

# CASE STUDY ON PLASTIC PROHIBITION IN RESTAURANTS AND CAFÉS IN BANER, PUNE

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**ABSTRACT**-The effect of the recent ban of plastic in the restaurants and café's in Baner area of Pune city. The usage of plastic was seen to be in considerable amounts in various cafes' like Starbucks, cafe, falahar, mc Donald's etc. The ban on plastic was announced 3 months before and a time frame of 3 months to come up with alternatives was given to the restaurants and cafes all over Maharashtra.

**Keywords – Hotels and restaurants, plastic, prohibition, bio degradable.**

## INTRODUCTION

The city of Pune has succeeded and grown extensively in the hospitality business over a decade. The recently advanced area is the Baner area of Pune city. Baner area has all the new chains of restaurants and cafes a few of them are new chains whereas a few are operational for an erstwhile now. These outlets used ample amount of plastic in their daily operations. Right from service of food or beverage to storage of food and beverages.

The food delivery apps like zomato, swiggy, uber eats, food panda, just eats and such others outlets were providing food in plastic take away containers specially the liquid and the gravy items, until the ban put on plastic. The plastic prohibition was imposed on June 23<sup>rd</sup>, 2018 by the government of Maharashtra. Under the plastic prohibition it was announced by the government that after the June 23<sup>rd</sup>, 2018 – a fine will be charged of Rs.5000 on the usage of plastic (one-time use) for the 1<sup>st</sup> time that any outlet is caught using it. 2<sup>nd</sup> time the fine amount will be increased to Rs.15,000 and 3<sup>rd</sup> time to Rs.25,000.

Studies have shown that by the 2025 the oceans will have lot of plastic in them if the usage of plastic is not controlled. As it has been seen by many researches that plastic being a manmade nondegradable substance because a lot of land fill and is a big contributor to the waste generated. An added awareness needs to be created with the health hazards that can be caused due to the usage of plastic. The owners and managers of restaurants though being aware of the hazards support the measure taken by the government but due to the lack of alternatives to overcome the short comings of a take away business have to shift back to plastic containers.

Since, 1950 plastic is the only material which is being used and it is meant to be used once and thrown away after that, which results in increase in the plastic waste being generated. Plastic is not biodegradable and it breaks into smaller pieces which are called micro plastics. The containers that are used for take away are made using expanded polystyrene foam (also called "Styrofoam") can take up to thousands of years to decompose, affecting the quality of soil and water.

The step taken by the government to prohibit the usage of plastic is in the best interest of the environment. The government also needs to look into waste management practises, and financial incentives to make the various outlets follow the prohibition in the form of a tax rebate or discounts in payments of bills. Providing alternatives that can be used instead of plastic and also generating awareness among the people.

## Need of the study

As understood that the market is varied and provides for extensive opportunities for shift and growth prospectus to the work group in the food and beverage industry. The study is extremely important to understand the market scenario with respect to the new laws laid down by the government, in the best interest of the environment. The survival of any organization would depend on running the business effectively without being affected by the changing norms of the government. The study helps in understanding if the outlets of food and beverage are affected by the plastic prohibition, the advantages and disadvantages that the owners and managers experience after implementation of the Plastic prohibition.

## Significance of the study

The study signifies the various alternatives to plastic that could be sought within the Baner area, pune city restaurants and cafes. It also assists in understanding the survival of the new and old outlets after the plastic prohibition. It highlights the various key factors in the outlets like revenue, employment generation, awareness, and plastic alternatives. The provision of said fringes would not only help in outlets using biodegradable material for packing but also help in finding alternatives for plastic.

## Scope of the study

It is almost impossible to completely refrain from the usage of plastic in restaurants and cafes. Hence it becomes important and obvious for new alternatives to be used which are environment friendly to reduce the contribution of waste from the outlets. It is necessary that alternatives which could help in holding liquid and gravy items should be looked at by the government and restaurants and cafes. Therefore a bio degradable alternative is the major requirement of the restaurants and cafes in order to sustain in the take away business. Various outlets have done a switch from plastic to paper, foil, glass containers, tiffin etc. This this has increased the cost of the outlets in terms of paper bags being more costly and not very reliable. The increasing number of

outlets in the Baner area, Pune city generates an incredible scope for the outlets to come together and look for alternatives that could be considered. The outlets are looking at sustaining and growing in a way that does not impact the environment in anyway. Some of the key identified and implemented by the outlets could be investing in crockery and cutlery, generating employment for ground level staff for washing and cleaning purposes, reducing the problem of plastic disposal and landfills. This has allowed a wider scope for the study and has to look for alternatives that could be biodegradable, cheap, that could be used for takeaway orders or could be used at the outlet without affecting the environment.

