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Exploring Technology Perception and Readiness for a Blockchain-Based Climate Change Solution: A Survey Study

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Abstract

Blockchain and cryptocurrencies are providing promising solutions in the information sector, and new projects that synchronize numerous activities with cryptocurrencies are becoming more and more popular. Numerous sustainable programmes and digital currencies are developing promising solutions to the current climate change challenge. The authors of this research are looking into one such programme where users engage in carbon footprint reduction activities and are rewarded with cryptocurrency following a thorough verification and calculation of reward points. Thus, a survey was undertaken, and responses were gathered from people of various nationalities who took part and provided their insightful thoughts on the current situation, stressing expectations and expertise. A prepared questionnaire with about 39 items on it was filled out by about 176 anonymous respondents from various countries. The replies were gathered and evaluated to uncover insightful information about reducing carbon footprints. In Part 2 of the survey i.e. this paper, the other questions were looked at and new viewpoints are presented.

Keywords: Cryptocurrency, Blockchain, Survey, Climate Change, Carbon footprint reduction.

Introduction

The use of blockchain technology has the potential to significantly contribute to the fight against climate change. The decentralised structure of blockchain makes it perfect for recording and validating carbon credits and other climate mitigation activities since it allows for safe, transparent, and tamper-proof record keeping of data. Blockchain, for instance, may be used to construct a carbon credit ledger that would offer an immutable record of emissions reductions and allow trade of those credits. By creating a market for emissions reductions, this would encourage businesses and people to lessen their carbon impact. Blockchain can potentially be used to improve the

effectiveness of systems for producing and distributing renewable energy. For instance, families and companies may purchase and sell excess renewable energy using blockchain-based energy trading platforms, making it simpler for anyone to take part in the switch to a low- carbon energy system. Additionally, as excess energy might be sold to third parties, less energy would be lost to waste, leading to a more effective use of renewable energy sources [1][2].

Blockchain technology may also be useful in the supply chain management of goods with large carbon footprints. An immutable record of a product's whole lifespan, including its creation, transit, and disposal at the end of its useful life, may be made using blockchain technology. As a result, it would be simpler to detect and lessen the carbon footprint of products and there would be more openness and responsibility. Blockchain may also be used to create and operate carbon offset programmes, allowing people and businesses to balance their carbon footprints by supporting initiatives that lower or eliminate greenhouse gas emissions in other parts of the world [3].

Despite the fact that blockchain technology is still in its infancy, there are a lot of potential advantages for combating climate change. Its potential to boost the effectiveness of renewable energy generating and distribution networks, together with its capacity to provide safe, open, and tamper-proof record keeping of data, make it a crucial instrument for reducing climate change. It is crucial to remember that the widespread acceptance and successful application of blockchain will determine its effectiveness in combating climate change.

Blockchain & climate change

Blockchain technology can help reduce carbon footprint in several ways: Supply chain transparency: By providing a secure and transparent record of a product's journey from source to consumer, blockchain can help reduce carbon emissions by identifying inefficiencies and reducing waste in supply chains [4].
Carbon credits tracking: Blockchain can be used to track and verify carbon credits, making it easier for organizations to offset their carbon emissions and participate in carbon markets [5].
Renewable energy generation and trading: Blockchain-based platforms can facilitate peer- to-peer energy trading, allowing individuals and organizations to trade renewable energy generated from solar, wind, and other sources [6].
Decentralized carbon footprint tracking: Blockchain can help individuals and organizations track and reduce their carbon footprint by providing a decentralized and secure record of their energy consumption and emissions [7].
Climate finance: Blockchain-based platforms can provide new and innovative ways to finance and invest in renewable energy and low-carbon projects, enabling the transition to a more sustainable energy system [8].
Green certifications: Blockchain can be used to securely verify and track green certifications, such as eco-friendly products, helping organizations and consumers make more informed choices [9].

Also, blockchain is the underlying technology that enables the creation and operation of cryptocurrencies, and cryptocurrencies are one of the many applications of blockchain technology. Cryptocurrencies can also play a role in reducing carbon footprint:

Energy-efficient consensus algorithms: Some cryptocurrencies, like Proof-of-Stake, use far less energy than Proof-of-Work algorithms, reducing the energy consumption of the cryptocurrency network [10].

