



BHELPURI NOW NEW AND HYGENIC



Report Title

Introduction of price anchoring strategy for commercial viability of a street food business.

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EXECUTIVE SUMMARY: -

This project will help the reader in understanding the experiences of various business approaches, strategies and psychologies while dealing with people involved in business. The aim of this project is to throw light on the difficulties, advantages and disadvantages of the street food shop that Mr. Ajay Gupta faces. He runs his 'Bhelpuri and Chaat shop on the street' and thus he has no permanent place there, owing which he has to face certain problems like adverse weather conditions, local political pressure etc. Having many rival shops near him he cannot maintain his standard, owing to the pricing strategies and hygiene. He also has workforce management issues, thus, here Mr. Ajay Gupta's problem has been looked upon through the various strategies which are highlighted in this project. The data gathered while dealing with the 'Bhelpuri shop', has been analyzed and produced through the insights from the charts, graphs and tables which have been thoroughly explained. As shown in the graphs, Mr. Ajay Gupta can use price anchoring strategy with the introduction of new item in his price chart. Its utility has been measured graphically and through hypothesis testing. It is expected that this strategy will substantiate to be fruitful.

DETAILED EXPLANATION OF ANALYSIS PROCESS: -

While deciding to work with street food shop, a 'Bhel Puri and chaat shop' was confirmed and it was also **decided to survey some other shops of the same category.**



Figure 1: Survey of different 'Bhelpuri shops' of same locality.

Surveying the overall similarities and differences of the shop it was found out that their common problem is labor and profit maximization.

The rest of the factors are variable such as the huge rent of the shop inside the shopping mall and the local political pressure and lack of parking area and lack of permanent place. The shop inside the shopping mall has to pay a huge rent of INR35000 per month to the mall owner. He cannot buy a shop there as that place remains out of his scope. So, his money for rent is definitely fetching him a good profit of 25000 but his capital is getting wasted which he might have been saved, if he could have invested that amount of money into some place where could have got back his capital.

Next, coming to the problems with the street shops. The first problem with the street food shop vendors is lack of permanent area for which he always has to feel out of place, as the place does not belong to him, as the street belongs to the government. So, this compels him to succumb to the local political pressure and contribute to their fund. He also feels the need of proper parking area for his customers but he is helpless. His shop being situated on the street, he has to face extreme weather conditions like heat, rain, cold, storm etc. which causes immense loss for him as he loses his customers on such days and he himself also does not feel secure then owing to the growing number of natural disasters now-a-days due to the climate change. Also, he wants to maintain proper hygiene but he faces hurdles due to his other rival shops. He said if he tries to maintain proper hygiene then that would increase the jealousy of his rival shops on him which would resultingly bring him on the forefront to the local political parties that would compel him to contribute more as they would think that he is making much more profit. So, in both ways he thinks he is in a lot of distress which has no solution than to remain as he is.

Now as the problems have been discussed, the thing that stroked in my mind is the ***price anchoring strategy that might help in profit maximization***. It was felt that in order to solve each of the problems, the profit needs to be maximized first. The price anchoring strategy helps in profit maximization by introducing a new item with lower cost price but marking its selling price at par with the other items, which have been explained *statistically with a z-test and other graphical and pictorial representations*.

Straight from the horse's mouth it is found that the sales have increased after addition of new item 'Haldi Muri.' So, price anchoring strategy worked or in short, nudge worked. Below figure 3, reveals how the customers are enthusiastic about experimenting the new item. Mr. Ajay also stated that one customer after trying the new item, recommended his/her family members and they visited the shop second time within 3 days.



Figure 2: Before addition of new item



Figure 3: After addition of ('Haldi Muri')

Then the owner made a survey of about nearly 200 customers and maximum of them gave a positive reply about the new item but they were not happy with the price of the item. So here he requires the price anchoring strategy. Since the item has good feedback so it will be in the top of the list with same price as that of 'Papri chaat' which has higher production cost than all other items in the list. Then the price of most saleable item that is 'Bhelpuri' will be increased a little so that the customers will only be left with either buying the new item 'Haldi muri' or old item 'Batata Puri,' if they are seeking price factor, or else, they have to buy 'Bhelpuri' with a higher price. Thereby, with whatever item he will sell, the average revenue will always be higher as the most saleable item is at higher price.

The new item list price is displayed in figure-4. Clearly the average price is 70 INR. So, whatever item Mr. Ajay sells, if count of one item is high and other item is low, average revenue will always be higher than what was before. This recommendation will work better with the reinforcement strategy where he will convince the customers regarding the

new item which he has been included in his list and which differentiates him from the crowd. The better the advertisement the better his sale strategy will work.

