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Executive Summary

Business Description
Mayaki Inc. is a software company that builds software systems that allows its users to verify the authenticity of products on the market. The legal form of the business is Partnership. Our objective is to produce software systems that allow the consumer to verify the products they buy on the market hence reducing counterfeiting in our market and verifying the origin of products to ensure the safety of consumers.

Product and Services
We are currently building VeryFi, an SMS and Web application that allows users to verify if a product for consumption is certified by the Food and Drugs Board (FDB) and the Ghana Standard Board (GSA).
The user would send the name of the product or the FDB number to a short code for the SMS service or enter it at the Web interface. The query result containing the manufacturer’s name, product description as well as package features would be sent to the user.

The Market and Competition
The market size for this product is about 7500,000 people and we hope to have a market penetration of about 5% in the first three years. Our go to market strategy is to do a lot of radio advertisement and also take the product to the customers by using public announcement systems to talk about the product in the markets and bus stations. Our main competitor would be
mpedigree the advantage we have over them is that we hope to concentrate on the Ghanaian market for now and therefore hope to achieve customer trust and provide quality service because we know our customers and we understand their needs.

**Operation and Management Team**

Operation would start with our team of five, two engineers (Moses Obeng and Kofi Dwomoh-Ababio), two Marketers (Theophilus Kwaw Annor and Gifty Ofori-Adu), a Peoples Person (Priscilla Synaepa-Addison) and a C.E.O (Theophilus Kwaw Annor). Moses Obeng is a graduate from Valley View University. The other four are students of the University of Ghana, Legon. The C.E.O, Gifty Ofori-Adu, Moses Obeng and the Peoples Person study Computer Science while Kofi Dwomoh-Ababio studies Computer Engineering. However, we are all students of MIT-AITI-2012 summer class. These therefore, provide members with needed skills for the success of the business.

**Financial summary**

The nature of this enterprise gives us the flexibility to use just a little amount of money to startup. The expenses from having an sms short code would be determined by the number of messages received and the rates we charge our customers. 70% of the revenue we make from SMS charges would be used to pay for the short code and an additional one-hundred and eight cedis would be needed annually to host the website.

Our initial expenses would be financed by the founding members of the team with each contributing an amount of GHS 300. We later hope to seek for government grants and also partner with the telecom companies to use our product as a value added service to minimise the SMS short code expenses. In the first twelve months we do not expect to make any significant gains as we aim at using that period to make a brand name and study the market’s reaction. However, in the next four years we hope to achieve an annual profit of GHS 13,000 from providing services to at least three pharmaceutical companies and two textile companies. We also aim at extending the service to our neighbouring countries. We would be expecting a daily flow of cash into the business from the individual customers and a monthly inflow of cash from the companies that
patronise our services. We would be paying about GHS 108 annually for the website to be hosted and about GHS 2,000 for advertisements. We also expect to pay taxes monthly.

1. Business Description

Mayaki Incorporated located at University of Ghana, Legon is a corporation with five members, currently at a startup stage and building VeryFi, a software system that allows users to verify if products (food, water and drugs) have been certified with the FDB and GSA. Our products are basically for the Ghanaian consumer who is concerned about the safety of their health. In the future the number of mobile phone users will increase and this will affect us in a positive way. We also hope to extend the service to other countries.

1.1 Industry Overview

From a research done by DreamOval, mobile phone use has surged in Ghana with cellular phone subscription estimated to have reached 19.8 million (about 82% of the total population), compared
to 17.4 million in 2012 (about 75%). Since 2005 mobile phone use has an annual growth of 46%. Also 10.4% of the population use internet. With this we estimate an initial market penetration of 3%.

In spite of the notable surge in these two industries an estimate of about 8 million Ghanaians are not yet on mobile phones and do not use the internet. However, the telecom industry has grown with about 80% Ghanaians being mobile phone users. Out of this, 30% are active SMS users and 10.4% are internet users. This will give us a market penetration of 3%.

1.2 Company Description

Mayaki Incorporated is a joint partnership between five MIT-AITI students and at its startup state. We are in to provide software system that allows users to verify the originality of a product. Our initial product would tell its users that food or water or drug they are buying is certified by the Ghana Standard Authority and The Food and Drugs Board. This is going to be an SMS and Web based application.