Decentralized finance (DeFi) solutions: DeFi solutions built on blockchain platforms can allow individuals and organizations to finance and invest in renewable energy projects, helping to scale and accelerate the transition to clean energy. [11]

Additionally, there are several initiatives that incentivize users for reducing their carbon footprint using cryptocurrencies:

Carbon offset protocols: Carbon offset protocols allow individuals to offset their carbon emissions by funding renewable energy projects. These protocols reward users with cryptocurrency for their efforts to reduce their carbon footprint [12].

Energy-efficient blockchain networks: Some blockchain networks, such as Solana and Algorand, reward users who contribute to the network's energy efficiency by reducing the energy consumption required for consensus and other network functions [13].

DeFi carbon credit platforms: DeFi platforms like Ocean Protocol allow individuals to trade carbon credits, incentivizing carbon reduction through market forces [14].

Carbon-neutral cryptocurrencies: Cryptocurrencies, such as Chiliz and Carbon, are specifically designed to incentivize users to reduce their carbon footprint. These cryptocurrencies reward users for reducing their carbon emissions, and use the revenue generated to finance renewable energy projects. [15]

These are just a few examples of the various cryptocurrencies that deal with climate change and incentivize users to reduce their carbon footprint.

Carbon (CUSD): Carbon is a stablecoin that incentivizes carbon reduction by rewarding users for reducing their carbon emissions and funding renewable energy projects [16].

Ocean Protocol (OCEAN): Ocean Protocol is a decentralized platform that enables individuals and organizations to trade and monetize data, including carbon credits and other environmental data. [17]

Energy Web Token (EWT): Energy Web Token is a cryptocurrency that powers the Energy Web Chain, a blockchain-based platform designed for the energy sector. It incentivizes the transition to clean energy by enabling energy producers and consumers to trade renewable energy and carbon credits [18].

SolarCoin (SLR): A cryptocurrency that rewards individuals and organizations for generating solar energy, encouraging the adoption of renewable energy sources [19].

Crypto Trees: A cryptocurrency that aims to reduce carbon emissions by planting trees and promoting reforestation projects [20].

Restart Energy MWAT (MWAT): A cryptocurrency that aims to promote energy efficiency and the use of renewable energy sources, reducing carbon emissions [21].

These are just a few examples of cryptocurrencies that deal with climate change and incentivize users to reduce their carbon footprint.

Resulting Survey

The original survey study comprised of 39 questions and individual's anonymous responses to each one of them were collected. In Part 2 of the survey i.e. this paper, the questions that were looked at are presented and new viewpoints are discussed. The authors aimed to gain insight into the attitudes and behaviours of individuals towards blockchain, cryptocurrencies and climate change. This paper specifically deals with survey questions related to demographics, perception & readiness for technology adaptation, and individual & mass attitude towards climate change.

Q1. How concerned are you about climate change on a scale of 10. (1 Means - Not concerned, 10 Means - Highly concerned)

In this question we asked the respondents to choose from a rating scale (starting from '1' – 'Not Concerned' to '10' – 'Highly Concerned') to rate their concern about the issue of Climate Change, this question was placed to enquire into the concern levels of the respondents regarding the ongoing buzz about climate change.

Obtained inputs:

Notably out of total 176 responses 31.3% i.e. 55 respondents chose rating '10' – 'Highly Concerned' and a total of 2.8% i.e. 5 respondents chose option '1' – 'Not Concerned'. 22.7% i.e. 40 nos. of respondents chose a rating '8'.
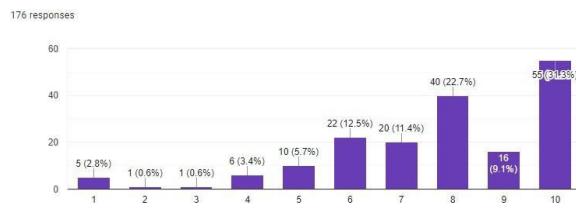
Discussion:

It is evident from the graph of results of this question that a majority of respondents showed greater concern towards the subject of Climate Change and majority of the individuals chose options from '6' to '10', comprising a total of 87% of responses i.e. 153 nos. laid in this range. This clearly shows that a majority of respondents are concerned about climate change. Only a minor 2.8% i.e.