MENU

1) HALDI MURI (WITH KUSUM BEEJ-SAFFLOWER) (HIGH NUTRITIOUS VALUE)	70
2) BHELPURI	65
3) PAPRI CHAAT	70
4) DAHI PAPRI CHAAT	75

SHOP- BHELPURI AND CHAAT

NAME- AJAY GUPTA

MOBILE- 9748331329



Survey Link: - https://t.ly/IY_q

Figure 4: Recommendation of new price list

RESULTS AND FINDINGS: -

Mr. Ajay has a difficulty with speech yet he runs his shop with confidence, while meeting a lot of people every day. After choosing his shop he was asked for some appointments at some intervals. He agreed and we went on with our subsequent meetings that came out to be very fruitful for me as he shared all his data and his problems to me and he was substantiated with a solution of his problems that he apprehended. *He has tried to give all the descriptive data which has noise, unstructured and after cleaning up of data he was made aware about the new menu chart so that he can display it in his shop which was*

prepared using price anchoring strategy in order to find out whether his sales can be increased to some extent.

After surveying almost 10 -12 bhelpuri shops in different areas, various factors are jotted down to relate the profit and sales trends over the year. The observed data of various shops and the net profit/loss of mall and Mr. Ajay's profit/loss trends remain quite same. The fig 5 and fig 6 clearly brings out the comparison how the trends in the revenue of Mr. Ajay's shop and other shops remains same. Also, the graphs and charts that are shown below are prepared after cleaning, analyzing, and sanity check which is suffice for a naïve man like Mr. Ajay who can use this data to work on those areas which might accelerate his progress.

The data of last month provided by Mr. Ajay shows that the sales have increased after applying price anchoring strategy. This will be an added advantage of his selling strategy as it will not only increase his sales but also during the crisis months, the revenue will more or less become constant as price of items are decided with z-value calculation.

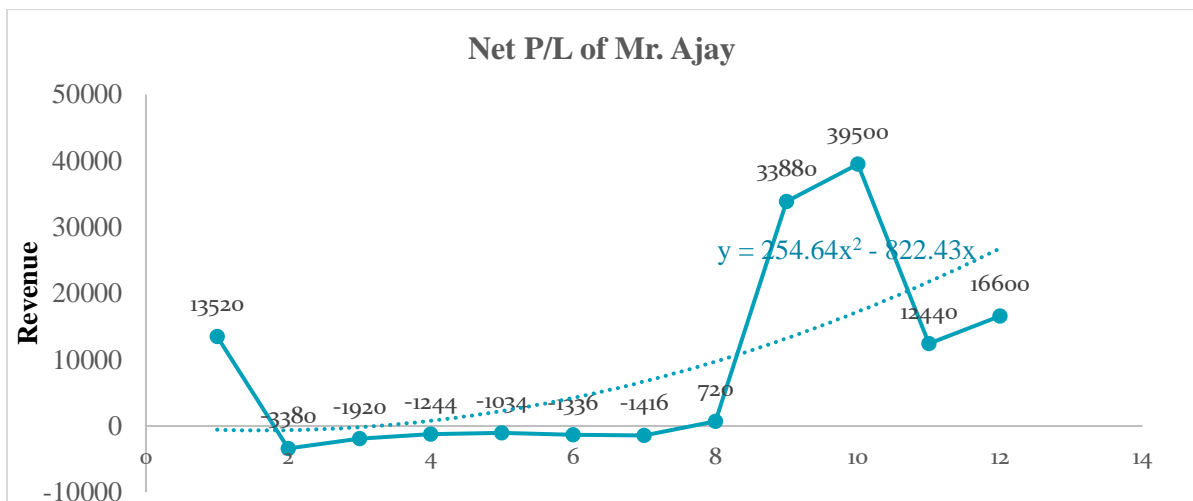


Figure 5: Net Profit/loss in street shop.

In the feedback received from him, he mentioned that the new menu chart has been working well and he is very satisfied with my suggestions and now he can carry on with the recommendations. *Now with the help of suggestions and recommendations he has*

understood the depth of his problems which will help him to rejig his business, thereby he may come out from being a saddled person and can achieve a nice growth.