### Statement of the Problem

In the current scenario there was a plastic prohibition announced by the government of Maharashtra

### Limitations of the Study

- The study was purely based on the information received through the limited scope and purview of survey
- The study was relevant to the existing market scenario and the information, judgment and predictions of the respondents may differ accordingly with time, status, mind-set and geographical zone.
- The study also relates to the boom and demands of the plastic usage in the current hour and would differ in case of the shift in plastic article articles to bio degradable.

### Definitions

**Prohibition** is the illegality of the manufacturing, storage in barrels or bottles, transportation, sale, possession, and consumption

**Plastic** is material consisting of any of a wide range of synthetic or semi-synthetic organic compounds that are malleable and so can be moulded into solid objects (<https://en.wikipedia.org/wiki/Plastic>)

**Biodegradable** capable of being decomposed by bacteria or other living organisms and thereby avoiding pollution. (<https://www.google.co.in/search+bio+degradeable&oq=bio+degradeable>)

### LITERATURE REVIEW

The research had reviewed a number of relevant literatures to identify the important elements of usage of plastic articles for packaging and for service in various restaurants and cafes. An efficient strategies has been a powerful tool for offering quality service, to maximum customer and keep the business running even after the plastic prohibition. There are a number of researches, seminars and articles on the subject are a testimony to usage of plastic and the problems faced by the environment due to plastic usage.

Various environment related journals carry regular articles on the above subject. Apart from that below mentioned will also provide the valuable information.

- Books / Journals / Magazines / Newsletters
- Internet / Websites – Citation

((IETC), 2017) A report generated by International Environmental Technology Centre (IETC) Economy Division of UNEP 2-110, Ryokuchi koen, Tsurumi-ku, Osaka, 538-0036, Japan discuss the harm of single use plastic and the effect it has on the environment. The report discusses about many countries banning plastic but due to mismanaged even after the enforcement by regulation. The report also discusses about social awareness and public pressure and the undertaken voluntary strategies and agreements. Single use plastic bags contain polyethylene – or polythene – a tough, light, flexible, synthetic resin obtained by polymerizing ethylene. The discard of this plastic is very difficult and has an adverse effect on the environment.

Nadeem Inamdar, the newspaper article read the Pune hoteliers requesting the government as to not ban the plastic as serving gravy or liquid items has no other alternatives. The president, Pune Hoteliers and Restaurant Association, Ganesh Shetty was perusing the state government and the Pune Municipal Corporation to come out with an alternative that will be a win-win situation for the hoteliers as well as for the government in the long term.

(Madaan, 2018) Had mentioned in his article about the usage of paper bags causing about 20% loss of food due to the shifting of the plastic to paper containers for take away. The customer satisfaction is also affect. corn starch were also banned as they had plastic in them so a substitute made from sugarcane waste was being used but due to the smell it has it could not be used.

Kamlesh Barot, past president, Hotel and Restaurant Association mentioned in the same article that there is no other alternative for plastic to serve liquid items like dal and gravy items.

Nilesh P Kolapkar, director, Post 91, a restaurant in Baner, stated in the same article that they have shifted from paper bags to cloth bags as paper bags were tearing apart and similar was the issue with paper cutlery. The paper glass in which the drink was served would become soggy and so did the straw which full spoiled the taste of the drink.

(: R R N Sailaja Bhattacharya, n.d.) the study had investigated various factors like the cost of plastic bags, them being non degradable in nature, burning of plastic, etc. also further the recycling and associated related problems are discussed in detail like effect of the toxic additives, number of times to be recycled, lack of alternatives and plastic waste to fuel. Also the sustainable plastic waste management solutions like value added products from plastic waste, recycled products bio based products, etc.

(desk, 2018) as per the author, a restaurant owner in Pune, started using steel lunch boxes to deliver the food by keeping a deposit of RS.200 which was returned after the customer returned the tiffin. This is another alternative that was undertaken by Pune restaurant after the plastic ban.

