



# A Study On The Effectiveness Of Bamboo Toothbrush

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## ABSTRACT: -

Today, most people are working to reduce the amount of non- biodegradable waste on the planet. While everyone will continue to oppose plastic, these same people will unwittingly incorporate plastic into their first habit: they use a plastic toothbrush. Although it can be difficult to make significant changes in our lives, we can always start small. Consider switching from plastic toothbrushes to bamboo toothbrushes. Bamboo toothbrushes are affordable, simple and environmentally friendly. It is also vigorous and fast growing. Most toothbrushes on the market today are made of plastic and come in different shapes and designs. This could harm your customers. Also, plastic toothbrushes can be very harmful to us, which can be harmful to your customers.

**KEYWORDS:-** Environmentally friendly, sustainable, biodegradable

## BACKGROUND OF THE STUDY: -

In 2005, researchers looked at the environmental qualities of bamboo, a commodity that had before received strong support from the green movement without any significant investigation into the effects that its use and manufacture actually had on the environment. Investigation at the time turned up numerous environmental issues related to growing, collecting, and producing usable things from bamboo. Bamboo-producing regions reported issues like the logging of natural forests for the construction of bamboo plantations, the development of monoculture plantations, the loss of biodiversity, the heavy application of fertilisers and pesticides despite claims that bamboo crops didn't need either, and the unsustainable harvesting of natural bamboo stands. We noted in the conclusion of our prior research that the uncontested green status given to bamboo products required significant reevaluation and that, In order to award any kind of Green Designation for

bamboo products, at least Third Party Certification should be required. Nearly everyone in this world's trying to clean up the environment these days by reducing waste that isn't biodegradable. And all of us would still be saying "No" to plastic, but the same people were subconsciously putting a plastic toothbrush into their daily routine and that's what they do routine and the trials are plastic toothbrush. Although it might be difficult to make changes of such magnitude, we can begin with small steps in our lives. Say for instance: replace your plastic toothbrush with a bamboo one.

Bamboo toothbrushes are easy to use, eco friendly, and they do no harm to the environment. It's also growing quickly, and it's strong enough. Most toothbrushes we've seen on the market today are produced in plastics with various patterns and shapes.

### **OBJECTIVE OF THE STUDY:-**

- To analyse whether the bamboo toothbrush is as effective as manual plastic toothbrush.
- To Study the objectives and effectiveness of bamboo toothbrushes.
- To check the anti-microbial activity and its usefulness.
- To study whether the toothbrush can be recyclable and reusable.

### **PROBLEM DISCUSSION:-**

Most standard toothbrushes are made from polypropylene plastic for the handle and nylon for the bristles. Both of these materials are derived directly from fossil fuels, and therefore are fuelling the industry primarily responsible for climate change.

Bamboo, on the other hand, is a completely natural material. The bamboo plant is fast-growing and can be harvested within 3-5 years of planting. It needs very little water and does not need pesticides. It also grows in a variety of different environments.

| Report Attribute             | Details   |
|------------------------------|---|
| Market size value in 2020    | USD 25.4 million  |
| Revenue forecast in 2027     | USD 48.3 million  |
| Growth Rate                  | CAGR of 9.5% from 2020 to 2027  |
| Base year for estimation     | 2019  |
| Historical data              | 2016 - 2018   |
| Forecast period              | 2020 - 2027   |
| Quantitative units           | Revenue in USD thousand and CAGR from 2020 to 2027  |
| Report coverage              | Revenue forecast, company ranking, competitive landscape, growth factors, and trends  |
| Segments covered             | End use, distribution channel, region   |
| Regional scope               | North America; Europe; Asia Pacific; Central & South America; Middle East & Africa  |
| Country scope                | U.S.; U.K.; Sweden; Netherlands; China; India; South Africa   |
| Key companies profiled       | Colgate-Palmolive Company; The Humble Co.; Eco life Innovations LLC; Brush with Bamboo; The Bamboo Brush Society; Bamboo Brush Co.; Mother's Vault; Yangzhou E.S. Toothbrush Co.; Ltd; Environmental Toothbrush; Bamboo Toothbrush Bamboo |
| Customization scope          | Free report customization (equivalent up to 8 analysts working days) with purchase. Addition or alteration to country, regional & segment scope.  |
| Pricing and purchase options | Avail customized purchase options to meet your exact research needs.  |

