



# **Investor Behaviour and Market Segmentation Analysis**

Presented by Vaibhav Pawar

2 0 2 4

# Level 1: Beginner



## Task 1: Data Overview

**Objective: Understand the dataset structure.**

### Steps:

1. **Load the dataset:** Import the dataset into a data analysis tool such as Python with pandas or spreadsheet software.
2. **Descriptive Statistics:** Use descriptive functions (e.g., info() in pandas) to gather information about the number of entries, columns, and data types.

## Dataset

Data Type	Columns
Categorical (Text)	gender, Investment_Avenues, Stock_Market, Factor, Objective, Purpose, Duration, Invest_Monitor, Avenue, What are your savings objectives?, Reason_Equity, Reason_Mutual, Reason_Bonds, Reason_FD, Source
Numeric (Integer)	age, Mutual_Funds, Equity_Market, Debentures, Government_Bonds, Fixed_Deposits, PPF, Gold, Expect.

## Dataset Summary

Total Entries : 40 rows

Total Columns : 24 columns

### Key Statistical Measures for Selected Columns

#### Age

- Mean : 27.8 years
- Median : 27 years
- Mode : 27 years
- Range : 21 to 35 years

#### Investment Avenues (Average Investment in Units)

- Mutual Funds : 2.55
- Equity Market : 3.475
- Debentures : 5.75
- Government Bonds : 4.65
- Fixed Deposits : 3.575
- PPF : 2.025
- Gold : 5.975

#### Insights

- Investors are typically around 28 years old.
- Debentures and gold are the most invested avenues.
- PPF has the lowest average investment.
- Investment patterns show that while some investors prefer larger, more consistent investments in gold and debentures, others have more variability in their investments across mutual funds, equity markets, and fixed deposits.

Book1 - Excel

File Home Insert Page Layout Formulas Data Review View Developer Help Power Pivot Tell me what you want to do

1 2 3 4 5

1252: Western European (Windows)

Delimiter: Comma

Data Type Detection: Based on first 200 rows

gender	age	Investment_Avenues	Mutual_Funds	Equity_Market	Debentures	Government_Bonds	Fixed_Deposits	PPF	Gold	Stock_Market	Factor		
Female	34	Yes	1	2	5	7	6	5	2	6	Yes	Returns	
Female	23	Yes	4	3	2	1	5	6	3	1	6	Risk	
Male	30	Yes	3	6	4	2	5	1	5	6	Yes	Returns	
Male	22	Yes	2	1	3	7	6	4	5	1	6	Yes	Returns
Female	24	No	2	1	3	6	4	5	4	1	6	Yes	Returns
Female	24	No	7	5	4	6	3	1	5	1	6	Yes	Returns
Female	27	Yes	3	6	4	2	5	1	5	1	6	Yes	Risk
Male	21	Yes	2	3	7	4	6	1	3	1	6	Yes	Risk
Male	35	Yes	2	4	7	5	3	1	5	1	6	Yes	Risk
Male	31	Yes	1	3	7	4	5	2	3	1	6	Yes	Returns
Female	35	Yes	2	4	7	5	3	1	5	1	6	Yes	Risk
Male	29	Yes	2	5	7	6	3	1	5	1	6	Yes	Returns
Female	21	No	1	2	3	4	5	6	1	2	6	Yes	Risk
Female	28	Yes	2	3	7	4	5	1	5	1	6	Yes	Returns
Female	25	Yes	2	3	7	5	4	1	5	1	6	Yes	Risk
Male	27	Yes	2	3	7	5	4	1	5	1	6	Yes	Returns
Female	28	Yes	3	2	7	5	4	1	5	1	6	Yes	Risk
Male	27	Yes	3	2	7	4	5	1	5	1	6	Yes	Risk
Male	29	Yes	3	2	7	4	5	1	5	1	6	Yes	Risk
Male	26	Yes	3	4	6	5	1	2	7	Yes	Risk		

Load Transform Data Cancel

Book1 - Excel

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1 2 3 4 5

1252: Western European (Windows)

Delimiter: Comma

Data Type Detection: Based on first 200 rows

gender	age	Investment_Avenues	Mutual_Funds	Equity_Market	Debentures	Government_Bonds	Fixed_Deposits	PPF	Gold	Stock_Market	Factor		
Female	34	Yes	1	2	5	7	6	5	2	6	Yes	Returns	
Female	23	Yes	4	3	2	1	5	6	3	1	6	Risk	
Male	30	Yes	3	6	4	2	5	1	5	6	Yes	Returns	
Female	22	Yes	2	1	3	7	6	4	5	1	6	Yes	Returns
Female	24	No	2	1	3	6	4	5	4	1	6	Yes	Returns
Female	24	No	7	5	4	6	3	1	5	1	6	Yes	Returns
Female	27	Yes	3	6	4	2	5	1	5	1	6	Yes	Risk
Male	21	Yes	2	3	7	4	6	1	3	1	6	Yes	Risk
Male	35	Yes	2	4	7	5	3	1	5	1	6	Yes	Risk
Male	31	Yes	1	3	7	4	5	2	3	1	6	Yes	Returns
Female	35	Yes	2	4	7	5	3	1	5	1	6	Yes	Risk
Male	29	Yes	2	5	7	6	3	1	5	1	6	Yes	Returns
Female	21	No	1	2	3	4	5	6	1	2	6	Yes	Risk
Female	28	Yes	2	3	7	4	5	1	5	1	6	Yes	Returns
Female	25	Yes	2	3	7	5	4	1	5	1	6	Yes	Risk
Male	27	Yes	2	3	7	5	4	1	5	1	6	Yes	Returns
Female	28	Yes	3	2	7	5	4	1	5	1	6	Yes	Risk
Male	27	Yes	3	2	7	4	5	1	5	1	6	Yes	Risk
Male	29	Yes	3	2	7	4	5	1	5	1	6	Yes	Risk
Male	26	Yes	3	4	6	5	1	2	7	Yes	Risk		
Male	29	Yes	2	4	7	5	3	1	6	Yes	Returns		
Female	24	Yes	2	4	5	6	3	1	7	Yes	Risk		
Male	27	Yes	3	4	6	5	2	1	7	Yes	Returns		
Male	25	Yes	2	4	6	5	3	1	7	Yes	Risk		
Female	26	Yes	2	3	7	5	4	1	6	Yes	Returns		
Female	32	Yes	3	4	7	5	1	2	6	Yes	Risk		
Male	26	Yes	3	4	6	5	1	2	7	Yes	Returns		
Male	31	Yes	2	3	7	6	4	1	5	Yes	Risk		
Male	29	Yes	2	3	6	5	1	4	7	Yes	Returns		
Female	34	Yes	5	4	3	2	7	1	6	Yes	Returns		
Male	27	Yes	4	5	1	2	7	3	6	No	Returns		
Female	31	Yes	2	4	7	6	3	1	5	Yes	Returns		
Male	27	Yes	2	4	7	5	1	3	6	Yes	Returns		
Male	26	Yes	2	3	6	4	1	5	7	Yes	Returns		
Male	27	Yes	2	3	6	5	4	1	7	Yes	Returns		
Male	30	Yes	1	4	6	5	3	2	7	Yes	Risk		
Male	30	Yes	2	4	7	5	1	3	6	Yes	Returns		
Male	25	Yes	5	4	7	6	1	2	3	Yes	Risk		
Male	31	Yes	2	4	7	5	3	1	6	Yes	Risk		
Male	29	Yes	4	3	5	7	2	1	6	Yes	Returns		

Queries & Connections

1 query

Data\_set 2 - Copy

40 rows loaded.