### OBJECTIVES OF THE STUDY

1. To study the effect of plastic prohibition in restaurants and cafes of Baner area in Pune city.
2. Alternatives undertaken by restaurants and cafes after the plastic prohibition
3. To study the advantages and disadvantages of the plastic prohibition on restaurants and cafés.

### RESEARCH METHODOLOGY

The various strategies adopted by the hotels in the Pune region have been compiled by carrying out a difficult survey across Baner area in Pune city. These strategies were floated in the form of questionnaires and the feedback was collected on the basis of this survey. This questionnaire was circulated amongst various managers and owners of restaurants and cafes to obtain responses. This survey was specifically carried out to evaluate the effect of plastic prohibition in the Baner area. To understand the alternative options available. Research has further scope of finding new alternative options in packaging industry that are environment friendly.

**Type of Research:** A descriptive research was used to study the various existing practices carried out by restaurants and cafes in Baner area of Pune city which will include surveys and fact finding enquiries of different kinds.

#### Methods of Data Collection

**Primary data** - was collected from the owners and managers of various outlets from the Baner area which is the scope of the study. Primary data was collected through survey in the following ways:

1. **Personal Interviews:** The answer was sought to a set of pre-conceived questions through personal interviews and the data was collected in a structured way.
2. **Questionnaires:** Considering the Reviews, and the additional inputs, one schedule was prepared it was a questionnaire designed for the various outlets.
3. **By observation:** The data collection was done by conducting visits to sample restaurants and cafes. This is a primary technique for collection of data.

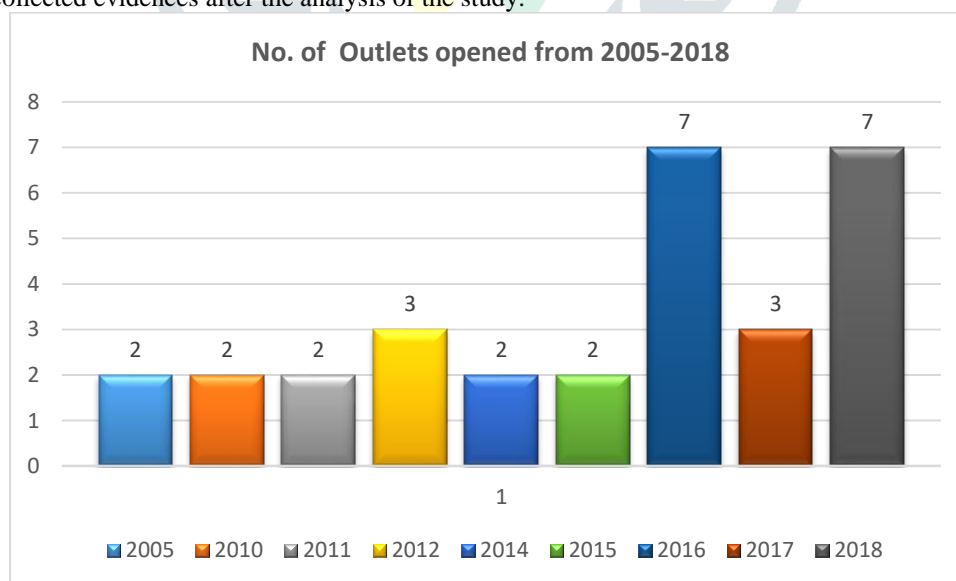
**Secondary data** – was collected from published / unpublished literature on curbing attrition rate in the hotel industry, advancements in the techniques of retention, latest references available from the journals, newspapers, research publications and magazines, past records and training reports of the hotel, and other relevant sources like internet.

**Questionnaire – Design and implementation:** The questionnaire design was done to achieve the objectives of the study. The questionnaire was administered to the sample population and sample size.

**Sampling Techniques:** For this study different employee from various star outlets in and around from Baner area, Pune city who are working at a Managerial level or owners was taken into consideration. This involves a total 30 samples from the owners and manager level respondents from restaurants and cafes in Baner area, Pune city.

### DATA ANALYSIS & INTERPRETATION:

The data collected was analysed using basic and advanced analytical tools. This also includes the detailed examination of the data which was conducted with the purpose of achieving the set objectives of the research. Mentioned below is the analysis which be presented graphically and in tabulated form for better interpretation. The Analysis of the collected data was done by drawing inferences from the collected evidences after the analysis of the study.

