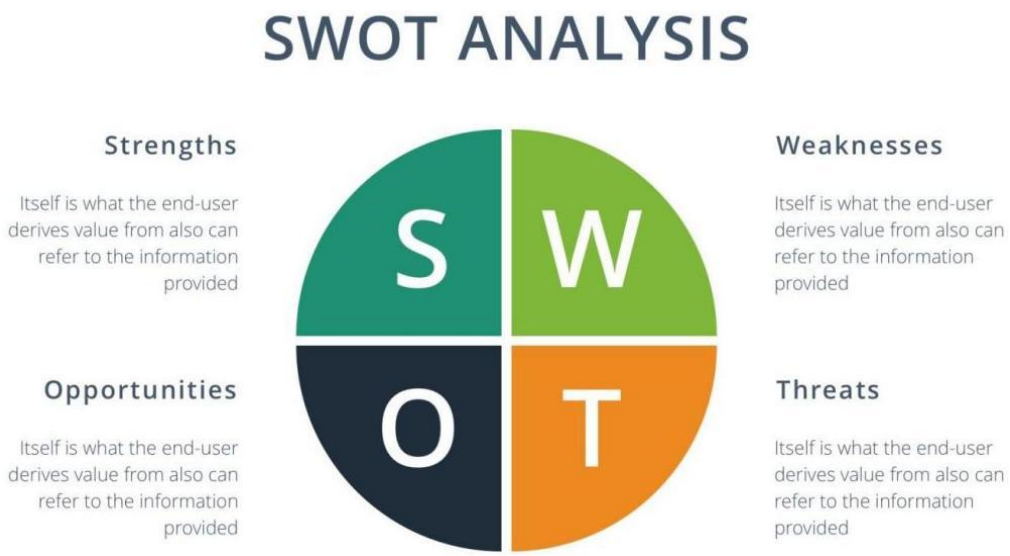
  development of artificial intelligence technology.

- The rapid development of artificial intelligence technology in recent years has brought many opportunities and challenges to the company's artificial intelligence product development and user experience improvement.
- With the development and innovation of technology, the technology in the field of software development and artificial intelligence application is constantly improving and updating. The market competition is fierce. The company needs to keep up with new technology, improve product quality and technical level and maintain the spirit of innovation, strengthen marketing, In order to meet the market demand and get a better market share.

To sum up, the PSET analysis of WJ's external business environment can better help the company discover and grasp market opportunities, formulate business strategies, defuse risks and resist threats.

4.3. Company Internal Environment SWOT Analysis

Figure 4.1 - SWOT Analysis



Source: https://www.mysucai.com/2568.html

SWOT model is widely used in the fields of strategic planning and competitive analysis, and is a commonly used tool. The SWOT model covers the internal strengths and weaknesses of the enterprise, as well as the opportunities and threats in the

external environment, and is used to help organizations identify their positions and strategies in the competitive environment.

There is also no clear source for the origin of the SWOT model. Some believe that its concept originated with management thinkers of the 1960s and 1970s, such as Andrews. However, the SWOT model gets its name from Stanford University management scholar Humphrey. In the early 1960s, Feld led a group of Stanford researchers who studied a large number of strategic planning cases and used the term SWOT. He did not propose a specific SWOT framework, but he contributed his concepts to the later developed SWOT model.

So the SWOT model does not have a specific author, but rather an evolving and developing concept. It has become a common tool used by many organizations and scholars in strategic planning and competitive analysis.

The following is the SWOT analysis of the internal environment of WJ Company **:**

Strengths

- High brand awareness: Since its establishment, the company has been adhering to the business philosophy of "focusing on artificial intelligence, service innovation, and quality first", successfully creating a professional brand that can be accepted and recognized by the market, and improving the company's popularity and reputation.
- Strong technical strength**:** The company has a strong technical and young R&D team with strong technical strength and leading technology development capabilities. It is committed to researching artificial intelligence related technologies and can provide customers with high-level technical services. Product value and quality.
- The company team has a high degree of professional quality and a strong sense of responsibility, and can actively respond to customer needs and solve problems.
- The company has a complete quality management system, which can guarantee the stability and reliability of product and service quality.
- The company has strong marketing capabilities and a wide range of customer groups, able to meet the needs of different customers.

Weaknesses

- At present, the company's main customer groups are high-tech, government agencies, etc., the customer group is relatively limited, and the market space is relatively small.
- The product lacks differentiation. Compared with market competitors, it does not have enough unique advantages in product design and function, and cannot meet the different needs of the market.
- There are many shortcomings in the management experience of the marketing team, and managers need to continuously improve their own management capabilities and levels.
- The company's research and development expenses are relatively high, and it is necessary to continuously strengthen research and development management and efficiency.

Opportunities

- The Chinese government continues to increase the research and application of AI technology, providing companies with more market opportunities and policy guarantees.
- With the improvement of people's living standards, the market's demand for artificial intelligence is gradually increasing. The artificial intelligence industry has entered the stage of large-scale application from the research stage. The company can continuously improvement products and services to meet the different needs of the market and win more market share.
- The rapid development of Internet technology and the continuous expansion of market demand have provided the company with a broad market space and development opportunities.
- The government's policy support for new technologies such as artificial intelligence and cloud computing provides a good policy environment for the company.
- The implementation of the "Made in China 2025" strategy has provided more opportunities for the company's business development.

