Certain Impacts On Organic Vegetables Versus Conventional Vegetables By Usinguncertain Technique

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ABSTRACT-*Organic food is the product of a farming system which avoids the use of man-made fertilizers, pesticides; growth regulators and livestock feed additives. Irradiation and the use of genetically modified organisms (GMOs) or product produced from or by GMOs are generally prohibited by organic legislation. Conventionally grown is an agriculture term referring to a methods of growing edible plants (such as fruit and vegetables) and other products without synthetic chemicals (fertilizers, pesticides, antibiotics, hormones) or genetically modified organism. The main difference between organic and conventional food is in the method used in growing the food on the farm. In conventional food farming, farmers utilize chemicals during production and processing of farm produce. In organic farming, all the chemical which are utilized in conventional farming are avoided both in the food production and processing.In this paper we use fuzzy decision making methods to settle on a superior choice about organic food and conventional food .We also give the best decision by our questionable techniques.*

1. INTRODUCTION

The main concept of **organic** farming is to grow **food** without the use of synthetic materials or genetically modified crops.The result of organic cultivating may does not produces a high benefits since natural cultivating and natural farming has higher generation rate and lower yields, high work cost and higher buyer cost however these realities are higher in natural vegetables the life expectancy of a human who utilize natural vegetable is higher than the human life expectancy who utilize the conventional vegetables.

Handled natural sustenance for the most part contains just the fixings. In non – natural sustenance there present at any rate 75% of synthetic compounds and manures. Sustenance asserting in natural must be free of fake nourishment added substances and where in customary it incorporates fake strategies, materials and conditions, for example, compound aging, nourishment lights and hereditarily adjusted fixings.

Molodtsov presented the idea of delicate set hypothesis as a scientific gadget for overseeing vulnerabilities. After Molodtsov's work, a few tasks and use of delicate sets were contemplated by Chen et al., Maji et al. also, Maji et al. Likewise Maji et al have presented the idea of fluffy delicate set continuously wide thought in which it is a mix of fluffy set and delicate set and concentrated its properties Roy and Maji utilized this hypothesis to take care of some basic leadership issues. Alkhazaleh et al exhibited the possibility of the idea of delicate multisets as a speculation of delicate set. They additionally characterized the ideas of fluffy parameterized interim esteemed fluffy delicate set and probability fluffy delicate set and gave their applications in basic leadership and remedial end.

Alkhazaleh and Salleh presented the idea of a delicate master set, where the customer can know the supposition of all authorities in a solitary model with no action. Indeed, even after any activity the client can know the assessment all things considered.

In this study we use fuzzy soft set expert to compare the decay period between organic vegetables and with the conventional vegetables. Also we compare the preservation period of organic vegetables and with the conventional vegetables by using refrigerator and without the refrigerator.

In this study we plan to optimize the impacts of organic vegetables vs conventional vegetables by using uncertain method in mathematics.

2. PRELIMINARIES:

In this segment, we consider some simple notions related to this work. Molodtsovdefined soft set within the following manner. Let U be a universe and E be a set of parameters. Let P (U) denote the power set of U and $A \subseteq E$.

Definition 1[2]:

A pair (F, A), is referred to as a soft set over U where F is a mapping F:A $\rightarrow$ P(U) In different phrases, a soft set over U is a parameterized own family of subsets of the universe U For $\varepsilon \in A$, F(ε) may be taken into consideration as the set of ε - approximate elements of the soft set (F A) .

Definition 2[1]:

A pair (F E), is referred to as a fuzzy soft set over U where F is a mapping given by

F : A$\rightarrow$IU

Let U be a universe, E a hard and fast of parameters, X a set of specialists (agents), and O a fixed of reviews. Let $Z = E \times X \times O$ and $A \subseteq Z$.

Definition 3[1]:

A pair (F A), is referred to as a soft expert set over U, in which F is a mapping given by using

F: A$\rightarrow$P (U)

Where P (U) denotes the power set of U.