5 respondents showed no concern about climate change, and the low concern range from '2' – '5' contained only 10.3%

i.e. 18 nos. of respondents. So, it is evident that huge majority of respondents which were from different part of globe highlighted that there is a mass awakening going on regarding the matter of climate change and people are getting more aware about it as a matter of fact.

Inference:

The issue of climate change is nowadays the most frequently discussed topic across all segments of society. As it is evident from the results of this question that the awareness about climate change is increasing and people are actually concerned to a greater degree about it. Climate change is real and happening, and now life is has remained untouched by it. At almost all segments of age groups and intellectual levels climate change has impressed its mark. There is however now a need for an efficient technological framework that could take to the masses the individual responsibility to counter it and creates a change from the grassroots. An individual centric mechanism that could counter the effects of climate change, obviously from an individual level, is the need of the time and the basic theme of this research.
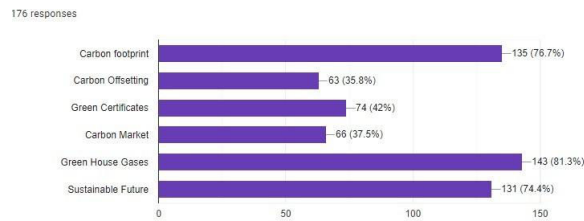
Q2. Which of the following terms are you aware about?

In this question we asked the respondents to mark more than one choice of the topics they were aware and informed about from available options that were, (1) Carbon Footprint (2) Carbon Offsetting (3) Green Certificates (4) Carbon Market (5) Green House Gases (6) Sustainable Future.

Obtained inputs:

Interestingly out of total 176 responses 81.3% i.e. 143 respondents were aware about 'Green House Gases', also a total of 76.7% i.e. 135 respondents were also aware about 'Carbon Footprint', 131 respondents were aware about 'Sustainable Future' that makes it 74.4%. However, 'Carbon Market' was known to only 37.5% of respondents

i.e. 66 nos. 'Green Certificate' was known to 42% of the respondents i.e. 74 respondents and at last the least number of participants were aware of 'Carbon Offsetting' amounting to 35.8% i.e. 63 nos.

176 responses

Carbon footprint — 135 (76.7%)
Carbon Offsetting — 63 (35.8%)
Green Certificates — 74 (42%)
Carbon Market — 66 (37.5%)
Green House Gases — 143 (81.3%)
Sustainable Future — 131 (74.4%)

Discussion:

From the results of this survey question it is visible that large majority of individuals are aware about the 'Green House Gases' (81.3%) and 'Carbon Footprint' (76.7%), this indicates that people do have working knowledge about these thematic areas. Also, the term 'Sustainable Future' is the third highly aware term after these two and a total of 74.4% of the respondents were aware about it. However, the terms 'Carbon Offsetting', 'Green Certificates', 'Carbon Market' were not as widely known. It is due to the fact that these represent technicality in terms of carbon credit exchange and a global framework for carbon offsetting, and it is evident that not many must be aware about them unless they have actively participated in one or other way with them. But still of all the participants around

35 – 42 % of all respondents were aware of these technicality in the present Carbon Offsetting market which is also a fairly large number. The survey question was designed to understand the level of awareness and knowledge of the respondents about various climate-related topics. This information can be used to create targeted educational and awareness programs for the public on topics related to climate change and its mitigation. The results also suggest that more efforts are needed to educate people on carbon markets, green certificates, and carbon offsetting. The reason for the choices made by the respondents in this survey question could be influenced by various factors, such as their level of education, personal or professional interests, media exposure, and awareness campaigns, amongst others. For the topic of "Green House Gases" being chosen by 81.3% of the respondents, it could be due to its widely recognized impact on the environment and climate change, and the increasing efforts to reduce its emission. For "Carbon Footprint," being selected by 76.7% of the respondents, it could be because of the growing awareness about personal carbon footprint and the role individuals play in reducing their carbon footprint to help mitigate the effects of climate change.