### RESEARCH METHADODOLOGY: -

There are various ways to collect samples while conducting research. The basis of responses that were required in this research were preferably millennials, who are located in the city of Bengaluru. Students, Employees, Frequent Travelers were considered in this research. A Google Form was created that was sent out to people at random to understand their needs and possible solutions. The Form helped us understand what needs to be installed to make it more effective. 100 responses were collected and was studied, leading a way for better utilization. There are various sampling methods, like stratified sampling, systematic sampling, and various other methods. This

study was done under simple sampling method. The results were studied and concluded.

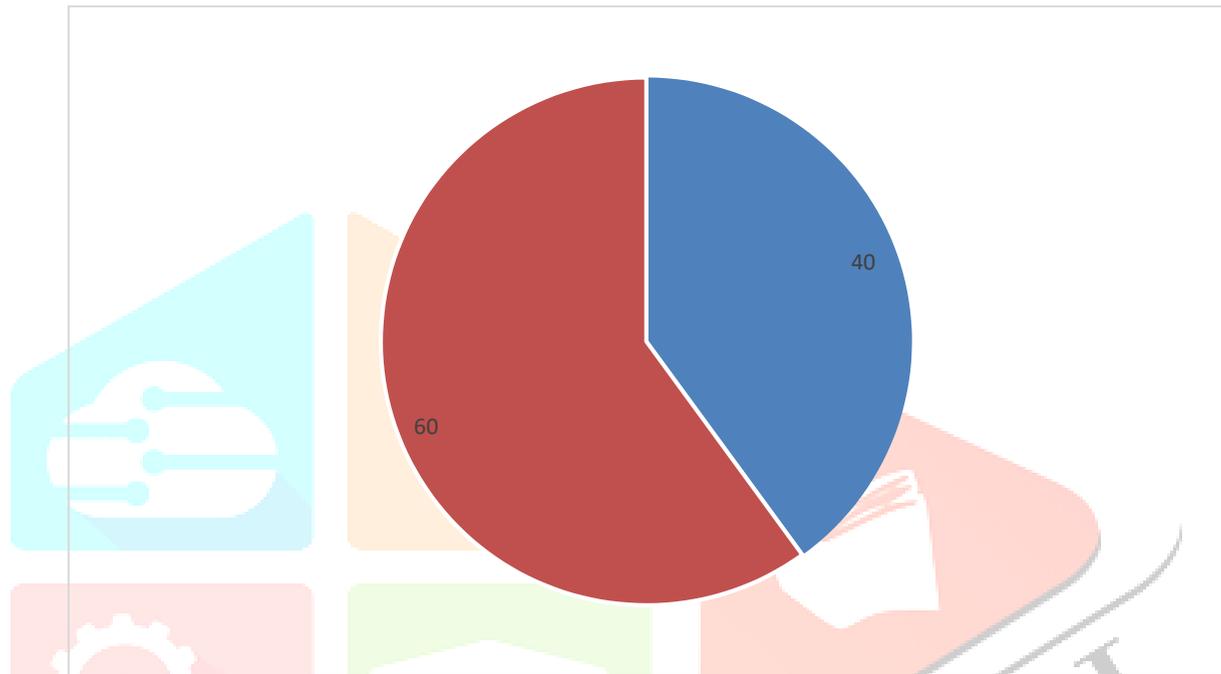
**SIZE OF THE STUDY:-**

(100 responses)