Definition 4[1]:

Let U be a universe, E a hard and fast of parameters, X a hard and fast of professionals (marketers), and O = 1= agree,0 = disagree a fixed of opinions.

Let $Z = E \times X \times O$ and $A \subseteq Z$. A pair (F, A) is known as a fuzzy soft expert set over U, where in F is a mapping given by using

F: A$\rightarrow$IU

Where IU denotes the set of all fuzzy subsets of U.

Concept:

Organic food refers to agricultural products that are grown and processed without the use of fertilizers. In conventional farming, farmers utilize chemical fertilizers to enhance plant growth. By the concept of fuzzy soft set we see which is good for humans on comparing organic food and conventional food.

Methodology:

Let U={u_1,u_2,u_3,u_4,u_5}be the set different types of vegetables. Let P be a set of decision parameters P={p_1,p_2,p_3,p_4} denotes about the types how people select to buy vegetables.

The common types of view the people choose to buy vegetables are '**taste**', '**quality**', '**freshness**', and '**usage ofoxytocin**'.The expert K= { g, h} to give the choice approximately about which is best for humans to consume.

Then we can view the fuzzy soft expert set (F,Z) as consisting of the following collection of approximations:

Organic:

(F,Z)= $\{(p_1,g,1) , (\frac{u1}{0.3}, \frac{u2}{0.6}, \frac{u3}{0.5}, \frac{u4}{0.2}, \frac{0}{u5}) , \quad \}$

$\{(p_1,h,1),(\frac{u1}{0.5}, \frac{u2}{0.5}, \frac{0}{u3}, \frac{u4}{0.5}, \frac{0}{u5}) \quad \}$

$(p_2,g,1), \{(\frac{1}{u1}, \frac{u2}{0.9}, \frac{u3}{0.7}, \frac{u4}{0.6}, \frac{u5}{0.8}),(p_2,h,1),(\frac{0}{u1}, \frac{1}{u2}, \frac{u3}{0.6},$

$\{\frac{u4}{0.8}, \frac{u5}{0.9}) \quad \}$

$(p_3,g,1) , \{(\frac{0}{u1}, \frac{u2}{0.7}, \frac{u3}{0.5} , \frac{u4}{0.9}, \frac{u5}{0.8}),(p_3,h,1),(\frac{u1}{0.8},$

$\{\frac{u2}{0.6}, \frac{0}{u3} , \frac{u4}{0.7}, \frac{1}{u5}) \quad \}$

$(p_4,g,1), \{(\frac{0}{u1}, \frac{0}{u2}, \frac{0}{u3} , \frac{0}{u4}, \frac{0}{u5}),(p_4,h,1),(\frac{0}{u1}, \frac{0}{u2}, \frac{0}{u3}$

$\{, \frac{0}{u4}, \frac{0}{u5}) \quad \}$

$(p_1,g,0), \{(\frac{u1}{0.4}, \frac{u2}{0.3}, \frac{0}{u3} , \frac{u4}{0.5}, \frac{u5}{0.6}),(p_1,h,0),(\frac{0}{u1}, \}$

$\{\frac{u2}{0.5}, \frac{u3}{0.8} , \frac{u4}{0.6}, \frac{u5}{0.7}) \quad \}$

$(p_2,g,0), \{(\frac{1}{u1}, \frac{u2}{0.7}, \frac{u3}{0.8} , \frac{u4}{0.6}, \frac{u5}{0.9}),(p_2,h,0), (\frac{u1}{0.6}$

$\{\frac{1}{u2}, \frac{u3}{0.8} , \frac{u4}{0.9}, \frac{u5}{0.5}) \quad \}$

$(p_3,g,0), \{(\frac{u1}{0.7}, \frac{u2}{0.6}, \frac{1}{u3} , \frac{u4}{0.8}, \frac{u5}{0.9}),(p_3,h,0), (\frac{u1}{0.5},$