"Sustainable Future" being chosen by 74.4% of the respondents could be because of the increasing focus on sustainability and the need for future-proofing the planet for the generations to come. The lesser awareness of "Carbon Market," "Green Certificates," and "Carbon Offsetting" (being selected by 37.5%, 42%, and 35.8% of the respondents respectively) could be due to the specialized and technical nature of these topics, which might not have reached the general public yet.

Inference:

From the results of this survey question it may be inferred that most respondents i.e. a majority of them are well aware of the effect of 'Green House Gases' on climate change and are aware about 'Carbon Footprint'. This reduces to the fact that when individuals individually are aware of their 'Carbon Footprint' they may take up actions to reduce it and eventually they all need is a technological framework, which is also our research theme. 'Sustainable Future' signifies hope here, and envisions a future where progress takes up a climate aware path. A large majority of individuals are hopeful for such a future pathway and must be willing to work towards achieving it. The results of this survey question can indicate that the majority of respondents are knowledgeable and aware of the concept of climate change, particularly in relation to the topics of "Green House Gases" and "Carbon Footprint." This could mean that these topics have been widely discussed in the media, academic circles, and public discourse, leading to widespread awareness among the general population. Additionally, a significant number of respondents were aware of "Sustainable Future," indicating that there is a growing concern among people about the long-term impact of climate change. On the other hand, fewer respondents were aware of "Carbon Market," "Green Certificates," and "Carbon Offsetting," suggesting that there may be a need for more education and awareness about these specific topics. Overall, the results suggest that the respondents have a general understanding of climate change and its related issues.

Q3. How successful according to you will be an mobile app that helps you reduce the amount of Carbon Di Oxide that you produce in everyday life by suggesting you activities that you can undertake and rewards you for every activity undertaken.

In this question we asked the respondents to choose from three available options about what they believe will be the future outcome of a mobile app that helps to reduce the amount of Carbon Di Oxide that individuals produce in everyday life by suggesting them activities that they can undertake and rewards them for every activity undertaken; The options were - (1) Very Successful (2) Mildly Successful (3) Not successful at all

Obtained inputs:

Out of total 176 responses 32.4% i.e. 57 respondents selected the option 'Very Successful', while 60.2% of the

respondents i.e. 106 nos. went with selecting the option 'Mildly Successful', remaining 7.4% i.e. 13 nos. of respondents could not envision any future of this proposed initiative and hence selected 'Not successful at all'. The initiative still stands a fair chance given if the respondents who selected 'Not successful at all' are omitted to get a clear picture, given that it can be said that 92.6% i.e. 163 of the total 176 respondents demonstrated faith in this initiative presented as an mobile application by selecting 'Very Successful' & 'Mildly Successful' options. Hence it can be stated that the numbers stand in favor.

176 responses

- Very Successful
- Mildly Successful
- Not Successful at all

60.2%   7.4%   32.4%
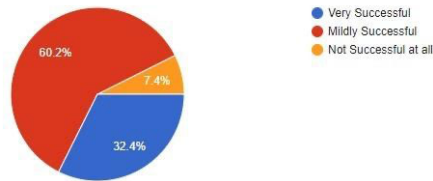
Discussion:

From the results of this survey question it is apparent that majority of the respondents have liked this innovative idea of an mobile application that can suggest carbon footprint reduction activities on day to day basis and rewards the users for undertaking them everyday. An astounding 32.4% of respondents have suggested that his initiative will be a 'Very Successful' one and 60.2% believe that the initiative will be mildly successful. We can henceforth with confidence infer from the results of this question that such an initiative may be well welcomed by the masses if properly executed and delivered and as it suits. 32.4% of the respondents seem to have faith in the success of this proposed mobile app based on this survey data alone. However, some factors that could have influenced the respondents' choices may include:

Awareness and concern about climate change: If the respondents are aware of the negative impact of their actions on the environment, they may be more likely to support initiatives aimed at reducing carbon emissions.

Perceived effectiveness: The respondents may believe that the proposed mobile app will be effective in reducing carbon emissions and helping to mitigate the effects of climate change.

