

Research on Guangzhou Phar. Holdings Limited & Vending Machine + Expired Medicine Recycling Program

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Abstract: The author briefly describes the business philosophy and recycling project of Guangzhou medicine, points out the current opportunities and Breakthrough Strategies, studies them, obtains the corresponding methods and results through data analysis, sorts out the problems we need to improve, gives some suggestions and programs, and formulates a series of marketing programs to realize one by one.

Keywords: Opportunity, Breakthrough, Method, Result, Feasibility Analysis

1. The background and status quo of expired drugs recycling

Expired medicines refer to those whose period of validity is already out of date. At present, a large quantity of medicines is wasted due to expiration. According to a social survey, about 78.6% of the families have a reserve of medicines, 82.8% of them do not regularly clean up the expired medicines, and 90.1% of the respondents have the experience of discarding expired medicines at will. In major cities, each family has 215 pills of expired medicines averagely, of which 30 to 40 percent are overdue for more than 3 years. It can be seen that expired medicines are quite common in the family medicine cabinet of Chinese residents, and most of them are irrationally disposed, which leads to more than 15 million kilograms of medicines wasted every year in China. Besides, if those expired medicines are not scientifically handled, it's more than just wasting. Toxic and harmful substances can be produced after the expiration of the medicines, which will result in serious consequences. At the same time, the degradation products of expired medicines are often corrosive and polluting, causing environmental pollution and destroying the biological chain. So far, medicines and their metabolites have been detected in soil and water of some areas.

2. The expired medicine recycling program of Guangzhou Pharmaceutical Holdings Limited

Under such circumstances, Guangzhou Pharmaceutical Holdings Limited (GPHL) has been undertaking a campaign to reclaim expired medicine, allowing residents to replace expired medicine with new medicine for free since 2005. Since 2005, GPHL has pioneered the campaign of "family expired medicines recycling" in the world. In the form of authorized designated drugstores for replacement, GPHL helps replace expired medicines for consumers free of charge chronically. Both online and offline modes are adopted for drug reclaim. Offline, citizens can go to designated drugstores to exchange their expired medicines for new ones on the scheduled date. Online, citizens need to scan the bar code on the pill box with their cellphone, then fill in their address, contract information to arrange courier to pick up the expired medicines free of charge. When the expired medicines are reclaimed, the public can get the corresponding vouchers, which can be used for buying medicine from the Tmall flagship store of GPHL. Up to now, GPHL has been committed to drug recycling for 16 years, expanding from Guangzhou to more than 200 cities in China, from cities to rural areas, from offline to online. With each upgrade, more attention has been paid to the citizens' convenience and benefits. In 16 years, GPHL has never changed its original intention- to safeguard drug security for the public, showing a strong sense of social responsibility.

3. The opportunities and breakthrough

- 1) During the COVID-19 outbreak, a piece of news which reported that Shuanghuanglian oral

liquid had the function of resistant to coronavirus, which caused frenzied buying. It was the same as the people who bought Banlangen crazily during the SARS period. Although many people have the idea of stockpiling medicines in case of emergency, as time goes on, many medicines cannot be consumed before their expiration date. Or it hasn't been opened even overdue. According to the White Paper on Recycling Expired Medicines in Chinese Families, about 78.6 percent of Chinese families have small family medicine boxes, but more than 80 percent do not clean them regularly. Although China does not have a specific statistics on the problem of drug waste, it has been estimated that 43 billion yuan of medicine will be wasted in the whole year. In fact, this figure may be even higher. This year, our country advocates frugality on the dinner table, and the phenomenon of drug waste also needs attention. The phenomenon of drug waste is becoming more and more serious. Most people's consciousness is still in throwing expired drugs into the trash can, and the concept of drug recycling still needs to be strengthened.