$\{\frac{u2}{0.6}, \frac{1}{u3} , \frac{u4}{0.8}, \frac{1}{u5}) \quad \}$

$(p_4,g,0), \{(\frac{u1}{0.9}, \frac{u2}{0.8}, \frac{u3}{0.7} , \frac{u4}{0.2}, \frac{u5}{o.1}), (p_4,h,0), (\frac{u1}{0.9}, \frac{u2}{0.8}$

$\{, \frac{u3}{0.7} , \frac{u4}{0.8}, \frac{u5}{0.9}) \quad \}$

Conventional food:

(F,Z)= $\{(p_1,g,1) , (\frac{u1}{0.5}, \frac{u2}{0.6}, \frac{u3}{0.8}, \frac{u4}{0.7}, \frac{1}{u5}) , \quad \}$

$\{(p_1,h,1),(\frac{u1}{0.5}, \frac{u2}{0.7} , \frac{1}{u3}, \frac{u4}{0.8}, \frac{1}{u5}) \quad \}$

$\{(p_2,g,1),(\frac{1}{u1}, \frac{u2}{0.5}, \frac{u3}{0.2}, \frac{u4}{0.4}, \quad \}$

$\{\frac{u5}{0.6}),(p_2,h,1),(\frac{0}{u1}, \frac{u2}{0.4}, \frac{u3}{0.6} , \frac{u4}{0.5}, \frac{u5}{0.7}) \}$

$\{(p_3,g,1) , (\frac{0}{u1}, \frac{u2}{0.3}, \frac{u3}{0.5} , \frac{u4}{0.4}, \quad \}$

$\{\frac{u5}{0.2}),(p_3,h,1),(\frac{u1}{0.5}, \frac{u2}{0.4}, \frac{0}{u3} , \frac{u4}{0.2}, \frac{u5}{0.6}) \}$

$\{(p_4,g,1),(\frac{u1}{0.5}, \frac{u2}{0.6}, \frac{u3}{0.4} , \frac{1}{u4}, \frac{u5}{0.3}), \quad \}$

$\{(p_4,h,1),(\frac{1}{u1}, \frac{u2}{0.5}, \frac{u3}{0.4} , \frac{u4}{0.6}, \frac{u5}{0.3}) \quad \}$

$\{(p_1,g,0), (\frac{0}{u1}, \frac{u2}{0.3}, \frac{0}{u3} , \frac{u4}{0.5}, \frac{u5}{0.4}) , \quad \}$

$\{(p_1,h,0),(\frac{0}{u1}, \frac{u2}{0.5}, \frac{u3}{0.4} , \frac{u4}{0.5}, \frac{u5}{0.6}) \quad \}$

$\{(p_2,g,0), (\frac{0}{u1}, \frac{u2}{0.6}, \frac{0}{u3} , \frac{u4}{0.6}, \frac{u5}{0.7}) , \quad \}$

$\{(p_2,h,0), (\frac{u1}{0.6}, \frac{0}{u2}, \frac{u3}{0.7} , \frac{u4}{0.6}, \frac{u5}{0.5}) \quad \}$

$\{(p_3,g,0), (\frac{u1}{0.3}, \frac{u2}{0.6}, \frac{0}{u3} , \frac{u4}{0.5}, \frac{u5}{0.7}) \quad \}$

$\{,(p_3,h,0), (\frac{u1}{0.5}, \frac{u2}{0.4}, \frac{0}{u3} , \frac{u4}{0.5}, \frac{0}{u5}) \quad \}$

$\{(p_4,g,0), (\frac{1}{u1}, \frac{u2}{0.6} , \frac{u3}{0.5} , \frac{u4}{0.7}, \quad \}$

$\{\frac{u5}{0.5}),(p_4,h,0), (\frac{u1}{0.7}, \frac{1}{u2} , \frac{u3}{0.5} , \frac{u4}{0.6}, \frac{u5}{0.4})$

By analyzing the common types of views the experts have different opinion. Both the professional '**g**' and '**h**' agree and disagree in some types. The expert '**g**'agrees that there is no oxytocin in organic vegetables but '**h**' disagree that there is some in conventional. The freshness and quality is good and it is agreed by both the experts '**g**' and '**h**'.So the opinion of both expert differs.

