

# GBA Business Challenge 2023\_Application Form

<b>Business idea's name</b>	MediFind		
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## 1. What is your motivation to start a business?

It is essential to acknowledge the widespread use of antibiotics currently. The Vietnamese Ministry of Health reports that 87% of individuals in rural areas and 91% in urban areas voluntarily use antibiotics, resulting in Vietnam having the highest rate of antibiotic resistance worldwide. To contribute to society and combat this issue, my team created an application called MediFind. This app helps promote the safe use of antibiotics by analyzing ingredients and providing advice and warnings. Additionally, starting a business allows us to form relationships and practice social skills and helps us pursue our passions with determination.

## 2. What are your personal strengths? How does your idea match your strengths?

Our team excels in technology, with all members hailing from the information technology industry of Ho Chi Minh University of Technology. Additionally, we receive support from lecturers in the medical and technology fields. Our products incorporate the latest and most innovative technologies, including OCR model-NLP, Big Data, and Large Language Model (LLM). Our pipeline OCR-NLP is the foundation of our application, extracting antibiotic drug information from prescription images. Integrating new technologies improves our applications' quality and enhances user experience. While OCR has been used in medicine for some time, combining OCR-NLP in a pipeline is a new trend in computer vision. Leveraging big data improves modeling, and integrating a large language processing model into our project in the form of a chatbot, like ChatGPT, better supports users and keeps up with technological trends. Our chatbot is a personal medical advisor for users, optimizing and personalizing their experiences. Our technology has

been published in scientific papers and verified, and the results of our implementation confirm that it is perfectly suitable for our product.

### **3. What is your business idea's name? What the business will do?**

MediFind is a helpful app that promotes the safe use of antibiotics. It does this by analyzing the ingredient list and providing advice and warnings.

### **4. What inspired this business idea?**

Antibiotics have been a game-changer in treating and preventing bacterial diseases. However, excessive and improper use of antibiotics has led to the emergence of antibiotic resistance, where bacteria become immune to even the most potent antibiotics. This poses several severe health risks. Antibiotic resistance makes it difficult to treat many diseases, leading to higher costs and increased fatigue for the patient. In addition, it increases the risk of infections during surgeries and cancer treatments. This is a significant global problem, with over 1.27 million deaths attributed to antibiotic resistance and nearly 5 million deaths yearly. In the United States, over 2.8 million people contract antibiotic-resistant infections annually, while Europe has more than 670,000 antibiotic-resistant bacterial infections each year, resulting in about 33,000 deaths.

With high antibiotic consumption rates, Vietnam faces a higher rate of antibiotic resistance than other countries globally. Antibiotics make up more than 50% of the drugs used in medicine in Vietnam, with third and fourth-generation antibiotics being the go-to drugs. This has caused bacteria in Vietnam to develop resistance to numerous antibiotics.

Antibiotic resistance occurs when antibiotics are used improperly or excessively, and sometimes antibiotics are prescribed even if they won't work against the specific bacteria causing the infection. Therefore, it is vital to use antibiotics only when necessary and correctly to prevent antibiotic resistance.

### **5. What problem will your product or service solve?**

MediFind is a new solution to help manage antibiotic use and combat the growing problem of antibiotic resistance. It provides users with information about their prescribed antibiotics through images and text and includes features such as dose analysis, reminders to take medicine, and advice on intelligent drug use. The product is unique in its use of artificial intelligence technology and

analytical algorithms, as well as the utilization of Big Data from the Ministry of Health to identify antibiotics from prescription images and provide safe and appropriate drug advice for each patient. MediFind is a mobile application making it easily accessible for users.

## **6. How will you produce / deliver the product / service?**

Our plan to develop MediFind has four phases, all of which are 100% free for our customers.

In Phase 1, we will conduct two months of market research to identify urgent problems related to digital health. We will develop solutions and assess the potential market based on our findings. We will also study our competitors to gain new ideas and create a competitive advantage for MediFind.

In Phase 2, we will upgrade our product with new features based on customer feedback. These features include medication regimen analysis, medical consultation with doctors, and chatbots (trial version).

