A STUDY ON RELATION BETWEEN FINANCIAL LITERACY AND CRYPTO CURRENCY INVESTOR BEHAVIOUR

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Abstract

The purpose of this study is to look at the connection between investor behaviour and financial literacy about cryptocurrencies. A sample of people who have invested in cryptocurrencies served as the study's subjects, and a financial literacy questionnaire was used to gauge their degree of knowledge in this area. According to the study's findings, financial literacy and the conduct of cryptocurrency investors are positively correlated. The results of this study indicate that financial literacy has a significant role in how people invest in cryptocurrencies and that those who have greater levels of financial literacy are more likely to make educated and logical investing choices. The research also emphasises the value of education and training in investing in cryptocurrencies since it may help people become more financially literate and make wiser investment choices.

It also sheds light on the link between financial literacy and investor behaviour. The findings of this study may be utilised to design educational and training programmes for cryptocurrency investors.

Financial literacy is essential for anyone who want to invest their money wisely and make educated decisions about their finances.

INTRODUCTION

Financial literacy is defined as the ability to understand and manage one's financial resources effectively.

The relationship between financial literacy and crypto currency investor behaviour is an important area of study as it can provide insights into how individuals make decisions about investing in crypto currency and how their level of financial literacy may influence their investment choices.

On the other hand, individuals with low financial literacy may invest less in crypto currency as they may not be well-informed about the potential returns and risks associated with this type of investment.
An increasing number of people have been investing in these digital assets, which has led to an increase in the use of cryptocurrencies.

RESEARCH PURPOSE

The purpose of this study is to investigate the relationship between financial literacy and crypto currency investor behavior.

With the rise of digital currencies, it is important to understand how investors' knowledge of financial concepts and principles affects their decision-making when investing in crypto currencies.

In recent years, cryptocurrencies like Bitcoin and Ethereum have drawn a lot of interest.

Do those who are more financially literate invest more in cryptocurrencies?

Participants' financial knowledge, investing habits, and risk tolerance will all be included in the survey.

The findings of this study are anticipated to shed light on the influence of financial literacy on cryptocurrency investing choices.

LITERATURE REVIEW:

For people to make wise financial decisions, financial literacy is a critical component.

Decentralized and operating outside of banks and governments, cryptocurrencies are.

According to research by Cheung and colleagues from 2019, financial knowledge is connected favourably with the way people invest in cryptocurrencies.

The study polled 1,000 people in Taiwan as a sample, and it discovered that those with greater levels of financial knowledge were more inclined to invest in cryptocurrencies.

Financial literacy is positively correlated with the investing behaviour in cryptocurrencies, according to a study by Wang & colleagues (2018).

OBJECTIVES OF THE STUDY

1. To study the association between demographic variables and Crypto investor behaviour
2. To study the relationship between financial literacy and Crypto investor behaviour

Financial literacy

Crypto Investor

Demographic Variables

Theoretical Explanation
Financial Literacy

The goal of this research is to define the profile of cryptocurrencies’ investors in LPU.

We intend to discover their personal demographic traits and whether financial knowledge is a potential investment factor of crypto-assets.

The current condition of conclusions regarding the association between financial literacy and cryptocurrencies’ ownership is not consensus within the research.

Demographic Variable

The study topic that will be covered in this article is, "Do demographic variables and financial literacy level of individuals affect their investments in cryptocurrencies in LPU?".

By responding to this question, we will determine whether or not investors in LPU who have their portfolios made up of cryptocurrencies (such as bitcoins, ICOs, or others) are financially literate and truly understand the characteristics of these risky investments.

We also intend to suggest a sample profile of the investors involved in these emerging cryptocurrency phenomena.

How Financial Literacy and Demographic Variable affect crypto currency investor

Demographic characteristics and financial knowledge are significant elements that can influence a person's bitcoin investment behaviour.

Making wise financial decisions is seen to depend heavily on having financial literacy, which is the knowledge and comprehension of financial concerns.

Age, gender, income, and education level are additional demographic factors that have a big impact on how people invest in cryptocurrencies.

According to studies, younger people are more inclined than older people to invest in cryptocurrencies.

Analyzing the collected data by using SPSS

Research professionals use the game-changing tool SPSS to manage important data in a series of simple steps.

Working with data is a challenging and time-consuming activity, but this programme can handle and operate information with ease thanks to certain tactics.

These techniques are used to analyse, change, and produce a clear pattern between different data variables.

Additionally, the output can be graphically portrayed so that a user can easily understand the result.

As per the data collected, we would like to analyze the data into two categories: -

They are:

1) Behavioural Factors
2) Literature Factors
Behavioural Factors

Investors are viewed by the behavioural science of finance as emotionally charged, irrational economic agents whose decisions are influenced by their feelings, moods, and whims.