User experience: If the respondents think that the app will be user-friendly, easy to use, and have a positive impact on their daily lives, they may be more likely to support it.

Personal reward: If the respondents believe that they will be rewarded for participating in the activities suggested by the app, they may be more likely to support it.

The reasoning behind why 60.2% of the respondents selected the option "Mildly Successful" could be due to a variety of reasons such as personal beliefs, previous experiences, or perceived challenges with the implementation of the app. However, education and awareness campaigns can certainly help to increase understanding and support for initiatives like this, so it is possible that these respondents could become more optimistic about the app's potential for success if they are given more information about it.

It is possible that remaining i.e. 13 nos. of respondents who selected 'Not successful at all' may have had doubts about the feasibility or effectiveness of the proposed mobile app. They may have lacked information about the initiative, or may have held negative beliefs about similar initiatives in the past. They may have also considered factors such as cost, ease of use, or availability of resources that would affect the success of the initiative and there could be several other reasons.

Inference:

The main idea behind strategically placing this question was to enquire what the respondents think about the future of such an initiative. An enquiry into acceptability and usability of such an application by the masses was the main theme to obtain insights for. The masses seem to have supported this initiative and believe it will be quite successful. Given the responses now the main focus establishes itself in the research work that can be undertaken appropriately. The results of this question are moreover rather motivating to us than evidently surprising. The respondents seem to have fairly understood the question and gauged it personally and individually given their own expertise in communication technologies and their desire to do something in the arising dire need for reversing climate change. Also, it seems that the respondents have welcomed the idea whole heartedly. The choices made by the respondents reflect their beliefs, attitudes and prior experiences towards the issue of climate change and technology's role in addressing it.

## Q4. Will you download this mobile app and use it?

In this question we asked the respondents to choose from three available options that if they are willing to download the mobile application as presented and discussed in Q12. The options placed were – 1 – 'Yes', 2 - 'Maybe', 3 – 'No'

Obtained inputs:

Favorably out of all 176 responses 48.3% i.e. 85 respondents selected the option 'Yes' and showed their

willingness to download and use this mobile application, also positively 36.9% of the respondents i.e. 65 nos. went with selecting the option 'Maybe' and demonstrated partial willingness, remaining 14.8% i.e. 26 nos. of respondents could not be found willing to download and use this application.

176 responses
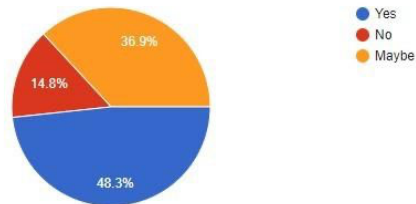
Discussion:

The results of this survey question are favorable given that evidently a large number of respondents i.e. 48.3% were found to be supportive of the initiative and were wiling to not only download but use the mobile application. Also, a large number of respondents i.e. 36.9% demonstrated partial willingness by selecting the option 'Maybe'. Interestingly, if we view these responses in light of the responses collected for Q3, we may discover that the respondents who chose 'Not successful at all' were 7.4%, and the respondents which chose 'No' in Q3 were 14.8%, we may hereby infer that an increase of 7.4% can be amounted to a segment from respondents who chose 'Mildly Successful' in Q3 and an increase in respondents which chose 'Yes' in Q4 can be amounted to respondents who showed confidence in the initiative by selecting 'Very Successful' in Q3, which turn out to be 15.9%. Hence it can be inferred that out of all respondents who chose 'Mildly Successful' in Q3, 7.4% shifted to 'No' in Q4 and 15.9% shifted to 'Yes' in Q13, and remaining 36.9% were still unsure and chose 'Maybe' in Q4.

Inference:

This question was placed to enquire about the likelihood of this mobile application's acceptability and usage, as unless people are interested in the backend initiative and will they won't download or use an mobile application. The acceptability of this mobile application will be reflected in the number of users willing to download and use it. Results from this question were in our favor with 48.3% of respondents reported their willingness to utilize this mobile application proactively. Only a small segment of respondents that is 14.8% demonstrated their non- willingness by selecting the option 'No', rest chose 'Maybe'. Hence the inference is that if such mobile application is launched it will be drawing considerable attention and may also be quite successful in its attempts to manage climate change at individual level. This indicates that a large number of respondents are open to using technology to reduce their carbon footprint and support a sustainable future. The remaining who chose "No" may have different priorities or concerns.