In Phase 3, we will introduce a Premium package for individual customers once we reach 1000 users. The Premium package will include advanced features such as a "Medical Blog" that summarizes and updates information on recognition, prevention, and treatment, a "MediFind Medicine Mart" that supports busy customers in buying drugs according to their schedule, and a chatbot virtual doctor that can answer all patient questions about taking medicine. The regular plan will remain free, while the Premium plan will cost 99,000 VND/month.

Finally, in Phase 4, we will listen to businesses' investment needs and acquisition ideas and negotiate prices accordingly.

## **7. Who would be a suitable customer for this product / service and why?**

Our target customers are patients, doctors, and medical facilities. For patients, we focus on those with an income under 4.6 million VND per month, which is the average income of Vietnamese people in 2022, according to the Labor, Invalids, and Social Affairs newspaper. This income level typically leads to less frequent doctor visits and more self-treatment with antibiotics to save costs. We do not discriminate based on gender and focus on those with manual labor or worker occupations. Patients primarily use our service to look up drugs and manage their health conditions.

For doctors, our service is used to look up drugs, update information, and manage and check patient status. Medical facilities use our service to look up medications and update medical information.

There are times of high demand for our service, such as during epidemics or virus outbreaks. In Vietnam, malaria is most prevalent during April-May and September-October (early and late rainy season), with slower progression during June, July, and August when Anopheles mosquitoes are less developed. People with fixed diseases like tuberculosis and pneumonia must also regularly use antibiotics. On average, our service is used once a month per customer.

### **8. How will you price the product and why?**

At MediFind, we use two methods for pricing our products. Firstly, we use the financial formula valuation method, which involves calculating the present value of future cash flows from the business using formulas such as "Discounted Cash Flow" (DCF). Our premium plan is currently priced at \$4.99, and we expect to earn at least 10 billion VND from this product.

Secondly, we use the market comparison method to compare our startup with similar companies listed or valued in the market. Factors we consider in our comparisons include revenue, profit, growth, and competitive position. However, since there are few applications similar to MediFind in Vietnam, we estimate our value to be between 10-12 billion VND based on our evaluation. If we expand to foreign markets in the future, this value can triple compared to the present.

### **9. Competitive Strength: What products are currently in the market that competes with your product concept? What is their strength - what is your strength?**

In Vietnam, there are no products similar to Prescription Recognition, Walgreens, or Klippa, but they are available overseas. These products are known for their reliability as they come from reputable enterprises and have established relationships with medical experts to expedite the testing process. However, MediFind believes it has the upper hand over its competitors with its affordable price and additional features.

MediFind provides a comprehensive app at an affordable price, which is compatible with smartphones and allows data storage even when the network is unstable. It also offers reminders for taking medicine, making it more convenient for users. Compared to similar apps, MediFind has a lower price, giving it a competitive edge.

MediFind is the first platform dedicated to antibiotics in Vietnam, aiming to address the issue of improper use of antibiotics in the country. MediFind uses AI technology to provide personalized advice to each user about drug use in real time. Unlike its competitors, MediFind uses AI algorithms and Big Data to analyze drug ingredients and provide advice on their use. The app also has the potential to integrate a chatbot as a virtual doctor to answer users' questions.

Lastly, the MediFind project promotes responsible antibiotic use and raises awareness among the general public. By providing a user-friendly mobile application and updated information, MediFind aims to improve public health by reducing antibiotic resistance and improving patient outcomes.

**10. Is your product / service suited to small scale production and sales? If so for what reasons.**

This product is ideal for small-scale sales. Here are some reasons why:

1. Cost savings: With a mobile app, MediFind incurs lower manufacturing and distribution costs than physical products. This makes it easier to start small and gradually expand as the user base grows.
2. Scalability: The mobile app allows MediFind to reach a large audience without requiring significant infrastructure or additional resources. Expansion can be easy if the app is compatible with different devices and can handle increased user demand.
3. Accessibility: The app's availability on the Google Play store makes it easily accessible to millions of Android users worldwide. This helps tap into a large potential customer base and increase customer reach.

