

Introduction to the Survey:

Plastic has become a part of our daily lives more than it was intended to and has started harming the environment in more ways than one. The mission of this committee is to try to eradicate plastic in the daily use of society, at least in places where plastic is not of utmost importance. In the school canteen, we have noticed the staff serving plastic cutlery which in turn has resulted in tons of plastic waste. There are several alternatives to plastic which need to be discussed and implemented into the routine of the school.

The first step is to identify the problem and understand the numbers of the plastic spoons that are being used in the school on a daily basis. The committee will then be able to assess that on average, what is the daily usage and cost of the cutlery and accordingly what alternatives can be put forth to the school board in order to implement the “zero waste” policy while remaining cost efficient. This study consists of five possible alternatives namely birchwood spoons, bamboo wood spoons, cornstarch spoons, wheat flour spoons and Areca leaves spoons which have been tested based on different criteria.

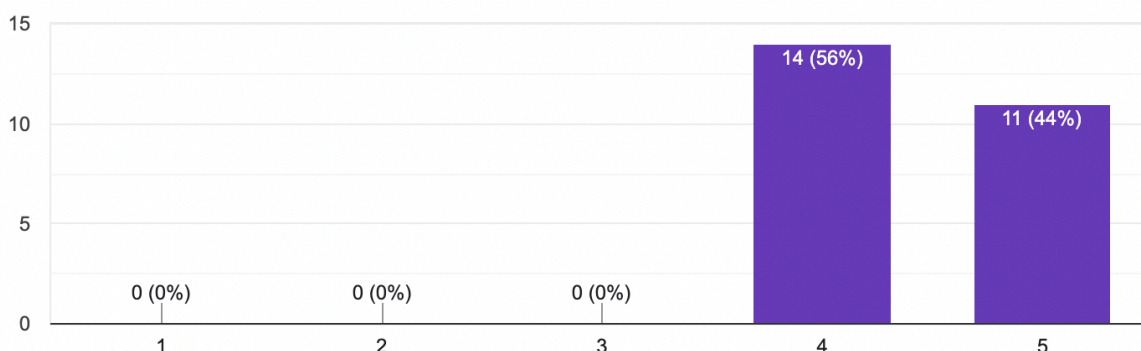
A sample group of 25 students have been a part of this study to see which of these types of cutlery will give us the most optimal alternative to the plastic cutlery. The following report is a cost-benefit analysis for each of the different types of cutlery with a grading scale out of 30 to see how they compare to the existing plastic cutlery in our school canteens.

1) Birchwood Spoons

On a scale from 1 to 5, how would you rate the usability of the birchwood spoons?

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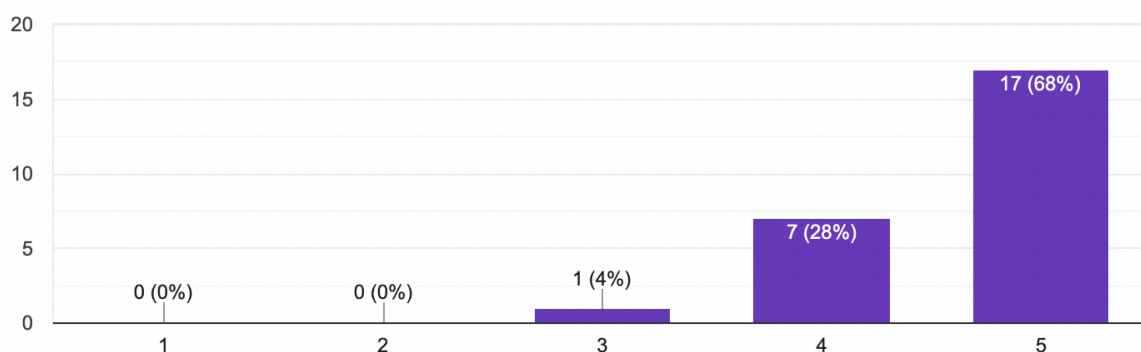
25 responses