Mission statement

Verifying the Origin of Consumable Products on the Ghanaian Market

1.3 History and Current status

The idea of forming a business came about when our MIT-AITI lecturers for a summer class asked as to form groups for our final project. A group of five formed Mayaki Inc. Many business ideas come to mind but after a series of analysis and vote we decided to create software systems that verifies the authenticity of products on the market.

1.4 Goals and Objective
Our objective is to make software systems to help consumers know the source of the products they buy.

In the future we are going to make software systems that allows it users to verify the authenticity of textile, cloth, shoes and perfumes. We will also have a customer care center to assist any person who can not use the internet or even send an SMS to be able to call in and verify the products they buy.

We also want to achieve at least a 90% counterfeit free market in Ghana and move on to other African countries.
2. Products and Services

Ghana currently has an SMS drug monitoring system in place. VeryFi however, is an SMS and Web based application used for the authentication of all consumables. VeryFi also aims to provide voice assistance to all consumers on the products they buy.

VeryFi can be used by SMS and web users in Ghana. The principle on its application can be extended to any product in any part of the world provided information on the product can be acquired. Data will be acquired from the Ghana Food and Drugs board, which releases monthly based list of registered products on their website. Automated python scripts are used to extract the data into a state our system can process. Our web platform will use the Django framework which uses the python language we are familiar with.

The business starts off with the SMS application on which the user pays standard charges for usage.

Upon completion, the consumer sends a text of the product name to a shortcode on any network. The system responds with a confirmation or disapproval of its authenticity. A web interface will also be designed for VeryFi which hosts extra features like products content and origin information sourcing all for free. An interactive voice response system will also be designed for VeryFi.

In our products simplicity and efficiency is key. The latter because our target market currently lacks sophisticated skills in technology plus with human life at stake, response must be quick. To realise this we focus on a simple web interface plus a fast and concise query and response time. Internet service providers in Ghana however can affect the response time target since internet is generally slow in Ghana.
3. The Market

3.1 Market Analysis

Over the last decade governments and state agencies have had trouble, battling the issue of counterfeiting, companies are making huge losses and the health of the citizens are put at great risk. The emergence of mobile phones and the citizenry response to it created the opportunity for us to come up with a product to curb the issue of counterfeiting. The market size is about seven million Ghana cedis, we intend to enter the market by running the product on pilot basis in the first year to know how are customers would respond to the product and build customer trust. We hope to expand by adding more convenient ways of accessing the product like the voice service, also we hope to explore other markets outside Ghana and provide customized services to our customers. We provide our customers with security and provide a platform that allows them to show us how to serve them better. Our main competitor is mPedigree but we have a competitive advantage over them since they were unable to capture the local Ghanaian market which we are in the process of doing and their service caters for only drugs whereas our product verifies every consumable.

3.2 Competitive Analysis

The level of competition is moderate with only one competitor mPedigree which checks for the certification of drugs by manufacturing companies. Currently this service works in Nigeria, while in Kenya, a pilot survey was conducted some few months ago. However this service is in Ghana but it is being patronised by one pharmaceutical company, all though measures are being put in place to enlarge their territory across Ghana.