4. Target marketing: The app provides a specialized service to analyze medical prescriptions and detect antibiotic use. It can focus its marketing efforts on small groups of medical professionals, clinics, or individuals interested in the correct use of antibiotics. This helps reach the right customers and generate interest in the product.

5. User feedback and improvements: Starting with a small user base allows the app to gather valuable feedback from initial customers. This helps identify functions that need improvement and fine-tuning for the app, ensuring a more robust, reliable, and easy-to-use product through an iterative process.

### **11. What is the biggest obstacle to turning your idea into a success?**

The most considerable difficulty is educating users to understand the importance of managing the amount of antibiotics used and accepting the use of the application to control the amount of medicine taken each day. There are many reasons for this problem.

1. Lack of awareness: Many people may need to be aware of the potential risks associated with antibiotic misuse or the importance of managing antibiotic use. They may need to realize the need for an app to help them track and analyze prescriptions.

2. Habits Formed: People often rely on established habits, and it can be difficult to accept new technologies or change the way they behave, especially regarding healthcare practices. When sick, some people use previously effective drugs without thinking about the consequences of drug abuse and misuse. Overcoming these established habits can be pretty tricky.

3. Trust and reliability: Users may be hesitant to trust a new app, especially when it comes to sensitive health-related information. Building trust and establishing trust in your application's correctness, security, and privacy is critical to overcoming this barrier.

4. Limited benefits perceived: Users need to see clear benefits of using the app to manage antibiotic use. If they don't understand how the app can positively affect their health or help them make informed decisions, they may be less motivated to use it.

5. User resistance to change: Change can be challenging for many people, and using a new app requires a willingness to accept a difference in the care management of their health. Some users may need help using the new tool, significantly if it disrupts their current routine or introduces difficulties in their medication management.

6. Educational barriers: Understanding the functionality and benefits of the app may require users to have a certain level of health literacy. An app's features and benefits must be communicated clearly and in an easy-to-understand way; potential users may need help understanding its value. It is crucial to invest in effective marketing and communication strategies that emphasize the benefits of your app, provide educational resources, and build trust with users. Presenting the app's ease of use, security measures and long-term health benefits can help address user concerns and encourage use. In addition, partnering with medical professionals, clinics, or organizations in the field of antibiotic care can help increase awareness and credibility among target customers.

## **12. If you win the GBA Business Challenge, how will you use the prize money**

In the event of a team win, the prize money will be divided among several categories to improve the app's development, marketing, and user engagement.

The first category, product development, will allocate a portion of the bounty to enhance the app's features, security, and user experience and address any current limitations and user feedback.

The second category, marketing, and promotion, will be used to increase app awareness through digital advertising, social media campaigns, partnerships with influencers and medical professionals, and content creation.

The third category, user acquisition, and retention, will focus on attracting new users and retaining existing ones through campaigns, referral programs, and customer support and engagement programs.

The fourth category, user feedback, and improvement, will allocate resources to collect and implement user feedback to build a strong user community and improve overall satisfaction.

The fifth category, collaboration, will establish partnerships with medical providers, clinics, or pharmaceutical companies to expand the team's influence, build relationships, access valuable data, and build credibility in the industry.

The sixth category, legal and administrative expenses, will cover trademark registration, licensing, and necessary legal consultations to ensure the team's application complies with relevant regulations and protects intellectual property rights.

Finally, the seventh category, financial stability, and future growth, will maintain a financial "contingency" to deal with future expenses and contingencies, such as developing on other platforms, additional products, or expanding operations.

## **13. If you have a video-clip to explain your business idea, please provide the link for downloading (2 minutes max.)**

[https://drive.google.com/file/d/16h1jVM15hbLaaul\\_LL-nwklm\\_KgmbeyU/view?usp=sharing](https://drive.google.com/file/d/16h1jVM15hbLaaul_LL-nwklm_KgmbeyU/view?usp=sharing)

**14. Do you agree if the GBA shares your business idea's introduction to our GBA Corporate Members for their investing interest?**

Yes