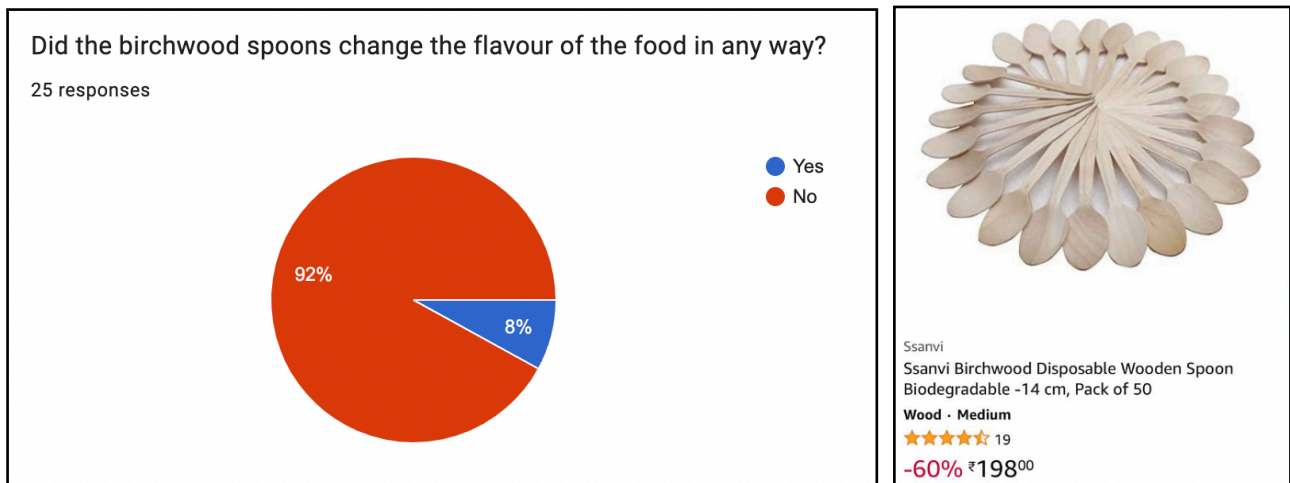


On a scale from 1 to 5, how would you rate the feasibility/practicality of the birchwood spoons?

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25 responses

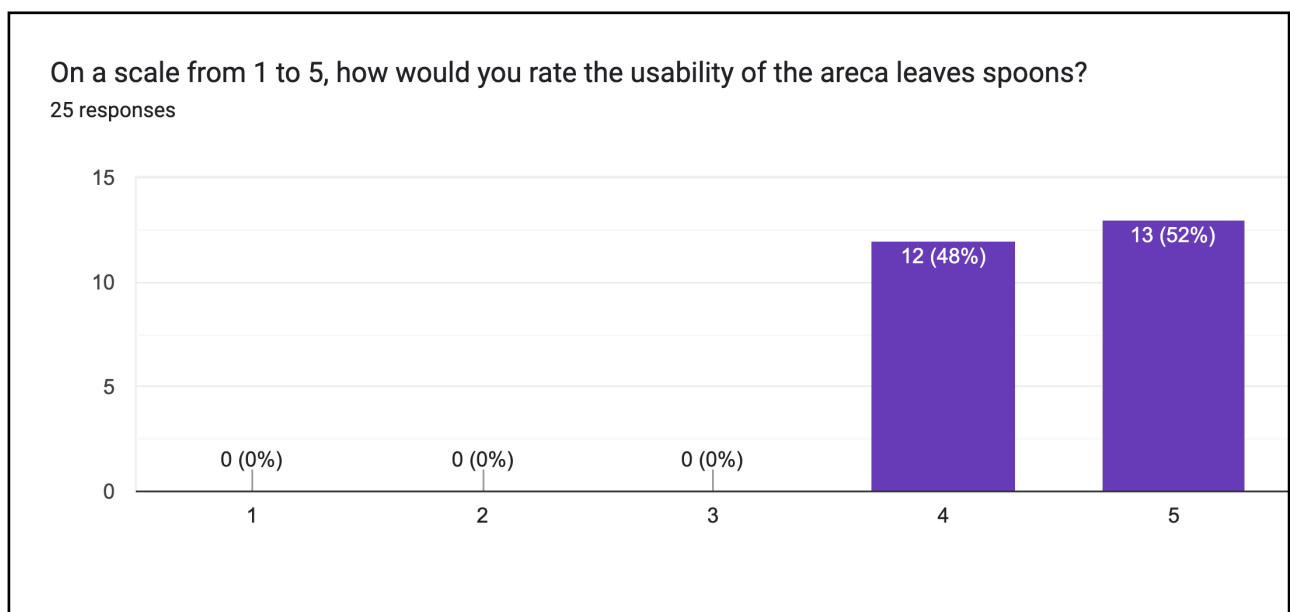




Analysis: The results from the survey show that the birchwood spoons have been accepted well by the sample group. All of the 25 students have rated this type of cutlery a 4 or 5 which proves that it is extremely feasible and easy to use. The packaging is also extremely sturdy which will not result in any breakage of spoons or any losses. The spoons are of an adequate size (14 cm) and could serve as a possible replacement for the plastic as they are easily disposable and biodegradable. The cost however comes out to be slightly expensive totalling to be approximately 4 rupees per spoon.