**SOURCE OF DATA COLLECTION**

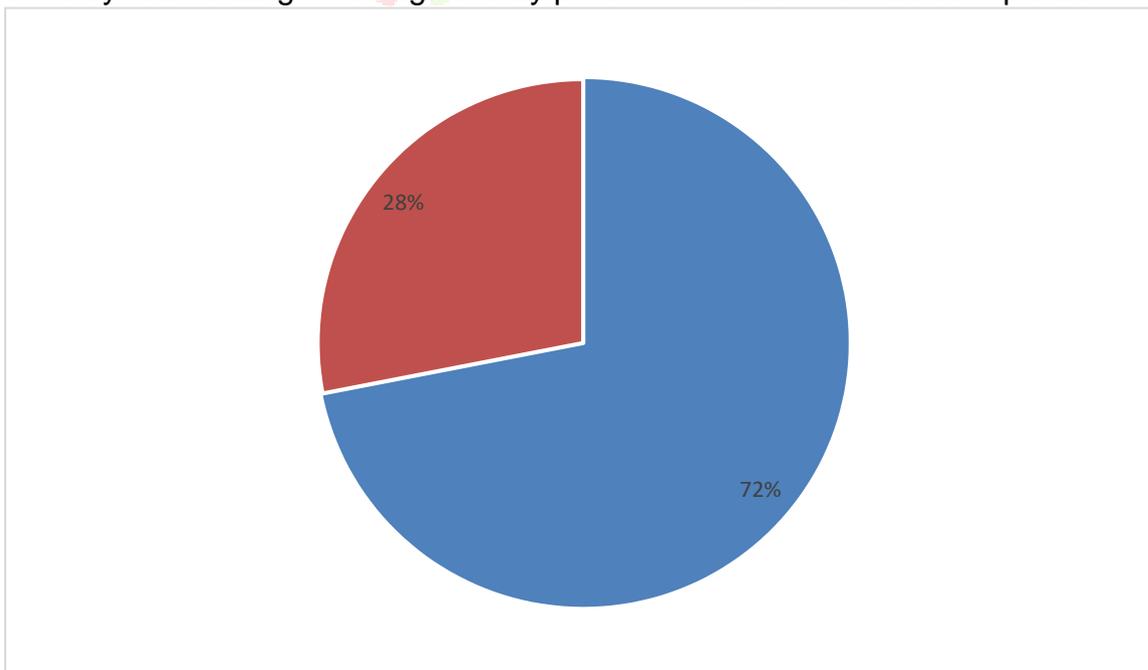
Survey via google form

In order to reduce more waste would you buy a bamboo toothbrush with areplaceable brush/ head?



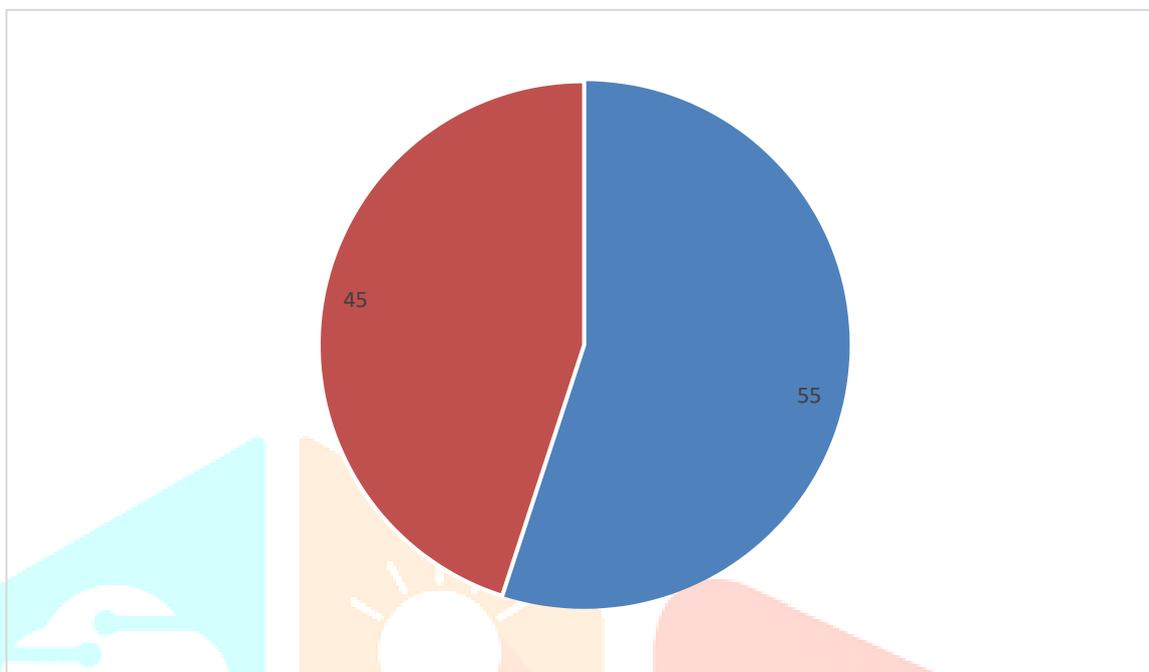
Interpretation-60% of the responders feel that bamboo toothbrush should be used whereas 40% feels that toothbrush should not be replaced by bamboo toothbrush.

