

Institute of Emerging Careers

Portfolio Project

Detailed Report Document

Topic: Remote Working Survey

Summary

Objectives:

- Provide a concise overview of the entire report, summarizing the main findings.
- Highlight the most important insights and key data points discovered during the analysis.
- Clearly present actionable recommendations derived from the analysis.
- Emphasizing how the insights can guide strategic decisions.

Key Points:

COVID-19 made a lot of people work from home. This study wants to understand how this change has affected people's work lives. We're interested in how people feel about their productivity, the challenges they face when working online, and if their opinions about working from home have shifted because of the pandemic. By figuring out these things, we hope to help companies make remote work better for everyone.

Objectives and Approach:

- **Explore Productivity Dynamics:** Look into how people feel about how they will can get their work done from home.
- **Understand Collaboration Challenges:** Investigate the problems people face when working together online.
- **Identify Key Barriers:** Find out what big challenges people face when working remotely.
- **Compare Both the Working Models:** To explore what can be the better recommendations for the remote working.
- **Provide Actionable Insights:** Give organizations useful information they can use to make remote work better.

Stakeholders:

Company leaders: executives, and decision-makers.

HR team: Employee wellbeing, policies, training needs, and strategies to enhance the employee experience.

IT Department: Insights into technology-related challenges, cyber security implications, and recommendations for improving IT support.

Managers and Team Leaders: Strategies for effective remote team management, collaboration, and maintaining team cohesion.

Data Analysis Process:

- Understanding Key Problems and Define Objectives.
- Data Preparation and Cleaning.
- Data Processing and Analysis.
- Visualization, generating insights and Recommendations.

Data Exploration:

- Loading Dataset.
- Data Summary.
- Missing Values/duplicates.
- Distribution of Numerical Variables.
- Exploring Categorical Variables.
- Visualization: Utilize various visualization techniques to represent data relationships and trends visually.

Questions, Python source code, Visualization, Results and Insights:

Q No. 1) How does an employee's use of time differ when working remotely vs. on-site?

Code:

Analyzing and Visualizing All numerical responses in the data.

```
numerical_responses = df.select_dtypes(include=['int', 'float'])
summary_stats = numerical_responses.describe()

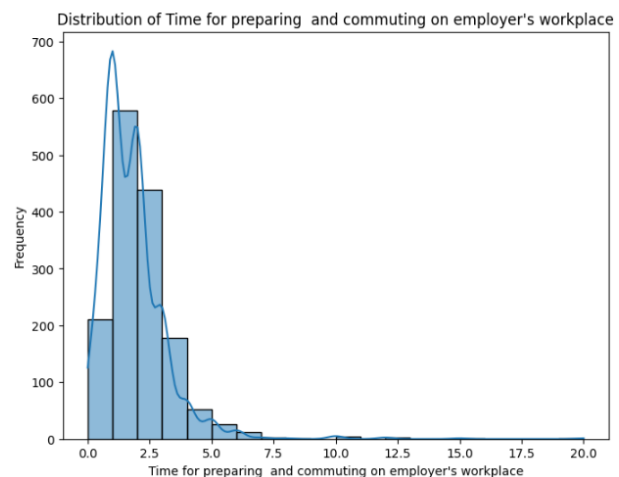
# Visualization of response distributions
for column in numerical_responses.columns:
    plt.figure(figsize=(8, 6))
    sns.histplot(df[column], bins=20, kde=True)
    plt.title(f'Distribution of {column}')
    plt.xlabel(column)
    plt.ylabel('Frequency')
    plt.show()
```

Result and Visualization:

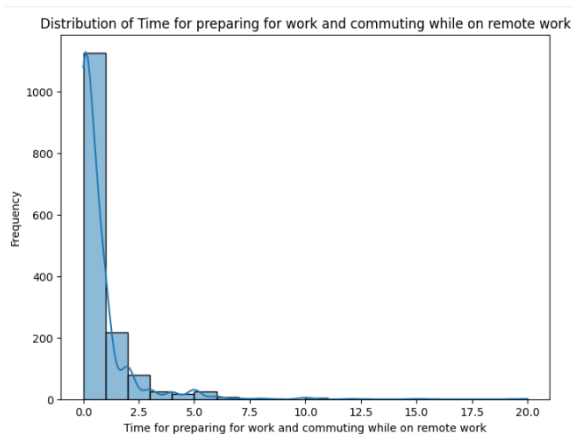
Change in different given aspects of life pre COVID and in during COVID (employers workplace and in remote work).