- The rise of new technologies such as big data, artificial intelligence, and the Internet of Things has provided more new possibilities for the company's technological innovation and business expansion.
- Strengthen cooperation with industry partners and customers to enhance the company's brand image and popularity.

Threats

- Market competition pressure: At present, there are many artificial intelligence companies in the industry, the entry threshold of the industry is relatively low, there are many competitors, and the market competition pressure is relatively high. How to find customers, maintain customer needs, and improve competitiveness in the fierce market competition is a threat to the company.
- The industry norms are relatively unsound, and the policies and regulations have changed greatly, which has caused certain uncertainties to the company's operation and development.
- With the rapid development of artificial intelligence technology, the continuous improvement and breakthrough of new technologies are getting faster and faster. Companies need to constantly update and upgrade technology to avoid technology being left behind, otherwise it will lead to failure to meet market demand and decline in market share. The company is faced with the challenge of rapid technological updates.
- The competition for talents is fierce, and the quantity and quality of the company's professionals have an important and decisive impact on the company's development.

5. RESULTS AND DISCUSSION

5.1. Marketing diagnosis

5.1.1. New Products Are Slow To Update

The fully automatic cotton candy machine is a very useful device that can bring higher efficiency and better taste to the process of making cotton candy. However, the slow update of new products for automatic cotton candy machines is a problem that needs to be solved.

Table 5.1 - Number of new products from 2019 to 2023

Table of number of new products from 2019 to 2023		
Year		Number of new products
2019		1
2020		1
2021		1
2022		1
2023		1

Source: Company internal data（2025）

First of all, manufacturers of fully automatic cotton candy machines may face difficulties because new product development needs to invest a lot of resources, including capital, manpower and technology. If manufacturers fail to obtain sufficient resources or lack appropriate technical capabilities, they may not be able to update the product line of fully automatic cotton candy machines in a timely manner.

Second, the market demand for fully automatic cotton candy machines may be insufficient, which may reduce the enthusiasm of manufacturers to develop new products. If the market is saturated or there is not enough demand, manufacturers may see no need to invest huge resources in developing new products.

Finally, the market environment and technology of automatic cotton candy machines are constantly evolving. If manufacturers fail to keep up with market

changes or fail to master new technologies, they may not be able to launch new products in time to adapt to changes in market demand.

5.1.2. Product Prices Lack Competitiveness

The fully automatic cotton candy machine is an important piece of equipment for making cotton candy, however, the lack of competitiveness in the price of this product has become a problem in the industry.

- The production cost of a fully automatic cotton candy machine is huge. High-end materials and advanced technology need to be used to manufacture such high-precision machines. These costs are transferred to the selling price of the product, resulting in a generally high selling price of the fully automatic cotton candy machine.
- There is a problem of insufficient competition in the fully automatic cotton candy machine market. Since there are fewer competitors in the market, manufacturers don't have to work hard to lower prices to attract consumers to choose their products, which in turn leads to the high price of automatic cotton candy machines.

To sum up, the problem of lack of competitiveness in the price of fully automatic cotton candy machines needs to be solved through various measures. Manufacturers can increase effective competitors and take more measures to reduce production costs and improve production efficiency, so that the selling price of fully automatic cotton candy machines can better meet market demand.

5.1.3. Limited Marketing Channels

The problem of limited marketing channels for fully automatic cotton candy machines is a bottleneck affecting the sales of this product. This is mainly reflected in the following aspects:

- There are currently limited channels for selling fully automatic cotton candy machines. Due to limited sales channels in the market, it is often difficult for products to reach more end customers. This makes it difficult for salespeople to open up new markets, and it also affects customers' purchasing decisions.
- Some sales channels have friction. For example, selling products to large shopping malls or supermarkets means cooperating with distributors in the middle link, which will increase the cost of products accordingly. This will also affect the competitiveness and price of the product.

5.1.4. Difficulty In Promotion Implementation

The difficulty in the promotion and implementation of automatic cotton candy machines is also an important factor affecting the promotion and sales of this product. This is mainly reflected in the following aspects:

- The fully automatic cotton candy machine is a high-end small home appliance with a high price, so it is suitable for consumers with certain purchasing power. This also leads to a relatively limited product market audience, which limits the widespread implementation of promotional promotions.
- As a new type of product, the fully automatic cotton candy machine may not be widely recognized and well-known in the market for the time being. This makes product promotion require more time and resources to increase consumer awareness and trust.
- The implementation of promotional programs requires a lot of manpower, material and financial resources, which may cause great financial pressure on manufacturers. For small businesses, implementing promotional activities requires taking a higher risk, which may adversely affect the company's financial situation.

5.2. Cause Analysis of WJ Company’s Marketing Problems

5.2.1. Product Iteration Goals Are Unclear

- Lack of innovation: The product update of WJ company's automatic cotton candy machine lacks innovation, and the functions and characteristics of the new product are similar to the old product, which cannot attract new customer groups.
- Poor user experience: Without a clear product iteration goal, it is prone to low production efficiency, which will cause the development team to ignore the user experience during product development. This may affect product quality and customer satisfaction.
- At present, some updated products have problems with poor user experience, such as cumbersome operation procedures and machine failures in the process of making marshmallows.