2) Expired medicine is a kind of medical waste and has been included in the "national hazardous waste", which will cause pollution to water, soil and air and pose great risks to the ecosystem and human health. In one survey, more than 90 percent of respondents had the experience of disposing of expired medicines with household waste. The garbage classification system has been gradually implemented throughout the nation, Guangzhou has implemented a garbage classification system for more than two years. The refinement of its garbage classification oughts the public to pay more attention to the types of garbage. There are also regulations on the recycling of expired medicines. In addition to guiding the public to recycle expired medicines with a garbage classification system, the Guangzhou government has been supporting GPHL to recycle expired medicines for a long period. Their cooperation lead the project of recycling expired medicines is constantly promoted and developed. Garbage recycling has become the general trend of social development. As an important part of its internal process, expired drugs recycling has received increasing attention, providing a better development prospect for the development of expired drugs recycling of GPHL. Meanwhile, GPHL has been expanding the way of recycling expired medicines and gradually developing to the Internet mobile terminal. The garbage classification mode is becoming more and more automatic, which provides experience for the expired medicines recycling of GPHL.

3) A favorable brand image can bring immeasurable benefits to the company. In recent years, due to GPHL's consistency on public welfare, its enterprise concept is wide spread, accepted and supported by all walks of life. From being allowed to advertise on CCTV to developing the mini program of SuiKang cooperated with Guangzhou municipal government, then to endorsement of Zhong Nanshan, a well-known academician who has made great effort to help China get through the pandemic. With such great momentum, reclaiming expired medicines is bound to get more individuals and enterprises involved, benefiting more people which in return, can lessen the financial burden of GPHL and promote its brand image at the same time.

4) Owing to the economic imbalances between urban and rural areas of China, talents and capital tends to influx into the urban rather than the rural ones, leading to the growing development gap between big cities and countryside. In order to relieve the traffic and housing pressures as well as narrow the gap, China is paying more attention to the development of small cities as well as poverty-stricken area, for instance, the West Development, poverty elimination etc. The concept of extending the expired medicine reclaiming campaign to the second and third-tier cities is consistent with China's development direction. In the past, the reclaiming campaign mainly focused on first-tier cities like Guangzhou, but in other cities, the popularity of the campaign is low and some citizens do not know about the campaign. Therefore, to popularize the idea of reclaiming expired medicine and accelerate the integration of urban and rural areas as well as to invoke more brand awareness, it will be a great chance for GPHL to go after China's development direction, to extend the campaign to the second and third-tier cities.

4. Breakthrough: "Internet+ Health care" Operating Strategy

With the development of internet technology, it has been applied to various fields including pharmaceutical field. In particular, the breakout of covid-19 has accelerated the application of Internet to each area. The masks are difficult to buy because of covid-19, as a result, the process of "Internet+ Health Care" is needed.

In order to avoid the risks of the crowd gathering, Guangzhou government has developed a WeChat mini program called "Suikang" which is related to health care for dealing some medical issues, consisting of mask appointments. GPHL became the specific implementation unit for providing the

masks for free. The costs of masks and delivery are all on GPLH. For foreign citizens of Guangzhou, they can use passport number to register for the mask appointments. The measure has gained good effect: there are 170 million hits on the first day of the mask appointments system startup.

5. Our suggestion and program: VEM (Vending Machine) + Expired Medicine Recycling

From the way of in-store recycling to the online recycling which uses the "Internet + tracing" technology, GPLH keeps exploring and updating the ways of expired medicine recycling. They continuously spread the power of public welfare while promoting their brand and strengthen their own sense of social responsibility. However, our research shows that not every pharmacy is available or convenient to people to recycle their expired medicine. Also, the awareness of this program is relatively low in two or three-line cities and a number of people we interviewed even have not heard about such project. The degree of participation is disappointing as the whole project lacks visibility and exposure. Moreover, due to the particularity of expired drugs, most of the recycled drugs have to be destroyed in a centralized manner, so this project has always been in the deficit.

In order to better promote the recycling project of expired drugs, improve the convenience of recycling and most importantly, to enhance the profits and brand effect, we plan to launch an intelligent vending machine which is integrated with drink-selling and recycling function, hoping to break the restrictions of space and regions by automatic upgrade and using artificial intelligence technology. We tend to make some improvements and innovation from the traditional vending machines, which mainly by adding the intelligent voice prompt system for guide the users, a function selection system on the awesome screen for adding the recycling function, a bar code scanner for the entry and detection of the expired drugs' information, a machine capacity testing and feedback system as well as a rewards system for exchanging epidemic prevention stuff or new medicine. The scanner on the machine can quickly identify the drug information and facilitate the subsequent recycling process. The recycling vending machines will be placed in communities and schools based. The removal of the expired drugs in the machine will be in the charge of the pharmacies which cooperate with GPLH around the communities.