VeryFi on the other hand, spans across just drug verification. This service would allow for the verification of drugs, food and water.
## Competitive Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Verify-Fi</th>
<th>Strength</th>
<th>Weakness</th>
<th>Competitor (mPedigree)</th>
<th>Importance to Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Products</strong></td>
<td>Consumables (Drugs, Food and Water)</td>
<td>Cover a variety of products</td>
<td>Have not captured the local market</td>
<td>Drugs</td>
<td>Critical</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Standard SMS rate and free online service</td>
<td>Customer trust for quality service</td>
<td>Inconvenient when the user runs out of call credit</td>
<td>Free</td>
<td>Critical</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>Brief description of product would be provided</td>
<td>Concise Details of product</td>
<td>Just information if product is registered or not</td>
<td></td>
<td>Critical</td>
</tr>
<tr>
<td><strong>Service</strong></td>
<td>SMS and Web services</td>
<td>We provide outstanding customer service as well as create consumer safety</td>
<td>SMS service only</td>
<td></td>
<td>Important</td>
</tr>
<tr>
<td></td>
<td>Awareness</td>
<td>Reliability Factors</td>
<td>Stability</td>
<td>Expertise</td>
<td>Company Reputation</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td>We are reliable because we all have just one project at heart.</td>
<td>Telecom providers' unreliability can affect our operations.</td>
<td></td>
<td>Most employees have other business venture to cater for</td>
<td></td>
</tr>
<tr>
<td><strong>Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stability</strong></td>
<td></td>
<td>We do not have an office yet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Expertise</strong></td>
<td>We have a C.E.O, two engineers, a peoples person, two marketers</td>
<td>We have a strong technical as entrepreneurial backgrounds</td>
<td></td>
<td>They have better programmers and have experience in providing service</td>
<td></td>
</tr>
<tr>
<td><strong>Company</strong></td>
<td></td>
<td>We have little experience in providing services.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reputation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Location</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>MAYAKI INC. Business Plan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Our logo is very easy to identify with and so is the product name.</td>
<td>Could be easily copied</td>
<td>The product name does not give a clue about what the product is. Difficult to remember</td>
<td>Important</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------</td>
<td>------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Sales Method</td>
<td>This service would be sold to manufacturers and service providers</td>
<td></td>
<td>The service is sold to manufacturers</td>
<td>Not important</td>
<td></td>
</tr>
<tr>
<td>Advertising</td>
<td>Word of Mouth and the Media(Radio, TV)</td>
<td>We have a larger network on social media</td>
<td>Media(Radio stations)</td>
<td>Important</td>
<td></td>
</tr>
</tbody>
</table>

From the above we have a competitive disadvantage of being a startup business since mPedigree have been in existence for about 5 years, thereby giving them experience and more knowledge about how things work. Nonetheless, we have an advantage of considering food and water in order to cut across consumables on the Ghanaian market.
4. Marketing Strategies and Sales

4.1 Introduction

About 82% percent of the Ghanaian population use mobile phones. Out of this number about 30% are active SMS and about 10.4% of the total population use internet. The total market size is about some 7,500,000 people. We wish to penetrate this segment of the market. From a survey conducted it was gathered that about some 70% of the sample population would be interested in the product. However due to the slow nature of Ghanaians to adapt to new technologies, we expect that in the first two year we will capture 3% of this market share that is about 225,000 people through radio and TV commercials as well as social media.

4.3 Targeting strategy

For us to be able to reach the mass, through broadcasting a message that will reach the largest number of people possible, we will therefore ignore market segment difference and appeal the whole market with one strategy that is mass marketing.

4.5 Product/Service Strategy
The target market being Ghanaians, VeryFi has three main sections which will meet their needs. The SMS part will allow it users check the authenticity of food via SMS, the web part allow it users who prefer using the web do same and lastly the call centre allow part of the target market who can neither SMS or use the web to call and verify a product they are buying or want to buy. Our service has a unique feature of providing the customer with relevant information about the products they buy. These include: product name, manufacturer, batch number, expiry date as well as content description. This would allow the customer to know exactly what should be contained in the whatever they purchase.

Another outstanding feature is the online service, which gives users general health tips, information about how counterfeiting is being managed across the world as well as an opportunity to be a part of this noble cause by sharing their ideas and experiences. Moreover, we would provide a source of security for manufacturers who patronise our services because they know their customers are getting the quality and safe products they promise.

4.6 Pricing Strategy

Standard SMS rate will be charged per query. This would be used for the acquisition of the gateway and sustaining it. The web would be free, no charge will be required per query. The call center would also be free except the customer would pay standard tariff depending on the network provided.

The pricing strategy would be reviewed quarterly.

4.7 Advertising Strategy

For a startup business like ours the best form of advertisement would be word of mouth, the mass media would be used after we have gained some revenue. We would advertise on radio and television the most, since majority of our target market have access to these. We would convey a short and precise message that would be easily understood by the general public. We would also advertise verbally at various bus stations as well as market areas using public announcement
5. Operations

5.1 Operation strategy

There would be five working days in a week from Monday to Friday with working hours 7am to 6pm. For the start, we would have just the members of the team without associates or partners. In order to add value, food and water would be add to the drugs. Also a customer service which
would allow “illiterates” to call in and verify products, would be added. Later, fabrics would be added to the items that could be verified. Advertisement, by word of mouth would be our main means, of reaching out to the Ghanaian consumer for the start, later we would add the media (radio, TV, newspapers).