- Uncertain customer needs: During the product update process of the automatic cotton candy machine, there is a lack of clear understanding of customer needs, resulting in new functions that may not meet market needs.
- Backward in terms of technology: due to the technological level of the enterprise failing to keep pace with the times, it failed to introduce or develop a newer fully automatic cotton candy machine product in time.
- Lack of innovation in market demand: ignoring the needs of consumers in the market, and not launching newer fully automatic cotton candy machine products in time, resulting in slow product updates.
- Production cost problem: The new automatic cotton candy machine products will definitely increase the production cost, so that the company will not launch new products in a short time.

5.2.2. Lack Of Scientific Pricing Mechanism

Fully automatic cotton candy machine is a very useful device that can bring more efficiency and better taste to the process of making cotton candy. However, the lack of a scientific pricing mechanism for fully automatic cotton candy machines is a problem that needs to be resolved. Not having a clear goal leads to uncertainty in product pricing, which can affect market acceptance .

- The manufacturing costs of fully automatic cotton candy machines fluctuate, which means that prices need to be adjusted periodically to accommodate changes in manufacturing costs. However, due to the lack of a scientific pricing mechanism, it may be difficult for companies to understand changes in manufacturing costs and make pricing adjustments. If the pricing is not reasonable, it may lead to failure to cover manufacturing costs or lead to low profits, which will have a negative impact on the company 's economic benefits.
- The lack of a scientific pricing mechanism for fully automatic cotton candy machines may also lead to a decline in the market competitiveness of the machines. If the price is too high, market demand may drop, resulting in fewer sales; if the price is too low, manufacturing costs may not be covered, making it impossible to maintain production. Therefore, the lack of a scientific pricing

mechanism may make fully automatic cotton candy machines face pressure and disadvantageous competition in the market.

- The lack of a scientific pricing mechanism may also lead to a decline in customer trust and loyalty to products. If customers feel that the price is unreasonable, they may look for other cheaper or higher quality automatic cotton candy machines, which will have a negative impact on the company .

To sum up, the lack of a scientific pricing mechanism for fully automatic cotton candy machines is a problem that needs to be solved. By establishing a scientific pricing mechanism, it can ensure that the price of the automatic cotton candy machine is fair and reasonable, maintain good market competitiveness, and improve customer trust and loyalty to the product

5.2.3. Marketing Channels Lack Direction

The lack of direction in the marketing channels of automatic cotton candy machines is an important problem hindering the promotion and sales of this product. Mainly manifested in the following two aspects:

- The lack of in-depth analysis and research on the consumption habits and purchase channels of the target audience forces companies to adopt a trial-and-error strategy when promoting, which increases the cost and risk of promotion and affects the effect of promotion.

- Since this product belongs to the category of small home appliances, compared with mass consumer goods, its sales channels are relatively limited, which limits the simplicity of the development of product marketing channels, and requires more strategies and plans to expand diversified sales channels.

5.2.4 Technology Cost Limits Sales Promotion Efforts

The technical cost limitation of the fully automatic cotton candy machine is a significant reason for the marketing and promotion efforts of the enterprise . The high cost of products will inevitably affect the marketing efforts of enterprises, because enterprises need to recover investment through order revenue in order to achieve profitability.

This is because the cost is too high and the investment must be recovered through sales revenue to achieve profitability, and high-cost products will face certain

pressures in terms of pricing and sales in the market. Therefore, companies need to formulate creative promotional plans and improvement sales strategies to solve this problem and increase sales.

In addition, it is common that the technical cost of individual products is relatively high, especially in projects that require relatively in-depth research and perfect development. As a highly technical product, the fully automatic cotton candy machine requires a lot of research and development costs and technical reserves to

ensure that its quality and performance meet market demand. This is also one of the

reasons why product technology costs limit promotion efforts.

Finally, the lack of marketing strategy and strength will also lead to a decline in product sales. Especially in these high-cost products, if there is no correct marketing strategy and the marketing goals cannot be achieved, the promotion and sales of the products will also be affected. Therefore, enterprises need to formulate a comprehensive marketing plan, and actively look for new sales channels and opportunities to increase sales and reduce cost constraints.

6. FORMULATION OF MARKETING IMPROVEMENT PLAN

6.1. Market Segmentation

Fully automatic cotton candy machines can be segmented according to different criteria, the following are several possible ways:

Table 6.1 - Market Segmentation

Application Segmentation	● Commercial automatic cotton candy machine
	● Home Automatic Cotton Candy Machine
	● For activities/entertainment places (such as playgrounds, tourist attractions, theaters, etc.)
Functional Features Segmentation	● Basic automatic cotton candy machine (only realize the function of making cotton candy)
	● Super large capacity automatic cotton candy machine
	● Multi-flavor automatic cotton candy machine
	● Fully automatic cotton candy machine with coin system
	● Multi-functional automatic cotton candy machine (can make cotton candy, popcorn, candy, etc.)
Price/Brand Segmentation	● High-end automatic cotton candy machine market
	● Mid-range automatic cotton candy machine market
	● More affordable economical fully automatic cotton candy machine market
	● Brand automatic cotton candy machine market
User Age	● Children's automatic cotton candy machine market
	● Fully Automatic Cotton Candy Machine Market for

Segmentation	Teenagers
	• Fully Automatic Cotton Candy Machine Market for Adults
Regional Segmentation	• City automatic cotton candy machine market
	• Rural automatic cotton candy machine market

Source: self-made by the author(2025)

The purpose of market segmentation is to find out the needs and pain points of different markets, accurately carry out target market promotion and sales, and at the same time explore the opportunities and advantages of different markets, and provide guidance and support for the development of enterprises .

