



اَوْنِبُوْرَسِيْتِي تِي كُوْلُوْمِي مَارَا  
 UNIVERSITI  
 TEKNOLOGI  
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NEW PRODUCT DEVELOPMENT REPORT  
**Magnify Group Sdn Bhd**  
Lepi Straw

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Environmental Health (HS243)

ENT 600 - Technology Entrepreneurship

Semester 06 (Group NHSE9)

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12 May 2019

<b>TABLE OF CONTENT</b>	.....	<b>PAGE</b>
<b>INTRODUCTION</b>	.....	<b>PAGE 3</b>
<b>PROBLEM STATEMENT</b>	.....	<b>PAGE 4</b>
<b>METHODOLOGY</b>	.....	<b>PAGE 5</b>
<b>IDEA GENERATION</b>	.....	<b>PAGE 6</b>
<b>PRODUCT DESIGN</b>	.....	<b>PAGE 6</b>
<b>CONCEPT TESTING</b>	.....	<b>PAGE 6</b>
<b>PROTOTYPE</b>	.....	<b>PAGE 6</b>
<b>PLAN FOR MARKET TESTING</b>	.....	<b>PAGE 7</b>
<b>CONCLUSION</b>	.....	<b>PAGE 9</b>
<b>REFERENCES</b>	.....	<b>PAGE 10</b>

## 1.0 INTRODUCTION

As the world's population continues to grow, so does the amount of garbage that people produce. On-the-go lifestyles require easily disposable products, such as soda cans or bottles of water, but the accumulation of these products has led to increasing amounts of plastic pollution around the world. As plastic is composed of major toxic pollutants, it has the potential to cause significant harm to the environment in the form of air, water, and land pollution.

Put simply; plastic pollution is when plastic has gathered in an area and has begun to negatively impact the natural environment and create problems for plants, wildlife, and even the human population. Often this includes killing plant life and posing dangers to local animals. Plastic is an incredibly useful material, but it is also made from toxic compounds known to cause illness, and because it is meant for durability, it is not biodegradable.

According to a report published by the Ellen MacArthur Foundation, if the current rate of plastic pollution continues, there will be more plastic in the oceans than there are fish by the year 2050. Right now, one garbage truck of plastic is dumped into the ocean every minute. Though at first this small straw may not seem like a lot, when its usage is added up, plastic straws create a big problem for the environment.

Straws are an easy thing for everybody to get started on when approaching the enormous issue of plastic pollution. Thus, in order to eliminate the scourge of plastic straws, groups such as Lonely Whale, Last Plastic Straw, Straw Free, and Be Straw Free have sprung up. In addition, many other great alternatives for plastic straws have also been introduced, such as metal straws and rice straws. I would like to suggest for us Malaysians to try this innovation in our country in order to eliminate the scourge of plastic straws.

## **2.0 PROBLEM STATEMENT**

1. Plastic straw is major pollution in the world, though at first this small straw may not seem like a lot, when its usage is added up, plastic straws create a big problem for the environment.
2. Plastic Straws can't be easily recycled, straws are most commonly made from type 5 plastic, or polypropylene. Although type 5 plastic can be recycled, it isn't accepted by most curbside recycling programs. When plastic straws aren't recycled, they end up in landfills, or even worse, polluting our oceans.
3. Finding alternative ways to drink water safely from the resources with less effort.

### 3.0 METHODOLOGY

1. Survey 1 (awareness) Prototype Survey 2 (Acceptance)
2. QUANTITATIVE RESEARCH: -As the study involves observations and surveys related to consumer behavior, a descriptive quantitative research is a suitable method. This method helps to understand the population and describe their characteristics based on the study. -A survey is conducted to know the awareness of the existing product and acceptance of the product (prototype) to be created amongst the consumers which provides statistical data and numbers. -A prototype is developed as a solution to the gap mentioned, which comes under experimental qualitative research.
3. SAMPLING:-Random sampling method- As straws are used by majority of the population, a random sampling method is the most suitable as everyone gets an equal chance of getting selected. Sample size- 50. The sample population is been focused in and around of Puncak Alam. As straws are being used by all population and age groups, it is a generalized survey.
4. Survey 1- Awareness (descriptive research). The survey is done to study the people's awareness towards the existing plastic straws and its causes on our environment. The questions are asked in a way to identify the mind set of people towards existing sustainable alternatives and whether they are ready to switch, to avoid further damage to our society. Also to know the kind of materials they prefer while choosing a straw. The questionnaire asked is close ended with multiple choice questions.
5. Prototype- Grass straw (experimental research) focuses on producing more of green lifestyle products. Their fieldwork evolves mainly around nourishing the nature by finding solutions for environmental problems. The cost of the straws is RM1.00 per straw. The prototype is tested to study whether it is better than the existing alternative like paper straws in terms of strength properties.
6. Survey 2- Acceptance of Grass straws (Descriptive and correlation research). After creating the prototype, this survey is done to know the acceptance of the product by testing the straws with the population. To know whether people are ready to try new sustainable alternative in the market and their views on the costing, quality of the product. The type questions asked are close ended with multiple choice and semantic differential rating scale questions.