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## A COMPARATIVE STUDY ON INVESTMENT PATTERN OF SELF-EMPLOYED & START-UP ENTREPRENEURS WITH SPECIAL REFERENCE TO PAN INDIA

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### ABSTRACT

*This study connotes the influence of demographical factors on the behavior of two categories of investors especially when they are pre-occupied with commitments and constraints. It also includes the subsequent effects on their risk appetite. It focuses on the fact that investors are not always rational in nature, have limits to their self-control, and are influenced by their own limitations and bounded knowledge. This study is a comparative study between the Investment pattern of Self-Employed and Entrepreneurs. For the purpose of the study, we have taken 100 samples from Start-up entrepreneurs and Self-Employed. The Data used in the study are both primary and secondary. Using the random sampling technique, the responses were collected and analyzed using graphs and tables. Many developments were seen during the analysis. The analysis was carried by connecting the factors which are influential on one another and Chi-Square Test tools were utilized. Overall, the study has given new perspectives of the Financial Behavior of both Self-Employed and Entrepreneurs which can further be analyzed by expanding the scope of the study and samples collected. There is still a lot of scopes to study and research in the area for contributing to the field of Behavioral Finance with various biases influencing the investing behavior.*

**Keywords:** Self-Employed, Entrepreneurs, Investment Pattern.

**JEL Classification Codes:** G40, G41.

### INTRODUCTION

Self-employed is the one who works for oneself as a freelancer or the sole proprietor rather than an employer where an entrepreneur is the one who organizes and operates a business or multiple businesses by giving employment to another person or a set of people, taking on greater than normal financial risk in order to do so as there are multiple families are depending on this job for their bread

and butter. Typically, the majority of cottage and household business owners can be grouped in this category of "self-employed". They actually begin with an interest and a skill or a particular skillset in any particular domain or more and search for an opportunity to prove him/herself and reaching the destiny of maximizing his/her wealth. Here they play the roles of both employee and employer. On the other hand, an entrepreneur is all about risk and reward. They think out of the box for the best way to succeed and move onto their prospective venture. While the businesses might be of self-interest or a passion of start-up and leading to success that drives the energy each and every day. At times, the entrepreneur turns into a promoter too. Entrepreneurs differ from others based on certain demographic factors. They are more individually oriented than the rest. Their responsibility quotient and effort on risk-taking ventures are distinguishing characters (Beugelsdijk & Noorderhaven, 2005)

When it comes to a going concern concept, if a self-employed is unable to function or get stuck with other commitments, the business starts getting stagnant and gradually gets eroded but in the case of an entrepreneur, the others in the team who are with the entrepreneurs move on with the business by keeping the vision of the entrepreneur and the business keeps moving forward. Generally, the self-employed are reserved in risky aspects in the business and conservative while taking up a risky investment though it is comparatively tinier than an entrepreneurial venture. The self-employed person tries to do everything on his own because mainly due to a lack of confidence in others efficiency and efficacy. On the other hand, the entrepreneur seeks challenging projects which involve huge risks and tries to involve teamwork, and delegates the suitable task based on the concept of "right people for the right job at the right time". A lot of passionate and talented entrepreneurs who often gamble with the risk of fulfilling their dreams. When we distinguish between the self-employed and an entrepreneur, the equilibrium rate of self-employment seems to be independent of the level of economic development, whereas the equilibrium rate of entrepreneurship is negatively related to the economic development of the country (Van Stel, Wennekers, & Scholman, 2014). In the case of investment ideas and strategy of investment, as a normal human being both the category want to come up in life and increase their wealth. But when it comes to the quality of investment, the quantity of investment, and frequency, there may be a difference due to their vision and goal. Of course, the academic qualification varies between the two categories, and based on the earlier research, it is found that an entrepreneur is an upper hand when compared to a self-employed. The entrepreneurs are positively selected on highly return-oriented human capital, but self-employed are negatively selected on those same abilities. Entrepreneurs are positively chosen on collateral, but self-employed are not. In other words, entrepreneurship is procyclical, but self-employment is countercyclical (Levine & Rubinstein, 2018).

Earning differential cannot be explained by the selection of low-ability employees into self-employment and is similar for more alternative measures of self-employment earnings and across industries. Furthermore, the estimated earnings differentials may play down the differences in compensating across the sectors since the non-monetary benefits are not included in the measure of employee compensation (Hamilton, 2000). People who become successful self-employed may differ in many aspects of unmeasured ways from those of unsuccessful self-employed individuals. Entrepreneurial ability may come from "nature" or "nurture" or both (Kim, 2008). For young start-up entrepreneurs who are still too small to be noticed by VCs and have run through most of their own money trying to take off, having an angel investor betting on their idea is a blessing (Bhatnagar, 2011).

### **LITERATURE REVIEW**

Adamu and Shakur (2017) opined that it is essentially crucial to understand certain vital factors which contribute to the most necessary for proceeding towards self-employment particularly from the context

of entrepreneurial traits and yielding factors which would motivate the potential entrepreneurs to achieve success in self-employment interest and initiatives.

Saini, Anjum, and Saini (2011) analysed investor's behaviour, buyers' opinion and notion referring to diverse factors like form of mutual fund scheme, its objective, the function of economic advisors/brokers, sources of statistics, deficiencies in the provision of services, investors' opinion referring to factors that appeal to them to spend money on mutual and challenges earlier than the Indian mutual fund enterprise and so on. The observe discovered that traders seek for liquidity, simplicity in offer files, on-line buying and selling, normal updates thru SMS, and stringent follow-up of provisions laid with the aid of AMFI (Saini et al., 2011).

Ranjani and Chopra (2011) concluded that the respondents showed widespread focus in subjects regarding funding and private monetary planning. Contrary to famous notion, the sample population confirmed attention approximately economic making plans and willingness to take funding decisions referring to non-public finance. However, in retirement planning, the majority of the respondents felt that they had now not competently deliberate for their retirement (Ranjani & Chopra, 2011).

A survey of 201 individual investors was conducted to study the information sourcing by investors, their perception of various investment strategy dimensions, and the factors motivating investment decisions and reported that psychological and sociological factors dominated economic factors in investment decisions (Shanmugham, 2000).

Avinash (2014) analysed the investment behaviour by examining various investment avenues. Data analyses revealed that Most of the respondents have selected bank deposit as their first option for investment followed by real estate. Below 30 years respondents invest more in real estate whereas above 60 years preferred LIC policies. Full-time salaried people are more aware of different investment avenues (Avinash, 2014).

Patel and Patel (2012) examined the behavioural pattern of investments and various investment alternatives among salaried people working in the private sector. Data analyses state that majorities of Male respondents are intended to invest more. The maximum investment in the range between 1 lakh to 2 lakhs (Patel & Patel, 2012).

Kirubakaran (2013) analysed the behaviour of an investor. This study brings out the relationship between risk of investment and protection of investment. Nearly 59 percent of respondents stick to the protection of investment rather than risk for good returns. Respondents have protecting investment as the main priority (Kirubakaran, 2013).

### **RESEARCH PROBLEM**

To Analyze the Investment patterns of Self Employed and Start-up entrepreneurs and have a comparative study with respective to their investment behavior.

### **OBJECTIVES OF THE STUDY**

- To understand the investment behavior of the Investors, specifically focusing on start-up entrepreneurs and Self-employed.
- To analyze the risk appetite of the respondents based on the occupation
- To analyze the independence of investment decision of the respondents based on the occupation
- To analyze the investment horizon based on the dependents of the respondents
- To analyze the investment horizon based on the monthly income of the respondents

## **SCOPE OF THE STUDY**

The present study titled "a study on the factors determining the investment decision of small equity investors" aims to probe into the investment decisions, demographic factors influencing small equity investors, pattern, risk-return perceptions, evaluation of post-investment satisfaction, and the problems associated with different investments and savings pattern of small and big Self-employed and the Start-up entrepreneurs investors in PAN India that includes Kolkata, Chennai, Mumbai, and Bangalore, etc.

## **LIMITATIONS OF THE STUDY**

The interpretation is done assuming the respondents have given the correct answer. The study is confined to PAN India that includes Kolkata, Chennai, Mumbai, and Bangalore, etc. So the results may not be the exact reflection of the entire population.

