Analysis Report

Why do people choose to use cryptocurrencies as a form of investment or to make payments instead of other forms of investment and currencies?

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**Requirements, Constraints, and Scope**

**Functional Requirements**

• Educates the audience about cryptocurrencies and shares, and the reasons why people choose to invest their money in either of them, and cryptocurrency instead of shares

• Digital solution includes several scatterplots, column or bar charts

• Complex data is presented in a simplified and meaningful way

• Digital solution is presented in an interactive infographic

• Solution includes a mix of a range of data types, including text, numbers and graphics

• Reach a valid and justified conclusion to the research question

**Non-functional Requirements**

• All data used is current (preferably from 2021-2024)

• Any secondary sources gathered are from trustworthy and reputable sources

• Infographic incorporates colours in an aesthetically pleasing manner

• Solution presents text, diagrams and graphs that are accurate and relevant to the topic

• All charts are thorough, meaningful and follow relevant conventions

• Infographic uses similar fonts across SAT solution

• Solution provides a complete picture of research

**Data Requirements**

• Benefits of investing in cryptocurrency instead of shares

• Benefits of using cryptocurrency instead of other currencies

• Disadvantages of investing in cryptocurrency instead of shares

• Disadvantages of using cryptocurrency instead of other currencies

• Percentage of Australians that have investments in cryptocurrencies or shares and their demographics

• Percentage increase in cryptocurrency investment in Australia in 2023

• Personal opinions on why a person would choose to or not to invest in cryptocurrency instead of shares

• Top 5 market capitalisation cryptocurrencies and shares (ASX) data

-amount of money needed to invest and its profit/loss margins for the top 5 market cap cryptocurrencies and shares

**Constraints**

**Economic:**

• SAT solution must be completed by late August

• No assigned budget, therefore data must be collected or sourced from free sources

• Time factor limits the width of the analysis (only making comparisons between a couple of the most prominent/highest market cap cryptocurrencies and shares).

• Time must be allocated to collect the data required

• Find at least 25 participants that have views and knowledge(or a lack of) regarding cryptocurrency and shares in order to obtain reliable data for analysis

**Technical:**

• All primary datasets must be processed using Microsoft Excel or Airtable

• Creating an interactive infographic is a new skill + new programs must be learnt to complete the solution

• Infographic is created on school laptop

**Usability:**

• Solution must be able to be easily interpreted by the user

**Legal:**

• All secondary sources must be referenced correctly to avoid legal complications

**Social:**

• Secondary sources are sourced from trustworthy and free online sources

**Scope**

The interactive infographic will educate the audience about cryptocurrency and shares, and the reasons why people choose to use cryptocurrency as an investment or alternative currency. The SAT solution will present all data related to the research question in a simplified and meaningful way, by using a range of text, numbers, interactive features, and several scatterplots, column or bar charts, in order to reach a valid and justified conclusion to the research question. All information will be based off current data (preferably 2021-2024), containing text and diagrams that are accurate and relevant to the research question.

The solution will be mainly based on an Australian perspective as all primary data will be collected in Victoria, however some secondary data sourced will be overseas/global data. This is due to the difficulty of extracting a range of qualitative data from only Australian sources regarding a global topic. All secondary data used will be correctly referenced to ensure there are no legal complications. An interactive infographic has not been created before so this new skill and any new programs must be learnt in order to complete the solution in a way that ensures the solution is easy for users to interpret and use. The infographic will be created on a school laptop, and all primary datasets will be processed using Microsoft Excel or Airtable. The SAT solution must be completed by late August, therefore due to the time limitation, the width of analysis of different cryptocurrencies and shares will be narrow (top 5 market capitalisation of each for comparisons).

**Critical and Creative Thinking**

**Functional Requirements**

**• Educates the audience about cryptocurrencies and shares, and the reasons why people choose to invest their money in either of them, and cryptocurrency instead of shares**

• What information must be included to educate the audience?

-Aim to include information that isn’t common knowledge

-Include fun facts to further educate the audience about streaming services and their popularity

• How will this be measured?

-Ask two people from several different age groups to look at the finished infographic

-Ask each person if they’ve learnt something new about cryptocurrency as an investment or alternative currency that they didn’t previously know before

**• Digital solution includes several scatterplots, column or bar charts**

• Does the solution include a column or bar chart?

-Check data to ensure at least two sets of data can be presented in the form of a scatterplot, column or bar chart

-Scan through the solution and ensure at least two scatterplots, column or bar charts are included

**• Complex data is presented in a simplified and meaningful way**

• Will the audience be able to interpret presented information with ease?

-Prepare charts for quantitative data, and short sections of text for qualitative information

-Ask three different aged people to look at SAT solution and record their interpretation of the information provided

-Ensure charts and text is easy to read, and presented with a reoccurring font and/or colour theme

**• Digital solution is presented in an interactive infographic**

• Will the user able to interact with the solution to change or provide more detail regarding the information presented?

-Ask two people from several different age groups to look at SAT solution and record whether they are able to interact with the infographic

-Ensure interactive features are easy to use, and presented in a consistent manner

• Will the user be able to interact with the solution to change or provide more detail regarding the information presented?

-Ask three different aged people to look at SAT solution and record whether they are able to interact with the infographic

-Ensure interactive features are easy to use, and presented in a consistent manner

**• Solution includes a mix of a range of data types, including text, numbers and graphics**

•Does the solution include a variety of data types?