6. Advantages and benefits

1) We will deploy the machines based on communities in order to leverage the power of the community which we believe can increase citizens' awareness of the expired drugs medicine recycling. In addition, we will launch the recycling machines in all cities in Guangdong after our pilot period and some necessary improvements according to our feedback and reassessment. It can help solve the problem of the lack of recycling channels in second and third-tier cities and those remote areas.

2) Having the machines in the community is more convenient for the residents in the community as they don't need to spend time in looking for specified recycling places such as pharmacies or other channels anymore. Compared to the two methods above, the recycling machine can reduce human and financial investment and achieve a higher drug recovery rate. The product is small, low-cost, flexible and adjustable, as close as possible to the convenience of residents and can meet the scene that traditional recycling methods cannot support. Companies don't need to rely on regular dealers or delivery agencies but can directly benefit from the low-cost and fully automatic machines by selling their drinks and recycle the medicine.

3) In addition, the cash flow is abundant and no debt or quick cash flow. The integration of selling beverages and the recycling of medicines will not only make it easier for those who need them, but will also further promote the sales of Ciningji drink.

7. Return risk

For the reason that the popularity of expired drug recycling is a long-term project and needs a relatively large investment. It is expected that GPLH to recoup its costs in 5-7 years and to make a leap in profit after cost recovery. However, we believe that the project will attract the attention of many other companies as this is a brand new concept and there are many sections in the whole chain can be joined and benefited from. It can even receive more policy and financial support from the government after the increase in the prevalence of drug recall as GPLH has already made an agreement with the government on some public welfare programs. With government policy and funding behind it, it will be

easier to promote the idea of recycling drugs and save a lot of money. When other companies become interested in the GPHL's project, they will try to invest and become part of the project. For example, some beverage companies may want to sell their products in GPHL's machine considering its better convenience and availability compared to normal shops. They can help GPHL bear part of the transportation and delivery costs and ease the burden of GPHL. With the help of the government's policy environment and the financial support of other companies, it will be easier and more profitable for GPHL to push ahead with its project. In general, even if in the starting period GPHL needs to invest more costs but after making good progress.

8. Marketing planning

1) First of all, we will spread the word in all platforms where GPHL has entered into on the Internet including Weibo, WeChat Official account, Suikang Mini Program, Taobao store, official online mall and the company website. The instruction of the machine, the place it will launch, the usage, the rewards for recycling and the whole process will be stated in detail. In case that people are still confused with it, we will arrange staff to answer the questions in the background operation which means people can chat with our staff online in the above-mentioned platforms to know more about the program.

2) To enlarge the popularity, we will also conduct the content marketing strategy. We will collaborate with those Internet celebrities such as LI Jiaqi and WEI Ya or some influential idols to promote our program as livestreaming economy is very welcome now. We believe it can help tap the market of young people and increase much awareness due to the huge user base of media platforms such as Douyin (aka TikTok internationally), Kuaishou and so on.※ Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience — and, ultimately, to drive profitable customer action.

9. Offline activities

1) As the expired drugs project has been recognized and appreciated by the government, we plan to develop in-depth cooperation with Guangdong TV station such as Zhujiang station and TVS series station with the government's assistance. We will do the product placement in the form of advertisement and being the television programmes' sponsor. The data shows that most of the audience of these stations are Guangdong natives, so this strategy can contribute to the promotion to more citizens in Guangdong.

2) Specifically, we will enter the communities to promote our program by holding some lectures to advertise Guangzhou Phar. Holdings' expired medicine recycling program and introduce the automatic recycling machine as well its rewards mechanism. Also, we will hold some interesting activities to attract citizens to participate and experience the recycling practice. In those activities, we will prepare many gifts such as epidemic prevention stuff or some well-known and best-selling medicine like Kangbingdu Oral Liquid; Xiaochaihu Granules; Wanglaoji drinks;

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