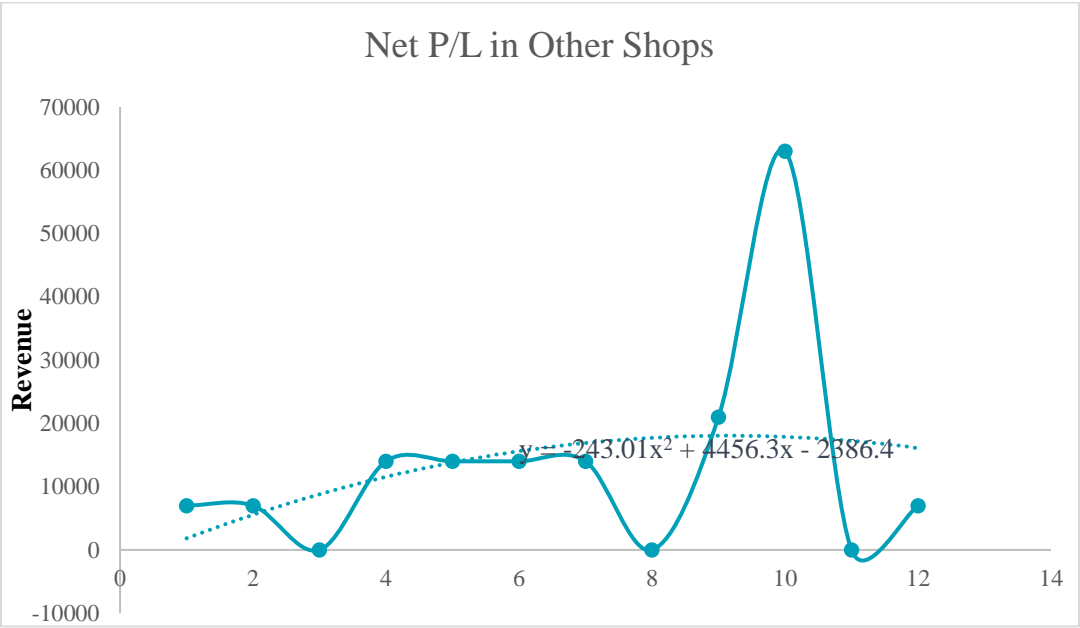


Figure 6: Net profit/loss in other shops.

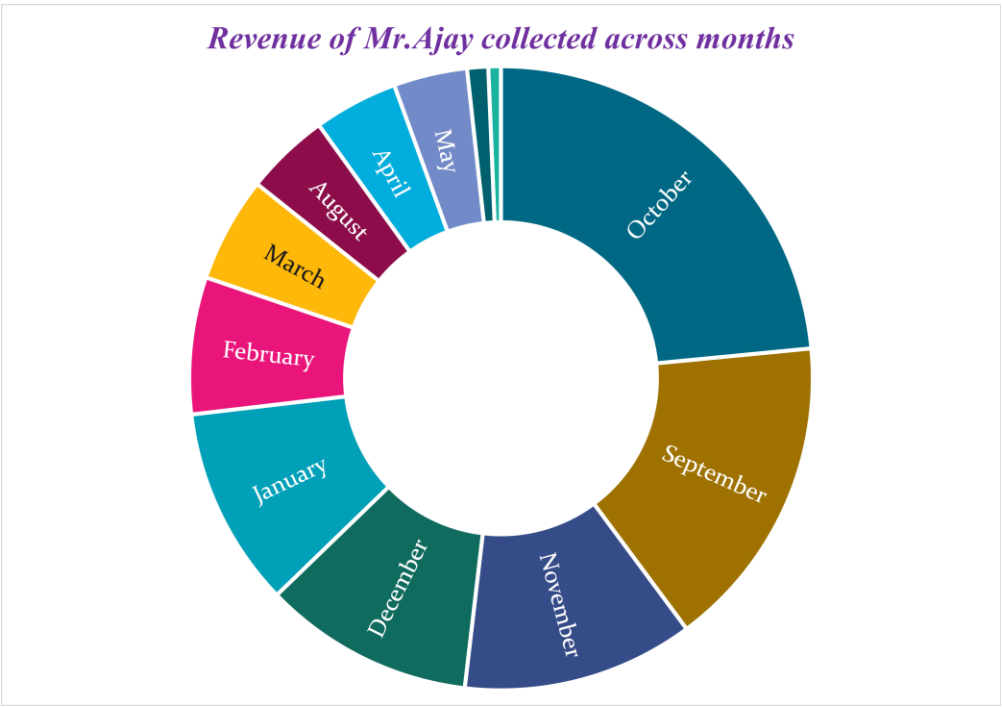


Figure 7: Sunburst graph of revenue collected across months.

Now to interpret the results

- 1) *the count of various items sold monthly in figure 7, clearly explains that in the months like September, October the sales have increased.*
- 2) *During winter months the same trend is observed, but the trend is opposite in case of mall shop.*

Reason (stated by Mr. Ajay Gupta):

- a) *These are the months of festivals. To confirm it, the data collected from other 'Chaat' shops, it was found that their sales become nearly double during these months.*
- b) *As already stated, before that mall shops and street shops are associated so it can be easily concluded that random customers increased during the time of festivals.*
- c) *customers during winter months do not prefer air-conditioned malls and like more spicy foods due to change of taste during various weather conditions.*

Again, it is noticed that for few items' sales only increased over the years and that are 'Bhelpuri, Papri chaat.' Moreover 'Dahi Papri', 'Pani Phuchka' sales are akin. Customers preferred those items which are common even if the other items taste similar. In all the street shops, it was surveyed that more or less the same trend is followed, except for few customers who have not experienced with the other items like 'batata Puri; 'Shuji Phuchka', which they try only once. Even if they like those items they are not consuming it the next time as these items are not advertised properly as stated by Mr. Gupta. The items which are being thought to be rejected by the customers can be reintroduced by applying price referencing, rather competitive pricing because the product is sold just below the price of competitor's product.