1) Time for preparing and commuting:

- On employer's workplace: >>
About 2 hours.

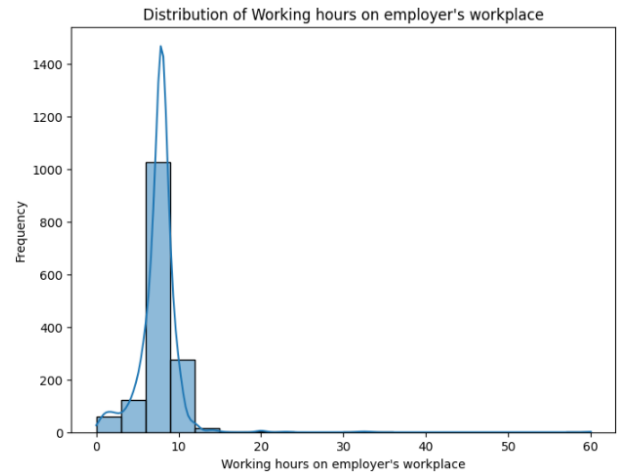


<< On remote work:
About 01 hour.

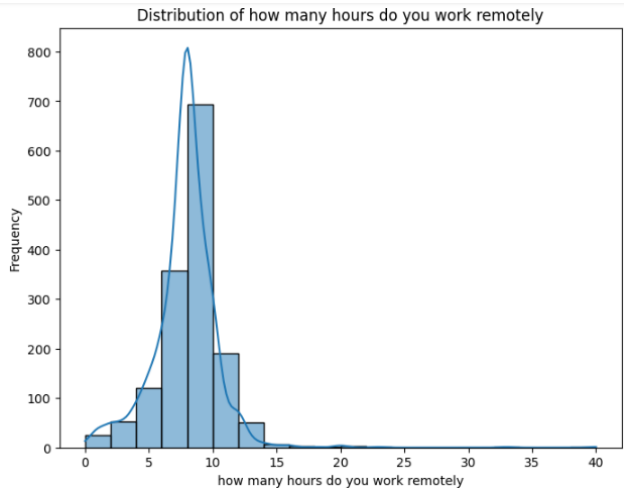


2) Working Hours:

On employer's workplace:
About 8 to 09 hours.



<< On remote work:
About 09 to 10.

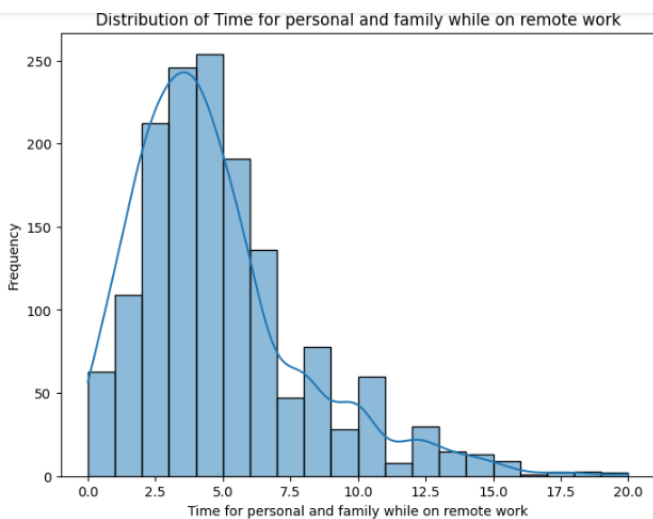


3) Personal and Family Time:

On employer's workplace:
About 3 to 04 hours.