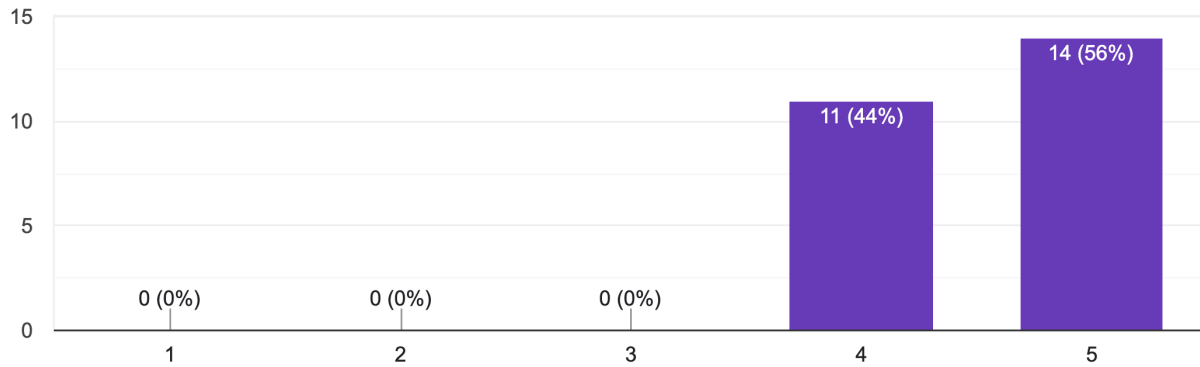
| Success Criteria | Score |
|--|--------------|
| Positive Impact on the Environment | 9/10 |
| Feasibility, Practicality & Usability of Cutlery | 8/10 |
| Cost Efficiency | 6/10 |
| TOTAL: | 23/30 |

2) Areca Leaves Spoons



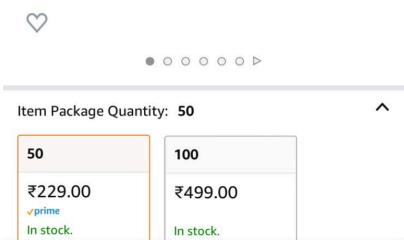
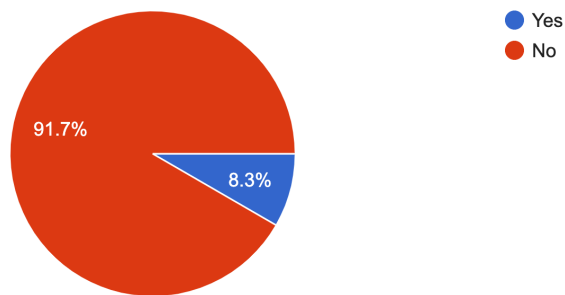
On a scale from 1 to 5, how would you rate the feasibility/practicality of the areca spoons?

25 responses



Did the areca leaves spoons change the flavour of the food in any way?

24 responses



Analysis:

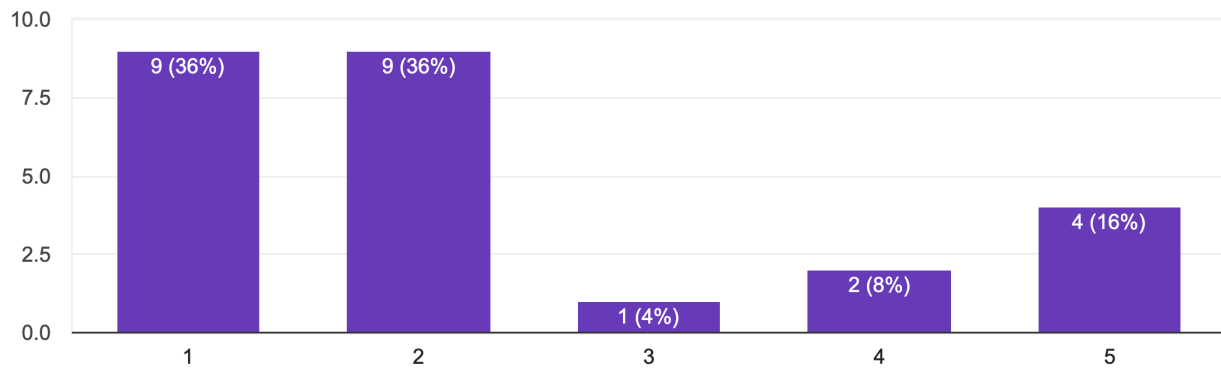
The survey's findings demonstrate that the sample group has accepted the Areca spoons, with the majority rating the product's usefulness as a 5 (highest possible score). The complete sample group likewise gave the cutlery a 5 or a 4 for feasibility, which raises the practicality of this spoon. The spoon is not readily bent or broken, preventing any losses from product damage. The size of the spoon (14cm) is appropriate and because the spoon is 100% bio-degradable in nature it can be used as a replacement for plastic spoons. A con for the Areca spoons however is the cost. With prime membership 1 spoon is approximately 5 rupees and without prime member ship 1 spoon is 10 rupees. Which such a high cost price the spoon might not replace the cheap equivalent of plastic.

| Success Criteria | Score |
|--|--------------|
| Positive Impact on the Environment | 9/10 |
| Feasibility, Practicality & Usability of Cutlery | 9/10 |
| Cost Efficiency | 3/10 |
| TOTAL: | 21/30 |

3) Wheat Flour Spoons

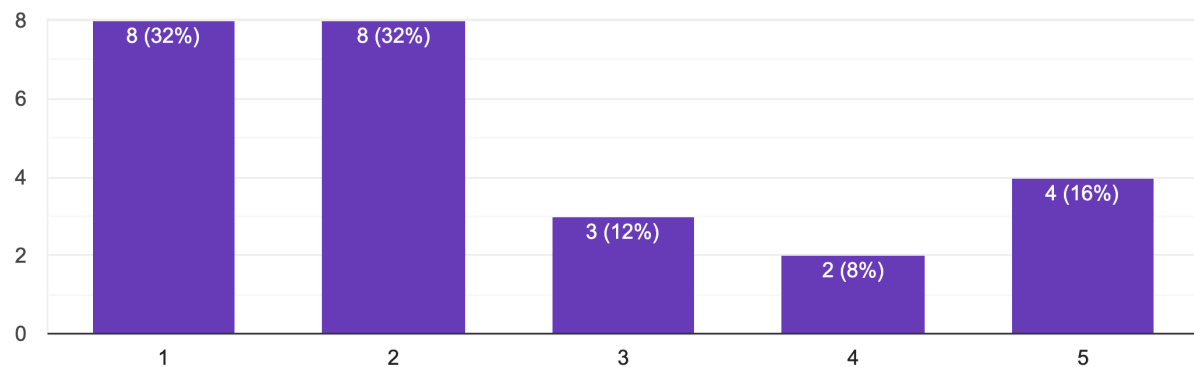
On a scale from 1 to 5, how would you rate the usability of the wheat flour spoons?

25 responses



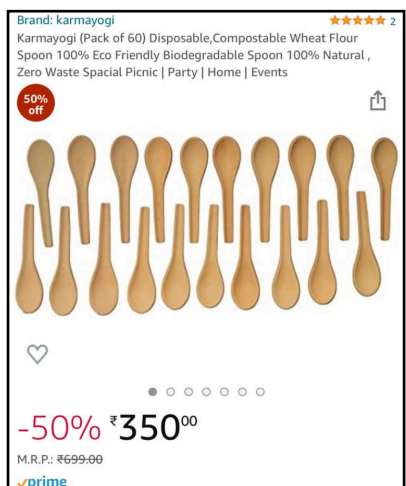
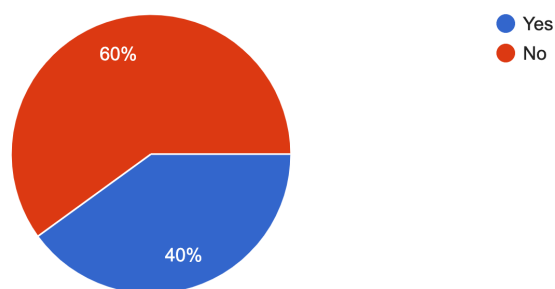
On a scale from 1 to 5, how would you rate the feasibility/practicality of the wheat spoons?