Q5. How old are you, select your age group.

In this question we asked the respondents to choose from available options that were, 1 – '12-18', 2 – '18-25', 3 –
'25-35', 4 – '35-45', 5 – '45-55', 6 – '55 & beyond'.

Obtained inputs:

Out of all 176 responses 68.2% i.e. 120 respondents selected the option '18-25', also 22.7% of the respondents
i.e. 40 nos. selected the option '25-35', 4.5% i.e. 8 nos. of respondents selected the option '35-45' making it 4.5% of total respondents, 6 respondents i.e. 3.4% chose the option '12-18', 1 respondent chose option 45-55, and 1 respondent chose option '55 & beyond'.
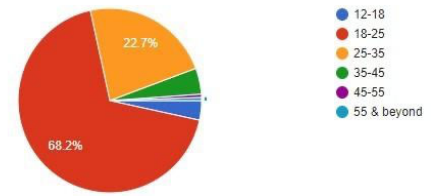
Discussion:

The results of this survey question highlight that most of the respondents are from age group 18-35, comprising of a total of 90.9% of all responses. Although, the survey covered all age groups, the response from youths is outstanding.

Inference:

This survey question provides us with input into the psyche of today's youth, at this moment the youths globally constitute a majority as working population and this survey captured the sentiments of these. The success or failure of any initiative today depends on the acceptability of it by the youth.

Q6. Where are you from? Select Country.

In this question a list of all countries was provided to select one from the drop down box.

Obtained inputs:

Out of all 176 responses majorly 40.3% i.e. 71 respondents were from 'India', also 11.4% of the respondents i.e. 20 nos. were from 'Netherlands', 10.2% of all respondents i.e. 18 nos. were from 'United States'. The rest of the responses are tabulated as below.

Country Name	No. of Responses	Percentage
India	71	40.3
Netherlands	20	11.4
United States	18	10.2
Germany	7	4
United Kingdom	7	4
France	4	2.3
China	5	2.8
Belgium	3	1.7
Switzerland	3	1.7
Philippines	3	1.7
Portugal	3	1.7
Spain	3	1.7
Australia	2	1.1
New Zealand	2	1.1
Hungary	2	1.1
Poland	2	1.1
Singapore	2	1.1
Andorra	1	0.6
Japan	1	0.6
Burma	1	0.6
Afghanistan	1	0.6
Greece	1	0.6
Romania	1	0.6
Slovenia	1	0.6
Denmark	1	0.6
Italy	1	0.6
Taiwan	1	0.6
Malaysia	1	0.6
Bulgaria	1	0.6
South Africa	1	0.6
Turkey	1	0.6

Ukraine	1	0.6
Indonesia	1	0.6
American Samoa	1	0.6
Bosnia & Herzegovina	1	0.6
Antarctica	1	0.6
Total	176	100

Table 1.1

This survey covered respondents from 36 Countries thus making it fairly international. Highest participation was from India, then Netherlands and United States.

176 responses
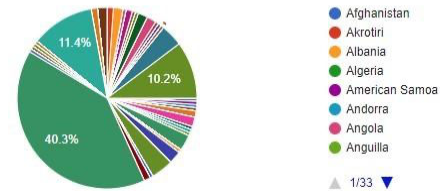
Discussion:

The results of this survey question in light with results of Q14 highlight that the survey has covered its major responses from youths of various countries internationally. This becomes significant as on today major markets depend on youth involvement and participation.

Inference:

The results are presented as available in the response sheets, and discussed as above. It is now possible to infer that as the responses were not limited to particularly one geographical entity like India and participations from other countries have made this survey robust and dependable.

Q7. Which province / state are you from, please mention.

In this question we asked the respondents to type in the name of their province in which they were currently located.

Obtained inputs:

Various name of provinces were typed, this question was placed to ensure that random selection of options is ruled out and to make sure the participants were focusing with seriousness. The results are represented as a word cloud as below.

