**EXPLORATORY DATA ANALYSIS**

**1.BEHAVIOURAL ANALYSIS :-**

1. **I FEEL LONELY IN LIFE (BEFORE THE PANDEMIC) :-**
   * + - Married :-
       - Married people constitute 20% of the entire number of people who are lonely.
       - Married males earning 20+ lakh per annum in the age group of 40-55 years are feeling more lonely, considering their proportion in the total number of people who took the survey, this is a significant observation.
       - These people have decent health routines and habits and come across as family oriented people.
       - This category holds the feeling of loneliness during the pandemic situation as well, which says that the cause is not the pandemic , there can be other family issues that’s causing this feeling of loneliness.
       - Unmarried :-
       - Unmarried people constitute 79% of the total number of people feeling lonely before the pandemic.
       - This include unemployed youth who does not follow a proper health routine, people in their early 20s earning between 3-5 lakh per annum who have the habit of eating junk and hold irregular sleeping patterns.
2. **I FEEL LONELY IN LIFE (DURING THE PANDEMIC) :-**
   * + - we can observe that overall the number of people feeling lonely almost got doubled due to the pandemic
       - we can also observe that within the people who are strongly agreeing that they are feeling lonely currently, also strongly agreed on the point that they enjoy meeting new people in the current situation as well.From this we can deduce that the restrictions of social distancing, staying away from people , can actually be the potential cause of this loneliness.
       - If we dig further deep into this category of people who are feeling lonely due to lack of socialisation and observe their personality, we can observe :-
       - **A**.The private sector employees in the age group 20-25 are dominant, fair enough as the younger generations are the ones who believe more in socialising and often hangout in groups.
       - Interestingly, we can observe from the plot of time spent online, that people who are spending most of the time online are the ones feeling more lonely and the ones who completely disagreed on the feeling of loneliness are spending only few hours online, but not actually isolating themselves completely.
       - If we dig deep into the demographics of the people who are feeling more lonely and spending more time on internet, we can observe that :-
       - A.mostly students and employees who are in their early phase of career are tending to show this behaviour. They seem completely directionless to actually waste so much time spending online in order to overcome their feeling of loneliness.
       - B.whereas , the population which disagreed on loneliness but still allocate a few hours of their daily life spending online, are dominated by the ones who are in their late 20s and have a stable income, they are the ones who probably are busy working from home and have plans and a direction in life and seem to balancing everything in life.
3. **Political interests (change centric analysis) :-**
   * + - while majority of the people have shown the same amount of interest towards politics before and currently, we can observe a slight change where a few people who were not at all interested in politics earlier are now showing moderate or high interest in politics, they can be interested towards the governance or the administration, interested in knowing the measures government is taking to curb the situation
       - we can also say that they are preferring to be more politically aware to not only abide by the rules that government is asking to follow but also to know how efficiently the situation is being handled by the people's representatives.
       - we dig a little bit deep and understand the specific demographics as of who are the ones who has all of a sudden started showing interest in politics we can see that :-
       - It is majorly dominated by employed youth who are in their early 20s ,even though this is a very specific change and also very minimal and has no assurance of sustainability , it can be inferred that the pandemic did actually strike a chord for them to show this drastic change.
       - In the real life situation as well we come across people who are volunteering to donate their plasma, and also a category of people who has become more assertive politically and took to twitter to complain about the situation in Hyderabad to the governor following which a meeting has been called between the governor and the CM.

**D. I worry about my health and I Maintain a healthy lifestyle(change centres analysis) :-**

* + - * 49.6% people used to have a healthy lifestyle before which now shifted to 55% .
      * 30.4% of the people used to worry about their health which now shifted to 68.8% .
      * The huge shift in the people worrying about their health(almost double) and a very negligible shift in the people maintaining a healthy lifestyle tells us an interesting story here:-
      * A .These can be the people who are actually worried about their health but are not taking any action towards doing something productive and maintaining a healthy routine.
      * B. If we dig deep into people holding this behaviour, we can observe that they are dominated by unmarried females in the age group of 20-25, who are not earning currently, who spend most of the day online, and have an irregular sleeping habits of late to bed and late to rise.They are worrying strongly about their health but still not taking any action.
      * C. Earlier, they were neutral about the health aspects of their lives , the pandemic did bring in a change of noticing the importance of health for them, but not to that intensity that they actually start working towards it.
      * Its again proved here that end of the day its ones own determination that can bring in change, not the external situation.
      * Having said that, there is an appreciable lot that are actually worried and are taking action by maintaining a healthy routine, these are the males between the age group 20-30 working with an average income of 7 lakh per annum , who had a neutral opinion on health aspects and had a habit of eating outside frequently, which now changed to maintaining a healthy lifestyle , eating home cooked food and waking up early.