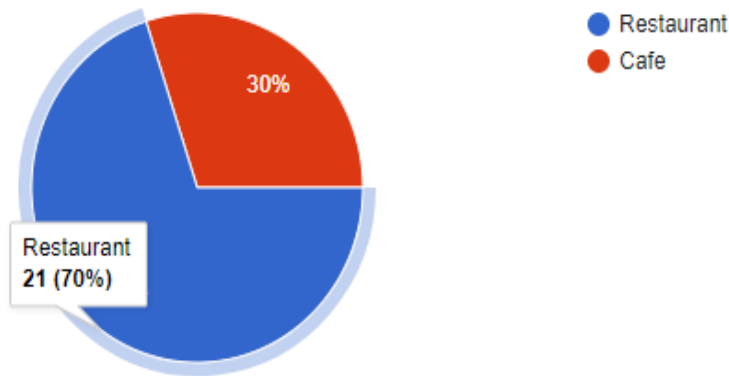


**Observation:** The response were collected from 30 outlets which were operation from 2005 till date as per the replies received from owners and managers of these outlets.

**Interpretation:** These outlets are current operational and a few are operating from since 2005 and years after that until date. They have the survived the competition and are operating in the food and beverage market. These outlets had a lot of investment

in plastic due to the prohibition of plastic they are looking at investing in new crockery and cutlery some are also going to other environment friendly options. Then there is a lot of growth in the Restaurants and cafes in 2016 and in 2018.

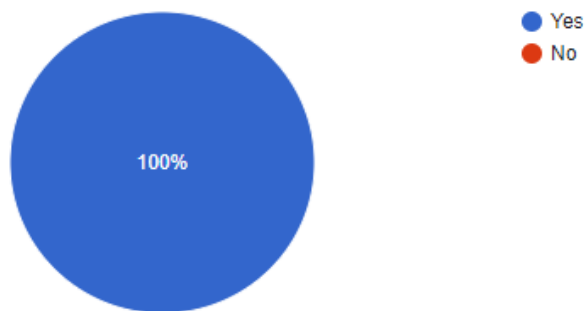
**Type of organisation:**



**Observation:** As per the observation from the above pie chart it is seen that the out of the samples collect 70 % of the responses collected are from restaurants and 30% are from cafes in the Baner area, Pune city.

**Interpretation:** According to the observation it can be interpreted that there are more restaurants as compared to cafes in the Baner area of Pune city.

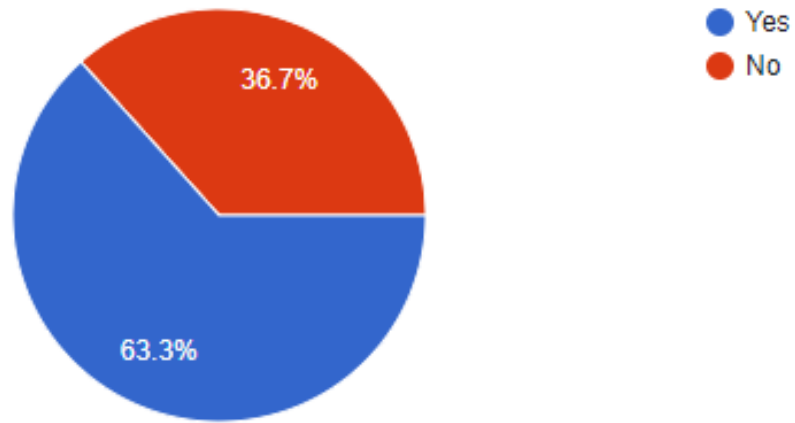
**Awariness of plastic prohibition:**



**Observation:** As per the observation from the above pie chart it was seen that all the restaurants which were a part of the sample were aware about the plastic prohibition under the governments Swach Bharat

**Interpretation:** According to the observation it can be interpreted that the all the restaurants and cafes are well versed with the various norms set by the government for having a cleaner Pune city and a cleaner India.