## **RESEARCH METHODOLOGY**

### **Descriptive Research**

The type of study or research used in this study is Descriptive. The study is based on understanding Personal Financial Planning at the individual level, be it anyone who is working or Business Professionals and those who are the potential investors. A quantitative observation is the objective collection of data which is primarily focused on numbers and values – it suggests "associated to, of or depicted in terms of a quantity". Results of quantitative observation are derived using statistical and numerical analysis methods. It implies observation of any entity that can be associated with a numeric value such as age, shape, weight, volume, scale, etc.

### **Method of Data Collection**

Primary data: Primary data is extensively used in the study. The main method by which this primary data was collected is by questionnaires which were prepared in detail. It was then followed by detailed interviews of respondents.

Secondary data: This report also uses secondary data to some extent. This was collected by magazines and journals.

### **Survey**

The survey involved collecting data with a prepared questionnaire to self-employed and entrepreneurs. Questionnaires were given to both types of people and an interview is conducted to identify their investment behavior patterns.

### **Sampling Techniques**

For this study, a non-probabilistic judgmental sampling technique is used. The reason behind going for a random sampling technique is to ensure that the analysis done after the data collection from the sample should not be biased or must not be affected by any influence

### **Population**

The population chosen for this study (to study the investment behavior) are self-employed and entrepreneurs.

### **Sample Size**

For the purpose of this study, the total sample size chosen was 100. In that, 54 people were self-employed, and 46 people were Entrepreneurs.

**Data Analysis**

Accumulated data were analyzed and summarized. The patterns were analyzed using the objectives of the study and by applying statistical techniques such as the Chi-square test.

**ANALYSIS AND INTERPRETATION**

Sample size = 100 (Self Employed = 54, Start-up entrepreneurs = 46)

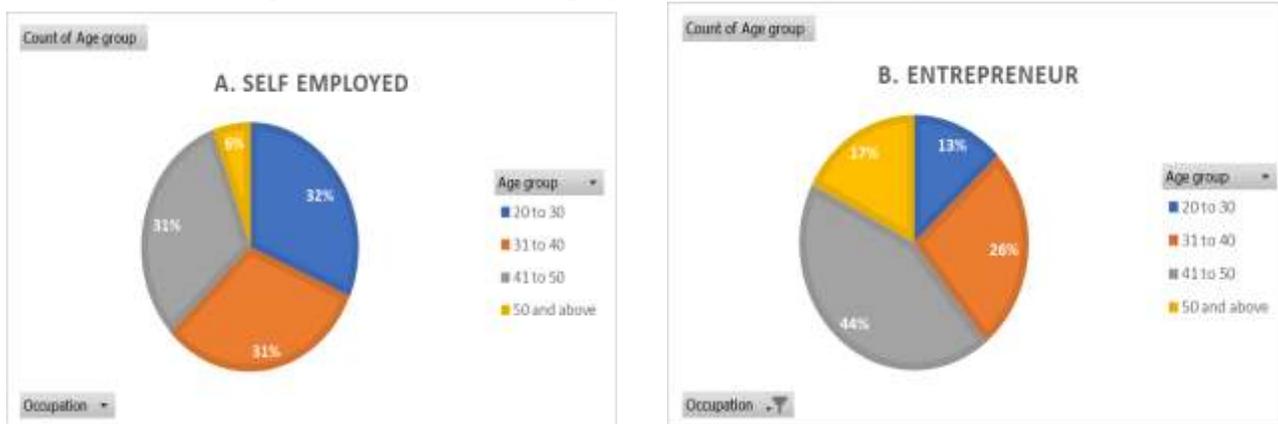


Figure 1. Comparison of Age group between Self-Employed and Entrepreneurs

From the above figure, we can say that majority of the youngsters prefer Self-Employment over Entrepreneurship. Some of the reasons might be, youngsters have a lack of experience regarding managing people, funding capital for the business is hard, and decision making is not as complex when compared to Entrepreneurship, less business risk is involved in Self-employment, etc.

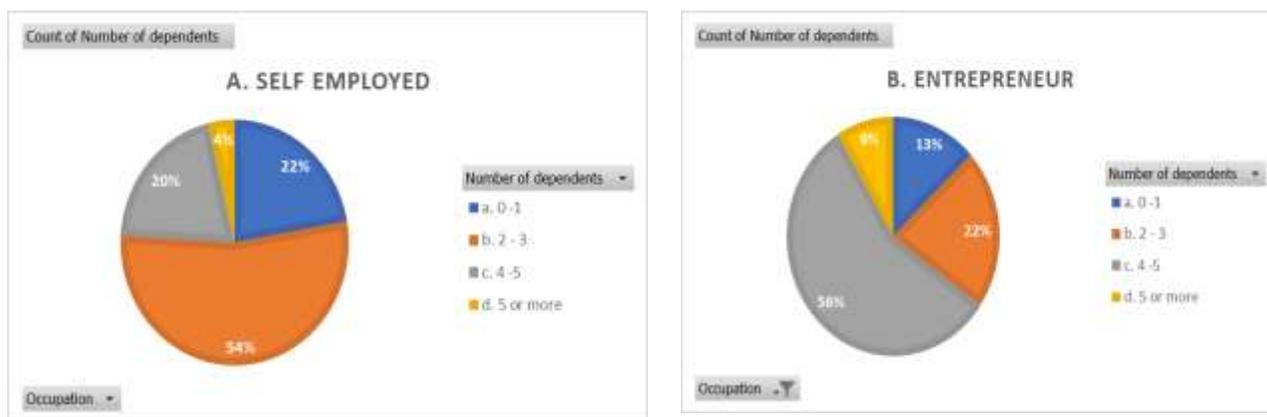


Figure 2. Comparison of the number of dependents between Self-Employed and Entrepreneur

In the above figure, people of the Self-Employed category have less dependents is because the majority of the Self-Employed are youngsters whereas people of Entrepreneur category have large number people depending on them especially most of the Start-up entrepreneurs have 4-5 dependents. The reason for high dependents for Start-up entrepreneurs is because of their spouse, children, and their parents who have reached very old age.

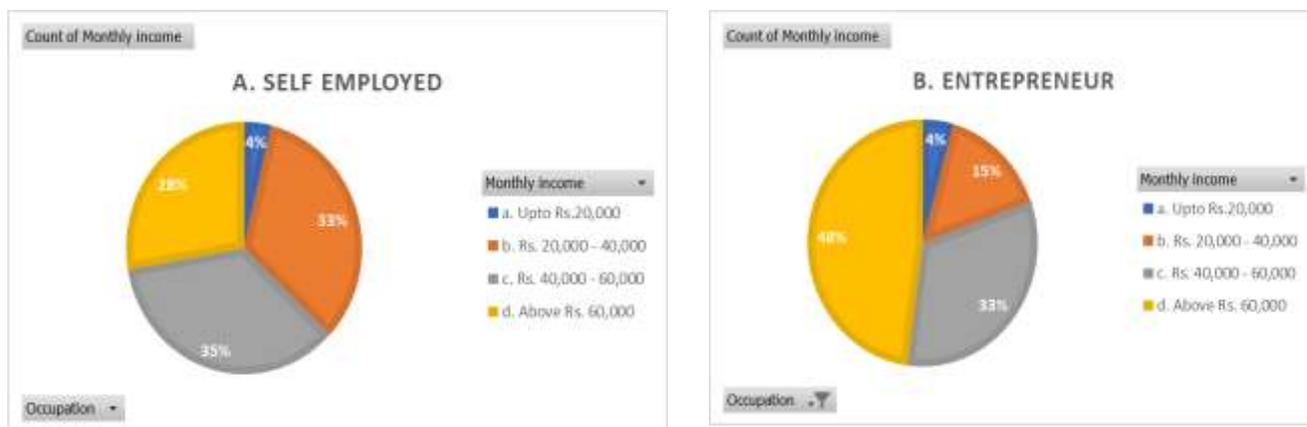


Figure 3. Comparison of Monthly Income between Self Employed and Entrepreneur

In the above figure, Compared to Self-Employed, Start-up entrepreneurs have the highest income. The reason is, the size of the business is larger, capital invested is larger, a greater number of people will be working for an Entrepreneur whereas, in Self-Employment, it's a standalone business where only 1 person will be managing everything. Also, most of the Start-up entrepreneurs are of higher age which means they have been present for a long time and hence are able to generate more and more income than Self-Employed.