<i>month</i>	<i>count of total items sold per month(mall)</i>	<i>count of total items sold per month(street)</i>
<i>January</i>	<i>700</i>	<i>560</i>
<i>February</i>	<i>616</i>	<i>420</i>
<i>March</i>	<i>700</i>	<i>280</i>
<i>April</i>	<i>980</i>	<i>224</i>
<i>May</i>	<i>896</i>	<i>224</i>
<i>June</i>	<i>924</i>	<i>196</i>
<i>July</i>	<i>868</i>	<i>196</i>
<i>August</i>	<i>560</i>	<i>280</i>
<i>September</i>	<i>952</i>	<i>1120</i>
<i>October</i>	<i>1400</i>	<i>1260</i>
<i>November</i>	<i>504</i>	<i>560</i>
<i>December</i>	<i>560</i>	<i>700</i>
<i>Total</i>	<i>9660</i>	<i>6020</i>

Figure 8: Comparison of Count of items of street and mall shop.

The top 20% percent of the data in figure 8 shows, in both the cases that is mall and shop, shows the month of October has the highest sales irrespective of any strategy used. The top 10% data shows that in winter months the sales have increased.

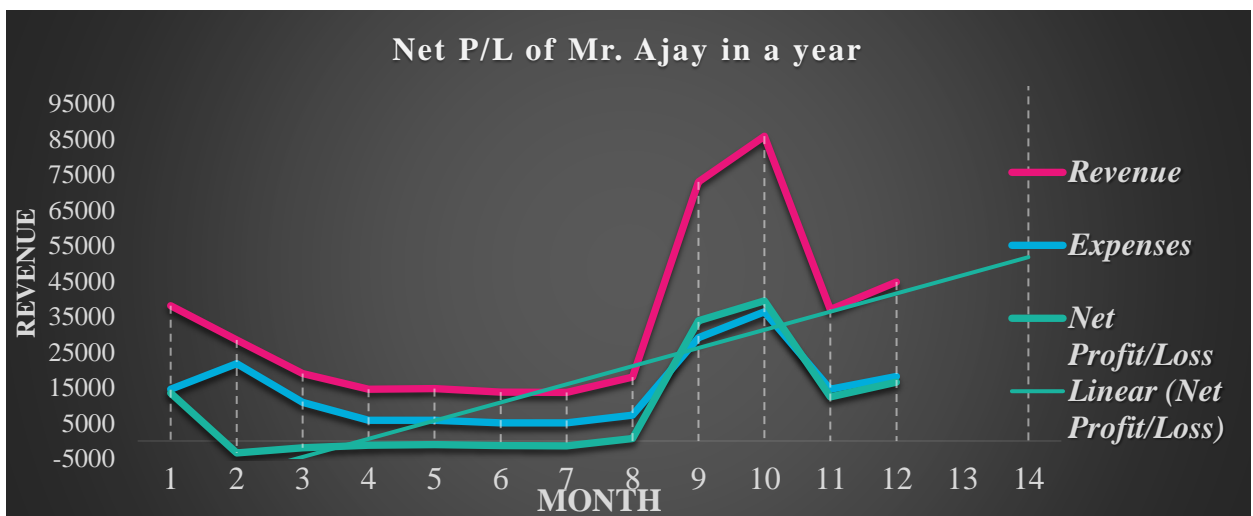


Figure 9: Sales pattern of Mr. Ajay.

