



Framework of Nutritious Food in Technology of Vending Machine for People Health

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ABSTRACT

The vending machine make our life easier. When we buy at vending machine, it will save our time which is we could not go to shop to buy food. But many of vending machine foods are not healthy enough for our body to eat. This research is discussing about the healthier of vending machine which is we must think what type of food are our body need means that the healthy food not likes snack or carbonate drink. The objective of the research is to measure the healthier vending machine for human life. It means the food in vending machine should be healthy to our body. The methodology of the research is three phase firstly preliminary research, identify the element of healthy vending machine and last method is the finding research..

Key words :

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1. INTRODUCTION

Nowadays, many place offer vending machine for people. Many place have vending machines and although vending machine may have been criticized in the past, there is no reason why it cannot provide a range of food and drink in line with nutritional standards and which is supportive of a whole food approach. Healthier vending may help generate income for some business person. Vending machine should not be looked at in isolation, but as part of the planning for the whole food service. The vending machine service should reflect the objectives of whole food policy. Guidelines about the use and contents of vending machines should be discussed and implemented in order to meet whole objectives and to promote healthier choices and a balanced diet. [1] The objective of the research is to measure the healthier vending machine for human life. It means the food in vending machine should be healthy to our body. The methodology of the research is three phase firstly preliminary research, identify the element of healthy vending machine and last method is the finding research which is the result of the research can be conclude.

2. PROBLEM STATEMENT

Whether or not the organization carries the cost of a health insurance plan, the health of its employees directly impacts the bottom line. This is because a healthy employee needs fewer sick days, focuses better and feels more physically comfortable. Vending machines, which typically carry the high fat, high sugar or called craving foods like candy and chips, promote poor dietary habits and contribute to lost productivity.

An Estridge Group Study found that overweight and obese employees were 21% more likely to call out sick than their healthier eating counterparts. Unhealthy eating led to 39.2 million call outs in 2008 [2]. If we promotes healthy eating, a vending machine may negate that message with its sugary offerings. Unless we secure or stock vending machines with healthier snacks, such as granola bars, fruit and bags of protein rich nuts, the offerings won't quite match up with our mandate. [2].

The problem is that, to many people, the vending machine is as much a part of their daily diet as fast food joints. According to the National Automatic Merchandising Association, in 2004, Americans spent more than \$21 billion buying food and beverages from the vending machines. The average American works about eight to ten hours a day and, according to foodservices giant Aramark, about 15% of workers don't even have time to take a lunch break. For them, the vending machine is a straight shot down the hall, and the snacks inside it are usually fattening and not so healthy—that is until recently [3] [4]

3. LITERATURE REVIEW

3.1 Vending Machine

A vending machine is a machine that dispenses items such as snacks, beverages, alcohol, cigarettes, and lottery tickets to customers automatically, after the customer inserts currency or credit into the machine [5].

3.2 Benefit of Having a Vending Machine

Vending machines can distribute a wide range of products, including candies, chocolate, fruit, nuts, fizzy drinks, water, tea, coffee, and more. A consumer only needs to insert a coin, type in the code for the item they want, and then sit back and relax as the machine dispenses it to them. These machines have gone a long way, and now even allow us to pay by card, eliminating the need to turn our wallet or handbag upside down in search of change. There are numerous advantages to having vending machines in your office. There are a number of advantages to owning a vending machine: [6] [7]

A. *Easy to Manage*

These machines are simple to operate because no one has to be there to sell anything. All that remains is to install the machine, after which we can easily monitor its development from afar. There won't be any financial issues, either, because buying products requires an immediate cash payment [6].

B. *No Overhead Costs*

Operating vending machines carries no overhead costs as we eliminate the need for employees who sell food. We do not have to worry about monthly wages and pay rolls, and there are also no need for you to rent any extra work/ space [6].

C. *Keep Employees Fed and Watered*

If employees do not bring their own lunch, they will not go hungry or thirsty because their workplace will be fully supplied with a vending machine to suit their needs. [6].

D. *Able to stay on Site*

With a vending machine, your staff will be less likely to leave the office to buy food, which means they will be less likely to take a longer lunch. If there is vital work to be done, they could even work through lunch with their vending machine snack. [6].

E. *Keep Alert and Productive*

We know we have the option for an energy boost whenever they want it because we have a vending machine that sells food, notably tea and coffee. This implies that they will be fully attentive and productive throughout the day [6]. 6) A vending machine is a machine that is used to sell goods. Time is money.

There will be no need to waste time making a hot drink because a vending machine can serve a drink in roughly 20 seconds, saving you a lot of time [6] [7].

