



**PROBABILITY AND STATISTICS PROJECT
(FY SEM-1 2021)**

GROUP MEMBERS:

- 1. DRISHTI KAKKAR**
- 2. GURLEEN CHILOTRE**
- 3. VEDIKA MUNDRA**

ACKNOWLEDGEMENT

Working on the probability and statistics project was quite interesting. We could understand the application of the subject in real life

Task 6. i.

On the basis of the expected return calculated through the portfolio of six investments made by six individual customers we can draw a comparison and have a sense of analysing which portfolio will be the most valuable.

Looking at expected return we conclude the following:

ONGC (0.1808%) > HDFC & ONGC (0.0945%) > HDFC (0.04421%) > HDFC & SpiceJet (-0.06652%) > ONGC & SpiceJet (-0.1723%) > SpiceJet (-0.1758%)

Since ONGC provides the highest return it can be referred to as the best investment out of the six. But, if we look at the two asset investment [HDFC & ONGC], it provides us with best of the both worlds, that is, diversification benefit as well as a good return.

Effects of investing in a single asset portfolio:

- Limited price to be paid for owning only one investment.
- Complete control of what you are invested in, and when you make or withdraw that investment.
- Ability to know and understand the company better.
 - Lack of diversification.
- More risk than a double asset portfolio

Effects of investing in a two asset portfolio:

- Diversification of portfolio
 - Risk reduction.

- Price would be a bit higher since investment is in two companies/assets.
 - Better for long-term investment.
- Even if one asset performs poorly the other one can compensate for it.

Investor D has gained the diversification benefit since it allows him/her to have a taste of both companies and minimises the risk of loss to overall portfolio. D's investment provides the second highest return (0.0945%) which is quite close to expected return of A's investment but A lacks diversification benefits. D has been exposed to more opportunities for return. Furthermore, it has reduced volatility and encouraged D to hold on to the assets as a long-term investment plan.

6. ii.

Our group having three members, Drishti, Vedika and Gurleen created a group on WhatsApp and discussed how to go about the project.

We decided to do 2 questions each.

Q1 and Q6- Drishti Kakkar
Q2 and Q3- Gurleen Chilotre
Q4 and Q5- Vedika Mundra

We held a couple of google meets to plan the project. Vedika made a shared drive and uploaded the excel sheet there. All of us mutually decided a time and sat together two days in a row to complete the project via google meet. With great coordination we could help each other as well as ourselves in understanding the question requirements and performing the same. In no way anyone's contribution in completing the project was less or more than any other member. Doing the project together helped us enhance our team work skills and we could also interact besides the lectures.