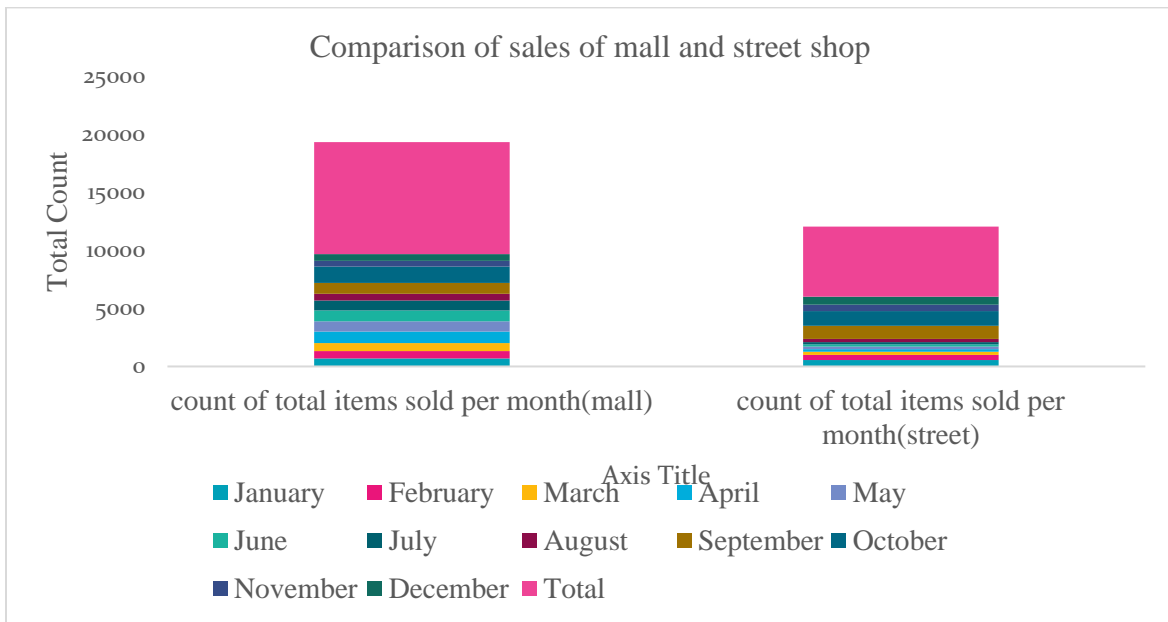


Figure 10: comparison of sales data.

It is clear from the sales data of figure-10 that the mall owner has higher sales than the street shop, also during summer months the mall owner manages to have quite a large number of customers. In winter also there is decrement in sales, akin to the street shop. More than 3000 or more customers consume from mall shop in a year. These statistics can throw some light on the probability of the success of the business venture in future. In winter months, when various fairs and other events are organized around, in the vicinity of these shops, the sales tend to decrease as people prefer to look around and experiment with the new tastes than the regular one which they can have all throughout the year.



Figure 11: shops in fair



Figure 12: shops in fair

Item Name	Approx.											
	Quantity sold in January	Quantity sold in February	Quantity sold in March	Quantity sold in April	Quantity sold in May	Quantity sold in June	Quantity sold in July	Quantity sold in August	Quantity sold in September	Quantity sold in October	Quantity sold in November	Quantity sold in December
Bhel puri	190	130	100	80	70	12	20	80	300	430	220	200
Papri Chaat	110	90	80	70	80	8	0	60	400	140	200	150
Batata Puri	2	0	20	4	4	0	0	0	0	20	0	20
Bread Chaat	0	0	0	0	1	0	0	0	0	10	0	10
Dahi Papri Chaat	100	73	20	16	20	6	6	10	70	250	50	20
Dahi Phuchka	68	45	40	4	2	90	90	20	0	130	20	10

<i>Pani</i>												
<i>Phuc</i>												
<i>hka</i>	90	80	20	50	44	80	80	110	300	200	70	250
<i>Suji</i>												
<i>Phuc</i>												
<i>hka</i>	0	2	0	0	0	0	0	0	30	30	0	20
<i>Suji</i>												
<i>Dahi</i>												
<i>Phuc</i>												
<i>hka</i>	0	0	0	0	3	0	0	0	20	50	0	20
<i>Total</i>	560	420	280	224	224	196	196	280	1120	1260	560	700

Figure 13: Item wise sales in street shop.

Figure 13 shows the quantity of items sold in the shopping mall has been plotted with respect to various months of the year. Here the quantity has also been segregated by the various items available in his shop. As can be concluded from the chart, it is visible that ‘Papri chaat and Bhelpuri’ has the maximum sale in every month and the highest sale in festive months when people feel comfortable to move around for shopping and other activities, as Mr. Gupta stated. In the summer months people tend to be busy with their work indoors as the temperature is adverse in Kolkata during that time. Also, the data varies between the mall shop and street shop as during the festive months the street shops and the shops in the fair serve more customers whereas the mall shop being permanent and available throughout the year serves less customers.

Here, comes the profit part. The revenue collected over various months in both mall shop and street shop is quite astonishing. Even the revenue and count of sales of items is higher

in case of mall shop, yet the margin of profit in both the mall and street shop is very less shown in figure 8 and figure 11.