**E**. **Enthusiasm towards starting something new in life (change centric analysis) :-**

* + - * 1. It has been observed from the survey results that the enthusiasm to do something new is not dependent on a person's employment status and income change, therefore this shows that it is not only influenced by one's financial situation ,but can have different perspectives to it, from starting a new hobby , to making a new lifestyle choice, health choice etc..
      * 2. 68% of the people who filled the survey, were interested in doing something new which now reduced to 60%.
      * 3. Even though there is an overall reduction , internally there is an incremental shift , where people who didn’t agree on doing something new before now started doing something new, we can observe the following characteristics :-
      * 3.A. Employed females in the age group 20-30, mostly unmarried are showing the enthusiasm towards doing something new, and all of them strongly agreed on having multiple hobbies currently and are also maintaining a healthy lifestyle.
      * 3.B.They are showing interest towards buying branded food products which are generally costly, all while saving as much money as they can as they have shown equal interest in economy management as well, they also have strongly agreed that they are interested in medicinal aspects and are being more aware health-wise

THE WHOLE THING IN GENERAL EXPLAINS THE CHANGE IN THE WAY OF LIFE AS A RESULT OF THEIR ENTHUSIASM TOMAKE NEW CHANGES IN LIFE.

* + - * 4. Then there are sections which doesn't hold the enthusiasm of doing something new like before, these include people in the age group 30-55 years, with a stable average income of 12 lakh per annum and are probably preferring not to take risks by starting something new.

**F. Smoking habits :-**

* + NON-SMOKERS :-
    - * 1. 90% people who didn’t have the habit of smoking before the pandemic are still continuing to maintain the same, compared to the proportion of non-smokers the people who have shifted to smoking are very less(7, almost negligible)
      * 2. Even though negligible, If we dig a little bit deep and observe the characteristics of these people :-
      * 2.A.Majority of them ,that is 67% of them are in the age group of 35-55 years, earning an average income of 15 lakh per annum, belonging to the states mostly north of India.Considering the proportion of the respective categories(age, income, location) this is a significant observation.
      * 2.B.80% of them agreed that they feel lonely in life currently and spend most of the day online ,and also that they worry about their health currently but are still not maintaining a healthy lifestyle.
    - SMOKERS :-
      * 3. Now looking at the people who used to smoke before and are continuing to do so, we can say that 50% of the people who used to smoke before are still continuing and following are their characteristics:-
      * 3.A. 58% of these people are married and are between the age group 40-55 and 55+ and have the irregular sleeping habit of late to bed and early to rise and are also social drinkers.Considering the proportion of married people and people in the age group of 40-55 and 55+ who have taken this survey ,we can say that this a very significant observation.
      * 4. Now coming to the crucial 50% of the people who actually chose to quit smoking, following are their characteristics :-
      * 4.A. Nearly 70% of these people are youth between 20-30 years of age and have a stable average income of 7 lakh per annum and have also agreed on welcoming certain healthy changes in their lives, like not only worrying about their health but also acting towards it and maintain a healthy lifestyle,
      * 4.B. Nearly 42% of these people agreed that they started being more productive at work and started thinking from different perspectives before taking a decision which wasn't the case before.

2**.ECONOMICAL ANALYSIS (ANALYSING PEOPLE’S SPENDING PATTERNS) :-**

1. People with decreased income levels has shown a significant changes of shifting from spending on luxury items to not investing on them, from using cabs to opting personal transport, from ordering food online to preferring home cooked food
2. Whereas the people whose income didn’t get affected neither negatively nor positively still continue to prefer online food and private transport but has cut down spendings on luxury items.
3. Now there are another interesting category of people whose income increased during the pandemic and are still affording to spend on luxury items and always used to use their personal transport to work
4. All these insights are given keeping in mind the dominant personalities of each group(the proportion considered id 62% nearly)
5. If we further analyse the spending group of people whose income increased and are spending almost in the same way as before, the following things has been observed :-

A. Although on an average the spending kind showed that they turned towards medium spending, internally it has been observed there are significant high spending people as well (all of them are unmarried),and 70% of this category agreed that they still spend on luxury.