6.2. Market Positioning

The market positioning of the automatic cotton candy machine can be positioned according to different market segments and their characteristics. The following are several possible ways:

- Market positioning of commercial automatic cotton candy machines : Commercial automatic cotton candy machines are suitable for commercial places such as shopping malls, supermarkets, restaurants, and coffee shops. Customer demand for quality and efficiency.
- The market positioning of the home automatic cotton candy machine : The home automatic cotton candy machine is suitable for family dinners, parties, parent-child activities and other occasions. Convenience and affordability demand.
- Market positioning of playgrounds, tourist attractions and other places : In playgrounds, tourist attractions and other places, the automatic cotton candy machine can be used as an interactive game element, and its market positioning can be an interesting, interactive and diverse multi-functional automatic machine.

  Cotton candy machines to meet tourists' needs for entertainment, interaction and diverse experiences.
- Market positioning of the teenagers and children's market : teenagers and children are the main consumer groups of automatic cotton candy machines, and their market positioning can be reliable, healthy and safe children's automatic cotton

candy machines to meet parents' needs for safety and health, and at the same time It also meets the children's needs for fresh and fun experiences.

The purpose of market positioning is to find out the unique selling points of products and highlight the advantages of products according to the needs of different market segments, so as to attract target customers and improve the market competitiveness of products.

6.3. Specific Marketing Plan

6.3.1. Product Plan

If the enterprise wants to successfully develop newer fully automatic cotton candy machine products, some of the following solutions can be considered:

- Strengthen technology research and development: within the scope of reasonable research and development costs, introduce new manufacturing equipment and advanced technology, and develop newer cotton candy machine products.
- Pay attention to market demand and bring forth the new: Regularly understand the changes in market consumer demand, and strengthen interaction with consumers, constantly introduce new ones, and provide novelty and innovative cotton candy machine products.
- Practical application of high-efficiency production technology: formulate a reasonable production plan, and adopt high-efficiency production technology to reduce manufacturing and cost, so as to improve the production speed and acceptance of new products.
- It is necessary to ensure that the iteration goals of the fully automatic cotton candy machine product are clear .
- Define the goals and scope of product iterations to ensure development goals align with market needs and company strategy.
- Conduct market research, collect customer needs and feedback, and clarify product positioning at the early stage of product development.
- Make user experience and design a core element in the product development process of the fully automatic cotton candy machine to ensure testing and improvement before the product is released.

- Regularly evaluate the development progress and cost to ensure that the product price is reasonable and in line with the market positioning.

Enterprises should pay attention to technological improvement and market attention when producing updated cotton candy machine products, and continuously strengthen product research and development to meet consumer needs and promote the development of enterprise product updates. Ensuring that the iteration goals of the fully automatic cotton candy machine product is clear can ensure that the development team will not deviate from the original product direction, and improve product quality and customer satisfaction.

To sum up, the slow update of new products of automatic cotton candy machines is a problem that needs to be solved. Solutions to this problem include increasing manufacturers' resources and technology input, increasing market demand, and adapting to market environment and technology changes. Through these methods, manufacturers can better meet market demand, improve product competitiveness, and thus better meet consumer demand.

6.3.2. Price Plan

A series of measures can be taken to improve the competitiveness and reduce the price of fully automatic cotton candy machines. For example, manufacturers can try to reduce production costs, such as using more popular materials, while having higher production efficiency, thereby increasing product profit margins. In addition, it can also increase market competitors, promote price competition, and attract consumers to choose their products.

- Production costs: Reducing production costs is an effective way to reduce the selling price of a product. It can be considered to improvement the production process, improve production efficiency, reduce the cost of materials and equipment through mass production, and achieve the purpose of reducing production costs.
- Customer demand: When designing and producing products, we can pay more attention to market demand and customer demand, and set the selling price according to the demand. Through feedback and communication with customers, you can learn more about their needs and expectations, so as to improve products and improvement marketing plans.
- Product quality: Improving product quality is a key factor in enhancing product competitiveness. Stable product quality can be ensured by improvement material

selection and production process. High-quality products can win the trust and loyalty of customers, and increase the competitiveness and reputation of the brand.

- Marketing: In addition to product quality, marketing is also an important factor in gaining market share, and more attempts can be made in marketing. For example, use more digital marketing methods in product promotion, such as search engine improvement, social media, etc., to increase brand exposure.

- Expanding the market: Expanding the product market is the only way to improve product competitiveness. By opening up new markets, we can find more sales channels, attract potential customers and improve product popularity and reputation. At the same time, promoting products while maintaining product quality can also increase sales and market share.

6.3.3. Place Plan

There are several steps you can take to improve your sales funnel:

- Analyze the target audience's group and their consumption habits, and conduct in -depth market research. To understand the channel behavior of target users and the challenges they encounter in the purchase process. This can help companies understand the consumption habits, purchasing behavior and selection basis of the target audience.
- To expand diversified channels, in addition to traditional offline dealers, we must also explore new sales channels and develop online channels. For example, use the Internet to promote, open official websites, social network media advertisements and e-commerce platforms for online promotion, etc. At the same time, strengthen the integration of online and offline channels to make channels more diversified. Promote products to more consumers by disseminating product information more widely.
- Build the story and image of the brand, provide users with better user experience and pre-sales and after-sales services, so that products can win the trust and reputation of consumers, thereby further expanding marketing channels.