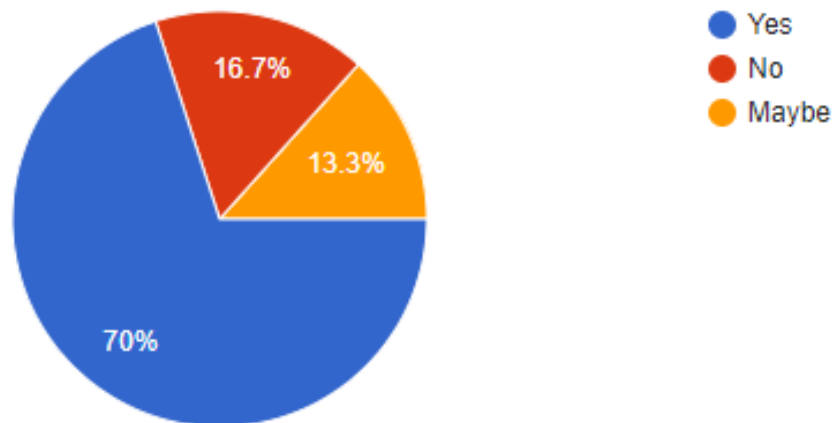
**Plastic prohibition - Effect on Business:**



**Observation:** As per the observation from the above pie chart it is seen that the allied organisation from whom responses were collected said that 63.3% of the owners were affected and 36.7% were unaffected by the plastic prohibition undertaken by the government.

**Interpretation:** According to the observation it can be interpreted that the outlets which provided take away services and also the smaller café’s which used plastic to serve items were affected, whereas the restaurants using crockery cutlery were not affected by the plastic prohibition.

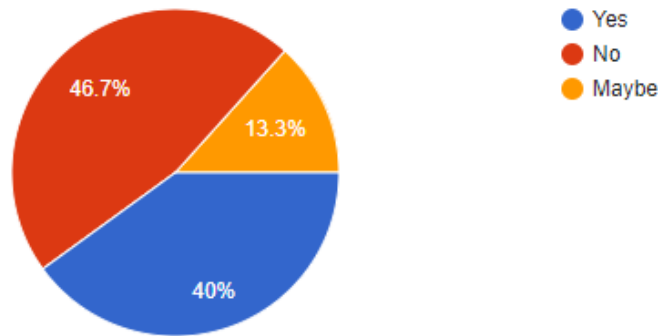
**Availability of Biodegradable options for Plastic:**



**Observation:** As per the observation from the above pie chart it is seen that the allied organisation from whom responses were collected 70% of the respondents agreed to there being biodegradable options being available instead of plastic. 13.3% felt that there are not enough options available other than plastic that can be replaced with bio degradable materials. 16.7% of the respondents were in doubt about the available options.

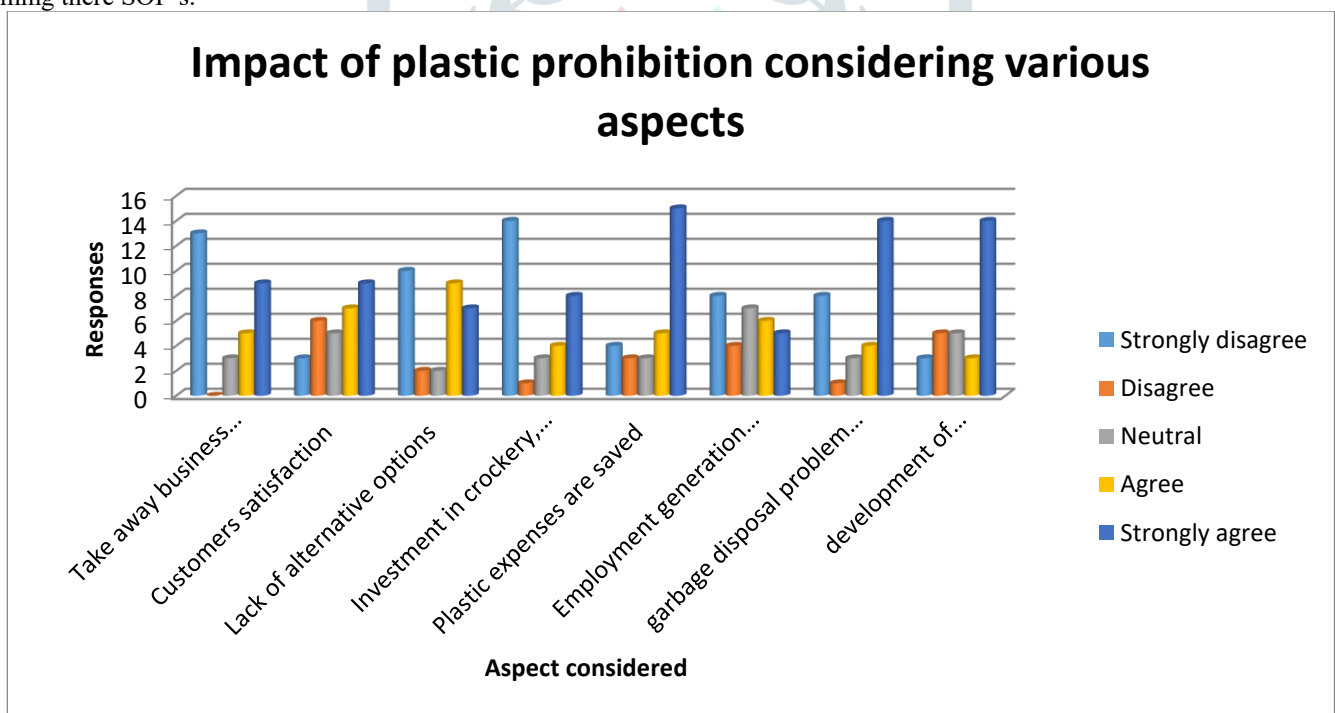
**Interpretation:** According to the observation it can be interpreted that the that say agree to the fact that bio degradable options are available have shifted from the usage of plastic to other options like foils, paper bags, glassware, wooden articles, paper boxes etc. The outlets which say that there are not enough bio degradableoptions available are looking at serving the liquid items in the bio degradable containers and are finding it difficult to replace anything with plastic. Whereas the ones which are uncertain are mostly serving foods which do not need much take away or packing service hence there consumption of plastic is very limited and they haven’t gone much into finding out about available options.