B. All of them are private sector employees and has received a salary rise while being in the same sector, most of them belong to the income group 5-10 lakh per annum between age 25-30 years, this can be due to job switches or hikes.

6. Every Age group has decreased their expenditure (So, Irrespective of Age group every individual decreased their cash inflow into the system --> Decreases Liquidity).

7. Currently, W.r.t people under high Spending and Medium spending categories, the gender based difference in spending is not that significant, but the difference is significant w.r.t low spending category. It was observed that females are spending less when compared to males. Reasons can be restrictions on shopping, parlour expenses or are probably saving for a better future.

8. In the Present situation, Low spending people are showing more interest in Economy\_management than before.

9.Surprisingly only 10% of ppl from each other groups changed to organic foods/Branded food products

* People who used to be neutral towards maintaining a healthy lifestyle have now changed to maintain a healthy lifestyle and are preferring branded food products over non-branded ones

10.Usually due to Work from Home, Online Entertainment, Online Education, Kids Management the Data Consumption will increase, But 10% decresed their Consumption.

11.ppl who are Self-Employed majorly(~ 60%) decreased their data consumption,this can be due to Lose of business/clients currently || Extended time period for projects.which inturn decreases their Income.

**3.BEHAVIOURAL AND ECONOMICAL (COMBINED ANALYSIS) :-**

1. **Questions considered are :-**
   * **Interest in Economy and Management**
   * **Are you an active Investor**
   * **I save all the money I can**
   * **I keep track of my household expenses**
   * **Employment status, change in income**

**INSIGHTS** :-

we can notice a drastic change w.r.t saving the money :-

1.The number of people trying to save the money currently almost got doubled if not exactly doubled

2.It has also been observed that people with both reduced and same income levels are showing interest in saving currently and are keeping track of household expenses to facilitate this process.

2.A.If we dig deep and understand the category of people who are saving due to decreased in income levels, we can observe that :- It include all the income levels from under 3lakh to 20+, all of them are affected negatively income wise, but majority of them who got effected are the private sector employees earning between 5-10 lakh per annum, reason can be layoffs or salary cuts.

3. when the demographics are further analysed to understand the reasons for decreased income, it was observed that :-

3.A majority of the people earning 20+ per annum earlier who are now facing income cuts are the ones who are self employed, these are the people belonging to business class and they had to either shut their businesses or are facing losses as the spending pattern and consumption as observed above reduced drastically.

**B. Questions considered are :-**

* + **Spending time on Internet**
  + **Prefer Digital content**
  + **Change in data consumption**
  + **spending time online**

**INSIGHTS :-**

1.There's an overall increment of 50% in the number of people preferring digital content than going outside and spending for entertainment.

2. 30% of the married people mostly males in the age group 40-55 years are showing great interest in spending time on internet and almost all of them agreed that they spend most of the day online irrespective of their employment status(private sector, public sector, self employed, unemployed), earlier this count was only 13%.

3.If we go further and analyse the internet preferences of this age group, interestingly it has been observed in the age group wise segmentation of digital entertainment preference, its the people in the age group 40-55 who are the second highest to agree that they prefer digital content over going outside and spending for entertainment, considering their proportion in the entire survey responses(14%) this is a very significant observation.

4.20-25 age group being the first highest to agree that they prefer digital content more than going outside, they exhibit similar characteristics of spending most of the day online and this group are dominated by unemployed females who have irregular sleeping habits of late to bed and late to rise and are neutral towards maintaining a healthy lifestyle.

5.It can be inferred from above that, interestingly age groups 20-25 and 40-55 and above are spending more time online watching digital content, the reason can be absolutely no responsibilities or reduction in the responsibilities in both the age groups and having more time than ever to spend, people who are in their mid 30s groups have given very less priority to spending time online and watching digital content as they are surrounded with more responsibilities and less time to spend.