Book1 - Excel

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1 2 3 4 5

1252: Western European (Windows)

Delimiter: Comma

Data Type Detection: Based on first 200 rows

Purpose	Duration	Invest_Monitor	Expect	Avenue	What are your savings objectives?	Reason_Equity	Reason_Mutual	Reason_Bonds	Reason_FD	Source
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Safe Investment	Fixed Returns	Newspapers and Magazines
Wealth Creation	More than 5 years	Weekly	20%-30%	Mutual Fund	Health Care	Dividend	Better Returns	Safe Investment	High Interest Rates	Financial Consultants
Wealth Creation	3-5 years	Daily	20%-30%	Equity	Retirement Plan	Capital Appreciation	Tax Benefits	Assured Returns	Fixed Returns	Television
Wealth Creation	Less than 1 year	Daily	10%-20%	Equity	Retirement Plan	Dividend	Fund Diversification	Tax Incentives	High Interest Rates	Internet
Wealth Creation	Less than 1 year	Daily	20%-30%	Equity	Retirement Plan	Capital Appreciation	Better Returns	Safe Investment	Risk Free	Internet
Wealth Creation	1-3 years	Daily	30%-40%	Mutual Fund	Retirement Plan	Liquidity	Fund Diversification	Safe Investment	Risk Free	Internet
Wealth Creation	3-5 years	Monthly	20%-30%	Equity	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	High Interest Rates	Financial Consultants
Wealth Creation	3-5 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Newspapers and Magazines
Savings for Future	1-3 years	Weekly	20%-30%	Equity	Retirement Plan	Capital Appreciation	Fund Diversification	Safe Investment	Fixed Returns	Television
Wealth Creation	3-5 years	Monthly	30%-40%	Fixed Deposits	Retirement Plan	Capital Appreciation	Fund Diversification	Assured Returns	Fixed Returns	Newspapers and Magazines
Savings for Future	3-5 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Financial Consultants
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Fund Diversification	Assured Returns	Fixed Returns	Financial Consultants
Savings for Future	1-3 years	Weekly	20%-30%	Mutual Fund	Education	Dividend	Better Returns	Safe Investment	Risk Free	Internet
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Fund Diversification	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	1-3 years	Monthly	20%-30%	Fixed Deposits	Health Care	Dividend	Better Returns	Assured Returns	Risk Free	Financial Consultants
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Health Care	Capital Appreciation	Fund Diversification	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	1-3 years	Monthly	20%-30%	Fixed Deposits	Health Care	Capital Appreciation	Fund Diversification	Assured Returns	Risk Free	Television
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Financial Consultants
Wealth Creation	1-3 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	3-5 years	Monthly	20%-30%	Fixed Deposits	Health Care	Capital Appreciation	Fund Diversification	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	3-5 years	Weekly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Fixed Returns	Financial Consultants
Wealth Creation	3-5 years	Monthly	20%-30%	Equity	Health Care	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	3-5 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Financial Consultants
Savings for Future	3-5 years	Weekly	20%-30%	Public Provident Fund	Health Care	Liquidity	Better Returns	Assured Returns	Risk Free	Financial Consultants
Wealth Creation	3-5 years	Monthly	30%-40%	Public Provident Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Newspapers and Magazines
Wealth Creation	3-5 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Financial Consultants
Wealth Creation	3-5 years	Monthly	20%-30%	Mutual Fund	Retirement Plan	Capital Appreciation	Fund Diversification	Assured Returns	Fixed Returns	Financial Consultants
Savings for Future	1-3 years	Monthly	20%-30%	Fixed Deposits	Health Care	Capital Appreciation	Fund Diversification	Safe Investment	Fixed Returns	Television
Wealth Creation	1-3 years	Monthly	20%-30%	Equity	Retirement Plan	Capital Appreciation	Better Returns	Assured Returns	Risk Free	Television
Returns	3-5 years	Monthly	10%-20%	Mutual Fund	Retirement Plan	Capital Appreciation	Tax Benefits	Safe Investment	Fixed Returns	Newspapers and Magazines

drive.google.com/drive/folders/1srgjB4DMLK2LW9NDIjdWB1WYQ3oHM80

Data\_set 2 - Copy.csv

Open with

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	gender	age	Investment_Avenues	Mutual_Funds	Equity_Market	Debentures	Government_Bonds	Fixed_Deposits	PPF	Gold	Stock_Market	Factor	Objective	Purpose	
2	Female	34	Yes	1	2	5	7	6	5	2	6	Yes	Returns	Capital Appreciation Wealth Creation	
3	Female	23	Yes	4	3	2	1	5	6	3	1	6	Yes	Locking Period	
4	Male	30	Yes	3	6	4	2	5	1	5	6	Yes	Returns	Capital Appreciation Wealth Creation	
5	Male	22	Yes	2	1	3	7	6	4	5	1	6	Yes	Returns	Income Wealth Creation
6	Female	24	No	2	1	3	6	4	5	7	No	Returns	Income	Wealth Creation	
7	Female	24	No	7	5	4	6	3	1	2	No	Risk	Capital Appreciation	Wealth Creation	
8	Female	27	Yes	3	6	4	2	5	1	7	Yes	Returns	Capital Appreciation	Wealth Creation	
9	Male	21	Yes	2	3	7	4	6	1	5	Yes	Risk	Capital Appreciation	Wealth Creation	
10	Male	35	Yes	2	4	7	5	3	1	6	Yes	Returns	Growth	Savings for Future	
11	Male	31	Yes	1	3	7	4	5	2	6	Yes	Returns	Capital Appreciation	Wealth Creation	
12	Female	35	Yes	2	4	7	5	3	1	6	Yes	Risk	Growth	Savings for Future	
13	Male	29	Yes	2	5	7	6	3	1	4	Yes	Risk	Capital Appreciation	Wealth Creation	
14	Female	21	No	1	2	3	4	5	6	7	No	Returns	Capital Appreciation	Savings for Future	
15	Female	28	Yes	2	3	7	4	5	1	6	Yes	Returns	Capital Appreciation	Wealth Creation	
16	Female	25	Yes	2	3	7	5	4	1	6	Yes	Returns	Capital Appreciation	Wealth Creation	
17	Male	27	Yes	2	3	7	5	4	1	6	Yes	Returns	Capital Appreciation	Wealth Creation	
18	Female	28	Yes	3	2	7	5	4	1	6	Yes	Risk	Growth	Wealth Creation	
19	Male	27	Yes	3	2	7	4	5	1	6	Yes	Returns	Capital Appreciation	Wealth Creation	
20	Male	29	Yes	3	2	7	4	5	1	6	Yes	Risk	Capital Appreciation	Wealth Creation	
21	Male	26	Yes	3	4	6	5	1	2	7	Yes	Risk	Capital Appreciation	Wealth Creation	
22	Male	29	Yes	2	4	7	5	3	1	6	Yes	Returns	Growth	Wealth Creation	
23	Female	24	Yes	2	4	5	6	3	1	7	Yes	Risk	Capital Appreciation	Wealth Creation	
24	Male	27	Yes	3	4	6	5	2	1	7	Yes	Returns	Capital Appreciation	Wealth Creation	
25	Male	25	Yes	2	4	6	5	3	1	7	Yes	Risk	Growth	Savings for Future	
26	Female	26	Yes	2	3	7	5	4	1	6	Yes	Returns	Capital Appreciation	Wealth Creation	
27	Female	32	Yes	3	4	7	5	1	2	6	Yes	Risk	Growth	Wealth Creation	
28	Male	26	Yes	3	4	6	5	1	2	7	Yes	Returns	Capital Appreciation	Wealth Creation	
29	Male	31	Yes	2	3	7	4	5	1	5	Yes	Risk	Growth	Savings for Future	
30	Male	29	Yes	2	3	6	5	1	4	7	Yes	Returns	Capital Appreciation	Wealth Creation	



## Level 1: Beginner



### Task 2: Gender Distribution

**Objective:** Visualize gender distribution in the dataset.

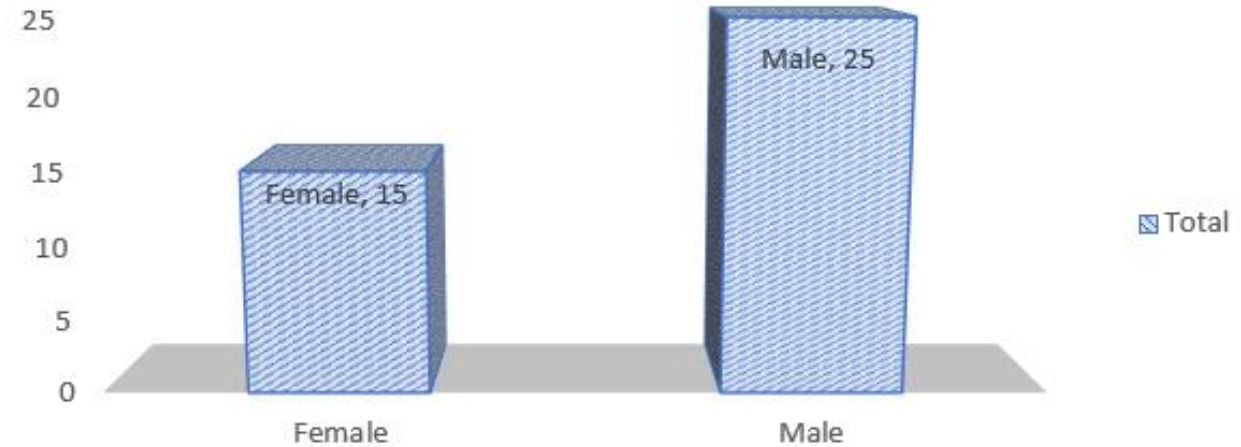
**Steps:**

1. **Extract Gender Information:** Identify and extract the gender column from the dataset.
2. **Visualization:** Create a simple visualization, such as a bar chart or pie chart, to represent the distribution of genders in the dataset.