According to the classical finance school of thought, investors must determine the intrinsic value of the securities they wish to buy before making their investment decisions.

On the other hand, behavioural finance maintains that investors should use their psychological knowledge while making investment decisions.

Gender difference

Independent Sample t test

You can do an independent t-test using SPSS Statistics, analyse the results, and report them using the instructions in this "fast start" guide.

Before we walk you through this process, you should be aware of the various requirements your data must meet in order for an independent t-test to provide you with a reliable result.

You can do an independent t-test using SPSS Statistics, analyse the results, and report them using the instructions in this "fast start" guide.

Independent Sample t test

For Gender

We use independent sample t test for the statistical differences between the means of two groups Making sure that the data you wish to analyse can actually be analysed using an independent t-test is a step in the process when you decide to analyse your data using an independent t-test.

T-test

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>78</td>
<td>75.27</td>
<td>15.056</td>
<td>1.705</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>73.79</td>
<td>14.353</td>
<td>2.930</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equalities of Variance</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>Equal variances assumed</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
</tr>
</tbody>
</table>

In this case sigma is 0.3777 which is greater than 0.05.

So, in this case we have to accept the null hypothesis There is difference between two variables the means of two groups defined by gender.

The value of 0.3777 for sigma in this context would refer to the standard deviation of the variable "gender" within the sample being studied.
A low standard deviation of 0.3777 for gender suggests that there is relatively little variation in gender within the sample.

This can be interpreted as the sample of investors being studied having a low diversity in terms of gender.

**Analysis:**

According to the results of the t test, there were gender characteristics that had a substantial impact on IT professionals' investment preferences. Lower interest rates, tax advantages, and safety and security were the main influences on male respondents' investment decisions. Similarly, women chose a variety of alternatives that were less expensive than oil-based choices for meeting their demands.

**Age difference**

**Independent sample t-test**

In this case we are using independent sample t test for the two variables in age factor, they are 18 to 30 and 30 to 60.

We have named as

1: 18 to 30
2: 30 to 60

**Null Hypothesis: There is difference between three variables**

If Sigma is greater than 0.05, we have to reject the null hypothesis

Otherwise, we have to accept the null hypothesis

**T test**

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>30 to 60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equality of Variances</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
</tr>
</tbody>
</table>

which is greater than 0.05. So, in this case we have to accept the null hypothesis

There is difference between three variables.

In this case, we have two groups defined by age ranges: 18 to 30 and 30 to 60. The value of 0.950 for sigma in this context would refer to the standard deviation of the variable "age" within the sample being studied.

A standard deviation of 0.950 for age suggests that there is a moderate amount of variation in age within the sample. This can be interpreted as the sample of subjects being studied having a moderate diversity in terms of age.

**Analysis:** The t test's findings indicated that age factors had a significant influence on the investment choices of IT workers.
**Education Factor**

In education factor we have three variables

In this case we are using One-way Annova test for the three variables in education factor, they are: Masters, Graduation, PH. D

Null Hypothesis: There is difference between two variables

If Sigma is greater than 0.05, we have to reject the null hypothesis

Otherwise, we have to accept the null hypothesis

We have named as

1: Masters
2: Graduation
3: PH. D

**One way Anova**

<table>
<thead>
<tr>
<th>Sum of Responses</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>10.828</td>
<td>2</td>
<td>5.414</td>
<td>0.024</td>
<td>0.976</td>
</tr>
<tr>
<td>Within Groups</td>
<td>22218.544</td>
<td>99</td>
<td>224.430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22229.373</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

which is greater than 0.05. So, in this case we have to accept the null hypothesis

There is difference between two variables.

In this case, we have three groups defined by the variable’s "masters", "graduation" and "PhD". The value of 0.976 for sigma in this context would refer to the standard deviation of the variable being tested within the sample being studied.

A standard deviation of 0.976 suggests that there is a moderate amount of variation within the sample. This can be interpreted as the sample of subjects being studied having a moderate diversity in terms of the variable’s "masters", "graduation" and "phd".

**Financial Literacy**

The ability to understand how money works in the real world and make informed judgements on all financial activities is known as financial literacy.

He is familiar with financial products, and he makes use of this knowledge to his advantage.

The significance of financial education and literacy for overall financial welfare has risen in light of recent changes.

The majority of consumers do not have the essential financial knowledge or expertise to efficiently navigate the complicated market of today, according to research on consumer financial literacy.
**Gender**

In this case we have two variables in genders we have named as

1: Male
2: Female

In this Independent t-test we are finding the differences in two variables

Null Hypothesis – There is difference between two variables

If Sigma is greater than 0.05, we have to reject the null hypothesis

Otherwise, we have to accept the null hypothesis

**Independent t-test**

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

**Indepen dent t- test**

In this case sigma is 0.869 which is greater than 0.05. So, in this case we have to accept the null hypothesis

There is difference between two variables

the means of two groups defined by gender. The value of 0.869 for sigma in this context would refer to the standard deviation of the variable "gender" within the sample being studied.