Result and Discussion:

The experts finally gave the analysis about the vegetables of organic and conventional vegetables. The experts gave their result by the four common view people used to buy
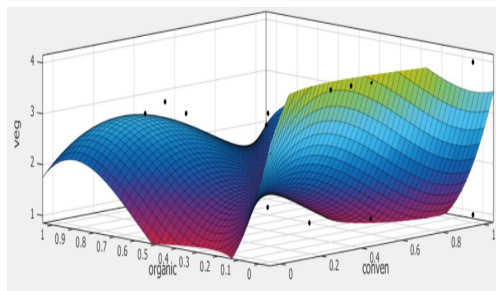
vegetables. By using graph we get a clear solution that which is more helpful and healthier to consume the vegetables for the people among these two vegetables organic and conventional.
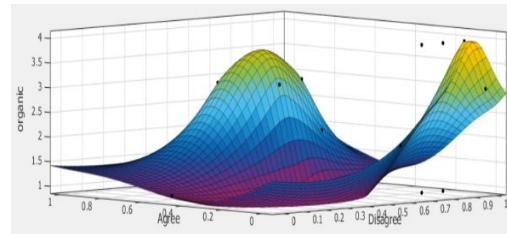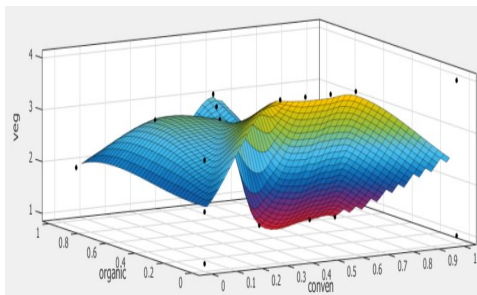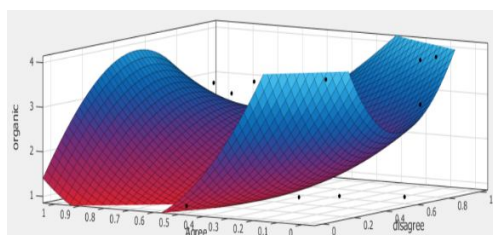
Agree:

Organic VS Conventional vegetables:
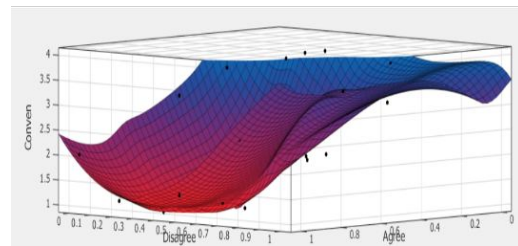

G Expert

H Expert

Agree vs disagree:

Organic:

G Expert
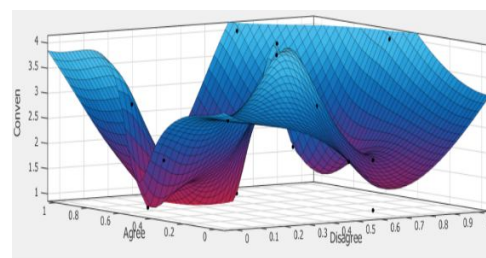

H Expert

Conventional:

G Expert

H Expert

Conclusion:

A growing interest in organic agriculture has prompted numerous studies comparing aspects of organic versus conventional agriculture. A consumer-based approach to understanding organic agriculture is important not only in its own right, but also

in terms of responses to changes in market dynamics. This study consolidated and reviewed the available literature, to provide an understanding of consumer preferences and attitudes toward organically-grown foods. After the expert's review finally we conclude that **organicvegetable** is best for people to consume.

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