Count of gender

## GENDER DISTRIBUTION



gender ▼

Based on the provided gender data:

- Total Entries: 40
- Gender Breakdown:
  - Female: 15 (37.5%)
  - Male: 25 (62.5%)

Visualization

- Bar Chart

Filter by Color ▶

Text Filters ▶

Search

- ☒ (Select All)
- ☒ Female
- ☒ Male

# Level 2: Intermediate



## Task 3: Descriptive Statistics

**Objective:** Present basic statistics for numerical columns.

### Steps:

1. **Identify Numerical Columns:** Review the dataset to identify columns containing numerical data (e.g., age, income).
2. **Calculations:** Use statistical functions (e.g., `mean()`, `median()`, `std()`) to calculate the mean, median, and standard deviation for each numerical column.

Basic Descriptive Statistics								
Statistical parameters	age	Mutual_Funds	Equity_Market	Debentures	Government_Bonds	Fixed_Deposits	PPF	Gold
Mean	27.8	2.55	3.475	5.75	4.65	3.575	2.025	5.975
Median	27	2	4	6.5	5	3.5	1	6
Mode	27	2	4	7	5	3	1	6
min	21	1	1	1	1	1	1	2
Max	35	7	6	7	7	7	6	7
Count	40	40	40	40	40	40	40	40
standard deviation	3.52	1.18	1.12	1.65	1.35	1.77	1.59	1.13

# Investment Avenues (Average Investment in Units)

Age	Equity Market	Government Bonds	PPF
• Mean: 27.8	• Mean: 3.475	• Mean: 4.65	• Mean: 2.025
• Median: 27	• Median: 4	• Median: 5	• Median: 1
• Mode: 27	• Mode: 4	• Mode: 5	• Mode: 1
• Range: 21 to 35	• Range: 1 to 6	• Range: 1 to 7	• Range: 1 to 6
• Std Deviation: 3.52	• Std Deviation: 1.12	• Std Deviation: 1.35	• Std Deviation: 1.59
Mutual Funds	Debentures	Fixed Deposits	Gold
• Mean: 2.55	• Mean: 5.75	• Mean: 3.575	• Mean: 5.975
• Median: 2	• Median: 6.5	• Median: 3.5	• Median: 6
• Mode: 2	• Mode: 7	• Mode: 3	• Mode: 6
• Range: 1 to 7	• Range: 1 to 7	• Range: 1 to 7	• Range: 2 to 7
• Std Deviation: 1.18	• Std Deviation: 1.65	• Std Deviation: 1.77	• Std Deviation: 1.13

## Level 2: Intermediate

### Task 4: Most Preferred Investment Avenue

**Objective:** Identify the most preferred investment avenue.

**Steps:**

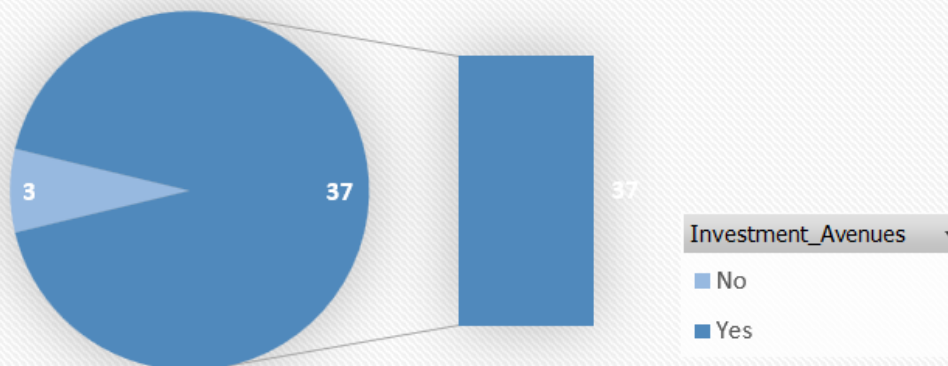
1. **Analyze Investment Avenues:** Examine the column containing information about different investment avenues (e.g., equity, mutual funds).
2. **Frequency Analysis:** Determine the investment avenue with the highest frequency or occurrence.



Cognifyz  
Where Data Meets Intelligence

Count of Investment\_Avenues

### Investment Preference



Peapoles preference Summary:

- Total YES: 37 Peapole say Yes i.e they preferred to invest.
- Total NO: 3 people say No i.e They not to Preferred Investment Avenues.

### Investment Preferences Summary:

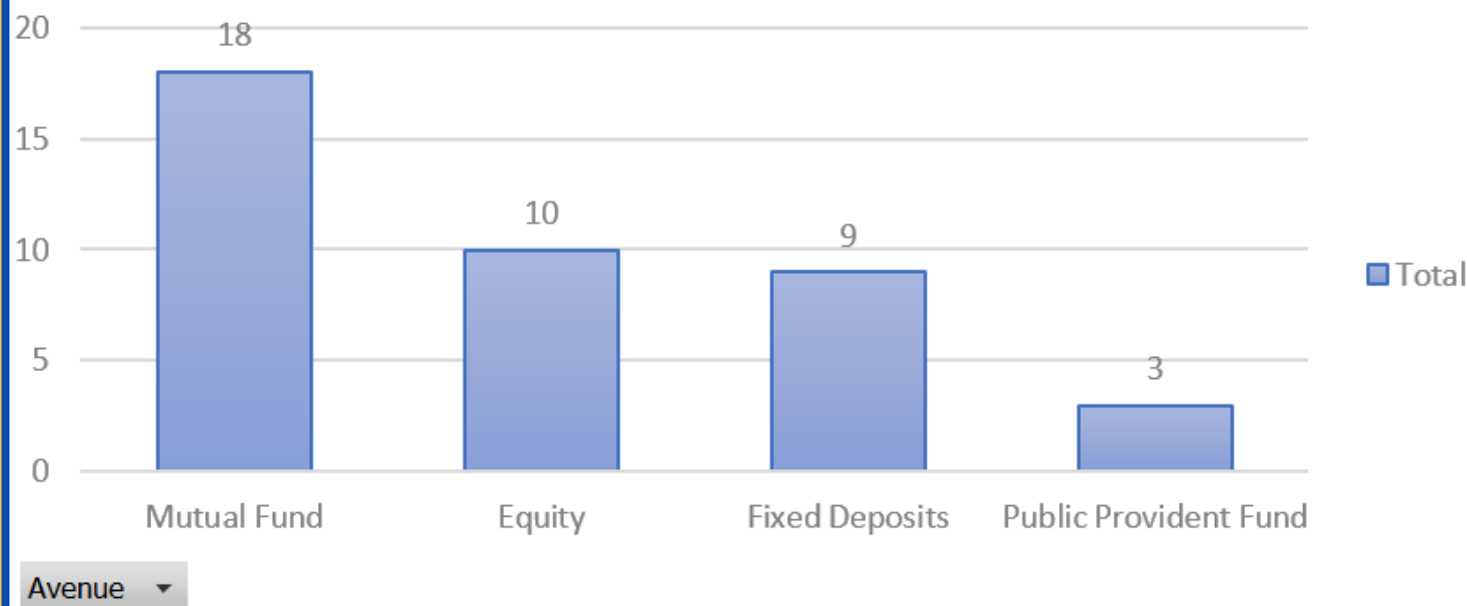
The table below showing the count of people who prefer each investment avenue:

1. Mutual Fund: Preferred by 18 individuals.
2. Equity: Preferred by 10 individuals.
3. Fixed Deposits: Preferred by 9 individuals.
4. Public Provident Fund: Preferred by 3 individuals.