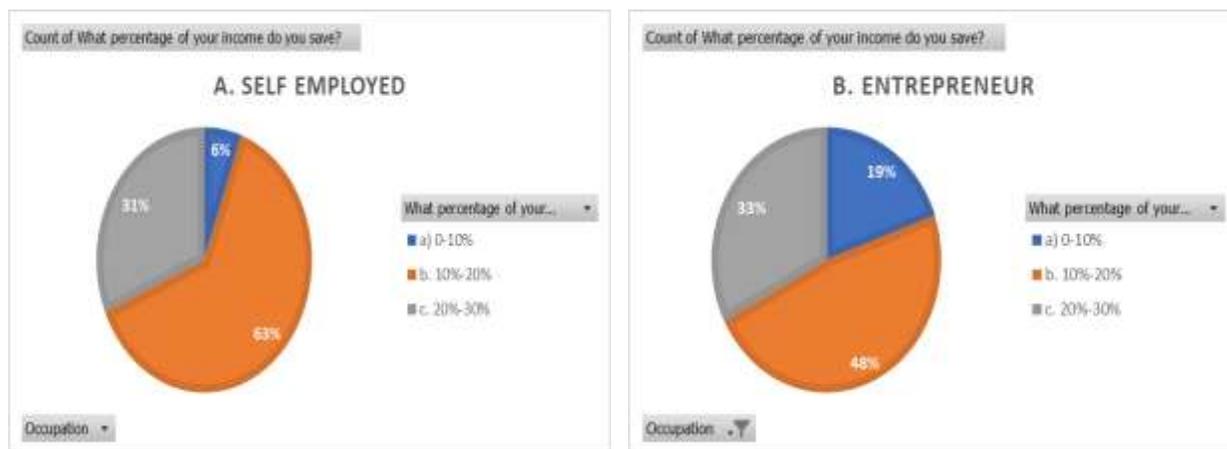


Figure 4. Comparison of Percentage of income saved between Self-Employed and Entrepreneur

In the above figure, the Overall income saved by the Self-Employed category is more than the Entrepreneur category. The reasons are since the business is bigger than self-employment, entrepreneur business needs lots of equipment and tools which costs a lot since there are many people working under start-up entrepreneurs their salary has to be paid and also, compared to self-employed, entrepreneur category have a lot of dependents on them and hence start-up entrepreneurs can't save much.

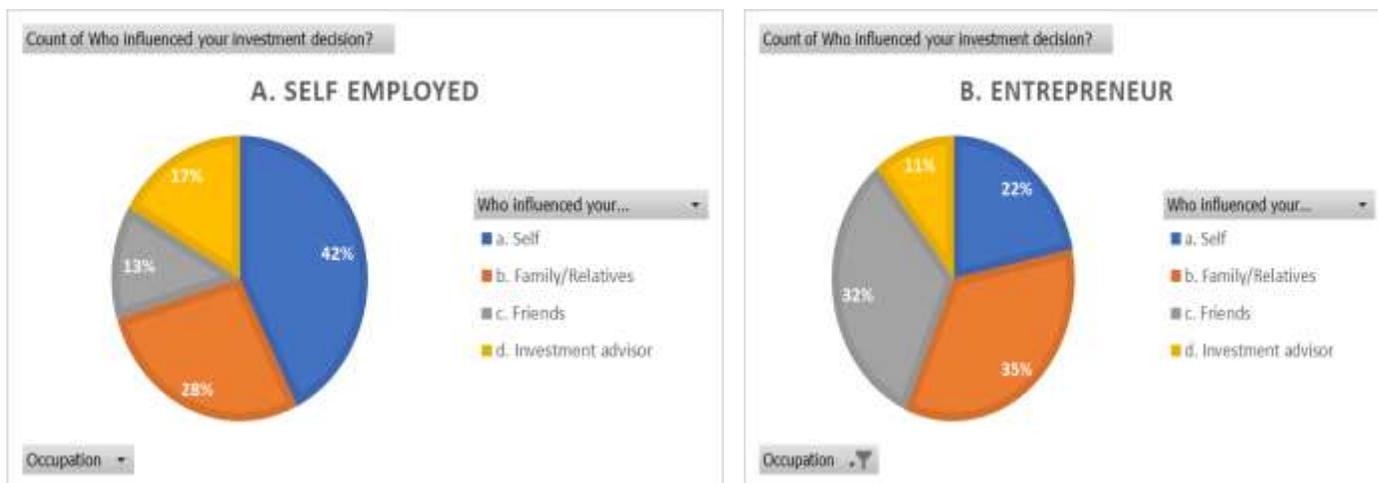


Figure 5. Comparison of Investment decision between Self-Employed and Entrepreneur

In the above figure, Most of the Self-Employed businessman’s decision to invest their savings have been borne by themselves whereas, for Start-up entrepreneurs ‘majority of the times their investment decision has been influenced by family/relatives and their friend’s circle. Since Entrepreneurship is a business conducted by a group of people, chances of meeting new people are very high, and especially in India compared to other countries, family members are most of the times actively involved in the business activity, hence family members and friends influence Start-up entrepreneurs to go for an investment. But it is different in Self-Employed since it is a standalone business they must take up independent decisions.

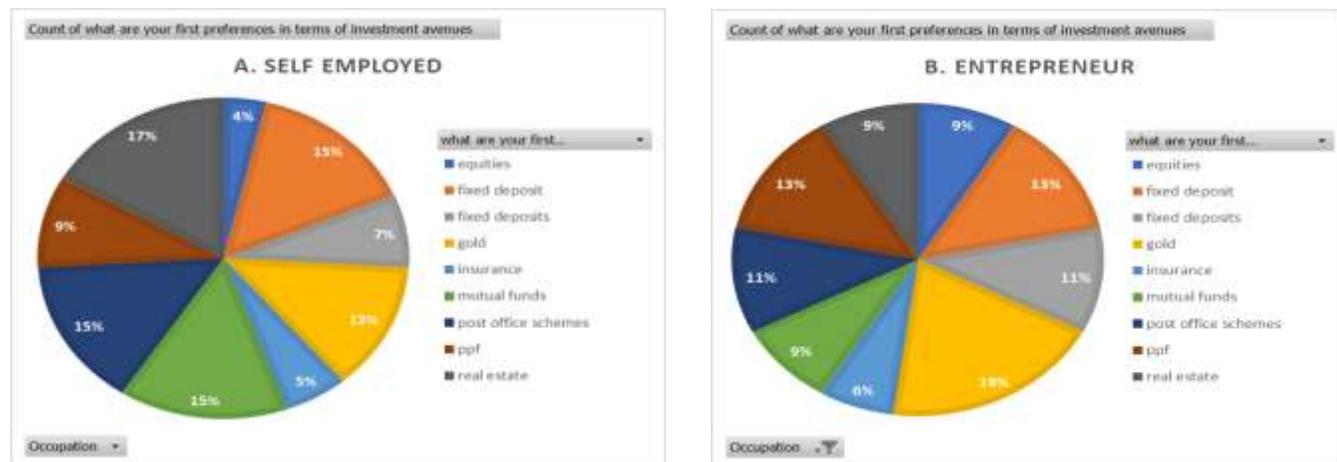


Figure 6. Comparison of Types of investment avenues as a first preference between Self-Employed and Entrepreneur

In the above figure, Both Self-Employed and start-up Entrepreneur groups have invested in those avenues that are associated with less risk evenly as their first preference. The only differences are, Start-up entrepreneurs have invested more in Gold whereas, Self-Employed has invested more in Real estate. In terms of fixed deposits, both are almost even.