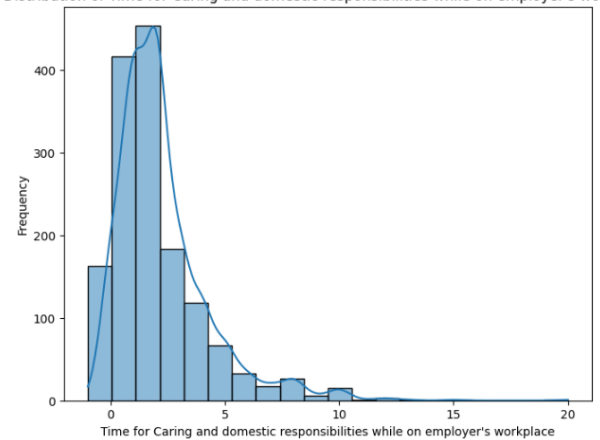


On remote work:
About 5 to 06 hours

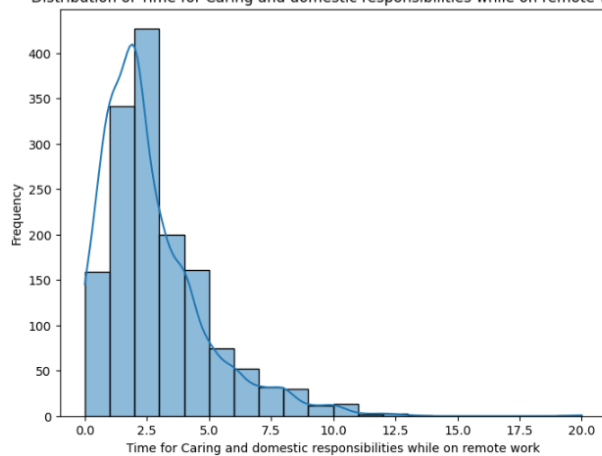


- 4) **Time for Caring and Domestic responsibilities:**
 On employer's workplace:
 About 03 hours.

Distribution of Time for Caring and domestic responsibilities while on employer's workplace



Distribution of Time for Caring and domestic responsibilities while on remote work



On remote work:
 2.5 hours.

Q No. 2) Does working remotely positively impact productivity?

Code:

Finding Productivity Percentage.

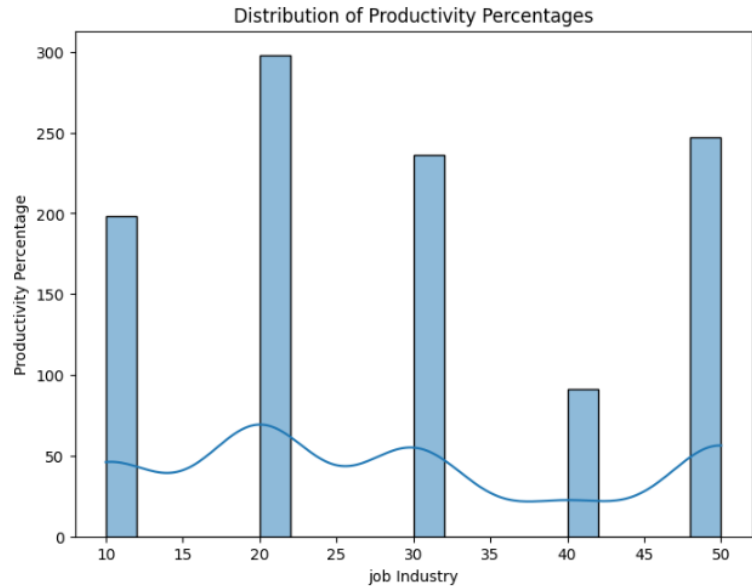
```
[ ] # productivity
    df['Productivity_Numeric'] = df['Productivity'].str.extract(r'(\d+)\%')

[ ] df['Productivity_Numeric'] = pd.to_numeric(df['Productivity_Numeric'], errors='coerce')

[ ] print(df[['Productivity', 'Productivity_Numeric']])
```