Total 40 individuals are there in the dataset.  
Peapole most preferred 'Mutual Fund' as a investment Avenue.

Count of Avenue

### Preferred Investment Avenues





Level 3: Advanced



Task 5: Reasons for Investment

**Objective:** Analyze and summarize reasons for investment choices.

**Steps:**

- 1. **Explore Reasons Column:** Investigate the column where participants provided reasons for their investment choices.
- 2. **Summarize Reasons:** Identify common themes or recurring reasons and provide a summary.

[Click Here to see SQL Script](#)

Result Grid    Filter Rows: <input type="text"/>   Export:		
	Reason	Count
▶	Better Returns, Assured Returns And Fixed Ret...	68
	Safe and Risk Free	32
	Capital Appreciation	30
	Liquidity and Fund Diversification	15
	Dividend	8
	Tax Benefit And Tax Incentives	4
	High Interest Rates	3

Investment Reasons Summary:

- 1. Better Returns, Assured Returns, and Fixed Returns  
Count: 68
- 2. Safe and Risk-Free  
Count: 32
- 3. Capital Appreciation  
Count: 30
- 4. Liquidity and Fund Diversification  
Count: 15

- 5. Dividend  
Count: 8
- 6. Tax Benefits and Tax Incentives  
Count: 4
- 7. High Interest Rates  
Count: 3

The majority of investors prioritize better returns, safety, and capital appreciation in their investment choices.



# Level 3: Advanced

## Task 6: Savings Objectives



Objective: Identify and present main savings objectives.

Steps:

- 1. **Analyze Savings Objectives:** Examine the column containing information about participants' savings objectives.
- 2. **List and Describe Objectives:** Create a list and describe the main savings objectives mentioned by participants.



Configure Import Settings

Detected file format: csv

Encoding: utf-8

Columns:

- Fixed\_Dep... int
- PPF int
- Gold int
- Stock\_Markt... text
- Factor text
- Objective text
- Purpose text

Fixed_Dep...	PPF	Gold	Stock_Mar...	Factor	Objective	Purpose	Duration	Invest_Mo...	Expect
7	6	4	Yes	Returns	Capital App...	Wealth Cre...	1-3 years	Monthly	20%-3
5	6	7	No	Locking Per...	Capital App...	Wealth Cre...	More than...	Weekly	20%-3
5	1	7	Yes	Returns	Capital App...	Wealth Cre...	3-5 years	Daily	20%-3
6	4	5	Yes	Returns	Income	Wealth Cre...	Less than 1...	Daily	10%-2

< Back   Next >   Cancel

### Table Data Import



### Import Results

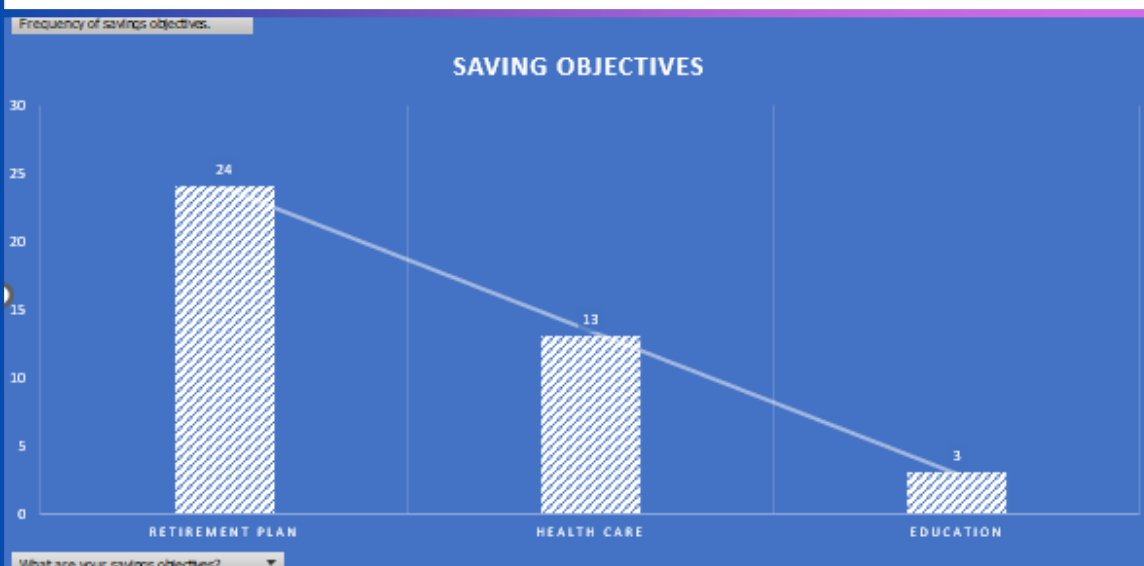
File C:\Users\vaaib\Downloads\Data\_set 2 - Copy (1).csv was imported in 1.590 s

Table portfolio.investment was created

40 records imported

```
SELECT
  `What are your savings objectives?`, COUNT(*) AS Frequency
FROM
  investment
GROUP BY `What are your savings objectives?`
ORDER BY Frequency DESC
```

Result Grid     Filter Rows: <input type="text"/>		
	What are your savings objectives?	Frequency
▶	Retirement Plan	24
	Health Care	13
	Education	3



## Summary of Savings Objectives:

Based on the frequency analysis of the savings objectives:

### 1. Retirement Plan

- Frequency: 24 participants
- Description: Most common objective, chosen by 60% of participants, indicating a focus on long-term financial security.

### 2. Health Care

- Frequency: 13 participants
- Description: Chosen by 32.5% of participants, showing significant concern for medical expenses.

### 3. Education

- Frequency: 3 participants
- Description: Selected by 7.5% of participants, indicating a minority focus on educational savings.

## Insights

- Primary Objective: Retirement planning
- Secondary Objective: Health care savings
- Tertiary Objective: Education savings

Participants prioritize retirement and health care over education for their savings goals.

## Level 4: Expert

### Task 7: Common Information Sources

**Objective:** Analyze common sources participants rely on for investment information.



#### Steps:

1. **Explore Information Sources Column:** Review the column where participants indicated their sources of investment information.
2. **Identify Common Sources:** Analyze the data to identify and summarize the most common sources participants rely on.



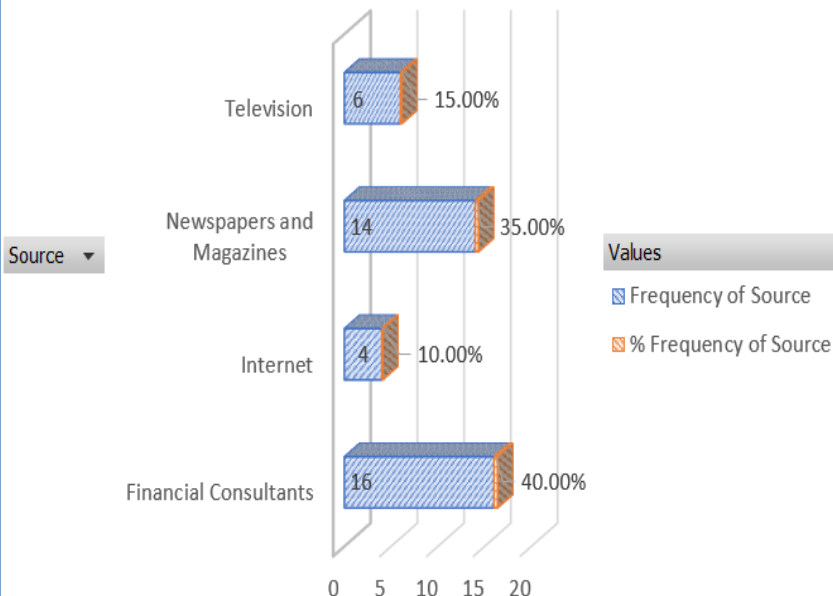
- Summary of Common Information Sources
- Based on the frequency analysis of the sources of investment information:
- Participants mainly rely on financial consultants and print media (newspapers and magazines) for their investment information. Television and the internet are used less frequently. This shows the ongoing importance of professional advice and traditional media sources in making investment decisions in India.

```
SELECT  
    Source, COUNT(*) AS Frequency  
FROM  
    investment  
GROUP BY Source  
ORDER BY Frequency DESC;
```

Result Grid     Filter Rows: <input type="text"/>		
	Source	Frequency
▶	Financial Consultants	16
	Newspapers and Magazines	14
	Television	6
	Internet	4

Frequency of Source    % Frequency of Source

### INVESTMENT SOURCE



#### Financial Consultants:

- Frequency: 16 participants
- Percentage: 40.00%

#### Newspapers and Magazines:

- Frequency: 14 participants
- Percentage: 35.00%

#### Television:

- Frequency: 6 participants
- Percentage: 15.00%

#### Internet:

- Frequency: 4 participants
- Percentage: 10.00%

# Level 4: Expert



## Task 8: Investment Duration

**Objective: Calculate the average investment duration.**

### Steps:

- Analyze Investment Duration Column:** Examine the column containing information about participants' investment durations.
- Calculate Average Duration:** Use appropriate statistical methods to calculate the average investment duration.