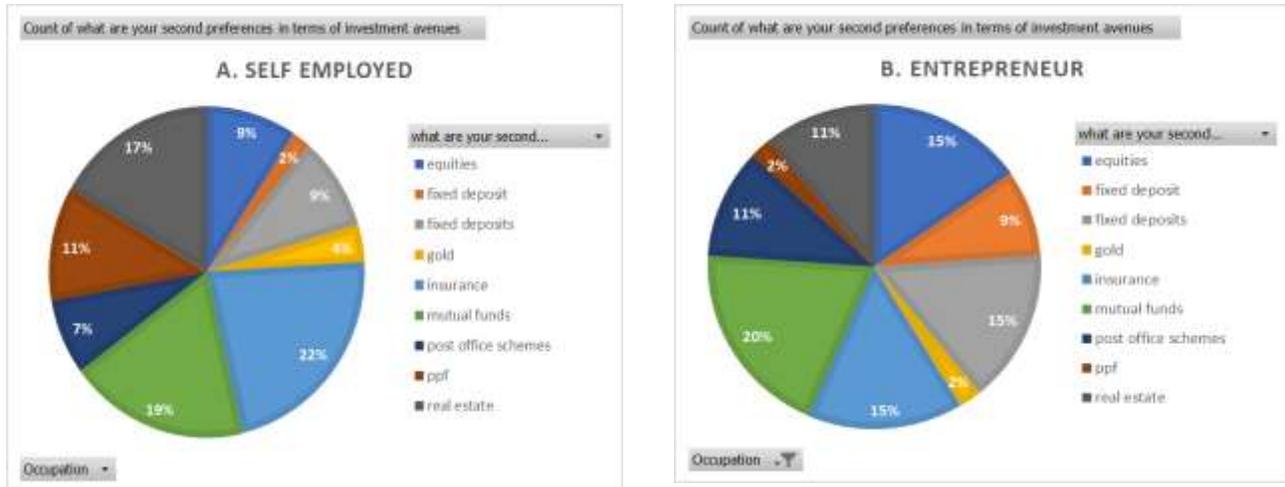


Figure 7. Comparison of Types of investment avenues as a second preference between Self-Employed and start-up Entrepreneur

In the above figure, as a second preference, investment in real estate’s for Self-Employed has remained the same whereas for gold and fixed deposits has gradually come down and instead scheme like insurance has increased by a large margin. For Start-up entrepreneur’s mutual fund investment has increased by a large margin as a second preference and the fixed deposits have also remained the same regarding their second preference.

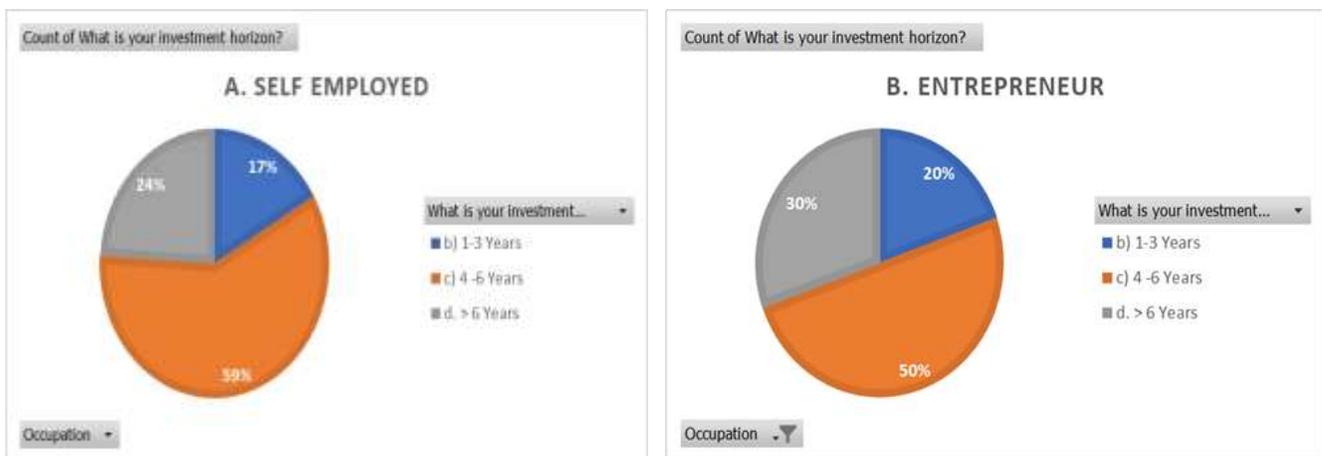


Figure 8. Comparison of Investment horizon between Self-Employed and start-up Entrepreneur

In the above figure, the investment horizons between both the categories have only a minor gap. Self-Employed businessman has invested more in 4-6 years horizon whereas Start-up entrepreneurs have invested more in 6+ year’s horizon. Regarding short-term investments, Self-Employed is slightly behind the Entrepreneur category.

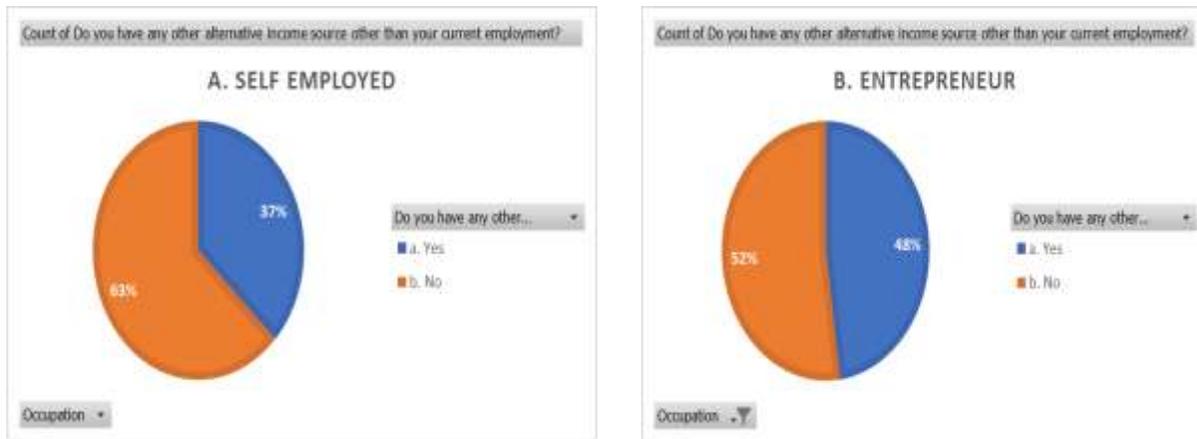


Figure 9. Comparison of Alternative income source other than current employment between Self-Employed and Entrepreneur

In the above figure, Under Both categories, there is more number of people who don't have income from other sources than the people who have income other than their current employment, but the Self-Employed category has less people than the Entrepreneur category who are earning income from multiple sources. Since there are a lot of dependents depending on the people belonging to the Entrepreneur category, and also costs of running an Entrepreneurial business is very high compared to a Self-Employed business, it is highly necessary to generate income from other sources other than their current employment.

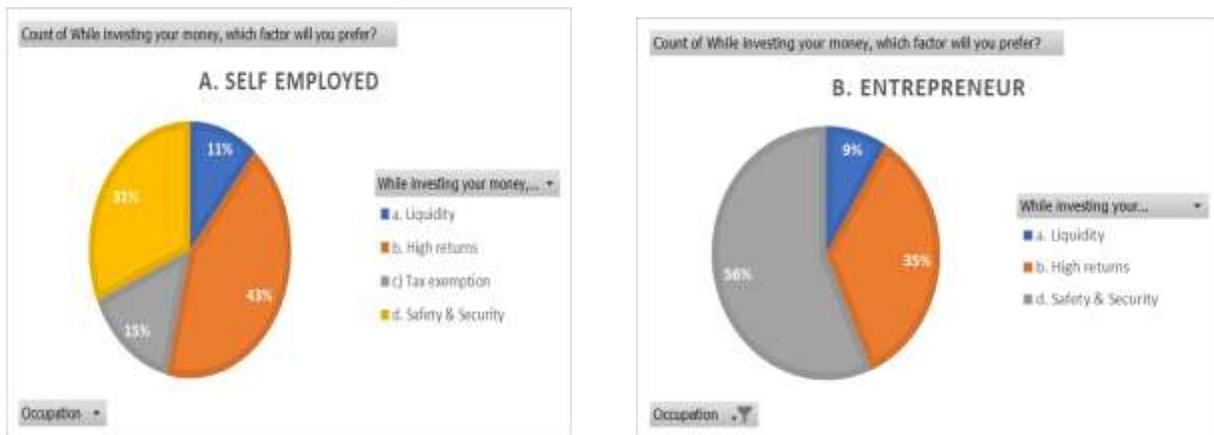


Figure 10. Comparison of Investment Factor Preference While Investing, between Self-Employed and start-up Entrepreneur