- Establish online sales channels, provide consumers with more convenient purchase methods through platforms such as online stores, and at the same time reduce sales costs, thereby improving product competitiveness.

- Strengthen cooperation with distributors, negotiate to reduce the cost of intermediate links, and at the same time speed up the process and improve the circulation speed of products.

To sum up, the problem of lack of direction in marketing channels requires more comprehensive market research, developing more diversified channels, and building product and brand stories and images in order to promote and sell the product. At the same time, by expanding sales channels and strengthening cooperation with distributors, we will strengthen online and offline integration, provide high-quality pre-sales and after-sales services, bring consumers a better experience, and improve consumers' understanding of products. and trust. Through these efforts, it will help enterprises to effectively expand sales channels and increase product sales , thereby further expanding product sales markets and improving sales efficiency.

6.3.4. Promotion Plan

The following measures can be taken to solve the problem between the product cost and promotion of the automatic cotton candy machine:

- Reduce product costs: reduce product production costs through technological research and development innovation, adoption of new materials and process development to achieve profitability, and then reduce product prices to improve market competitiveness and increase marketing efforts.
- Develop creative promotional plans: According to market conditions and consumer needs, develop creative promotional plans to increase the visibility of products in the market. This includes working with external channels to attract more consumers, developing effective product packaging and word of mouth, providing long-term discounts and gifts, etc.
- improvement channels and sales models: formulate a comprehensive marketing plan, understand consumer needs and find more sales channels to save costs and maximize market opportunities. From finding partners to increasing online sales efforts, create a sustainable sales plan to sell more products.
- Increase sales force training and support: Improve sales force performance by training and providing sales support to reduce marketing costs and increase sales.

At the same time, technical support can also improve customer satisfaction and product life, and increase product word-of-mouth marketing.

- In view of the relatively limited product audience, formulate more precise market positioning and marketing plans, focus on digging deep into the needs and pain points of target customers, and propose more targeted marketing plans.
- Pay attention to the construction of product reputation and user evaluation, through innovative marketing models, establish various online and offline

  interactive platforms, guide users to communicate and share through Internet and other technological means, and increase product popularity and trust.
- Formulate a refined promotion plan, reasonably control input costs, reduce waste of resources, and at the same time pay attention to the tracking and analysis of market data, and adjust market plans in a timely manner to achieve better results.

To sum up, if the automatic cotton candy machine wants to achieve the purpose of promotion , it needs to formulate more accurate market positioning and marketing plans, strengthen the construction of product reputation and user evaluation, and at the same time pay attention to creative and scientific promotion plans, improvement channels and sales Model, increase sales staff training and support to increase market competitiveness and sales. Reasonably control the input cost to achieve better promotion effect.

7. IMPROVEMENT PLAN

7.1. Marketing Implementation Plan

The fully automatic cotton candy machine is a machine that can automatically make cotton candy, and it has become an essential equipment in the catering industry. The purpose of this improvement plan is to analyze the problems existing in the marketing process of WJ company's automatic cotton candy machine and the reasons for these problems, so as to help WJ company increase the sales volume and popularity of the automatic cotton candy machine, improve product quality, reduce cost, increase sales , improve customer satisfaction and brand influence , explore new market opportunities, and further increase brand awareness and market share . Hope to bring more benefits and development opportunities to the company.

Specifically, the purpose of this marketing improvement plan includes：

- Improve product competitiveness and sales volume: Improve product competitiveness and sales volume by improvement product design, reducing costs, and improving product quality, thereby increasing the company's market share and sales revenue.
- improvement the production process and cost management: By improvement the production process and reducing costs, improving production efficiency and product quality, reducing production costs and sales costs, and realizing the dual benefits of increasing revenue and reducing costs.
- Improve customer satisfaction and brand influence: Improve customer satisfaction by improving product quality and improvement after-sales service, enhance brand reputation and influence, further increase product sales, and form a good brand effect.
- Explore new market opportunities: develop new market opportunities through market research, new product research and development, and expand new channels, and at the same time strengthen cooperation with partners to further increase the company's market share and revenue.
- Increase sales: Through effective promotion and advertising, attract more customers and merchants to purchase and use fully automatic cotton candy machines to increase sales.

- Enhance brand awareness: Carry out brand promotion, publicity and marketing through various channels, increase the attention of consumers and the industry, and enhance brand awareness.
- Increase market share: Through the growth of sales volume and the improvement of brand awareness, further increase market share and enhance competitiveness.
- Improve the quality of after-sales service : ensure that consumers receive high-quality user experience and services.

According to the four marketing methods (products, prices, channels, promotions), the time plan for the marketing improvement plan of the automatic cotton candy machine is drawn up :

Table 7.1 - Marketing Implementation Plan

NO.	Job placement	Concrete content	Responsible department	Start time	End time
1	Product	It is necessary to understand the needs of users and market trends and make improvements to create more practical and attractive products.	R & D department	2023/10/20	It takes at least about 2 months to conduct market research, product development and testing.
2	Price	In terms of pricing, it is necessary to consider multiple factors such as product advantages, costs, and market demand to formulate a price strategy for reasonable competition.	Project department、R&D department、finance department	2023/11/20	The planning time is about 1 month
3	Place	Display and sell products by selecting appropriate distribution channels, such as through Internet sales channels, retail channels, etc. Time to choose the right channel needs to be considered.	Sales department、Marketing department	2023/12/20	The planning time is about 1 month
4	Promotion	Promote product sales and attract consumers' attention through low-price sales, combined sales, and gift giving.	Planning department, Sales department	2023/12/20	The planning time is about 1 month

Source: self-made by the author（2025）

To sum up, it takes about 5 months for the marketing improvement implementation plan of WJ company's fully automatic cotton candy machine. But this

is only an approximate time frame, and the specific implementation plan needs to be adjusted and improvement based on various practical factors.