- [Using Excel:](#)
- Splitting the duration column into two different columns naming Duration\_start and Duration end.
- Splitting can help us to calculate the average investment duration.
- We can use the following formula to create another column named 'Average year'
- **Average year =**  
$$((\text{Duration\_start} + \text{Duration\_end}) / 2)$$
- Then Calculate average of Average year

	Purpose	Duration	Invest_Monitor	Expense
Appreciation	Wealth Creation	1-3 years	Monthly	20%
Appreciation	Wealth Creation	More than 5 years	Weekly	20%

Find and Replace

Find what: More than 5 years

Replace with: 5-5

Options >>

Replace All Replace Find All Find Next Close

	Purpose	Duration	Invest_Monitor	Expense
Appreciation	Wealth Creation	1-3 years	Monthly	20%
Appreciation	Wealth Creation	05-May	Weekly	20%
Appreciation	Wealth Creation	3-5 years	Daily	20%
Appreciation	Wealth Creation	Less than 1 year	Daily	10%

Find and Replace

Find what: Less than 1 year

Replace with: 1-1

Options >>

Replace All Replace Find All Find Next Close

	Purpose	Duration	Invest_Monitor	Expense
Capital Appreciation	Wealth Creation	1-3 years	Monthly	20%

Convert Text to Columns Wizard - Step 2 of 3

Delimiters

☐ Tab

☐ Semicolon

☐ Comma

☒ Space

☒ Other: |

☒ Treat consecutive delimiters as one

Text qualifier: " " " ' " " "

Data preview

Duration	3	years
1	5	years
3	5	years
1	1	

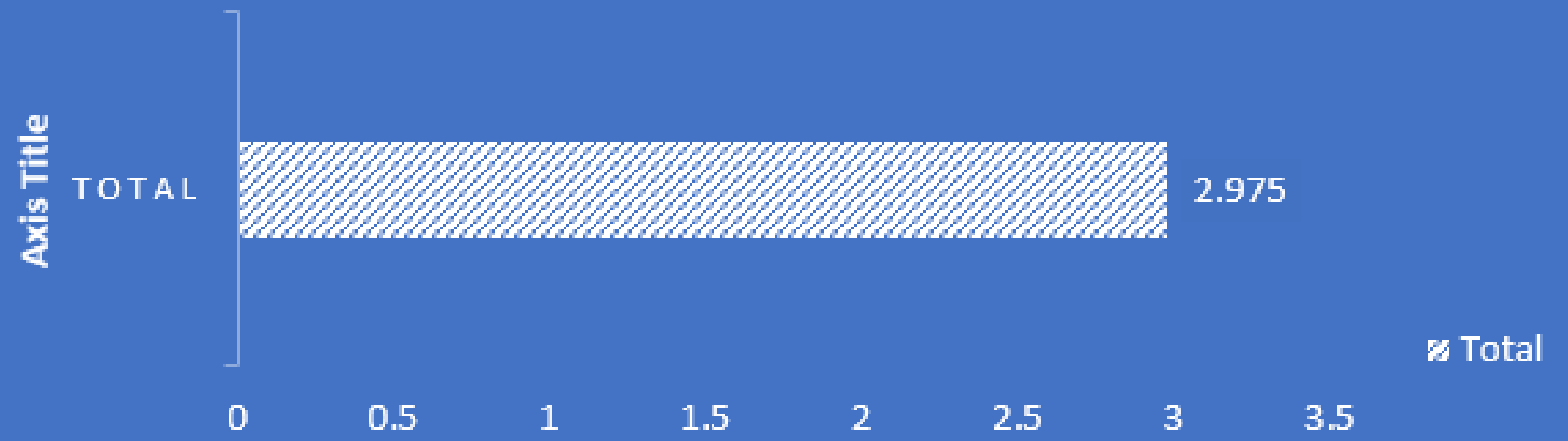
Cancel < Back Next > Finish

Book	Sheet	Name	Cell	Value	Formula
cognify Internship project.xlsx	Data_set 2 - Copy	R3C15	More than 5 years		

Book	Sheet	Name	Cell	Value	Formula
cognify Internship project.xlsx	Data_set 2 - Copy	R5C15	Less than 1 year		
cognify Internship project.xlsx	Data_set 2 - Copy	R6C15	Less than 1 year		



# AVERAGE INVESTMENT DURATION



	Total
▨ Total	2.975

Years

- Calculate Average investment duration by using SQL queries.

```
with DurationMidPoint AS (
  SELECT Duration,
  CASE
    WHEN Duration LIKE 'More than%' THEN CAST(TRIM(SUBSTRING(Duration, 11,2)) AS UNSIGNED)
    WHEN Duration LIKE 'Less than%' THEN CAST(TRIM(SUBSTRING(Duration, 11,2)) AS UNSIGNED)
    ELSE (
      CAST(SUBSTRING_INDEX(Duration, '-', 1) AS UNSIGNED)+
      CAST(SUBSTRING_INDEX(SUBSTRING_INDEX(Duration, ' ', 1), '-', -1) AS UNSIGNED)) / 2
    END AS Midpoint
  FROM investment
)
SELECT
  AVG(Midpoint) AS average_duration_in_years
FROM
  DurationMidPoint;
```

Result Grid



Filter Rows:

average\_duration\_in\_years

2.97500000

## Explanation of the SQL Query:

- WHEN Duration LIKE 'more than%' THEN CAST(TRIM(SUBSTRING(Duration, 11, 2)) AS UNSIGNED):
- WHEN Duration LIKE 'less than%' THEN CAST(TRIM(SUBSTRING(Duration, 11, 2)) AS UNSIGNED):
- Extracts the substring starting at the 11th character and takes 2 characters (e.g., "5 ").
- TRIM is used to remove any leading or trailing spaces to clean up the extracted substring.
- CAST(... AS UNSIGNED) converts the trimmed substring to an integer.
- CAST(SUBSTRING\_INDEX(Duration, '-', 1) AS UNSIGNED)
- extracts the value before ('-') of the range.
- CAST(SUBSTRING\_INDEX(SUBSTRING\_INDEX(Duration, ' ', 1), '-', -1) AS UNSIGNED)
- extracts the value before (space) and after ('-') of the range.
- The midpoint is calculated as the average of These two extracted values.
- The outer SELECT statement calculates the average of all midpoints.
- Summary of Full Code:**
- Extract lower and upper bounds from the duration ranges.
- Calculate the midpoint for each duration range.
- Compute the average of these midpoints to find the average investment duration.
- The average investment duration in years = 2.975 years.**

## Level 4: Expert



### Task 9: Expectations from Investments

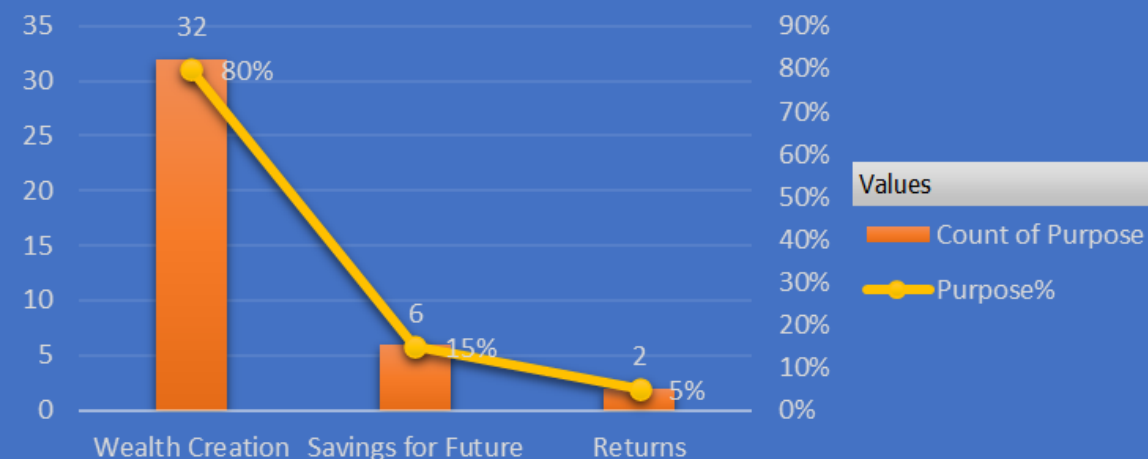
**Objective:** Summarize participants' expectations from investments.