25 responses



Did the wheat flour spoons change the flavour of the food in any way?

25 responses



Analysis:

The survey's findings indicate that the sample group did not respond favourably to the wheat spoons. The majority of the 25 students gave the spoons a usability rating of 1 or 2 (1 being the lowest). The feasibility and efficiency of the spoons also follow a similar trend. The trend also shows that the wheat flour spoons change the flavour of food for 40% of the people. Furthermore the spoons are not of adept size and not very sturdy. One spoon costs approximately 6 rupees which is a slightly expensive alternative. With all factors

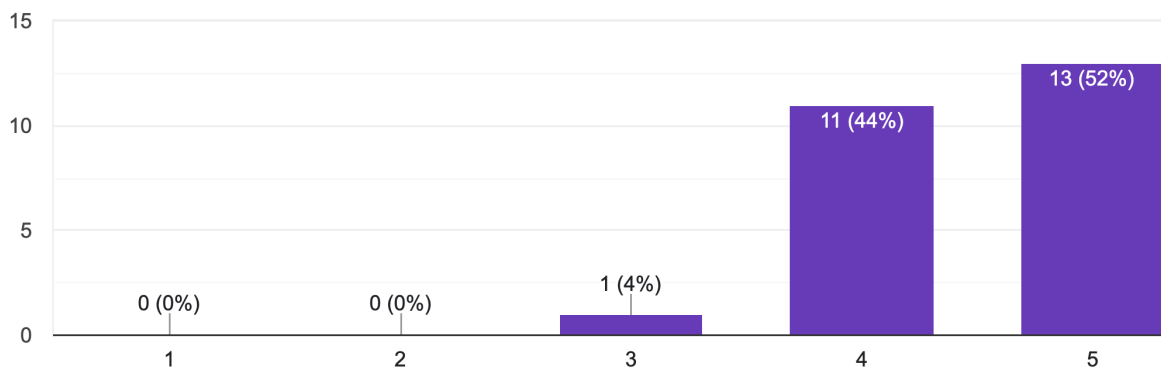
taken into consideration, wheat flour spoons will not be able to do justice if it is chosen as the replacement for plastic spoons.

| Success Criteria | Score |
|--|--------------|
| Positive Impact on the Environment | 9/10 |
| Feasibility, Practicality & Usability of Cutlery | 4/10 |
| Cost Efficiency | 5/10 |
| TOTAL: | 18/30 |

4) Bamboo Wood Spoons

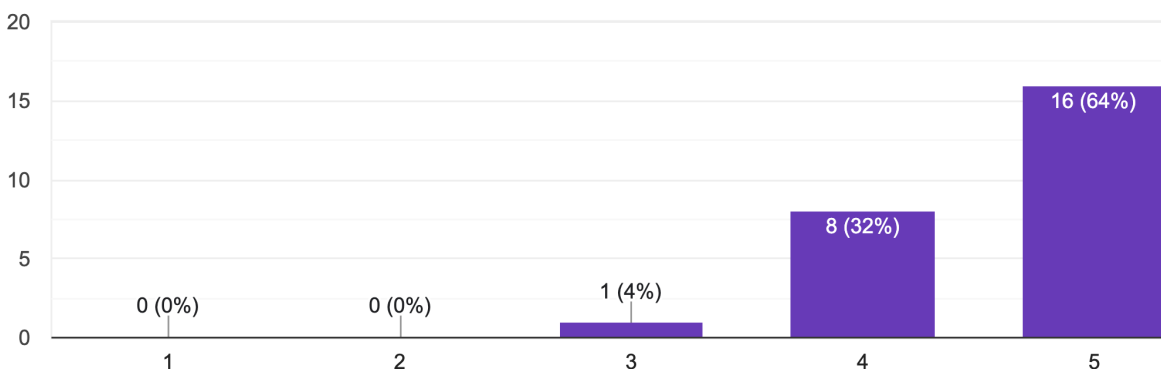
On a scale from 1 to 5, how would you rate the usability of the bamboo wood spoons?

