**Capstone Project**

**Link to final Viz**

<https://public.tableau.com/views/MentalHealthSurveyAnalysisUSTechCompanies2014/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link>

**Write up explaining three of their design choices**

1. I choose my dashboard design to be less wordy and easy to understand at first glance.
2. I chose colours suitable for colour-blind people.
3. I chose simple bar charts and pie charts as the data were divided into categories.

**A reflection that compares original proposal to their final piece**

I tried to stick with getting the answers to the questions in the original proposal. I found it easy to complete the final piece since the objective and requirements for the project were cleared in the original proposal itself.

**Original Proposal**

**Executive Summary**

Mental health includes our emotional, psychological, and social well-being. It influences our thoughts, feelings, and behaviours. It also helps determine how we handle stress, relate to others, and make healthy choices. Good mental health at work and good management go hand in hand. It is observed that workplaces with high levels of mental well-being are more productive. Providing resources and programs to maintain and help employees' mental health is an important responsibility for companies. The topic I chose is mental health at work because it is such a significant subject to be addressed today.

**Why**

**Objectives/business case/goal of your project**

*Oasis* is a growing advertising company in New York, U.S. that won a top 50 award for employee mental health in 2014. They want to target a top 10 award for employee mental health in 2015 so that they achieve an A-level global certification which will benefit them in many ways. They are very close to fulfilling the criteria. They want to know answers to very specific questions so that they can bring positive changes and implement better mental health practices in their company and potentially gain certification.

To answer questions such as:

1. What is the general distribution of survey respondents?
2. What is the general distribution of survey respondents diagnosed with mental conditions?
3. Does remote working have better performance at work?
4. How effective are the mental health benefits provided by the companies?
5. Does the size of the company correlate with the negative consequences of discussing mental health with the employer?
6. Who is more willing to discuss their mental condition with their supervisors?

**Who**

**Persona 1**

A picture containing person, clothing

Description automatically generated**Name:** Tracy Singh

**Role:** Head of Business

**Age**: 45 years

**Gender:** Female

**Goals:**

* Prefers data-driven decision making
* Wishes to make the company the best of mental health support of employees
* Needs to-the-point presentation

**Challenges and Needs:**

Tracy is interested to know to the point the answers to questions that would help Oasis to be eligible for the Top 10 award for employee mental health. She dislikes extra unnecessary information. Tracy believes the most effective presentations are those which are very easy to understand and expects similar report.

**Context:**

Weekly board meeting. There are 10 people in the audience looking at the big screen across a medium-sized room and having a printed handout of summary and recommendations.

**Persona 2**

A person sitting at a table with a computer

Description automatically generated with medium confidence

**Name:** Dimple Paul

**Role:** Assistant Manager Business

**Age**: 29 years

**Gender:** Female

**Goals:**

* Be able to make a case strategy to improve the mental health policy of Oasis to her colleagues and higher management.
* Anticipate the next moves to improve the mental health policy.

**Challenges and Needs:**

Dimple is colour-blind and prefers to avoid red and green colours in presentations.

She must make sure to choose the most meaningful findings from the data which are on point with the questions asked by the higher management.

**Context:**

Weekly board meeting. There are 10 people in the audience and Tracy who is head of business looking at the big screen across a medium-sized room and has a printed handout of summary and recommendations.

**What**

**Dataset**

The dataset is from a 2014 survey that measures attitudes toward mental health and the frequency of mental health disorders in the tech workplace.

Link: <https://www.kaggle.com/datasets/osmi/mental-health-in-tech-survey?resource=download>

I chose this dataset as it is a thorough survey conducted for the employees about mental health which will help us to get a big picture of mental health at workplaces. Assuming that this analysis was for the year 2015, I have chosen the latest dataset from 2014.

**How**

Multi-story Tableau presentation.

The presentation will be to the point and red and green colours will be avoided.

Printed handouts will be provided to everyone in the meeting which will contain the summary and the recommendations.

**Challenges**

Possibility of biased data:

More or fewer people suffering from mental illness might have taken up the survey so it might not be an exact presentation of the situation.

Not all licensed companies in the U.S. are involved in this survey.

Question for peers:

Can such surveys be made in a uniform format and made compulsory to be taken each year by every employee of every licensed company?

**Write Up**

**Introduction:**

*Oasis* is a growing advertising company in New York, U.S. wants to know answers to very specific questions to bring positive changes and implement better mental health practices in their company and potentially gain A-level global certification.

**Objective:**

To answer questions such as:

1.       What is the general distribution of survey respondents?

2.       What is the general distribution of survey respondents diagnosed with mental conditions?

3.       Does remote working have better performance at work?

4.       How effective are the mental health benefits provided by the companies?

5.       Does the size of the company correlate with the negative consequences of discussing mental health with the employer?

6.       Who is more willing to discuss their mental condition with their supervisors?

Dataset:

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**Steps:**

**Data Cleaning and Manipulation**

Due to the smaller size of the dataset, and for ease of visualization Microsoft Excel was used.

1. Check for duplicates. There were no duplicates
2. Age column had 8 outliers lesser than 18 years and greater than 80. Some values were negative or 3 or more digits. These 8 values were replaced by a median of 31 years.
3. All gender inputs were sorted into Male, Female, or Other for simplification.
4. Using filtering, if Self Employed is entered as "NA", using find and replace, it was replaced with "No".
5. Using filtering, if Treatment is entered as "Yes", and work\_interfere is NA, work\_interfere was changed to "Never"
6. New column created “diagnosed” based on column “work\_interfere”. If work interfere had entries of “Yes” or “No”, diagnosed column is “Yes”. For work interfere “NA”, diagnosed column is “No”.
7. Using filtering, I filtered out all countries that are not the United States and deleted them from the dataset as we are focusing on U.S. for our presentation.
8. Changed state abbreviations to full state names for ease of visualisation
9. Deleted Unnecessary “Timestamp” column.
10. In “no\_employees” column, replaced “-“ with “to”.

**Exploratory Data Analysis**

Plotting distribution of the respondents as per location, age, and gender.

Percentage of diagnosed respondents and their distribution with age.

Plotting Work Interference percentage vs remote working to observe if remote working causes more or less work interference.

Examining the distribution of the companies that provide mental health benefits and provide resources, create awareness, or run wellness programs.

Examine if the size of a company affects people to discuss their mental health with their employer.

Are employees open to discussing their mental health with their supervisors and observing distribution by categorizing it with gender?

**Pre-attentive Attributes**

Made sure that the presentation is to the point as required without any unnecessary information

I have used colours that are suitable for people with colour blindness.

**Dashboarding**

Compiled the respective worksheets in the respective dashboards.

**Storytelling**

Compiled the dashboards in the story and added introduction, summary and recommendations.

**Presentation Link:**

[**https://public.tableau.com/views/MentalHealthSurveyAnalysisUSTechCompanies2014/Story1?:language=en-US&publish=yes&:display\_count=n&:origin=viz\_share\_link**](https://public.tableau.com/views/MentalHealthSurveyAnalysisUSTechCompanies2014/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)