#### Steps:

- Explore Expectations Column:** Review the column where participants provided information about their expectations.
- List and Describe Expectations:** Create a list and describe the common expectations mentioned by participants.

Count of Purpose Purpose%

### Purpose of investment



Purpose

- Purpose:**
- Wealth Creation**
- Count: 32 investors

#### Expectations:

- 26 investors expected 30%-40% returns.
- 4 investors expected 20%-30% returns.
- 2 investors.10%-20% returns.

- Purpose:**
- Savings for Future**
- Count: 6 investors

#### Expectations:

- 1 investor expected 30%-40% returns.
- 5 investors. expected 20%-30% returns.
- 0 investors. expected 10%-20% returns:

- Purpose:**
- Returns**
- Count: 2 investors

#### Expectations:

- 0 investors expected 30%-40% returns:
- 1 investor. expected 20%-30% returns.
- 1 investor expected 10%-20% returns.

Count of Purpose

### Expectations from Investments



Purpose

- Summarize participants' expectations from investments, using SQL

```
SELECT
    purpose,
    Expect AS Expect_returns,
    COUNT(*) AS Count_of_investors
FROM
    Investment
GROUP BY Expect_returns , purpose;
```

Result Grid			
		Filter Rows:	Export:
	purpose	Expect_returns	Count_of_investors
▶	Wealth Creation	20%-30%	26
	Wealth Creation	10%-20%	2
	Wealth Creation	30%-40%	4
	Savings for Future	20%-30%	5
	Returns	10%-20%	1
	Returns	20%-30%	1
	Savings for Future	30%-40%	1

Summary:

Wealth Creation:

- The majority of participants 32 (80%) are investing to create wealth. Most of these investors expect a return between 20%-30%, with a few expecting higher or lower returns.

Savings for Future:

- 6 (15%) participants invest with the goal of saving for the future. Most of these investors also expect a return between 20%-30%.

Returns:

- A smaller group of 2 participants (5%) is primarily focused on earning returns. Their expectations are split between 20%-30% and 10%-20% returns.



Level 4: Expert



Task 10: Correlation Analysis



**Objective:** Explore potential correlations between factors.

**Steps:**

- 1. **Select Relevant Columns:** Identify columns such as age, investment duration, and expected returns for correlation analysis.
- 2. **Use Statistical Methods or Visualizations:** Employ statistical methods (e.g., correlation coefficients) or visualizations (e.g., scatter plots) to explore and visualize potential correlations.

Insights from Correlation Values

- 1. Age and Investment Duration (0.06):  
Almost no relationship. Age doesn't significantly impact investment duration.
- 2. Age and Expected Returns (-0.09):  
Weak inverse relationship. Younger investors slightly expect higher returns.
- 3. Investment Duration and Expected Returns (0.26) :  
Moderate positive relationship. Longer investment durations are associated with higher expected returns.

Correlation between Age and Investment Duration	0.06
Correlation between Age and Expected Returns	-0.09
Correlation between Investment Duration and Expected Returns	0.26

Summary

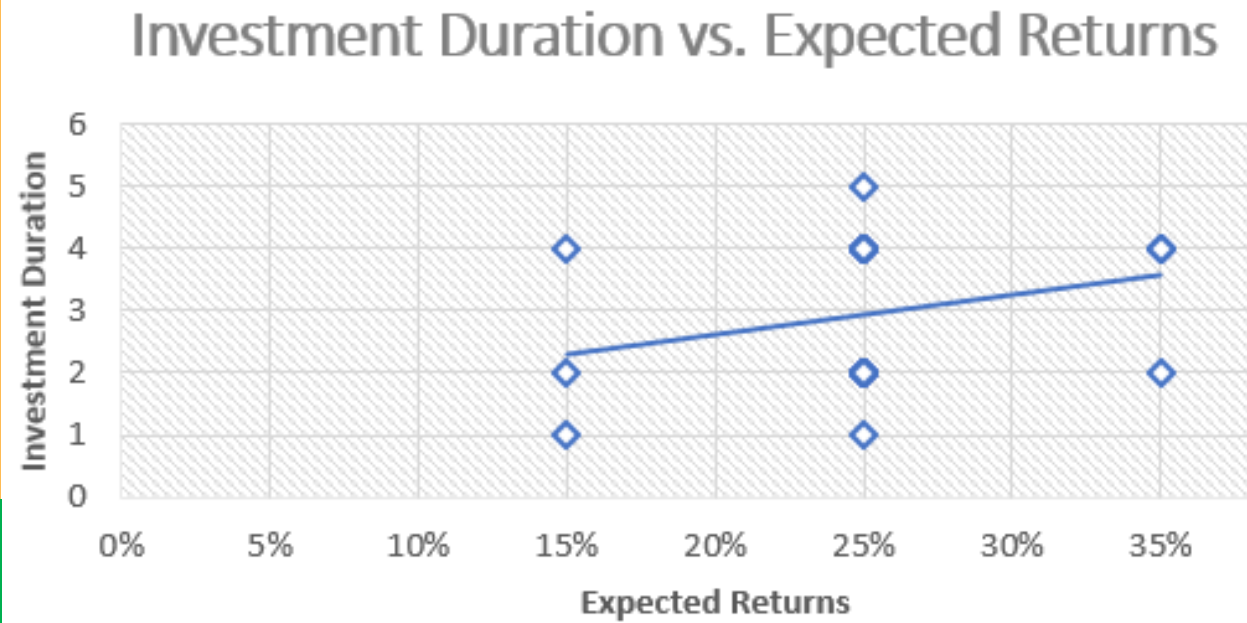
- Age vs. Duration: Age has minimal effect on investment duration.
- Age vs. Returns: Younger participants have slightly higher return expectations.
- Duration vs. Returns: Longer investments tend to have higher expected returns.

Used the 'CORREL' function in Excel to calculate the correlations between the columns.

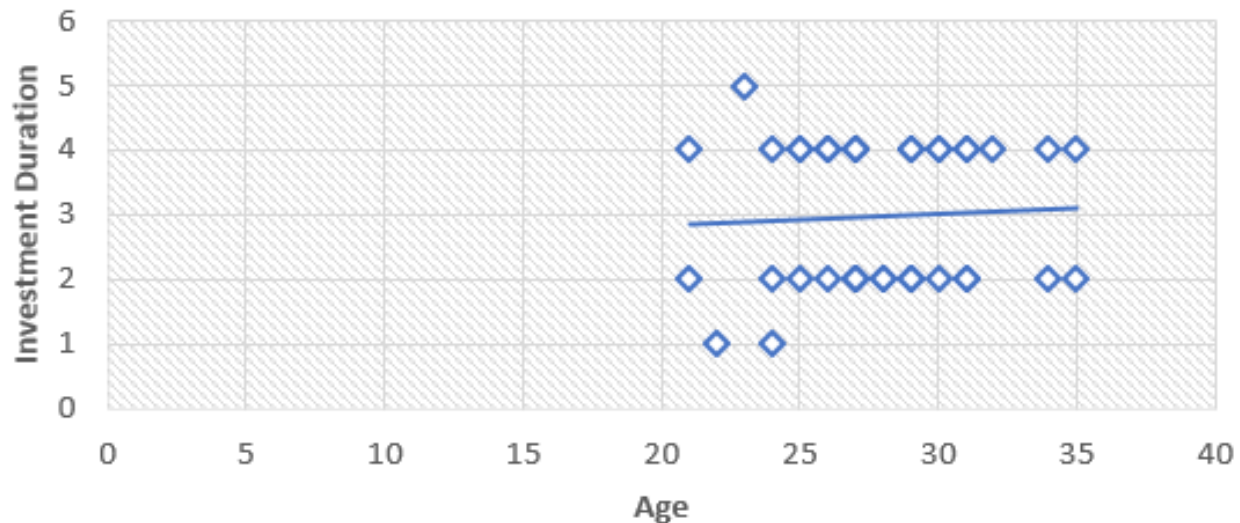
# Correlation analysis using 'EXCEL'

Used the 'CORREL' function in Excel to calculate the correlations between the columns.