**Impact of Plastic on Revenue:**



**Observation:** As per the observation from the above pie chart it is seen that the allied organisation from whom responses were collected 40% felt that the revenue was affected, 46.7% of the sample said there was no change in the revenue generated, and 13.3% were not sure if their revenue was affected post the plastic prohibition.

**Interpretation:** The outlets which say that their revenue is affected in terms of plastic prohibition said during the interview that was conducted that, their major business depended on take away orders and due to the plastic prohibition serving liquid and gravy items became very difficult. Due to which it was observed that the revenue had declined post the plastic prohibition. The organisations which were unaffected it was observed that they are mostly the restaurants which have full service in their organisation and hence they use less plastic as compared to the ones which depend more on take away services. The remaining samples haven't done a detailed analysis if their revenue is affected by the plastic ban, being new they are still in the process of forming their SOP's.



**Observation:**

**Take away business:** The take away business is affected as 9 respondents strongly agree that the take away business is affected whereas 13 respondents strongly agree that the take away business is affected.

**Customer satisfaction:** Customer satisfaction is affected as 9 respondents strongly agree that it is affected and 7 respondents agree to the same.

**Lack of alternative options:** From the responses collect it is seen that 10 outlets strongly disagree to the fact that there are alternative options available instead of plastic whereas 16 respondents agree and strongly agree that there are alternative options available instead of plastic.

**Investment in crockery, cutlery, washing etc.,:** From the responses collect it is seen that 14 outlets strongly disagree to the fact that there are there is an increase in their investments pertaining to their business where as 8 respondents strongly agree there is an increase in the investment of their business.

**Plastic Expenses are saved:** From the responses collect it is seen that 4 outlets strongly disagree to the fact that the plastic expenses are saved whereas 15 respondents strongly agree plastic expenses are being saved.

**Employment generation for staff:** From the responses collect it is seen that 8 outlets strongly disagree to the fact that due to prohibition of plastic there is employment generation in the outlets and 7 respondents are neutral about it 5 respondents strongly agree that there is employment generation.

**Garbage Disposal problem is solved:** From the responses collect it is seen that 14 outlets strongly agree to the fact that due to prohibition of plastic the disposal of plastic problem is solved whereas 8 respondents strongly disagree that there is the garbage disposal problem is solved.

**Development of the Organisation:** From the responses collected it is seen that 14 respondents agree to the fact that as a result of the plastic prohibition there is development of the organisation whereas 3 organisations strongly disagree about the same.

#### Interpretation:

**Take away business:** on the basis of the collected samples it is clear that the take away business is affected as the take away containers were made of plastic mostly. Also the alternatives like foil, or paper containers are not very sturdy to hold liquid or gravy items and they become soggy so for the take away business service of the items has become a challenge.

