

AI – POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS

TEAM ID : PNT2022TMID50195

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SOLUTION:

The main aim of the project is to building a model which is used for classifying the fruit depends on the different characteristics like colour, shape, texture etc. Here the user can capture the images of different fruits and then the image will be sent the trained model. The model analyses the image and detect the nutrition based on the fruits like (Sugar, Fibres, Protein, Calories, etc.).

NOVELTY:

Food analysis is a discipline with a huge impact on both economical and medical aspects of modern society , meaning that it is at the corner stone between industrial, medical and regulatory needs.The development of analytical methods in food matrices has always been difficult due to large variety of the physicochemical properties which can change analyte structure and extraction efficiencies due to different process in through out preparation and distribution.

On the other hand, such complexcity can be tackled by a combination of sample preparation protocol and use of analytical instrumentation that is typically

available in specialised laboratories. The simultaneous detection of multiple analytes at the same time is the ongoing trend in the development of methods and instruments that increase the productivity of food.

FEASIBILITY OF IDEA:

There was extremely limited food budget both at schools and at homes. Schoolchildren disliked vegetables and the taste of the nutritious multigrain drink served in school on alternate days. Thus, the dietitian, a SIF volunteer, developed alternative nutritious yet tasty malt drink recipes (Supplementary file 7) and pilot tested with the schoolchildren who commented that the modified drinks were delicious. Indian families do not eat vegetables that are raw or lightly cooked. Thus, they always overcook them which destroys most of their available nutrients. Nutritional analysis of catered school meals displayed inadequate fibre, protein, vitamin and mineral content when compared to the national dietary guidelines.

BUSINESS MODEL:

Customers can place orders via telephone, website or fax, whereby the order will be entered into the database and submitted to the chef for meal preparation. The meals will be ice-packed, air-sealed, and packaged in plastic, micro-waveable and disposable containers. A value-added service that will be offering is one-on-one dietary consultation with the on-staff nutrition experts. The on-staff dietician and nutritionist will provide customized menus depending on specific dietary needs. This service will be offered at a nominal fee.

MARKET SEGMENT:

Since the market is composed of consumers whose needs differ, it is advantageous to segment the market. This will allow the business to better understand those needs and target the groups within the markets that they will serve. The Target Market is the segment of the qualified available market- that they have decided to serve. The Available Market would include those in potential market who have enough money to buy the product and services. Finally, the

Potential Market will be observed, which includes all Coachella Valley residents who have an interest in acquiring these services.

VALUE CHAIN:

A food value chain is a form of food supply chain or the series of processes and actors that take a food from its production to consumption and disposal as waste. In a value chain, the emphasis is on the value accrued for chain actors at different steps in the chain, and the value produced through the functioning of the whole chain as an interactive unit. A value chain is commodity specific, and as such involves only one particular food that is relevant within a diet. Value chain development has become a principal element of the poverty-reduction strategies of development agencies, donors, and governments. Interest in value chain development stems largely from an increased awareness among development organizations that success in increasingly complex agri food markets often requires stronger collaboration among value chain actors, including producers, processors, and retailers.

COST AND PROFIT:

Conservative goal has been put into place of acquiring an average of five monthly-plan (28-30 daysworth of food) clients per month. Since the first few months will be focused on networking, the first five monthly-plan customers have been projected in June of the first fiscal year. Customers who are ordering by the week have not been taken into the financial projections. As shown in Appendix F: Sales Cycle Forecast: Year 1-Year 3, by the end of fiscal Year 1, the business will have acquired fifty monthly-plan clients.

COMPETITIVE STRATEGY:

There are no direct local competitors for Nutrition On Wheels, there are similar Zone diet-based programs that deliver from the New York and Los Angeles area. The competitive advantage Nutrition on Wheels has is its close ties to the medical community and a first mover advantage. They will maintain a

competitive advantage by developing strong brand name awareness, offering exceptional service, instilling good salesmanship in all employees, and continually creating innovative meals. Once a customer tries the service, their experience will be reinforced by friendly, efficient and knowledgeable service.

SOCIAL IMPACT:

This will acquire knowledge and provide information about nutrition. Now a days, no one follow the diet plan. Providing this information they come to know about what the nutrition in each food item.it is used to schedule a diet plan by taking image a food item if we send it we can get information about each food nutrition like carbohydrates, fat, proteins, vitamins, minerals and sugar.

SCALABILITY:

Currently, nearly half of all companies rely on artificial intelligence (AI) for handling data quality. This powerful tool can be used to quickly and effectively predict investment outcomes, as well as to devise strategies or establish long-term goals. Scalable AI pertains to how data models, infrastructures, and algorithms are able to increase or decrease their complexity, speed, or size at scale in order to best handle the requirements of the situation at hand.As improvements continue with data storage capacities as well as computing resources, AI models can be created with billions of parameters. It's extremely helpful for extracting value from large data sets and spotting patterns or trends that would be difficult or impossible for a human to notice. Load scalability pertains to software that can speed up its performance with regard to the available computing power.