In the above figure, in both the categories, the Liquidity factor is given the least preference. For the purpose of Safe and secure investment, Start-up entrepreneurs have given a very high preference than the Self-Employed category by a very large margin that is, 56% of the Start-up entrepreneurs want their investment to be safe and secure whereas only 31% of the Self-Employed are expecting the same. Instead, the Self-Employed category gives more preference towards high returns than Start-up entrepreneurs that is, 43% for Self-Employed and 35% for Entrepreneurs. A few percentages of people in the Self-Employed category have a preference towards tax-exemption, which has motivated them to go for investment whereas; in Start-up entrepreneurs none of them have opted for tax-exemption. The

reason why a large majority of Start-up entrepreneurs have opted for Safety and Security is because, since the majority of Start-up entrepreneurs belong to the older age category, they might not be inclined to take more risk regarding their investment decision. Similarly, a greater number of youngsters are expecting high returns than safety.



Figure 11. Comparison of Degree of Risk Undertaken between Self-Employed and start-up Entrepreneurs

In the above figure, the Majority of the people who belong to the Self-Employed category are ready to take more risk than the ones belonging to the Entrepreneur category that is, 45% of the Start-up entrepreneurs are ready to take less risk whereas in Self-Employed it only 33%, on the other hand, more Self-Employed people are ready to take both moderate risk and high risk more than Start-up entrepreneurs that are 48% and 19% for Self-Employed respectively and 46% and 9% for Start-up entrepreneurs respectively. Again, this might be associated with age as well, since the large majority of the youngsters are Self-Employed, regarding this research, it can be concluded that youngsters might have more appetite for risk than older people.

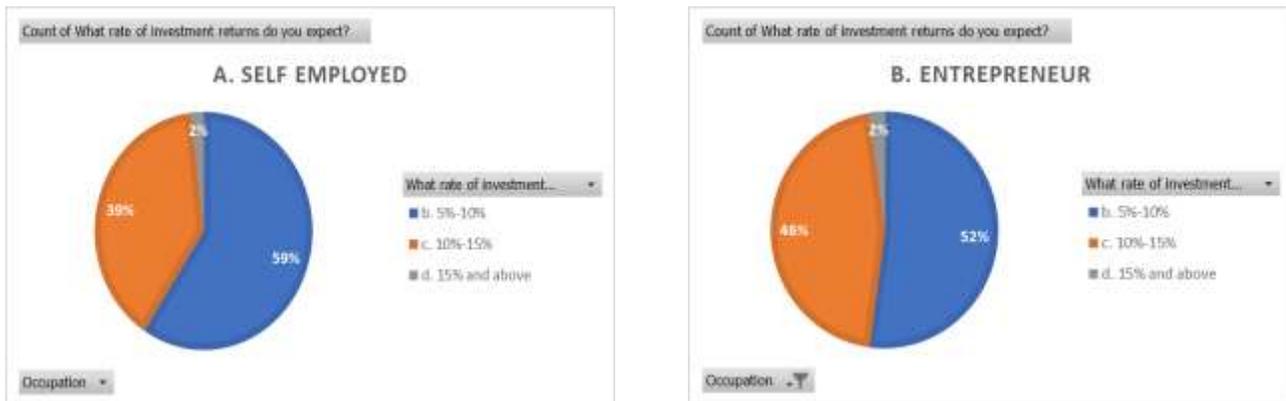


Figure 12. Comparison of Rate of Return between Self-Employed and start-up Entrepreneurs

In the above figure, a High rate of return is associated with high risk, meaning people who expect high return should also be ready to undertake high risk. Since more Self-Employed people are ready to take high risks, they have opted for more returns. Even though the percentage of people who are ready to take more risk is the same between both the categories which is 2%, still Self-Employed people are expecting more returns. The reason is, out of 100 sample sizes, 54 are Self-Employed and 46

are start-up Entrepreneurs. 2% of 54 people is higher than 2% of people out of 46 people. Even though a greater number of people belonging to the Entrepreneur category have opted for less to medium level of risk, they are still expecting high returns. The reason may be because, people of the Entrepreneur category have a greater number of people depending upon them, hence they must conserve a lot of money and try to earn as much as possible with as minimum risk as possible.

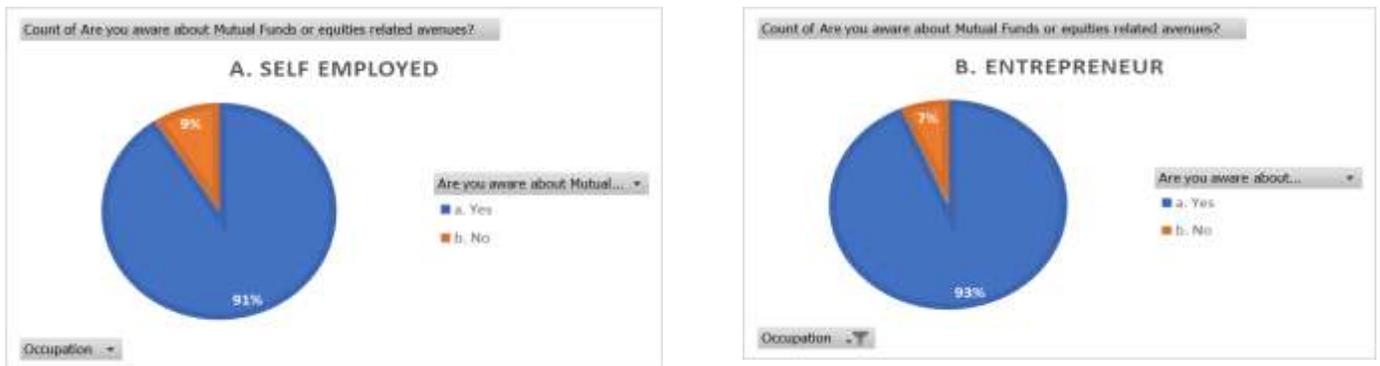


Figure 13. Comparison of Awareness about Mutual Fund and equities related avenues between Self-Employed and start-up Entrepreneurs

In the above figure, under both the categories, almost all the people belonging to both Self-Employed and start-up Entrepreneur group are aware of the Mutual Funds and Equities related market barring only a few percentages of people that is, 9% for Self-Employed and 7% for start-up Entrepreneurs. Therefore, there is only a minor difference between both groups who are unaware of the Mutual funds and equities-related avenues.

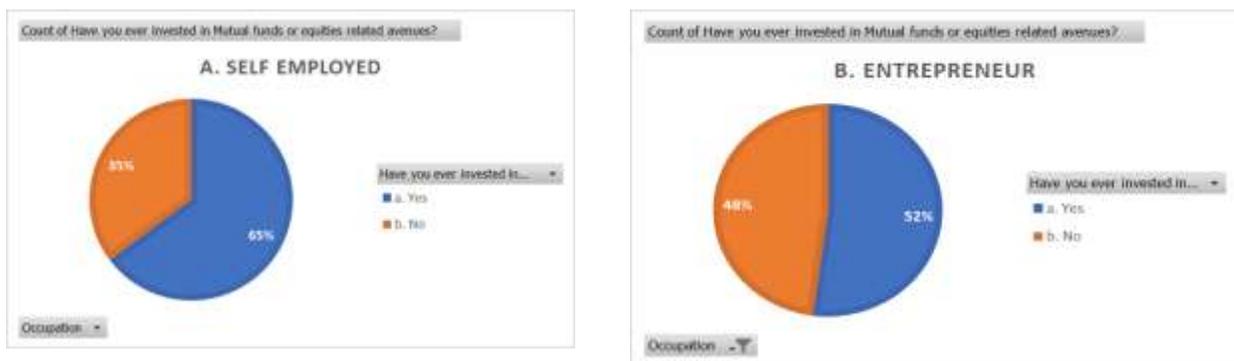


Figure 14. Comparison of Investment in Mutual funds and equities related avenues between Self-Employed and start-up Entrepreneur

In the above figure, under both the categories there are a greater number of people who have invested in Mutual Funds and equities-related avenues than the people who have not yet invested so far. But the people who are running Self-Employed business have a higher majority of people who have invested so far that is, 65% of the Self-Employed compared to the Entrepreneur category that is, 52% of the people.