25 responses



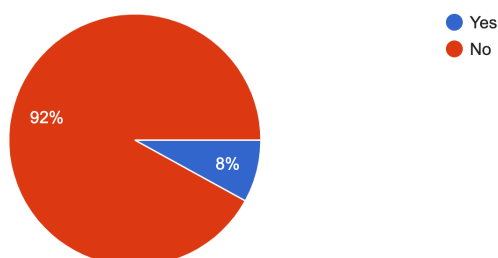
On a scale from 1 to 5, how would you rate the feasibility/practicality of the bamboo wood spoons?

25 responses



Did the bamboo wood spoons change the flavour of the food in any way?

25 responses



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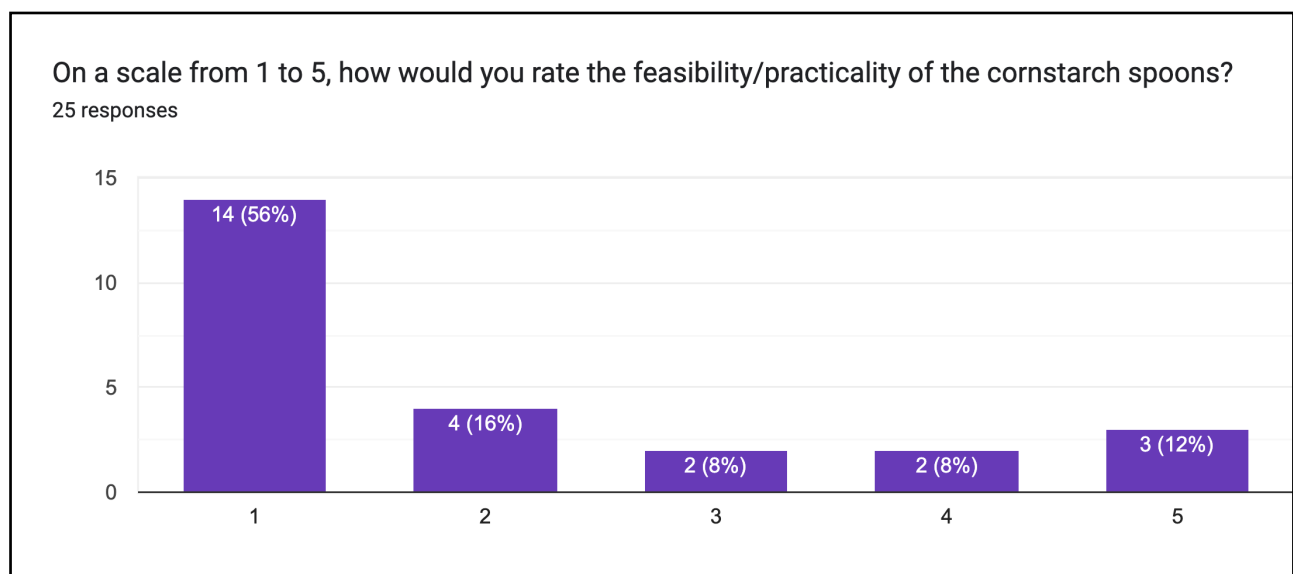
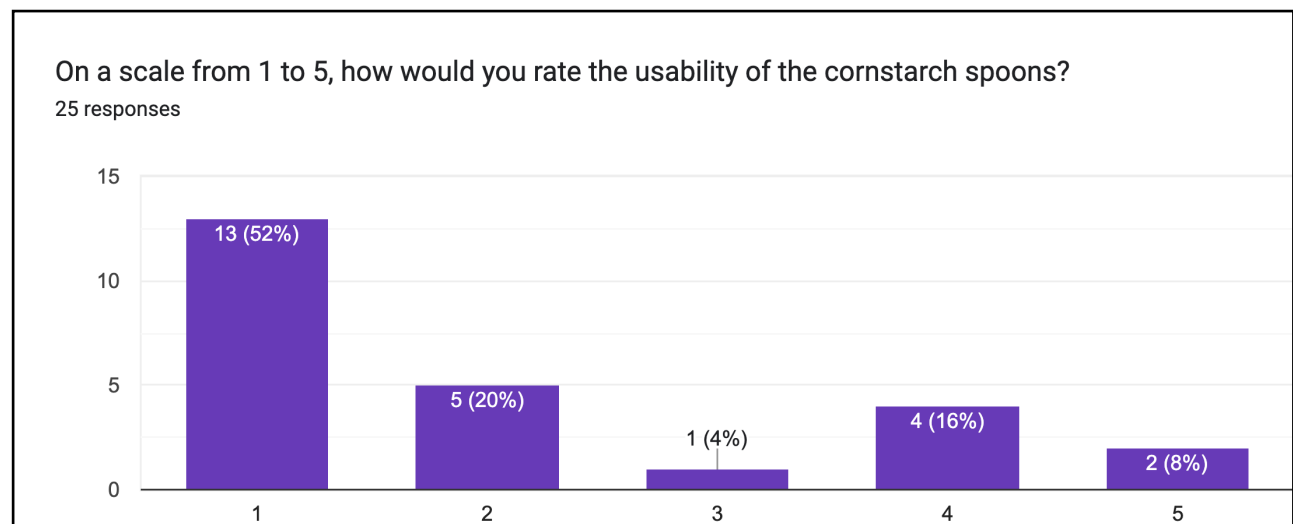
M.R.P.: ₹599.00