**Customer satisfaction:** The customers is affected in a positive way as far as the environment is concerned where as there is dissatisfaction in customers who do a lot of take away orders.

**Lack of alternative options:** A lot of outlets are not aware of the alternative options available where as those who are aware are using the available options. Also a few outlets like Starbucks which always served coffee in plastic containers find it difficult to alternate.

**Investment in crockery, cutlery, washing etc.:** More number of outlets like full service restaurants already have their investments into crockery and cutlery and people employed for washing or dish washing machines installed at the outlets hence, due to the plastic prohibition they are not really affected by it. The investments that go into all these services are already budgeted and accounted for.

**Plastic Expenses are saved:** Most outlets agree on the fact that plastic expenses are saved as the outlets have stopped purchasing of the disposable plastic containers as there is a fine which will be levied on any owner where plastic containers or bags will be used.

**Employment generation for staff:** The outlets where in the major operation were because of the regular business service in restaurants already have the staff required for their service hence there was not much employment generation due to the plastic ban. Whereas small cafes which initially served in disposable containers hired new staff for the purpose of washing and cleaning of the crockery and cutlery used now due to the plastic ban.

**Garbage Disposal problem is solved:** The garbage which is now generated since the ban of the plastic doesn't have much of plastic content. Hence the issue which was regards to the disposal of plastic items has reduced drastically due to the adoption of this step.

**Development of the Organisation:** The outlets which initially relied more on take away business it is now observed that these outlets have purchased tables and chairs and increased their seating capacity so that they can sustain in the business this in turn has helped in the development of small business to some extent.

#### OBSERVATIONS AND FINDINGS

The first and the foremost general observation was most of the restaurants and cafes of baner area, Pune city have prohibited the usage of plastic, they appreciate the efforts taken by the government and also agree to the fact that it is a good initiative for the industry, towards implementing strategies towards retaining the ecological balance. As per the data collected from owners and managers of various outlets it is seen that the outlets are supporting the government's Swachh Bharat Mission. As per the data analysis below mentioned are some of the observations and findings.

1. It has been observed that the most of the outlets in the Baner area have agreed to stop using plastic containers as far as possible.
2. As the ban was announced 3 month prior to actually implementing the prohibition of plastic the outlets had enough time span to look for alternatives and switch to biodegradable options
3. The outlets mostly undertook alternative options like aluminium foil, paper bags, glass, wooden articles, and paper plates, boxes of paper and crockery cutlery to cope with the plastic prohibition.
4. It was established that all the outlets were aware of the plastic ban and were also following it rigidly.
5. The government should have more option which are biodegradable available to serve liquid items and gravy items.
6. The various outlets which majorly served in plastic containers their revenue was affected due to the ban on plastic the full service restaurants the effect seen was comparatively negligible.
7. Customer satisfaction was affected somewhat for organisations which served food in plastic containers, a few outlets also considered giving delivery in steel tiffin by keeping a deposit for the tiffin which was returned back to the customer after the tiffin was returned by the customer.
8. There was not much employment generation as most the restaurants were already providing full service in their restaurants only the smaller cafes expanded due to the prohibition of plastic.
9. The major issue that the government was seem to be facing and also the hotels was about the disposal of the garbage due to the ban on plastic that issue was lessened of garbage disposal.
10. The step taken by the government (The Swachh Bharat Mission) is a one which is taking keen interest in all the sectors of the city.

### SUGGESTIONS

1. It is suggested that the government should make more research and development into bio degradable materials available for serving liquid items for take away from restaurants and cafes which can hold the liquid and also doesn't spoil the experience of consuming the content.
2. The usage of steel tiffin for the delivery should be undertaken by the various apps like swiggy, uber eats, zomato, etc.
3. More awareness should be generated among all the hotel employees and the customers regarding the harm of plastic on the environment.

### CONCLUSIONS

1. The prohibition of plastic created a buzz in the outlets in the Baner area, Pune city, but the outlets coped with the ban with alternative options and sustained the crisis situation.
2. The various option that the outlets used instead of plastic are foils, glass, wood, paper, dry leaf bio degradable plates.
3. The implementation of the plastic ban saw a lot of advantages like the organisation expanded their business providing seating capacity to their customers also generating employment. The major problem of garbage disposal came under control without negative impact on the business. Plastic expenses were saved by various organisations. Along with the advantages the drawback were also see like the take away business was affected and there was a lack of alternative options for liquid item take away, which could be economical.

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