Result and Visualization:

The productivity rate is about 28% and result is shown as:



Q No. 3) Responses about remote work in different given questions

Code:

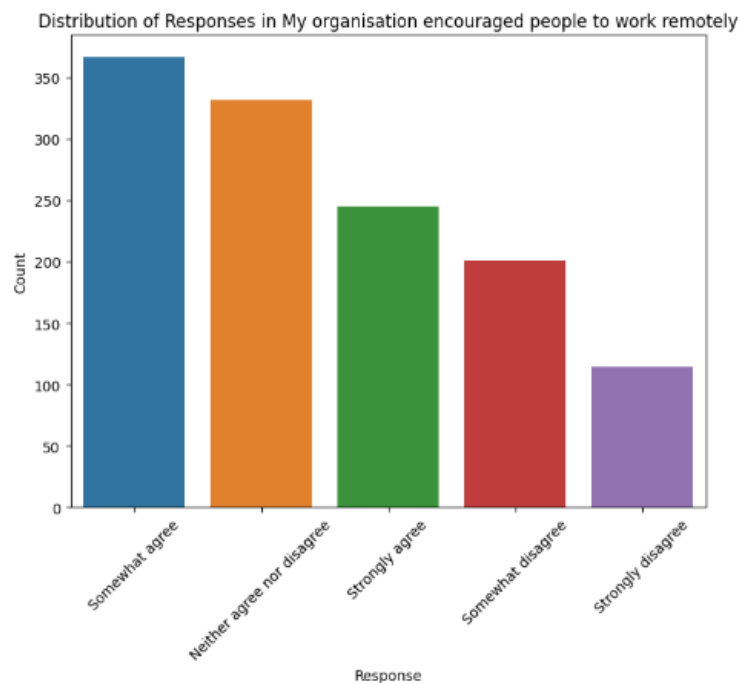
```
columns_for_analysis = ['My organisation encouraged people to work remotely', 'My organisation was well prepared for remote work']

# Analyze and plot the distribution of responses in each column
for column in columns_for_analysis:
    # Count the frequency of each response
    response_counts = df[column].value_counts()

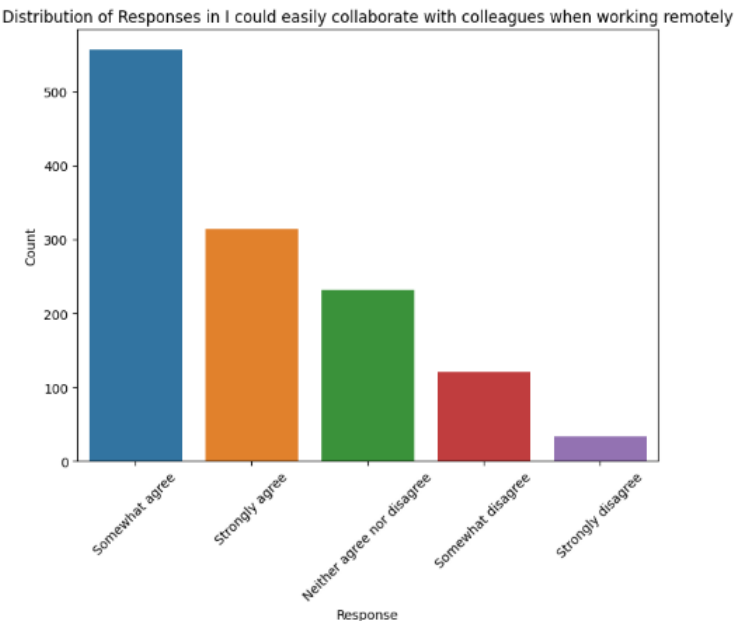
    # Bar plot for response distribution
    plt.figure(figsize=(8, 6))
    sns.barplot(x=response_counts.index, y=response_counts.values)
    plt.title(f'Distribution of Responses in {column}')
    plt.xlabel('Response')
    plt.ylabel('Count')
    plt.xticks(rotation=45)
    plt.show()
```