Would you be willing to change a daily product to a more sustainable option?



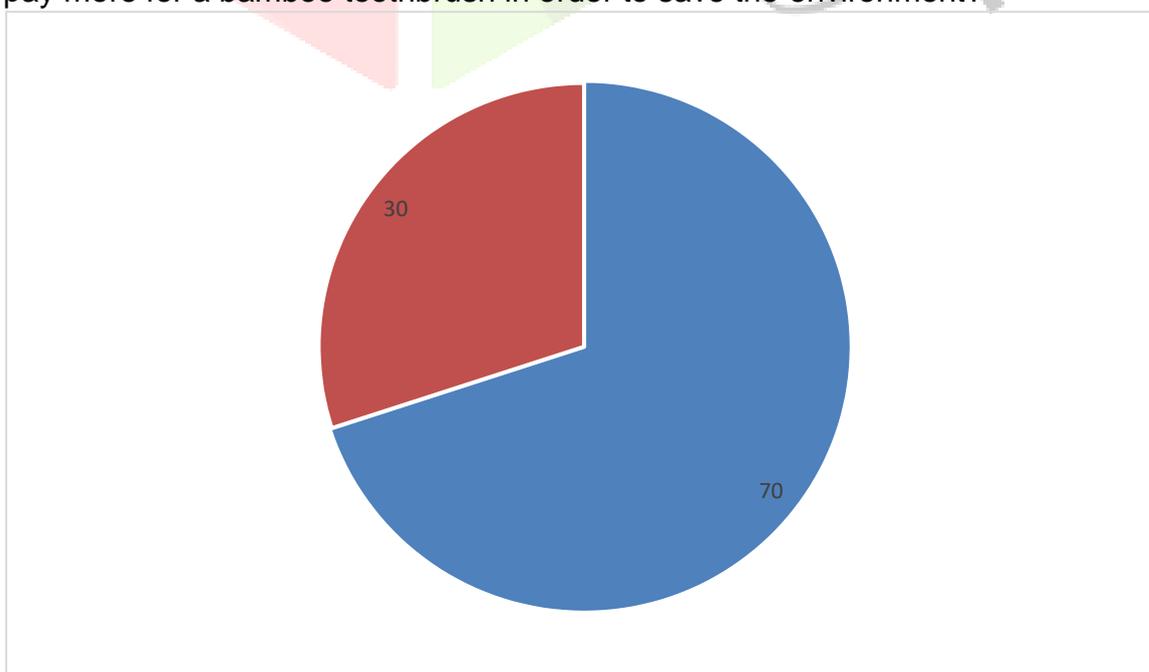
Interpretation- 72%responders say they are not willing to change thedaily product whereas 28% of responders say they are willing to change the daily product.