-Create checklist with data types (text, numbers, and graphics)

-Scan through solution and check off each item if they are included

**• Reach a valid and justified conclusion to the research question**

• How much data/information will need to be analysed for this to occur?

-Look at three articles and consider how many data sources are used

-Average these numbers to find out reasonable amount of data sources

-Ensure these are included when conclusion is written

• How will this be measured?

-Ensure conclusion provides summaries research and answers research question

-Ask three different aged people to read the conclusion

-Ask if the research question has been answered in the

conclusion

**Non-functional Requirements**

**• All data used is current (preferably from 2021-2024)**

• Is data that is from 2021 or later considered current?

-Record dates of data sources used

-Try to use latest data as some figures could change from 2021 to 2024

-Cryptocurrency and the share market is constantly expanding and growing, with values changing all the time, so the most current data sources should be used when possible especially for quantitative data for making comparisons between cryptocurrency and the share

**• Any secondary sources gathered are from trustworthy and reputable sources**

• Is the source trustworthy?

-Compare data sources against each other to ensure figures and facts are verified

-Check other articles/research conducted by the same company/website to determine the nature of their articles

-Ask yourself if the data is subjective, and if so, does it affect the integrity of data?

-If a data source seems untrustworthy, not reputable, or integrity is affected, do not use it in the SAT solution

**• Infographic incorporates colours in an aesthetically pleasing manner**

• Does the solution include relevant colours?

-Ensure colours used are consistent and represent respective company/cryptocurrency (Bitcoin is orange and white)

-Ask two people from several different age groups to rate the presentation and display of the relevant information

**• Solution presents text, diagrams and graphs that are accurate and relevant to the** **topic**

• Is the data presented accurate?

-Check all sources of data to ensure the author/source is reputable

-Compare data sources against each other to ensure figures and facts are verified

-If a data source seems questionable, do not use it in SAT solution

• Is the data presented relevant to the research question?

-Read heading of data sources to ensure information provided is relevant to research topic

-If a data source seems questionable, do not use it in SAT solution

**• All charts are thorough, meaningful and follow relevant conventions**

• Do the charts follow meaningful conventions?

-Check chart elements to ensure relevant conventions are used

• Is a conclusion able to be reached from analysing the charts?

-Ask two other people if they can interpret the information shown on the charts

**• Infographic uses similar fonts across SAT solution**

• Does the solution include similar fonts throughout the infographic?

-Ensure fonts used are consistent throughout the SAT solution

-Ask two people from several different age groups to rate the presentation and display of the relevant information

**• Solution provides a complete picture of research**

• Is the audience able to reach conclusions after having interpreted the completed solution?

-Ask two people from several different age groups to look at completed SAT solution

-Ask a series of questions about the research topic to test how complete their understanding is

-Ask if the research question has been answered

-If the responses collected are not the intended conclusion to be reached from the solution, add or modify the SAT solution to provide complete picture of research

**Data Requirements**

**• Benefits of investing in cryptocurrency instead of shares**

•Where will this data come from?

-Find credible sources online that outline the benefits of investing in cryptocurrency

-Collect data by sending out surveys/questionnaires about why users invest in cryptocurrency instead of shares

**• Benefits of using cryptocurrency instead of other currencies**

•Where will this data come from?

-Find credible sources online that outline the benefits of using cryptocurrency as an alternative currency

-Collect data by sending out surveys/questionnaires about why users choose to use cryptocurrency instead of other currencies

**• Disadvantages of investing in cryptocurrency instead of shares**

•Where will this data come from?

-Find credible sources online that outline the disadvantages of investing in cryptocurrency

-Collect data by sending out surveys/questionnaires about why participants do not invest in cryptocurrency instead of shares

**• Disadvantages of using cryptocurrency instead of other currencies**

•Where will this data come from?

-Find credible sources online that outline the disadvantages of using cryptocurrency as an alternative currency

-Collect data by sending out surveys/questionnaires about why participants do not use cryptocurrency as an alternative currency

**• Percentage of Australians that have investments in cryptocurrencies or shares and** **their demographics**

• Where will this data come from?

-Try and find 2-3 secondary data sources that contains most recent data

-Primary data will also be collected through a survey, including if participants are planning on investing

-Data can be used to create interactive graphs to analyse if demographic has an impact on whether Australians are more likely to invest in cryptocurrency or shares

**• Percentage increase in cryptocurrency investment in Australia in 2023**

• How will I find these figures?

-Using secondary data, compare values of the percentage of Australians with a cryptocurrency investment over the previous 2 years

-Calculate the percentage change

**• Personal opinions on why a person would choose to or not to invest in cryptocurrency** **instead of shares**

• Who will I collect this data from?

-Secondary data can be found on credible sources

-Try and find two to three sources

-Primary data can also be collected, and questions can be asked about whether they would choose to invest their money into cryptocurrency instead of shares (why or why not)

**• Top 5 market capitalisation cryptocurrencies and shares (ASX) data**

-amount of money needed to invest and its profit/loss margins for the top 5 market cap cryptocurrencies and shares

• Where will I collect this data from?

-Secondary data from credible sources/trading websites (such as Coinspot and ASX)

-Sort by market capitalisation high to low and use data of the highest 5 for both cryptocurrency and shares

-Compare data with another website to ensure it is up to date

-On the top 5 of each, calculate the profit or loss margin for a $10 investment at the beginning of 2023 (these can be graphed to support advantages/disadvantages of cryptocurrency)