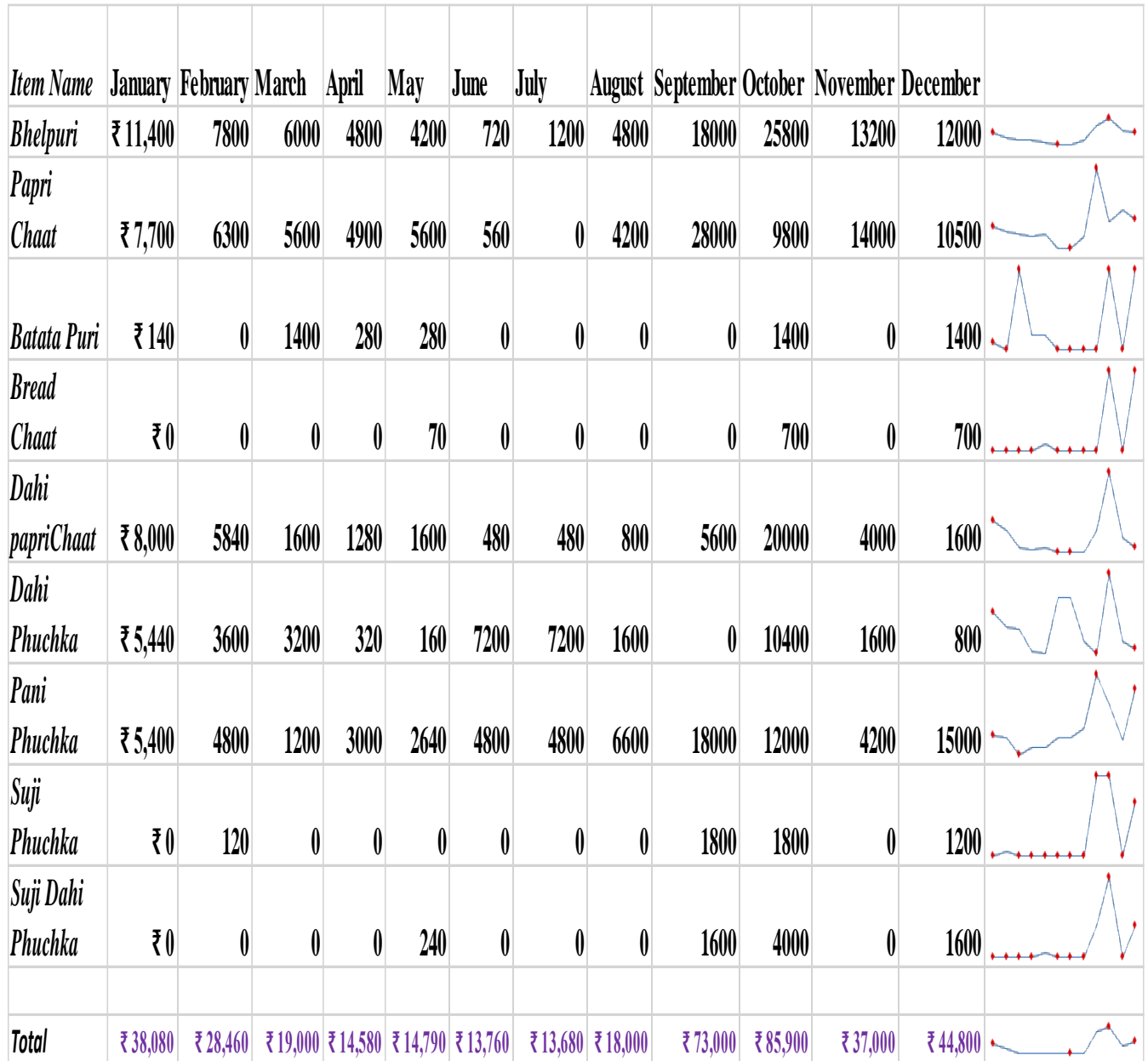


Figure 14: Trends of revenue collected for various items over various months.

The sparklines of ‘Batata Puri’ shows that during the months of March and October there is an increase of revenue whereas ‘Bhelpuri’ has overall same flow in every month throughout the year. Similarly, ‘Pani Phuchka’ shows an increasing trend in the last quarter.

Here one strategy can be applied to increase the sales that is the reinforcement strategy by praising the good aspects of one item compared to other. Otherwise, the 'Shuji Phuchka' or those type of items will get wasted. Comparatively the summer months have less sales as customers visit his shop during 5pm to 9pm.

Due to scorching heat, there is also wastage of his items as all the items Mr. Ajay sells are perishable. So, in that time the count also increases (count of wastage item), cost of production increases but revenue gets decreased. In order to stop his food wastage which is a global problem, data is very important.