7.2. Marketing Implementation Resources

7.2.1. Manpower Resources

The human resources guarantee of WJ company's fully automatic cotton candy machine in the implementation of the marketing improvement plan mainly involves the following aspects:

- Recruitment of marketing personnel: Recruit and select professional marketing personnel with good communication and sales skills, as well as an understanding of the fully automatic cotton candy machine and its operating principles, and be able to provide personalized services and solutions according to customer needs.
- Comprehensive training and promotion: Provide comprehensive training and promotion for marketing personnel, including product knowledge, market environment, marketing skills, industry trends and information, etc., to improve their business level and competitiveness.
- Market development and event planning: Through market development and event planning, combined with product characteristics and market demand, formulate a comprehensive sales plan and marketing plan to promote product sales and improve customer satisfaction.
- Teamwork and communication: Establish a teamwork and communication mechanism to ensure information sharing, knowledge transfer and task decomposition among marketing personnel, making marketing work more organized and efficient.
- Performance evaluation and incentive mechanism: through performance evaluation and incentive mechanism, to encourage the enthusiasm and creativity of marketing personnel, improve their task completion and work quality, and at the same time promote the company's long-term development and stable growth.

To sum up, human resources guarantee in the marketing implementation of automatic cotton candy machines needs to pay attention to the recruitment, training, market development, teamwork and performance evaluation of marketing personnel, and build a strong, efficient and collaborative marketing team to provide products Marketing and sales provide full coverage.

7.2.2. Technical Resources

The technical support in the marketing implementation of WJ company's fully automatic cotton candy machine mainly involves the following aspects:

- Technical staff support: In the process of marketing and implementation of automatic cotton candy machines, professional technical staff are required to provide technical support, such as machine maintenance, installation and commissioning, software updates, etc.
- Data analysis and collection: Through big data analysis and information collection, we can understand customer needs and usage, and use this as a basis to formulate sales and marketing strategies.
- Logistics support: In the process of sales and use, professional logistics personnel are required to provide support, such as machine transportation, parts delivery, after-sales service, etc.
- Safety guarantee: The marketing implementation of the fully automatic cotton candy machine needs to ensure safety, so it is necessary to formulate a complete management system to ensure the safety of the machine and the standardization of safe use.
- Technical updates and upgrades: With the continuous development and progress of science and technology, as well as the constant changes in the market, the automatic cotton candy machine needs to be continuously updated and upgraded to better meet the needs of customers.

To sum up, the technical support in the marketing implementation of automatic cotton candy machines mainly includes technical personnel support, data analysis and collection, logistics support, safety assurance, and technical updates and upgrades. Only through technical support can we guarantee the stability, reliability and safety of the fully automatic cotton candy machine in marketing implementation, and provide customers with a better experience.

7.2.3 Fund Resources

The financial guarantee in the marketing implementation of WJ company's fully automatic cotton candy machine mainly involves the following aspects:

- Formulate effective market strategies: The implementation of fully automatic cotton candy machine marketing requires the formulation of effective market strategies, including market research, clear target customer groups and sales channels, formulating appropriate price strategies, promotion and publicity strategies, etc. Through the effective implementation of marketing, the popularity and competitiveness of products can be enhanced, thereby increasing sales.
- Determine a reasonable sales policy: It is necessary to formulate a reasonable sales policy based on the product characteristics and market competition of the automatic cotton candy machine. A reasonable sales policy can attract more customers to buy and increase product sales.
- Fund management: The implementation of fully automatic cotton candy machine marketing needs to do a good job in fund management. It is necessary to formulate a fund use plan according to the budget, allocate funds reasonably, track and monitor funds, and adjust the budget in time to ensure the rationality and effectiveness of fund use.
- Ensure the efficiency of resource utilization: In the process of marketing implementation, it is necessary to ensure the effective utilization of resources. Including improvement sales channels, improving commodity inventory turnover, and doing a good job in supply chain management and operation management, etc., in order to achieve the purpose of reducing costs and improving efficiency.

To sum up, the guarantee of funds in the marketing implementation of fully automatic cotton candy machines requires measures such as formulating effective market strategies, reasonable sales policies, fund management and resource utilization efficiency to ensure the rationality and effectiveness of fund use, so that Provide guarantee for the economic efficiency and profit growth of the enterprise.

8. CONCLUSION

8.1. Conclusion

According to the analysis of the product characteristics and market demand of the automatic cotton candy machine, the target market of WJ company's automatic cotton candy machine should be young people and families as the main target customers, and places with large traffic such as fairs, shopping malls, theme parks and playgrounds as the main sales channels.

In market research and analysis, it is necessary to determine the demographic information, purchasing habits, purchasing power, and focus of the target market, including the analysis and understanding of competitors, and detailed comparisons of selling price, sales volume, market share, etc. Analyze, understand market conditions, adjust and improve products based on market response.