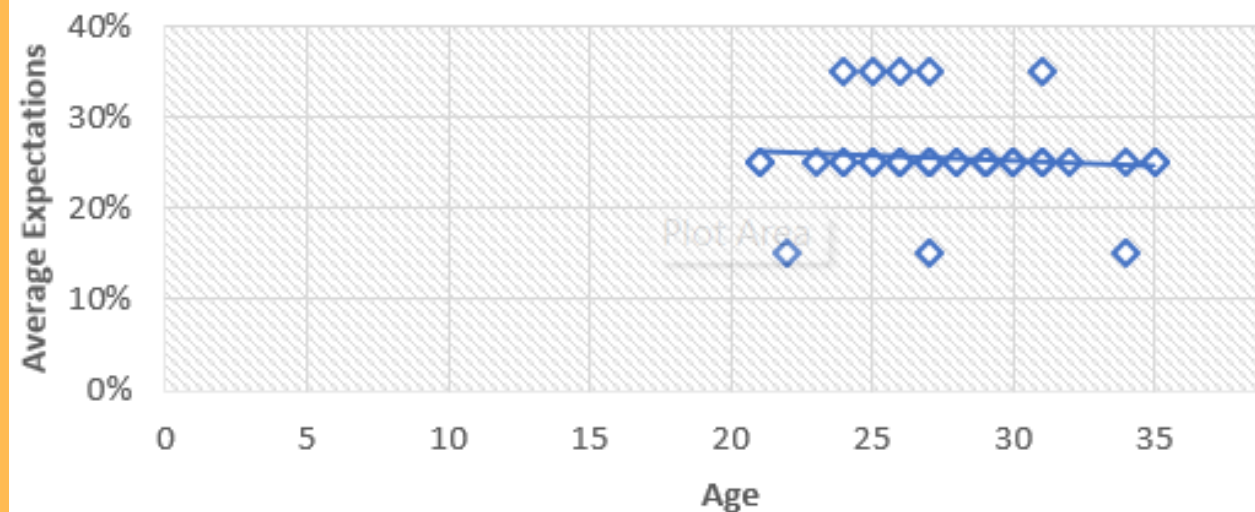
Correlation between Age and Investment Duration	0.06
Correlation between Age and Expected Returns	-0.09
Correlation between Investment Duration and Expected Returns	0.26



### Age vs. Investment Duration

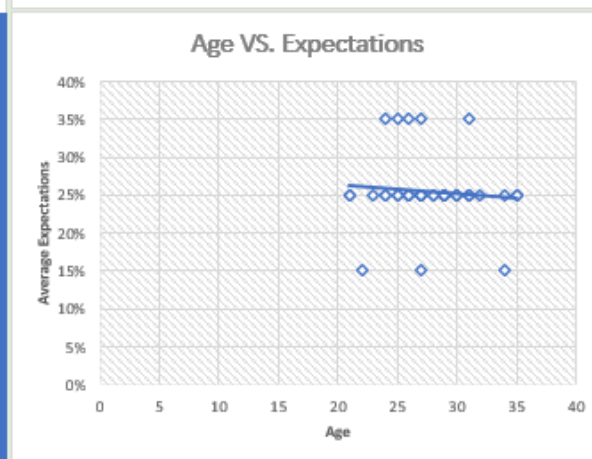
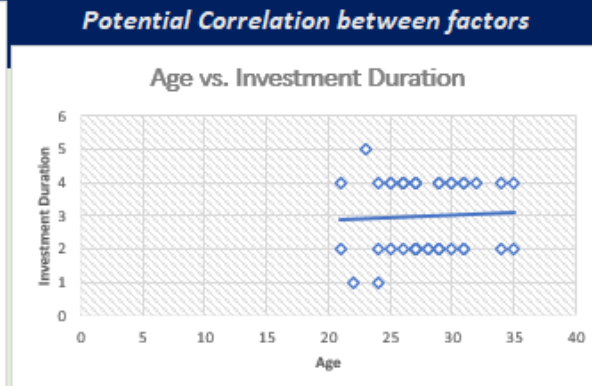
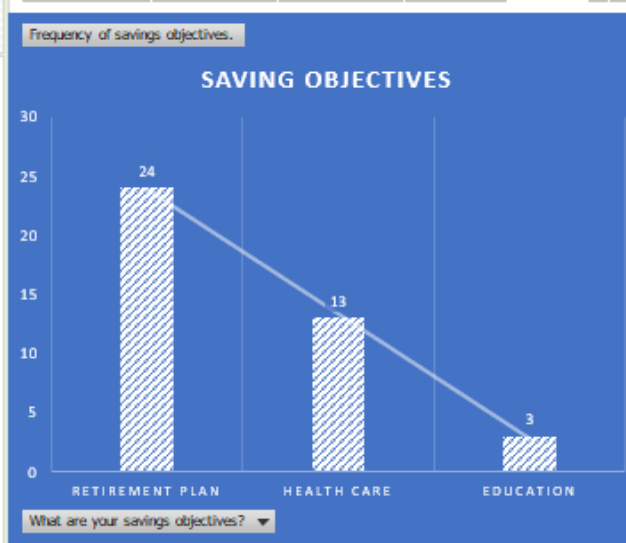
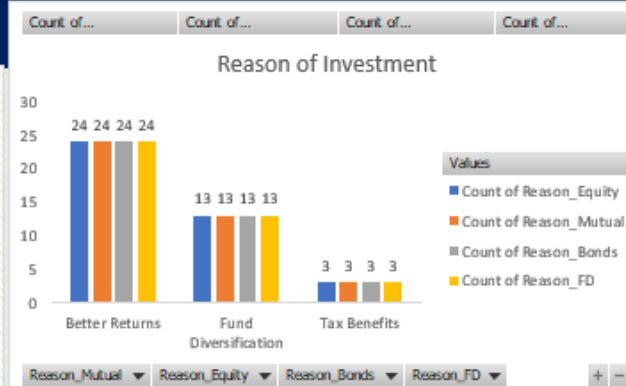
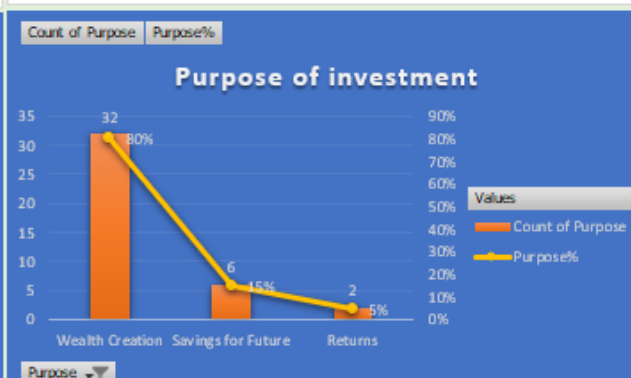
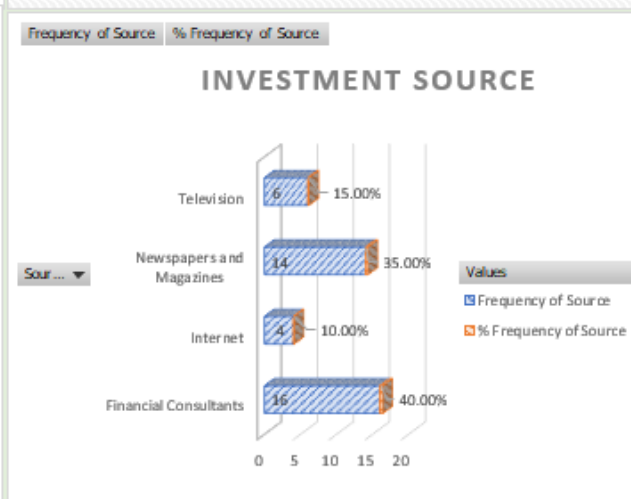
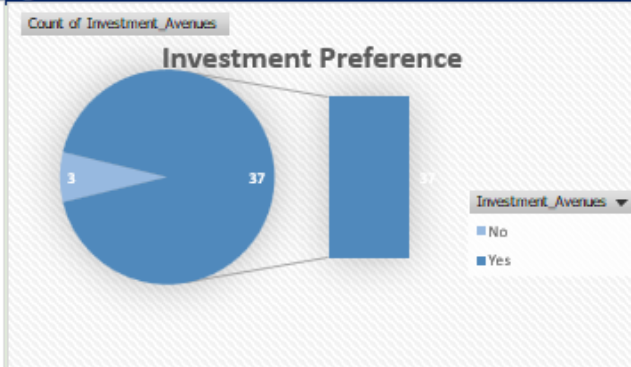
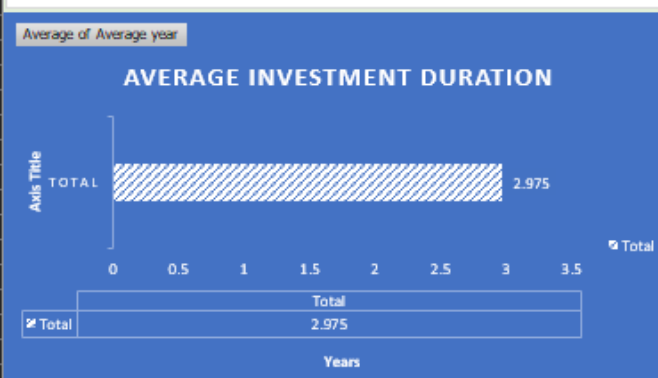
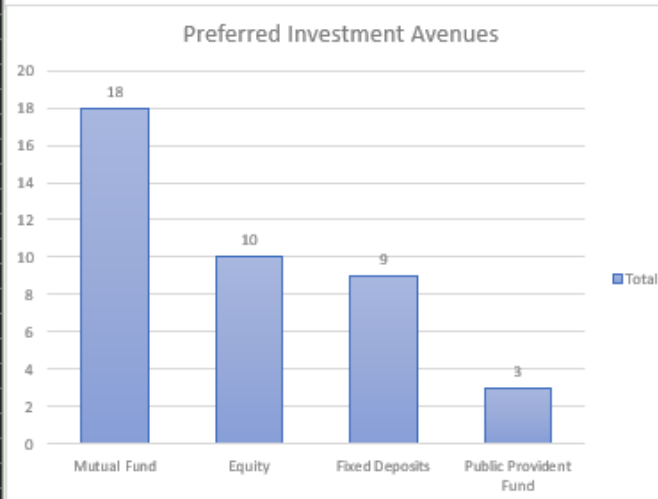
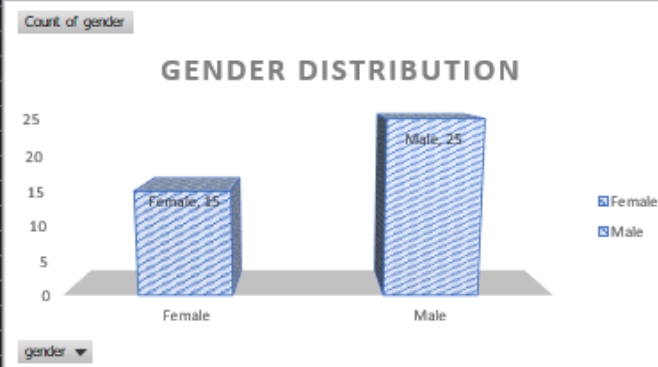