Based on the insights, here are the probable relevant solutions of the various problems before recommending Mr. Ajay about the strategy: -

- i) Introduction of the new item with the price that has been provided in the menu chart. He can also use this price with dynamic pricing based on the prime cost and the feedback of the customers. If this strategy becomes successful, he can keep constant price like the other items.
- ii) He must maintain a proper profit/loss statement so that with the profit over every month instead of buying more raw materials, he should hire a part time labor that would ease his job along with which he should maintain proper hygiene and should advertise his bill of fare through proper media.
- iii) He wanted to have a shop in the mall but he got scared about the loss that he might incur while having a shop inside the mall. He will be made aware about the trends of the revenue of the mall to substantiate that the trends remain more or less the same in both the areas. Only he has to be ready with his capital for advance payment of the rent.

The price anchoring strategy is expected to solve most of Mr. Ajay's problems if followed in the recommended manner.

INTERPRETATION OF RESULTS AND RECOMMENDATION: -

Month	Count of items sold per month(mall)	Expenses	Revenue	Gross p/l	Net P/l
January	840	16800	58800	42000	7000
February	840	16800	58800	42000	7000
March	700	14000	49000	35000	0
April	980	19600	68600	49000	14000
May	980	19600	68600	49000	14000
June	980	19600	68600	49000	14000
July	980	19600	68600	49000	14000
August	700	14000	49000	35000	0
September	1120	22400	78400	56000	21000
October	1960	39200	137200	98000	63000
November	700	14000	49000	35000	0
December	840	16800	58800	42000	7000
Total	11620	232400	813400	581000	161000

Figure 15: Count of items of mall shop

Now if we have a closer look on the mall shop, the data reveals that all the months have same sales except in September to October where there is increase in revenue nearly double. So, mall vendor is relieved as there is a permanent place, maintenance of proper hygiene, and no rivalries. On the other hand, in the mall shop fixed cost and prime cost is

high and in longer run, everything will become variable thereby profit optimization may vary with the several deciding factors. If variable cost gets decreased profit will be high else there will be low profit or even loss might occur.