3.3 Selecting Healthier Food and Drink Items

Food and drinks are classified into Green, Amber, or Red categories in this database using a "traffic light" system based on the following definitions:

Green foods have a higher nutritional value and include less saturated fat, added sugar, and salt. Fruits and vegetables, lean meats, low-fat dairy items, whole grains, eggs, and legumes are some examples [8].

Amber products have some nutritional value, but they also contain moderate amounts of saturated fat, added sugar, or salt, which can lead to overeating. Low-sugar drinks, full-fat dairy products, and white breads and cereals are all examples.

3.4 The Need of Healthier Vending Machine

Obesity and malnutrition are important issues in a number of countries. Over half of adults and one-third of children and adolescents are overweight or obese, putting them at risk for significant, expensive health conditions including heart disease and diabetes. In addition, over half of them consume fewer than three servings of fruits and vegetables each day. When they dine outside the home, it is often difficult for children to eat nutritious meals due to a shortage of healthy options, particularly when choosing food and beverages from vending machines.

Since vending machines are a typical source of bad food and sugary drinks, healthy vending rules are becoming more popular. Obesity and overweight are exacerbated by frequent intake of high-calorie, high-fat foods and beverages, such as those available in vending machines.

Improving access to healthy food is a key strategy of obesity prevention. Making healthy foods available in vending machines like fruits, vegetables, and low-calorie, low-fat snacks and beverages which provides options and creates a healthier environment. This can lead to healthier, more productive people. The vending guidelines will help you provide alternatives to unhealthy food and beverages with added sugars, saturated and Tran's fat, refined grains, and sodium for example candy, chips, cookies, fried foods, soda, and energy drinks [9].

3.5 The Healthiest Vending Machine Snacks

There are seven healthiest vending machine snacks.

A. *Nuts*

It's difficult to do better than a bag of nuts like peanuts or almonds when we succumb to vending-machine temptation. The crunch bunch, which is high in healthy fats, fibre, and even protein, can help you stay full until your next meal[10] [11] [12].

B. *Granola Bar*

Granola bars, once the domain of hippy communes, are now a vending machine staple. Granola bars often contain whole grains such as oats, while being low in protein and high in sugar. They're also a lot healthier than candy bars, with most of them having fewer than 200 calories. Indeed, more vending machines are now offering bars filled with nutritious ingredients like dried fruits, nuts, and honey [10] [11] [12].

C. Popcorn

We don't slide in our coins and send a package of Nutter Butters for a free fall when hunger strikes at the office or on the road. Open a bag of low-calorie popcorn instead. Popcorn is a complete grain that provides satiating fibre and a surprising amount of antioxidants. According to experts at the University of Scranton, popcorn has levels of disease-fighting antioxidants that are comparable to fruits and vegetables gramme for gramme. [10] [11].

D. Sunflower Kernels

Consider pressing the button for a packet of the seeds from the sun-loving flower when comparing the benefits and drawbacks of each snack to find the safest option. Sunflower seeds provide a delightful crunch as well as a variety of nutritional benefits, including a lot of vitamin E. Higher intakes of this antioxidant, according to Tufts University researchers in Boston, may help reduce the oxidative stress on the body caused by severe, eccentric activity. If unsalted seeds are available, choose those instead of salted nuts [10].

E. Fig Newtons

If we have a sweet tooth, Fig Newtons are a better option than anything else in the rows of candies and cookies. That's because they include genuine fruit as well as a serving of nutritious grains. In fact, when it comes to fruits, figs are high in fiber, which can help to moderate any wild blood-sugar swings that leave us feeling even more drained. Just make sure they're only used in an emergency and not on a regular basis [10].

F. Pretzel

A tiny bag of plain pretzels without honey-mustard or other suspicious tastes can provide low-fat snack enjoyment without any belt-stretching sugar or trans fats, while without being a nutritional saint. You also have built-in portion control because they come in single-serving bags. Instead of sugar bombs disguised as bottled iced tea or energy drinks, wash them down with bottled water [10].

G. Triscuits

Here's more evidence that the ubiquitous vending machine isn't completely evil. These crackers have a pleasantly basic ingredient list of whole wheat, oil, and salt that we wouldn't find among the greasy chip alternatives if you choose the original flavour. Triscuits are high in fibre, but consider combining them with peanuts for a better carbohydrate, protein, and fat balance. [10] [12].