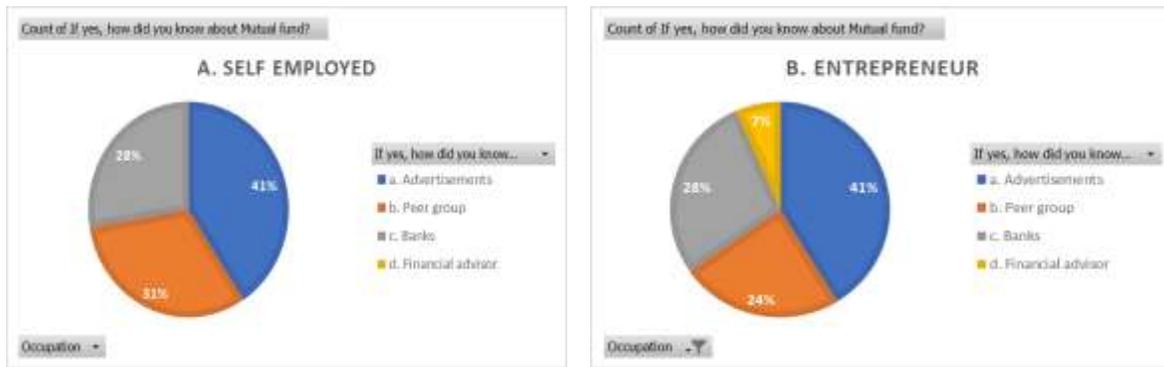


Figure 15. Comparison of Source of Information regarding Mutual Funds and equities related avenues between Self-Employed and start-up Entrepreneur

In the above figure, for both the categories, the source of information about investing in Mutual Funds or other equities-related avenues, are equal regarding through the mode of Advertisement and Banks. For Self-Employed, their peer groups have informed them more than the peer groups of the Entrepreneurs. But for start-up Entrepreneurs, some of the people have heard from a Financial advisor that is 7% of them whereas, for Self-Employed none of them have found this information through an advisor. Regardless, for both the Categories mode of Advertisement is the major source of information for them.

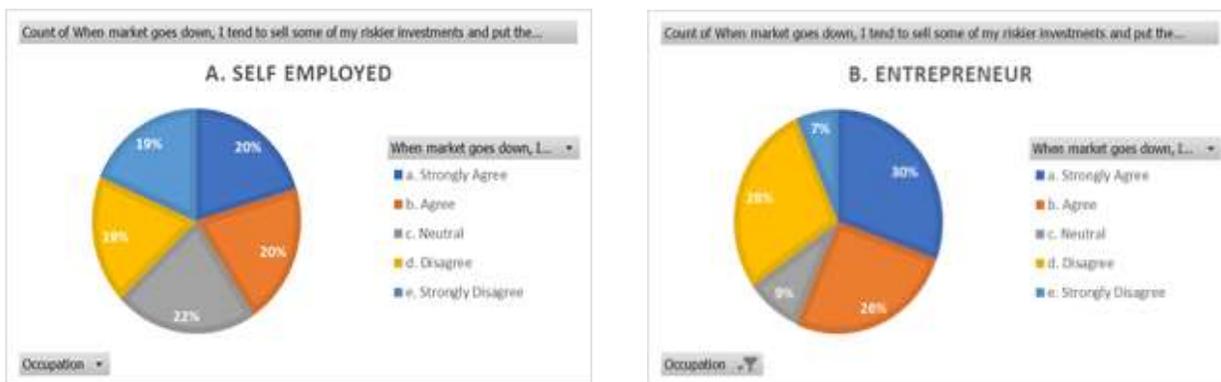


Figure 16. Comparison of Diversification of portfolios during the time of market crisis between Self-Employed and start-up Entrepreneur

Regarding the Self-Employed, 40% (combining both the parameters that are, "Strongly Agree" and "Agree") of the people are averse to risk which is very less when compared with the Start-up entrepreneurs which is 56% (Combining both the parameters that are "Strongly Agree" and "Agree"). Overall, 38% (Combination of "Disagree" and "Strongly Disagree") of the Self-Employed are ready to take more risk regarding their investments when compared to Start-up entrepreneurs which are 35% (Combination of "Disagree" and "Strongly Disagree"). Even though the risk-takers in Self-Employed are more than the start-up Entrepreneurs, the gap is still not that wide between them. There are far many people in the Self-Employed category who have opted for a "Neutral" opinion that is 22% of them compared to the Entrepreneur category which is only 9%. This is a point of indecision for the Self-Employed meaning they are unsure about what to do regarding their investment during the time of

market risk. The reason why Start-up entrepreneurs are not taking a huge risk is because of their age and Entrepreneur categories have a lot of people depending upon them.

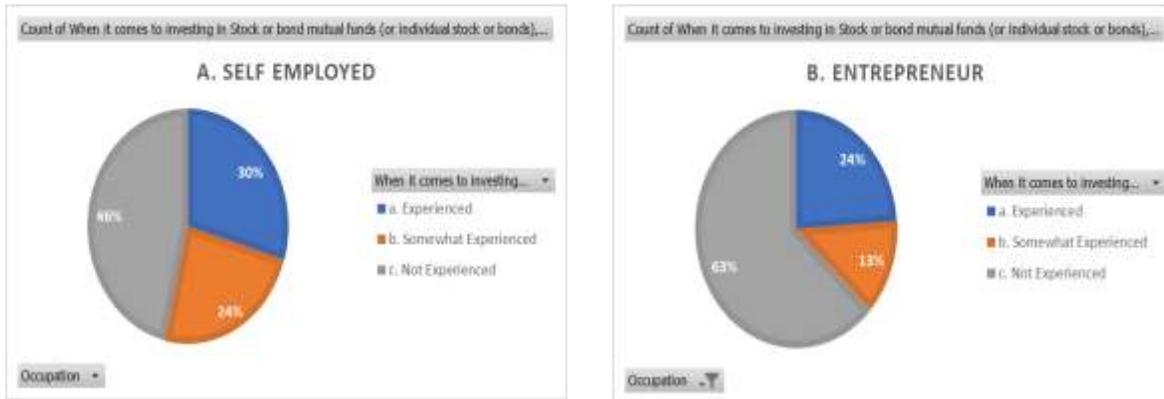


Figure 17. Comparison of Degree of expertise regarding investing in stock or bond mutual funds between Self-Employed and Start-up Entrepreneur

Regardless of the category, the majority of the people do not have any prior experience or expertise regarding the investment in individual stocks or bond markets. However, more than the Self-Employed, Entrepreneur category people are even further in-experienced when it comes to investing in individual stock or bond markets that are, 46% for Self-Employed and 63% percent for start-up Entrepreneur. Overall, Self-Employed people have much more experience on their hands regarding the expertise in investing in stock or bond markets.