Result and Visualization

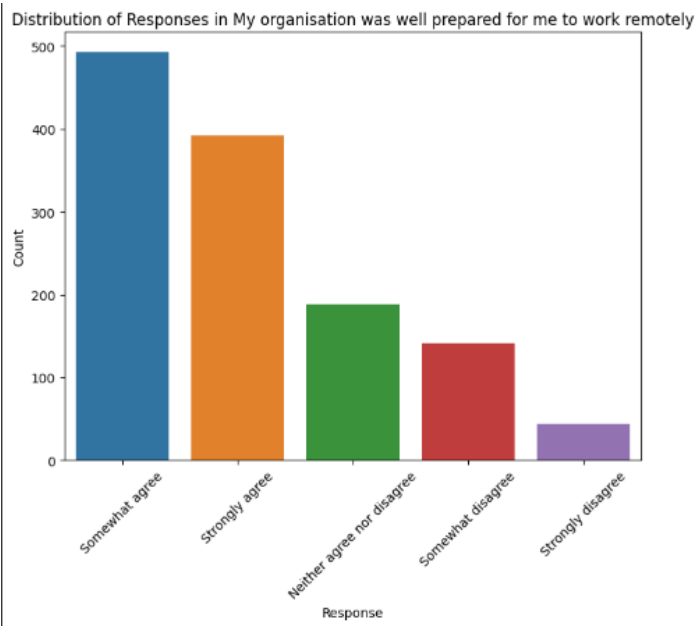
Encouragement towards remote working.



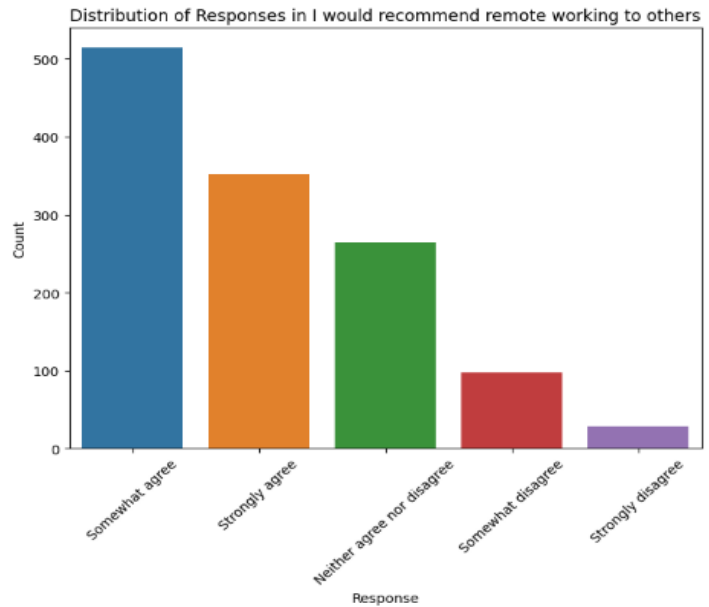
Collaboration with Colleagues:



My organization prepare me for Remote working.



I would recommend remote
Working To others.



Q No. 4) what are the biggest barriers to overcome if remote work becomes the norm in the future?
How it can be overcome?

Code:

Finding the Barrier.

```
[ ] df['The most significant barrier to doing your work remotely'].value_counts().plot (kind='bar', figsize=(10,5))
```