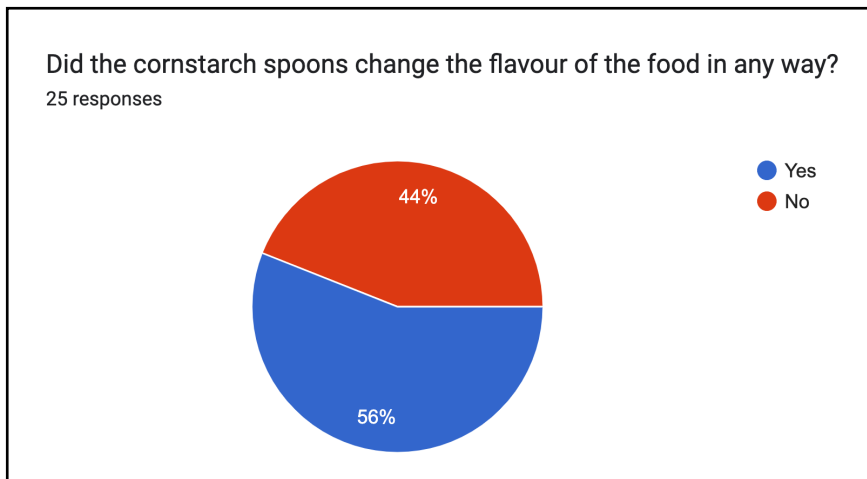
Analysis

The survey's findings show that the sample group generally approved bamboo-wood spoons. In addition, the majority of the sample group gave the spoon's viability a rating of 5. (highest rate). Bamboo Wooden spoons are renowned for their durability and, barring extreme force, they do not easily break, minimising the loss from damaged goods. The spoons are of adequate size and what makes these particular spoons stand out is the inclusivity of forks as well. The total cost of 100 spoons and 100 forks together is rupees 298 therefore 1 fork and 1 spoon is rupees 2 rupees each. With bamboo wood spoons not changing the way the food tastes as well, this spoon could be used as a great replacement for plastic spoons.

| Success Criteria | Score |
|--|--------------|
| Positive Impact on the Environment | 9/10 |
| Feasibility, Practicality & Usability of Cutlery | 9/10 |
| Cost Efficiency | 8/10 |
| TOTAL: | 26/30 |

5) Corn Starch Spoons





Analysis

The survey findings demonstrate that the sample group disliked the cornstarch spoons. This is clearly evident in the poor rating acquired by the spoon for its usability which was 1 (1 being lowest). The similar trend was also identified with the feasibility of the spoon. This survey also found that the cornstarch spoons make the food taste different with almost 55% voting in support of the statement. The size of the cornstarch spoon however is acceptable with it being almost 15 cm. The cost of the spoon is also deemed reasonable with one spoon costing 4 rupees. Given the disfavour of the spoon by the sample group, if this spoon is switched with plastic there will be great displeasure amongst students.

| Success Criteria | Score |
|--|--------------|
| Positive Impact on the Environment | 9/10 |
| Feasibility, Practicality & Usability of Cutlery | 4/10 |
| Cost Efficiency | 6/10 |
| TOTAL: | 19/30 |

Statistics of Plastic Cutlery in School Canteen

Q)How many spoons per week?

A) 300 per day so around 1500 per week

Q)How many spoons come in 1 packet?

A) 100 spoons in 1 packet

Q)How expensive is 1 packet?

A) 1 packet = 100 rupees, therefore 1 spoon = 1 rupee

Q)How many packets you order at a time ?

A) Is bought from a supplier and there are around 35 packs each order.