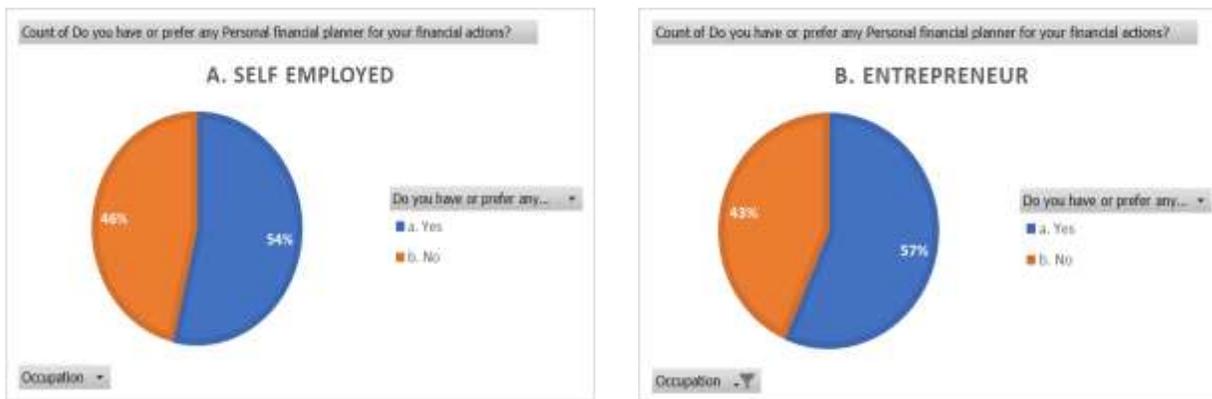


Figure 18. Comparison of Preference for a personal financial planner between Self-Employed and start-up Entrepreneur

The majority in both the categories have agreed they have/need a personal financial planner to manage their portfolio of investments. The only difference is that the people in the Entrepreneur category prefer to hire a personal financial planner more than the people belonging to the Self-Employed category. The reason why both the groups have opted to hire a personal financial planner might be since; managing both the business and investment portfolio simultaneously might be very difficult hence hiring a personal financial planner will ease their burden.

### HYPOTHESIS TESTING

**Objective 1:** To analyze whether age has an impact on the risk appetite of Individual-based on occupation

**Research Hypothesis – 1.1:** The risk appetite of Self Employed is dependent on age.

**Null Hypothesis (H0):** The risk is Independent of the age of a Self Employed.

**Alternative Hypothesis (H1):** The risk appetite of a Self Employed is dependent on age.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{Age and Risk Appetite are dependent} / \text{Age and Risk appetite are Independent}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{Age and Risk appetite are Independent} / \text{Age and Risk Appetite are dependent}) = \beta$

Table 1. Observed Frequency of self-employed respondents

Age\ Row labels	Less risk	Moderate risk	High risk
20-30	1	11	5
31-40	6	9	2
41-50	8	6	3
50 and above	3	0	0
Grand total	18	26	10

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 2. Expected Frequency: (Row Total\*Column Total)/Grand Total

	1	2	3	4
1	5.67	8.19	3.15	0
2	5.67	8.19	3.15	0
3	5.67	8.19	3.15	0
4	1	1.44	0.56	0
5	0	0	0	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under H0,

$= \{(\text{Observed Frequencies}-\text{Expected Frequencies})^2\} / \text{Expected Frequencies}$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 13.971

P – Value = 0.0300

**Decision:**

**Alternative Hypothesis:** The risk appetite of a self-employed is dependent on age.

**Conclusion:**

From the above analysis,

P-value is less than  $\alpha$  ( $p < \alpha$ ). So, reject Null Hypothesis.

**Therefore, the risk appetite of a Self Employed is dependent on age.**

**Research Hypothesis – 1.2:** The risk appetite of a start-up Entrepreneur is dependent on age.

**Null Hypothesis (H0):** Age is Independent of the risk appetite of a start-up Entrepreneur.

**Alternative Hypothesis (H1):** The risk appetite of a start-up Entrepreneur is dependent on age.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{Age and Risk Appetite are dependent} / \text{Age and Risk appetite are Independent}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{Age and Risk appetite are Independent} / \text{Age and Risk Appetite are dependent}) = \beta$

Table 3. Observed Frequency of entrepreneurial respondents

Age\ Row labels	Less risk	Moderate risk	High risk
20-30	1	3	2
31-40	3	9	0
41-50	11	7	2
50 and above	6	2	0
<b>Grand total</b>	<b>21</b>	<b>21</b>	<b>4</b>

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 4. Expected Frequency: (Row Total\*Column Total)/Grand Total

	1	2	3	4
1	2.74	2.74	0.52	0
2	5.48	5.48	1.04	0
3	9.13	9.13	1.74	0
4	3.65	3.65	0.7	0
5	0	0	0	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under  $H_0$ ,

$= \{(\text{Observed Frequencies} - \text{Expected Frequencies})^2 / \text{Expected Frequencies}\}$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 13.617

P – Value = 0.0342

**Decision:**

**Alternative Hypothesis:** The risk appetite of an individual is dependent on age.

**Conclusion:**

From the above analysis,

P-value is less than  $\alpha$  ( $p < \alpha$ ). So, reject Null Hypothesis.

**Therefore, the risk appetite of an Entrepreneur is dependent on age.**

So, from Research Hypotheses 1.1 and 1.2, we can arrive at a statement that irrespective of the Occupation. Risk Appetite of both Start-up entrepreneurs and Self Employed are dependent on the Age Factor i.e., with growing age, the ability of the risk-taking will reduce in Self-employed and start-up Entrepreneurs.

*Objective: 2. To analyze whether the Investment decisions are being influenced by others (based on occupation)*

**Research Hypothesis 2:** The decision-making of Self Employed in terms of Investment is independent compared to start-up entrepreneurs.

**Null Hypothesis (H0):** Decision Making is dependent on others' influence in the case of a Self Employed than start-up Entrepreneurs.

**Alternative Hypothesis (H1):** Decision Making is independent of others' influence in the case of a Self Employed than start-up Entrepreneurs.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{The decision making of Self Employed in terms of Investment is independent compared to start-up entrepreneurs. / Decision Making is dependent on others influence in the case of a Self Employed than start-up Entrepreneurs}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{Decision Making is dependent on others influence in case of a Self Employed than Start-up entrepreneurs / The decision making of Self Employed in terms of Investment is independent compared to start-up entrepreneurs}) = \beta$

Table 5. Observed Frequency of comparison between Self-employed & entrepreneurial respondents

Row Labels	Self-employed	Entrepreneur
Self	15	16
Family/relatives	7	15
Friends	9	5
Investment advisor	0	0

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 6. Expected Frequency: (Row Total\*Column Total)/Grand Total

1	2	3	4	5
14.3	16.7	0	0	0
10.2	11.8	0	0	0
6.48	7.52	0	0	0
0	0	0	0	0
0	0	0	0	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under H<sub>0</sub>,

$$= \frac{\sum \{(\text{Observed Frequencies} - \text{Expected Frequencies})^2\}}{\text{Expected Frequencies}}$$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 3.7319

P – Value = 0.1548

**Decision:**

**Null Hypothesis (H<sub>0</sub>):** Decision Making is dependent on others' influence in the case of a Self Employed than start-up Entrepreneurs.

**Conclusion:**

From the above analysis,

P-value is greater than  $\alpha$  ( $p > \alpha$ ). So, don't reject Null Hypothesis.

**Therefore, the Investment decisions of a Self Employed are influenced by others (Family, Relatives, Investment Advisors, Friends, etc.) when compared to start-up Entrepreneurs.**

*Objective 3: To analyze the Influence of Dependents on the investment horizon of the individuals (based on occupation)*

**Research Hypothesis 3.1:** The investment horizon of Self Employed is independent of no. of dependents.

**Null Hypothesis (H<sub>0</sub>):** The investment horizon of Self Employed is dependent on no. of dependents.

**Alternative Hypothesis (H<sub>1</sub>):** The investment horizon of Self Employed is independent of no. of dependents.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{The investment horizon of Self Employed is independent of no. of dependents} / \text{The investment horizon of Self Employed is dependent of no. of dependents}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{The investment horizon of Self Employed is dependent of no. of dependents} / \text{The investment horizon of Self Employed is independent of no. of dependents}) = \beta$

Table 7. Observed Frequency of self-employed respondents

Age/years in self-employment	1-3 years	4-6 Years	More than 6 years
0-1	3	9	0
2-3	2	18	9
4-5	3	4	4
5 and more	1	1	0

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 8. Expected Frequency: (Row Total\*Column Total)/Grand Total

	1	2	3	4
1	2	7.11	2.89	0
2	4.83	17.2	6.98	0
3	1.83	6.52	2.65	0
4	0.33	1.19	0.48	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under H0,

$$= \{(\text{Observed Frequencies}-\text{Expected Frequencies})^2\}/\text{Expected Frequencies}$$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 5.779

P – Value = 0.1229

**Decision:**

**Null Hypothesis (H0):** Decision Making is dependent on others' influence in the case of a Self Employed.

**Conclusion:**

From the above analysis,

P-value is greater than  $\alpha$  ( $p>\alpha$ ). So, don't reject Null Hypothesis.