Bamboo is considered one of the best renewable resources on the planet. Would you consider buying a bamboo toothbrush instead of a plastic one?



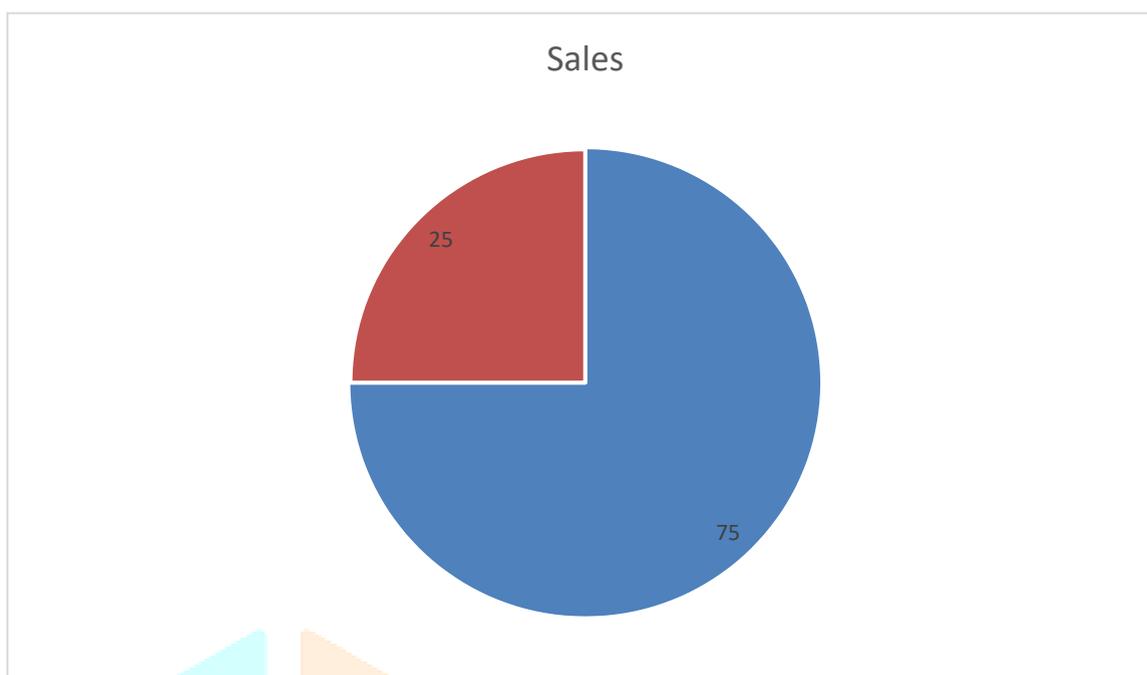
55% responders are willing to buy whereas 45%responder are not willing to buy.

Comparatively bamboo toothbrushes cost more than a normal toothbrush, butare you still willing to pay more for a bamboo toothbrush in order to save the environment?



Interpretation-70% responders are ready to pay more for bamboo toothbrush to save the environment whereas 30% responders are notready to pay.

Do you think bamboo toothbrushes are more effective than plastic toothbrushes?



Interpretation: - 75% responders think that bamboo toothbrush are more effective whereas 25% responders think they are not effective than plastic toothbrush.

### CONCLUSION:-

The Bamboo toothbrush (along with other bamboo products) is starting to rise in popularity in numerous households Because of its eco- friendly design and concept as well as its biodegradability. It is also just as equally as effective as that of a regular plastic or electric toothbrush, only better. Having bamboo as its handle and nylon fibers as bristles that are just as strong as plastic.

We would not like for our future generations to live in a world without trees and nature. So with these little efforts on our own, we could help them. Such as choosing the bamboo toothbrush as your environmental alternative. One huge benefit of bamboo toothbrush is you could help save the environment thus saving the planet. It sure requires a collective effort from all of us but it all starts within ourselves.

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