5.2 Ongoing operations

Our main job is to create applications that would solve problems faced by the Ghanaian. Currently, we are working on VeryFi, an SMS based and Web application that allows consumers to check if products (food, water and drugs) have been certified with the Food and Drugs Board (FDB) and the Ghana Standard Authority (GSA).

5.3 Personnel

Our team is made up of a C.E.O, Theophilus Kwaw who is final year computer science student with excellent programming skills. He is also an entrepreneur with a booming business in online shopping. he is focussed and doubles as a marketer with Gifty Ofori-Adu. Gifty is a creative and articulate lady who brings so much innovative ideas on board. She has a natural aura with public speaking and excellent marketing skills. We also have a motivational person, Priscilla Synaepa-Addison who also doubles as a financial manager. She has good background in statistics and mathematics. She is optimismics and drives the passion of the team. We also have two engineers Kofi Dwomoh Ababio and Moses Obeng who have a passion for programming. They both have good knowledge in python, django, html, java and photoshop. Some team members have more than a role. We hope to have about 10 fully employed persons; 2 of which would be janitors, a security personnel, and an additional entrepreneur. We would employ undergraduates with either programming or entrepreneurship skills for internship during the long vacation. We hope to have associates and achieve all these in 5 years.
5.4 Scope of operations

We therefore have to purchase tables, chairs and fans or an air conditioner, pay for electricity bills ourselves. We would use individual laptops and the internet to work. We would have a washroom in the premises. We hope to deal with service providers and manufacturers directly.

5.5 Location

We hope to get an office for the start in Accra. Mayaki Inc. would be registered after getting a convenient office. We hope to move to a bigger office which has a parking lot, a spacious customer care unit, conference room, washrooms, technical offices, marketing and planning offices and administrative offices. We hope to equip each department with the necessary tools to help facilitate their operations.

5.6 Payment of Employees and Incentives

Employees would be paid monthly, incentives and fringe benefits like life insurance, sick leave (maternity leave) and allowance for lunch would also be provided. An average of GHC 3 would be spent daily on lunch for each employee, making a total of about GHC 930 monthly.

5.7 Recruiting New Employees

New employees would be selected after going through the process of having to apply when necessary, then an interview. Applicants with good programming and entrepreneurship skills would be recruited. Upon recruitment employee enjoys all the rights as the others.
8. Financial Information

6.1 Personal Financial Statement
Apart from the C.E.O, Theophilus Kwaw Annor, none of the team members have any assets or liabilities outside the company. Theophilus Kwaw has an online perfume shop that earns him about 2,000 GHS annually.

6.2 Startup Expenses and Capitalization
It would cost approximately 70% of our sms charge rates to purchase a short code from mobile service providers monthly. These charges are based on the number of messages exchanged and would change as more messages are exchanged. It would also take approximately 15 GHS to be hosted on a server per month. In all it should cost us about 108 GHS annually to be hosted online. The initial plan at raising money is, for each member to contribute 300 GHS, also, we intend to pay for the short code from the revenue we generate from charging customers who use the service. The second plan however, is to negotiate with telecom operators to use the product as a value added service to minimise the cost of purchasing the short code. We also intend to seek for government grants as well as partner with other companies who have interest in the product. In future, we hope to deal directly with manufacturers to produce codes that will be used by Very-Fi as database with which consumers could check for the originality of a purchased product for a fee.

6.3 Twelve-Month Profit and Loss Projection
In the first year, we hope to offer the service on pilot basis and get views from our users to improve the product. During this time, we would study the market and get to know our actual market size and user reaction to the product. In effect we expect no major profit apart from the
30% income we would generate from the SMS users

6.4 Four year profit and loss projection

During this period we expect to have made a brand name as well as a massive improvement to our initial product, with an additional voice service. We also hope for government intervention and an extension of VeryFi to include textiles.

If we get three pharmaceutical companies in Ghana to sign on to the product and pay an amount of 2,000 GHS a year and two textile companies also paying the same amount, we would be generating approximately 10,000 GHS a year. With our hope of extending the product across the subregion, we intend to introduce the product in three countries with an agency each. We hope to make a revenue of about 4,500 dollars annually from our international partners, thus generating an annual revenue of GHC 19,000 GHS.

We expect to make no losses but in the worse case scenario we expect to make a revenue of 5,000 GHS annually. We also expect to break even during this time, making a profit of about 15,000 GHS tax exclusive with the best of condition and about 1,500 GHS in our worse year.