**Therefore, the investment horizon of Self Employed is dependent on no. of dependents.**

**Research Hypothesis 3.2:** The investment horizon of start-up Entrepreneurs is independent of no. of dependents.

**Null Hypothesis (H0):** The investment horizon of a start-up Entrepreneur is dependent on no. of dependents.

**Alternative Hypothesis (H1):** The investment horizon of a start-up Entrepreneur is independent of no. of dependents.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{The investment horizon of start-up Entrepreneur is independent of no. of dependents/ The investment horizon of start-up Entrepreneur is dependent of no. of dependents}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{The investment horizon of start-up Entrepreneur is dependent of no. of dependents / The investment horizon of start-up Entrepreneur is independent of no. of dependents}) = \beta$

Table 10. Observed Frequency of entrepreneurial respondents

Age/years in self-employment	1-3 years	4-7 Years	More than 6 years
0-1	0	5	1
2-3	1	5	4
4-5	5	13	8
5 and more	3	0	1
Grand total	9	23	14

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

*Expected Frequency: (Row Total\*Column Total)/Grand Total*

Table 11. Expected Frequencies

	1	2	3	4
1	1.17	3	1.83	0
2	1.96	5	3.04	0
3	5.09	13	7.91	0
4	0.78	2	1.22	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under H<sub>0</sub>,

$$= \{(\text{Observed Frequencies}-\text{Expected Frequencies})^2\}/\text{Expected Frequencies}$$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 2.9764

P – Value = 0.2258

**Decision:**

**Null Hypothesis (H<sub>0</sub>):** The investment horizon of a start-up Entrepreneur is dependent on no. of dependents.

**Conclusion:**

From the above analysis,

P-value is greater than  $\alpha$  ( $p > \alpha$ ). So, don't reject Null Hypothesis.

**Therefore, the investment horizon of Start-up entrepreneurs is dependent on no. of dependents.**

So, from Research hypothesis 4.1 and 4.2, it is found that irrespective of the occupation, both Self-Employed and Start-up entrepreneurs change their investment horizon based on the no. of dependents.

*Objective 4: To analyze the Influence of Investment Horizon based on the Monthly income.*

**Research Hypothesis 4.1:** The investment horizon of Self Employed is independent of monthly income.

**Null Hypothesis (H<sub>0</sub>):** The investment horizon of Self Employed is dependent on monthly income.

**Alternative Hypothesis (H<sub>1</sub>):** The investment horizon of Self Employed is independent of monthly income.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{The investment horizon of Self Employed is independent of on monthly income} / \text{The investment horizon of Self Employed is dependent on monthly income}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{The investment horizon of Self Employed is dependent on monthly income} / \text{The investment horizon of Self Employed is independent of on monthly income}) = \beta$

Table 12. Observed Frequency of self-employed respondents

Income level\tenure	1-3 years	4-6 years	More than 6 years
Up to Rs.20000	0	2	0
Rs.20000-Rs.40000	3	14	1
Rs.40000-Rs.60000	1	13	5
Above Rs.60000	5	3	7
Grand total	9	32	13

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 13. Expected Frequency: (Row Total\*Column Total)/Grand Total

	1	2	3	4
1	0.33	1.19	0.48	0
2	3	10.7	4.33	0
3	3.17	11.3	4.57	0
4	2.5	8.89	3.61	0

Now, we test for the Null Hypothesis. Calculation of Test Statistics:

Under  $H_0$ ,

$$= \{(\text{Observed Frequencies}-\text{Expected Frequencies})^2\} / \text{Expected Frequencies}$$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 16.3537

P – Value = 0.0120

**Decision:**

**Null Hypothesis (H0):** The investment horizon of Self Employed is independent of monthly income.

**Conclusion:**

From the above analysis,

P-value is less than  $\alpha$  ( $p < \alpha$ ). So, reject Null Hypothesis.

**Therefore, the investment horizon of Self Employed is dependent on monthly income.**

**Research Hypothesis 4.2:** The investment horizon of start-up Entrepreneurs is independent of monthly income.

**Null Hypothesis (H0):** The investment horizon of Start-up entrepreneurs is dependent on monthly income.

**Alternative Hypothesis (H1):** The investment horizon of a start-up Entrepreneur is independent of monthly income.

**Type-I Error:**  $P(\text{Reject } H_0 / \text{Not reject } H_0) = \alpha$

$P(\text{The investment horizon of Start-up entrepreneurs is independent of monthly income} / \text{The investment horizon of Start-up entrepreneurs is dependent on monthly income}) = 0.05$

**Type-II Error:**  $P(\text{Not Reject } H_0 / \text{Reject } H_0) = \beta$

$P(\text{The investment horizon of Start-up entrepreneurs is dependent on monthly income} / \text{the investment horizon of Start-up entrepreneurs independent on monthly income}) = \beta$

Table 14. Observed Frequency of entrepreneurial respondents

Income level\tenure	1-3 years	4-6 years	More than 6 years
Up to Rs.20000	0	2	0
Rs.20000-Rs.40000	2	3	2
Rs.40000-Rs.60000	0	12	3
Above Rs.60000	7	6	9
<b>Grand total</b>	<b>9</b>	<b>23</b>	<b>14</b>

**Test Procedure:**

**Assumptions:**

1. The sample drawn is Independent.
2. The classification is mutually exclusive.

**Construction of Test Statistics:**

**Formula:**

Table 15. Expected Frequency: (Row Total\*Column Total)/Grand Total

	1	2	3	4
1	0.39	1	0.61	0
2	1.37	3.5	2.13	0
3	2.93	7.5	4.57	0
4	4.3	11	6.7	0

Now, we test for the Null Hypothesis.

Calculation of Test Statistics:

Under  $H_0$ ,

$$= \frac{\sum (\text{Observed Frequencies} - \text{Expected Frequencies})^2}{\text{Expected Frequencies}}$$

Using Excel, the Chi-Square Test has given the Following Results:

Chi-Square value = 13.2950

P – Value = 0.0386

**Decision:**

**Null Hypothesis (H0):** The investment horizon of Start-up entrepreneurs is dependent on monthly income.

**Conclusion:**

From the above analysis,

P-value is less than  $\alpha$  ( $p < \alpha$ ). So, reject Null Hypothesis.

**Therefore, the investment horizon of Start-up entrepreneurs is dependent on monthly income.**

From the Research hypothesis 4.1 and 4.2, we can conclude that in the case of both Self – Employed and start-up Entrepreneurs, the Investment Horizon is dependent on the monthly income.

## FINDINGS AND SUGGESTIONS

### Findings

- Both the Investment patterns of Start-up entrepreneurs and Self-Employed are resembling the same.
- The Risk-taking appetites of Start-up entrepreneurs are higher than Self-Employed but, in our study, it is not the same.
- In the sample in which we have collected the response, the results depict that Self-Employed are more aware of Equity and other such risk-related avenues when compared to Entrepreneurs.
- Also, it is observed that the Investment preferences for Self – Employed are considered as High returns while Start-up entrepreneurs consider Safety and Security as their major preference.
- Start-up entrepreneurs are more cautious on the Expected rate of return than the Self-Employed.

### Suggestions

- The study has been limited to only 100 respondents with 54 Self-employed and 46 start-up Entrepreneurs. So, the responses collected have given new insights which are far from the assumptions made in the real world.
- Also, we cannot say that the research hypotheses tested and proved in the study do not stand good in the real world. To ensure that the study has given real value, the scope and the sample size must be increased,
- With the constraints, it was only possible to test few parameters from the questionnaire.
- We can also add various other related investment behavior questions to bring in more insights from the respondents and increase the quality of the research done.
- More and more focus must be done in this area since the Gig Economy is currently driving the World Economy.

## CONCLUSION

From the study, we can conclude that all the assumptions relating to the aspects in Investment Patterns of Start-up entrepreneurs and Self Employed in terms of the financial decision may not stand similar. A comparative study between Self-Employed and Start-up entrepreneurs will help the Financial Advisors, Fund Managers and other people involved in Market analysis understand their investment patterns since these are going to be the major occupations for future generations to come.

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