In terms of publicity strategy , it is necessary to choose a publicity and promotion method suitable for one's own products, and to select an appropriate number of various preferential activities and promotional means for different target customer groups. For example, through social media, webcast, store display, etc., to provide consumers with a convenient purchase experience to increase product popularity and sales.

At the same time, it is also necessary to strengthen pre-sales and after-sales service support, strengthen after-sales service tracking and improve service quality, establish a customer feedback mechanism, and deal with customer feedback problems and suggestions in a timely manner. In order to improve customer satisfaction and loyalty, let customers feel intimate service, which is also one of the main ways to accumulate word of mouth and repeat purchases.

Based on the product characteristics and market competition of the automatic cotton candy machine, formulate a marketing plan for target customers, market research and analysis, publicity strategies and services, so as to promote the sales growth of the automatic cotton candy machine, improve the brand's influence and market share.

To sum up, the marketing improvement plan of WJ company's automatic cotton candy machine needs to combine the actual situation, strengthen market research, increase publicity, improvement sales channels and after-sales service, in order to improve the market competitiveness and sales of products.

8.2. Research Purpose And Significance

Proposing an improvement scheme has certain theoretical and practical significance.

Theoretical Significance

China's fully automatic AI smart vending machines has now entered a stage of rapid development. To achieve automated sales and management, we need to rely on various advanced automation technologies and Internet of Things technologies. Therefore, in the process of researching domestic fully automatic AI vending machines, I found that the continuous development of automation technologies and Internet of Things technologies should continue to pay attention The problem. It is necessary to continuously carry out technological innovation and research and development to promote the transformation and upgrading of the manufacturing industry.

In terms of marketing, this thesis is mainly based on the 4P theory, and conducts targeted research on the marketing of WJ's products. The business model and marketing model are not clear, and there is also a lack of mature marketing theory system. Therefore, the research in this thesis can also supplement Improve WJ company's problems in marketing.

Practical Significance

According to the development status of the fully automatic intelligent vending machine industry, through the practice and analysis of WJ's products, and using relevant theoretical knowledge, we can find the main direction of the company's internal problems, put forward targeted solutions, and achieve precise marketing to achieve company profits purpose of growth.

Secondly, improve consumer shopping experience , promote innovation and

transformation of business models , rely on new technologies, new materials, new models and other technical and industrial supports to drive the development of emerging industries , promote the formation and upgrading of related industrial chains , and at the same time expand society employment channels. With the development of automation and intelligent technology, more and more traditional jobs will be replaced by automation. The emergence of fully automatic vending machines will create new

employment opportunities and jobs for the society and expand social employment channels.

8.3. Limitations In The Research Of This Thesis

This thesis takes WJ company's automatic cotton candy machine as the research object. In order to make WJ company have a better development in the actual operation process, it analyzes and researches and formulates related improvement programs. However, due to the limited time availability, there are some limitations in this marketing improvement plan research：

- The target market is not fully detailed: Although the target market is pointed out in the marketing plan as young people and families, the age, gender, region, consumption habits and other information of the target customers are not further refined, resulting in failure to reach the target customer group more accurately. To a certain extent, it will affect the effect of the marketing improvement plan .
- Insufficient analysis of a large number of competitors: In the market research and analysis, the analysis of competitors is not sufficient, and the product characteristics, market share, publicity strategies and other information of competitors cannot be fully understood, and more effective competitive countermeasures cannot be formulated.
- Lack of innovation in publicity strategy: In terms of publicity strategy, only through social media, webcast, store display and other traditional methods of publicity, lack of innovation, failed to explore more publicity and promotion methods, making the marketing strategy lose the advantage of differentiated competition .
- Insufficient after-sales service support: In terms of after-sales service, it needs to be further strengthened, including better after-sales service and customer return visit and feedback mechanism, in order to enhance customer experience and increase brand loyalty.

Therefore, it is necessary to strengthen the refinement of the target market, the in-depth analysis of competitors, the innovation of publicity strategies and the improvement of after-sales service in the research on the marketing improvement plan of WJ company's fully automatic cotton candy machine, so as to further improve the effect of marketing strategies and the reputation of the brand competitiveness .

8.4 Future research

In the follow-up research on the marketing improvement plan of WJ company's automatic cotton candy machine , it can be carried out from the following directions:

- Increase in-depth research on the target market: further refine the target market and analyze it from the dimensions of age, gender, region, and consumption habits to more accurately grasp the needs of target customer groups and formulate more accurate and effective marketing strategies.
- In-depth research on competitors: conduct more in-depth research and analysis on competitors, learn from their marketing strategies and product characteristics, explore more effective competitive countermeasures, and enhance brand competitiveness.
- Explore innovative publicity strategies: further tap the potential of traditional publicity methods such as social media, live webcasting, and store displays, while exploring more creative and differentiated publicity methods, so as to improve publicity effects and brand exposure.
- Strengthen after-sales service support: establish a more complete customer return visit and feedback mechanism, enhance the quality of after-sales service and customer satisfaction, establish a good brand image, and improve brand loyalty and reputation.

To sum up, the follow-up research on the marketing improvement plan of WJ company's automatic cotton candy machine can be carried out from the aspects of in-depth research on the target market, competitor analysis, innovative publicity strategies, and after-sales service support, so as to continuously improve the effectiveness and effectiveness of marketing strategies， and brand competitiveness.