3.6 The Healthiest Drink

Healthy drinks have long been at the forefront of vending machine healthy offerings. After all, what's better for you than

a glass of water? Water and non-carbonated juice are the most popular healthy drink categories, and the number of options in these two categories is growing. More unusual fruits like as quince, goji berry, and guanabana are arriving on the healthy vending drink market, in addition to typical non-carbonated juices such as orange, pineapple, mango, and coconut. These exotic fruit flavours can be found in juices and flavoured waters, which is a rapidly developing area of healthful beverages. In terms of popularity, Zevia dominates the carbonated soda category, but Blue Sky offers a greater range of tastes. The Non- Dairy Smoothies and Tea & Coffee categories have also seen substantial growth in the healthy drinks class. Energy drinks currently make up the smallest section of the healthy vending drink category [13] [14].

3.7 Vegetables and Fruits in Vending Machine

When we think of nice food, vending machines are not the first thing that springs to mind. Candy, salty and sweet snacks, and sugar- and calorie-laden soft drinks are the domains of vending machine cuisine. Until now, thanks to businesses like Farmer's Fridge, which sells same-day fresh packaged salads and healthful snacks from vending machines in dozens of sites throughout Chicago. It's a perplexing concept that's already gotten a lot of attention in the local and national media, including a feature report on NBC Nightly News last October [15].

4. METHODOLOGY

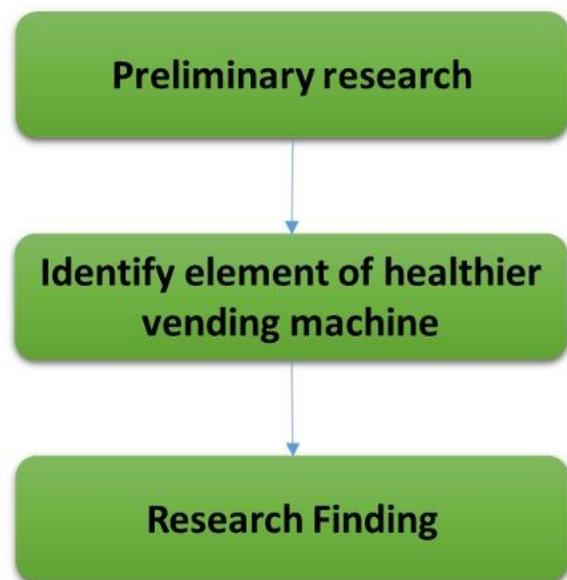


Figure 1: Methodology of Technology Vending Machine

4.1 Conducting Preliminary Research

After the topic is identified, the research begins by gathering the information related to game engine elements needed to design framework a healthy vending machine. This can be

achieved by reviewing documents that are available on the internet. The documents include related journals, white papers, previous theses, and articles. By reviewing all these documents, it will help the researcher to identify the research problems.

4.2 Identifying Game Elements

After identifying the research model and requirements, the healthy vending machine elements are being identified. The healthy vending machine elements for this research are:

Author	Popcorn	Trail mix	Nuts & granola bars /Trail mix	Fruit & Vegetarian	Pretzels & Bread	Water & Non-carbonate juice	Triscuit
M. Matthew Kadey	/		/	/	/		/
Elle Penner	/	/	/	/	/	/	
Stephanie Castillo		/	/	/			/
Family Farmed				/			

Figure 2: The Element of Food in Vending Machine

It is found that for healthy vending machine we must have some type of food that can give benefit to our body.

4.3 Research Finding

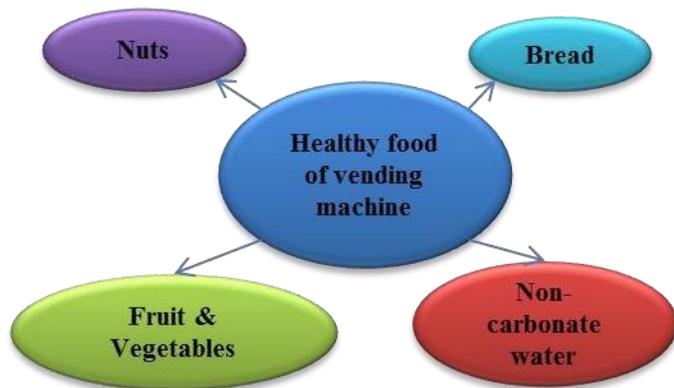


Figure 2: The Framework of Healthy Vending Machine

Based on the framework of elements of healthy vending machine in Figure 2, it shows that for variety of food want to put in vending machine must be a healthy food such as nuts,

fruit and vegetable, bread and non-carbonate drink water. These all food has their vitamin that can make our body healthier and sick decreasing.

4. CONCLUSION

Therefore, for conclusion of my research is there are some types of food in vending machine that are very healthy to our body. The framework element of healthy food in vending machine are nuts, vegetables and fruit, bread and non-carbonate water. These meant for we must choose the right food when using vending machine. Do not eat the unhealthy food that can effect to our body to be sick.

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