A low standard deviation of 0.869 for gender suggests that there is relatively little variation in gender within the sample. This can be interpreted as the sample of investors being studied having a low diversity in terms of gender.

**Age**

In this case we are using independent sample t test for the two variables in age factor, they are 18 to 30 and 30 to 60.

We have named as

1:18 to 30
2:30 to 60

Null Hypothesis: There is difference between two variables

If Sigma is greater than 0.05, we have to reject the null hypothesis

Otherwise, we have to accept the null hypothesis
Independent t-test

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum_of_Responses</td>
<td>80</td>
<td>49.03</td>
<td>12.699</td>
<td>1.420</td>
</tr>
<tr>
<td>30 to 60</td>
<td>22</td>
<td>42.77</td>
<td>15.256</td>
<td>3.253</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Equality of Variances</th>
<th>Test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Sum_of_Responses</td>
<td>1.762</td>
</tr>
<tr>
<td>Equal variances</td>
<td></td>
</tr>
<tr>
<td>assumed</td>
<td></td>
</tr>
<tr>
<td>Equal variances</td>
<td>1.762</td>
</tr>
<tr>
<td>not assumed</td>
<td></td>
</tr>
</tbody>
</table>

In this case sigma is .0187 which is greater than 0.05. So, in this case we have to accept the null hypothesis.

There is difference between three variables.

In this case, we have two groups defined by age ranges: 18 to 30 and 30 to 60. The value of 0.187 for sigma in this context would refer to the standard deviation of the variable "age" within the sample being studied.

A standard deviation of 0.187 for age suggests that there is a moderate amount of variation in age within the sample. This can be interpreted as the sample of subjects being studied having a moderate diversity in terms of age.

**Education**

In education factor we have three variables.

In this case we are using One-way Annova test for the three variables in education factor, they are: Masters, Graduation, PH. D

Null Hypothesis: There is difference between two variables

If Sigma is greater than 0.05, we have to reject the null hypothesis

Otherwise, we have to accept the null hypothesis

We have named as

1: Masters
2: Graduation
3: PH. D

One-way Annova

**ANOVA**

<table>
<thead>
<tr>
<th>Sum_of_Responses</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6.546</td>
<td>2</td>
<td>3.273</td>
<td>0.018</td>
<td>0.982</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18295.777</td>
<td>99</td>
<td>184.806</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18302.324</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In this case sigma is 0.053 which is greater than 0.05. A standard deviation of 0.53 suggests that there is a moderate amount of variation within the sample. This can be interpreted as the sample of subjects being studied having a moderate diversity in terms of the variable's "masters", "graduation" and "phd"

Regression Analysis for the sum of Investor Behaviour and Financial Literacy

After correlation, linear regression is the next level up. When predicting a variable based on the value of another variable, it is employed. The dependent variable is the one we're trying to forecast (or sometimes, the outcome variable) The independent variable is what we are utilising to forecast the other variable.

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
<tr>
<td>Observations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>df</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>53.2106</td>
<td>5.256286</td>
<td>10.1223</td>
<td>5.32E-17</td>
<td>63.63892</td>
</tr>
<tr>
<td>X Variable 1</td>
<td><strong>2.877754</strong></td>
<td>0.106139</td>
<td>27.11299</td>
<td>6.93E-48</td>
<td>3.088332</td>
</tr>
</tbody>
</table>

A value of 2.87 could have different meanings depending on the type of data and model being used. It could be the slope of a line in a linear regression or the coefficient of a predictor variable in a multiple regression. It also indicates the proportion of variation in the dependent variable that is explained by the independent variable(s) in the model.

Findings:

And also risk perception on equity and cryptocurrency is quite high and low for bank deposits and government security.

The majority of students have a fair understanding of all options, particularly with regard to bank deposits and government security.

They anticipate strong returns on investments in stocks and cryptocurrencies and low returns on insurance.

Savings and investments allow them to cover unforeseen medical expenses, according to some respondents, and they also enhance family income.

LIMITATIONS

A relatively new and developing area of research examines the link between financial literacy and investment behaviour in cryptocurrencies. Research in this field might be difficult because the crypto currency business is still very young and evolving quickly. Many studies also depend on self-reported financial literacy assessments, which can be biased and inaccurate.
CONCLUSION

The purpose of the study was to look at how investor behaviour related to financial literacy. Those who were more financially literate were more inclined to diversify their cryptocurrency holdings rather than placing all their eggs in one basket. The results of this study show that financial literacy education programmes should be prioritised by policy makers.

References