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Appendix:

In order to improve the service quality, product quality and sales performance of WJ's products as well as customers' satisfaction with WJ's products, we specially formulated this questionnaire to find out the problems that need to be improved.

Satisfaction questionnaire survey of automatic cotton candy vending machine

1. Have you ever heard of a fully automatic cotton candy machine?

□ Yes

□ No

2. If you've heard of a fully automatic cotton candy machine, what do you know about it?

□ Know a lot

□ Know something

□ Know little

3. Are you interested in buying a fully automatic cotton candy machine?

□ Very interested

□ Have a little interest

□ Have no interest

□ I'm not sure

4. What function do you want a fully automatic cotton candy machine to have?

□ Rapid heating

□ Multifunctional (you can make marshmallows with different flavors)

□ Easy to clean and maintain

□ High efficiency and energy saving

□ Others (please specify)

5. What is the price range of a fully automatic cotton candy machine that you can accept?

□ Less than 500 yuan

□ 500-1000 yuan

□ 1000-2000 yuan

□ 2000-5000 yuan

□ More than 5000 yuan

6. In which occasions do you think it is more appropriate to use a fully automatic cotton candy machine?

□ Indoor parties

□ Outdoor activities

□ Business operations

□ Others (please specify)

7. After you have used the automatic cotton candy machine, how is your experience?

□ Very satisfied

□ Satisfied

□ General

□ Not satisfied

□ Very dissatisfied

8. Have you ever considered buying a fully automatic cotton candy machine?

□ Yes

□ No

9. If yes, what is your main purchase reason?

□ for home use

□ For commercial use

□ Recreation and hobbies

□ Giving gifts to others

□ Others (please specify)

10. If you already own a fully automatic cotton candy machine, please briefly introduce your purchase experience and feelings.

□ Easy to buy, very pleasant to use

□ Average purchase process, but satisfied with use

□ Difficult to purchase, but good use effect

□ Unsuccessful purchase, or poor use effect

□ No purchase, no answer

11. Which more powerful fully automatic cotton candy machine would you prefer to buy?

□ The one with faster speed and greater sugar output

□ The one with multiple functions and richer flavors

□ The one with smarter and fully automatic control

12. Have you ever used a fully automatic vending machine?

□ Yes

□ No

13. What kind of automatic vending machine products do you buy most often?

□ Beverages

□ Snacks

□ Tobacco and alcohol

□ Others, please specify ____

14. Are you satisfied with the purchase experience of the automatic vending machine?

□ Very satisfied

□ Relatively satisfied

□ General

□ Not too satisfied

□ Very dissatisfied

15. Do you think the price of automatic vending machines is reasonable?

□ Completely reasonable

□ Relatively reasonable

□ Not very reasonable

□ Totally unreasonable

16. What do you think are the advantages of fully automatic vending machines?

□ Convenient and fast

□ Open for 4 hours

□ You can buy at any time

□ Reduce the pressure of the supermarket flow

17. What do you think are the disadvantages of fully automatic vending machines?

□ The variety of goods is not rich enough

□ The failure rate of the machine is high

□ The price of the goods is too high

□ No refund

18. What is your opinion on the future development of automatic vending machines?

□ The development prospect is bright and will be more and more widely used

□ Limited development potential, not much room for expansion

□ Other, please specify _____

19. Have you ever used a fully automatic cotton candy machine?

□ Yes

□ No

20. How often do you use a fully automatic cotton candy machine?

□ Often used

□ Occasionally used

□ Rarely used

21. What are your favorite flavors of marshmallows to buy in a fully automatic marshmallow machine?

□ Original/Pure White

□ Strawberry

□ Grape

□ Pineapple

□ Others, please specify _____

22. What do you think is the biggest advantage of the automatic cotton candy machine?

□ Avoid the hassle of making marshmallows by hand

□ Diversified styles, can customize a variety of flavors and colors

□ Fast production, no waiting

□ Easy to use, you can directly insert coins or swipe your card to buy

□ Other, please specify _____

23. What do you think are the disadvantages of the automatic cotton candy machine?

□ Relatively high price

□ The machine occupies a large area and is not convenient to place

□ Some machines are prone to failure and need to be repaired or replaced

□ Some machines are noisy, which affects the experience

□ Other, please specify _____

24. What brands of automatic cotton candy machines have you used?

□ Chuan Bo

□ Candy-Making

□ Cloud mining

□ Little surprise

□ Other, please specify _____

25. Do you feel reasonable about the price of the fully automatic cotton candy machine?

□ Completely reasonable

□ Relatively reasonable

□ Not very reasonable

□ Totally unreasonable

26. Where do you find it easiest to use a fully automatic cotton candy machine?

□ Entertainment scenes such as shopping malls, playgrounds or entertainment venues

□ Various gatherings or parties

□ Specific occasions such as tourist attractions, exhibitions or event sites

□ Other, please specify _____

27. What do you think of the future development of fully automatic cotton candy machines?

□ The development prospect is bright and will be more and more widely used

□ Limited development potential, not much room for expansion

□ Other, please specify _____

28. What are your opinions and suggestions on the automatic cotton candy machine?

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Thank you for participating in this questionnaire survey. Your answers will help us better understand consumers' needs for the use and purchase of fully automatic cotton candy machines, so as to improve and improvement our products and services.