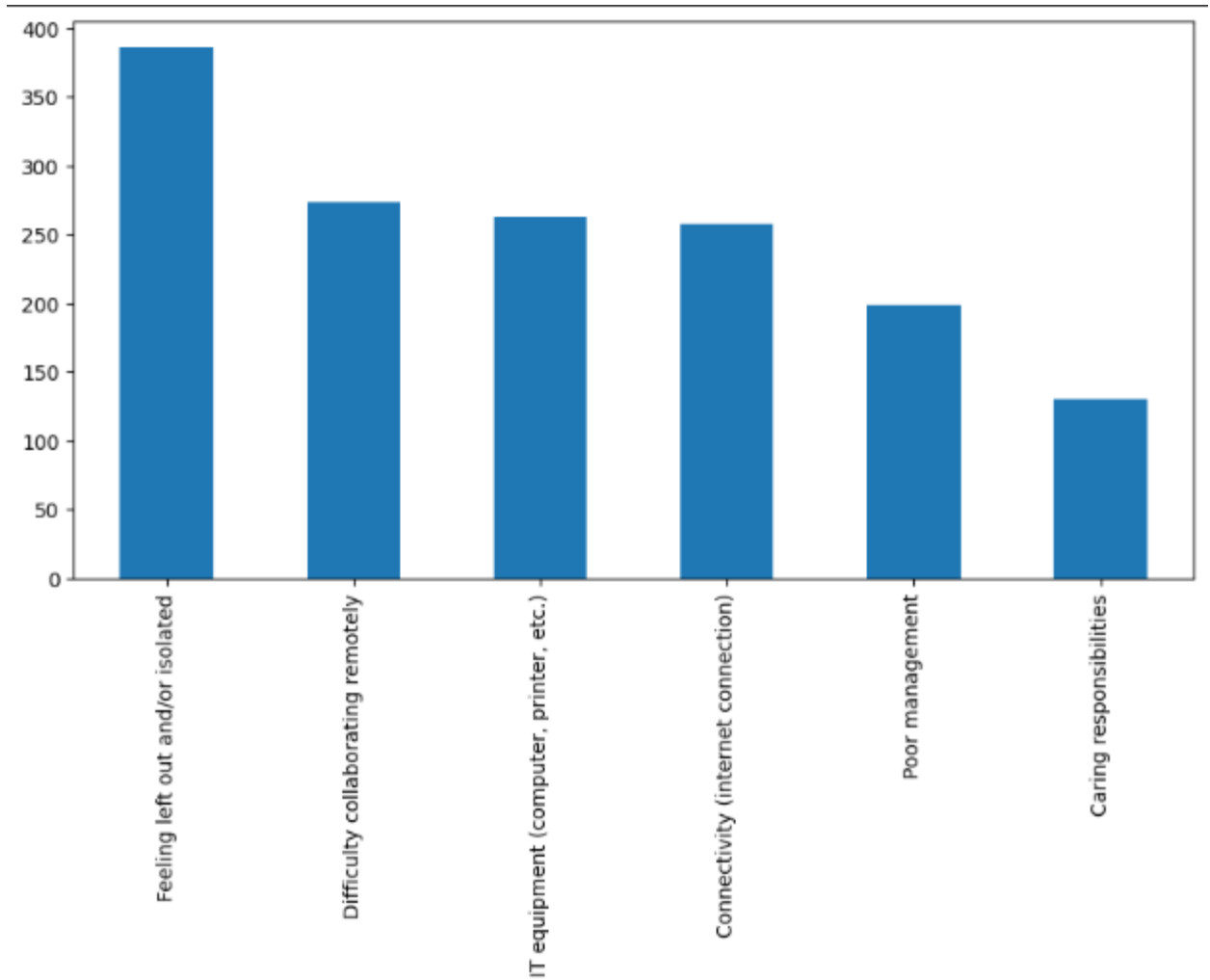
```
Feeling left out and/or isolated      386
Difficulty collaborating remotely     273
IT equipment (computer, printer, etc.) 263
Connectivity (internet connection)   257
Poor management                      198
Caring responsibilities                130
Name: The most significant barrier to doing your work remotely, dtype: int64
```

```
[ ] df['The most significant barrier to doing your work remotely'].value_counts().plot (kind='bar', figsize=(10,5))
```

Result and Visualization:

Identifying the most Reported Barrier:

Feeling Left Out or Isolated, is the most reported barrier felt it is because of most of respondents were from metro region (about 80% of the total).



Recommendations:

- Flexible Remote Work Policies.
- Technology and Infrastructure Investments.
- Training and Skill Development.
- Employee Wellbeing Initiatives.
- Continuous Communication and Feedback.
- Workspace Support.
- Task Accessibility and Adaptability.

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