### Age VS. Expectations



# Excel Dashboard

## Investment Analysis Dashboard





# Microsoft Power BI - [An Interactive Power Bi Dashboard](#)

Click to open



Filters





# INVESTMENT ANALYSIS

Average investment in governmentt bonds

4.7

Govt\_Bond iinvestment n years

Average investment in Fixed Deposits

3.6

FD investment in years

Average investment in debentures

5.8

Debentures investment in ye...

Average investment in Mutual Funds

2.6

Mutual Fund investment in y...

Average investment in Gold

6.0

Gold investment in years

Average investment in PPF

2.0

PPF investment In Years

Average investment in equity

3.5

equity investment in years

Average Age

28

age in years

Gender

Female

Male

Invest\_Moniter

- ☐ Daily
- ☐ Monthly
- ☐ Weekly

Factor

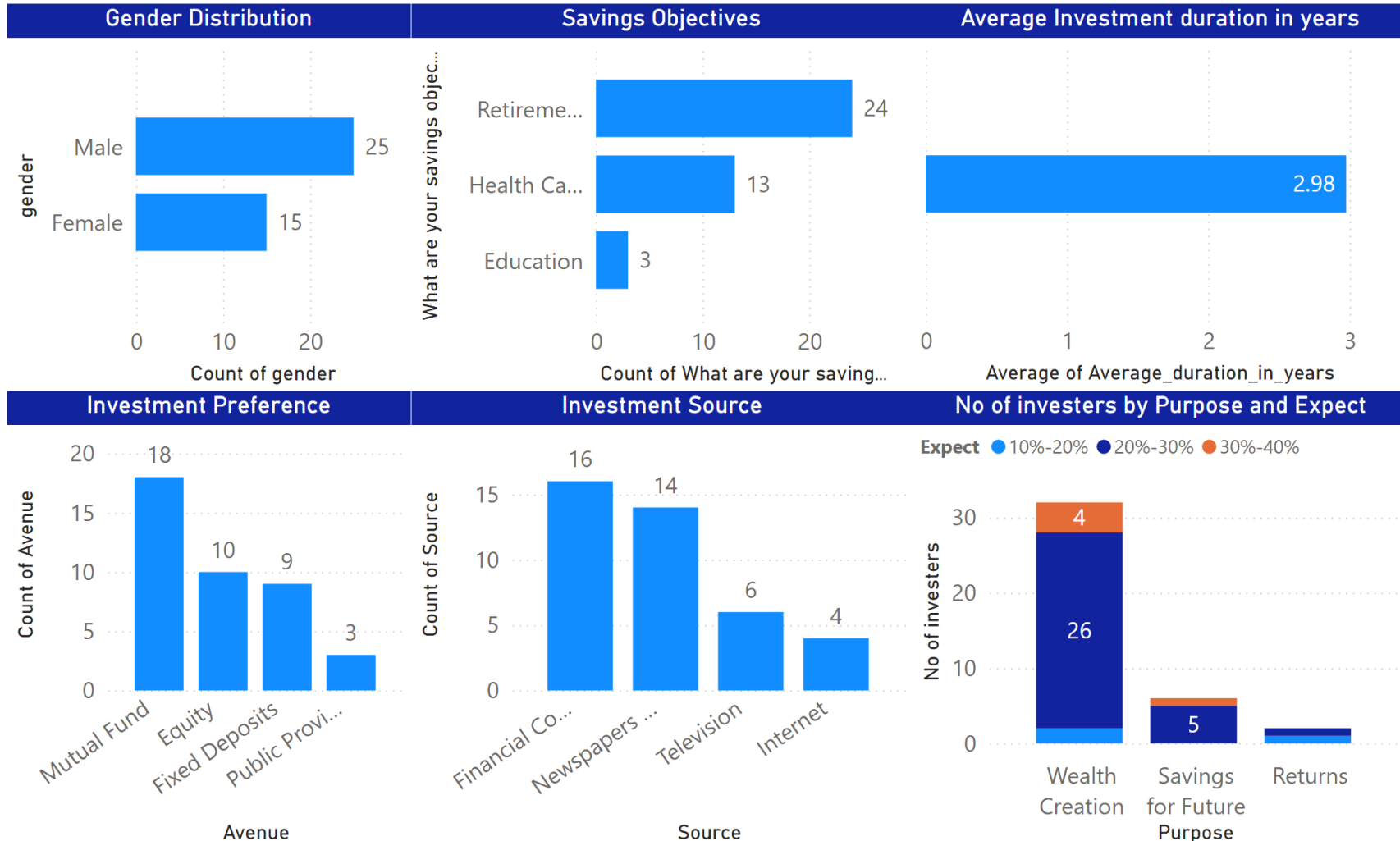
- ☐ Locking Pe...
- ☐ Returns
- ☐ Risk

Duration

- ☐ 1-1 years
- ☐ 1-3 years
- ☐ 3-5 years
- ☐ 5-5 years

Avenue

- ☐ Equity
- ☐ Fixed Depo...
- ☐ Mutual Fund
- ☐ Public Prov...





# Thank you

## Contact Details

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