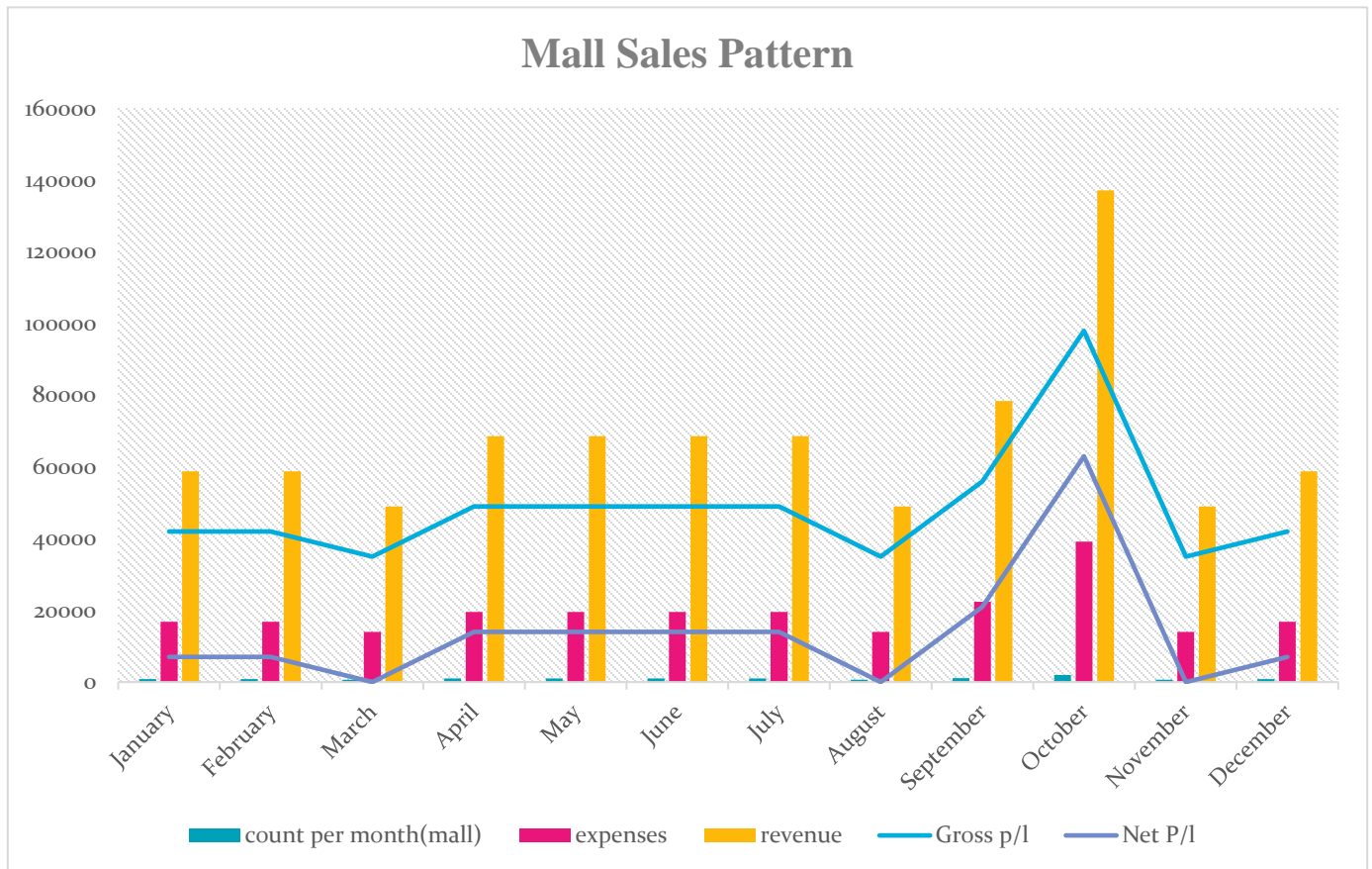


Figure 16: Mall Sales graph

The figure 15 and fig. 16 clearly represents the sales pattern difference between Mr. Ajay Gupta's shop and mall shop. Thus, the introduction of a new item 'Hal di Muri' has attracted a huge customer base even if the price is high. A little addition of turmeric('Hal di') also reminds the consumers that it is a good anti-oxidant, has ayurvedic qualities, and so is good for skin etc. which thereby can be named as 'conscious consumption.' So, Mr. Ajay is recommended with the price anchoring strategy for profit maximization that would help him increase his workforce and can relocate to a better permanent position.

If the recommendations work properly, then he can maximize his profit and in future he himself will be able to sort out the difficulties as he has been made aware about how the strategies work. Whatever may be the situation he needs to have that urge of growing with his business and he should never lose confidence in whatever he is doing. It will be my utmost request to him to remain aware of the perils around him and move ahead in his life cautiously with confidence. After the data and statistics, now comes the practicability. The doubt which makes the street food owner feel daunted is the risk of this new pricing strategy. *Now in statistics 'Risk' refers to the probability of occurrence of an event or outcome. Therefore, the technique of risk analysis can be used to identify and assess factors that may jeopardize the success of achieving the target. To calculate the risk, I have taken two groups. One is 'controlled' that is mall(A) and other is street foods shop that is 'experiment'(B). Now by nudge economics or A/B testing the risk or negative of the business part can be calculated. The greater the Standard deviation the greater the risk. Similarly, without comparing, even if Standard Deviation and risk both are high the business will be at loss with the new strategy.*

After cohort analysis from both the owners, who received feedback from more or less 200 customers, the data reveals that the street shop is at lower risk. In spite of these calculations there are limitations, that is even if standard deviation means spread out it will not necessarily mean that the outcomes will be consistent in future.

	<i>Satisfied with Price</i>	<i>Unsatisfied with Price</i>	<i>Risk</i>
<i>Experimental (With 'Haldi Muri' Price rise)</i>	<i>150</i>	<i>50</i>	<i>50/200=0.25</i>
<i>Control (Without but price rise)</i>	<i>90</i>	<i>110</i>	<i>0.55</i>
<i>Relative Risk (Experimental/control)</i>	<i>0.45</i>		

Figure 17: Risk estimation

I will strongly suggest Mr. Ajay to carry on with the new price list, say for next 3 to 5 years to extend his fixed customer base.

PRESENTATIONS AND LEGIBILITY OF REPORT: -

Business is not that difficult if one can put efforts to do a little hard work, have patience, honesty and farsightedness. The people who help the businessman develop and manage their business are even more farsighted and calculative as they have to conduct the market research, understand and analyze the factors that affect the psychology and buying habits of the consumers and then prepare the statistics. This report is indented into short paragraphs and bulleted points. The layout is simple and uncluttered with plenty of margin and white space. Rubrics are followed as per the guidelines that is the entire passage is written in Times new roman and the font is 12 with line spacing 1.5. The language is kept simple where jargons and technical words are less used. It is not made unnecessarily long so that the patience of the reader is not lost and there is no confusion of ideas. Yet, at the same time the report is made complete. Repetition of the points is avoided as it often seems to be monotonous and also fails to attract and impress the readers who are coming across this report. Always positive recommendation has been put forward in the complete report. Passive voice has been used. An attractive title has been mentioned in order to compel the readers to read the report from the beginning to the end. A lot of emphasis has been put upon it, in order to highlight the most accurate results without any biasing or personal experiences. This report is curated and thus, the report has been presented in its original form. The reader will find it to be lucid and logical. This report seems to be equally pertinent for any lay man like the street food vendors as well as for any learned man who has any idea about business, statistics and economics. Constant effort has been maintained to make this report crisp, sweet, attractive and alluring.

-----**Thank You**-----