Discussion:

This question was placed to ensure genuine participation in the survey study as all other options were mouse selected; this question involved typing using keyboard or touchpad.

Inference:

The results are presented as a word cloud, as the responses to the question could not be left blank it can be inferred that all participation was genuine and seriously conducted.

Q8. Select your gender.

In this question we asked the respondents to choose their gender from three available options 1 – 'Male', 2 – 'Female', 3 – 'Others'.

Obtained inputs:

Out of all 176 responses 53.4% i.e. 94 respondents selected the option 'Male' and 44.3% of the respondents i.e. 78 nos. selected the option 'Female' remaining 2.3% i.e. 4 nos. of respondents selected the option 'Other'.

Discussion:

The gender participation in this study was fairly matchable with near equal participation from both male and female genders. 94 male participants and 78 female participants got involved in this study, with 4 others.

Inference:

It can be inferred that the survey was successful in collecting responses from both dominant genders and hence it can be concluded that the gender bias is absent in this survey. This makes the survey more acceptable considering that responses were collected ideally from both genders with only a marginal difference of 9.1%.

Q9. Select your educational qualification.

In this question we asked the respondents to choose from six available options that were 1 – 'School Student', 2 – 'University Student / Under Graduate', 3 – 'University Student / Post Graduate', 4 – 'University Student / Doctorate', 5 – 'Doctorate (Ph.D.)', 6 – 'University Student - Under Graduate'.

Obtained inputs:

58.0% i.e. 102 respondents selected the option 'University Student / Under Graduate', 26.7% of the respondents i.e. 47 nos. selected the option 'University Student / Post Graduate', 13 nos. i.e. 7.4% selected the option 'School Student', 6.3% i.e. 11 nos. selected the option 'University Student / Doctorate', remaining 1.1% i.e. 2 nos. of respondents selected the option 'Doctorate (Ph.D.)'.
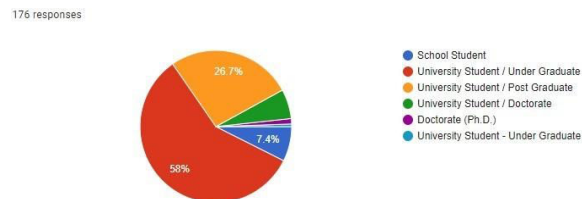
Discussion:

The results of this survey question are favorable given that evidently a large number of respondents i.e. 91% were found to be enrolled in a university pursuing some degree at graduate, post-graduate or doctorate level. Hence we can say that the survey results were from educated to highly educated respondents and this in turn makes the survey more dependable and consistent.

Inference:

Education plays a vital role in ability to access, process and condense information as knowledge. Information presented in this survey came from learned individuals that were found to be majorly enrolled as university students and were knowledgeable. The climate change information is right

now accessible by any learned individual and universities are participating in the quest to device newer ways to counter it. Participation in this survey highlights how learned individuals from various universities across the world have came up with their responses towards the questionnaire posted by us. Hence it can be said with confidence that the participants were informed individuals who had access to climate change information and fairly assisted us in fulfillment of this survey's goals. Additionally, these findings suggest that the target audience for the proposed mobile app is likely to be young university students or under graduates aged 18-25, and predominantly male.

Q10. How often do you talk about climate change with your peers / friends / family / colleagues?

In this question we asked the respondents to choose from three available options about how often they discuss climate change. The options placed were – 1 – 'Very Often', 2 – 'Occasionally', 3 – 'Never'

Obtained inputs: Out of all 177 responses 70.6% i.e. 125 respondents selected the option 'Occasionally' and represented that they do discuss climate change amongst their peers, also positively 18.1% of the respondents i.e. 32 nos. selected the option 'Very Often' highlighting that they are very concerned about climate change and bring up the topic very often, remaining 11.3% i.e. 20 nos. of respondents chose the option 'Never', showing that the climate change is not discussed by them at all.
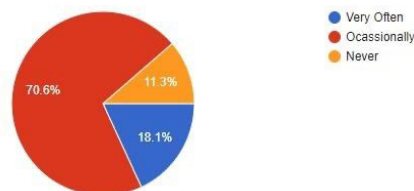
Discussion:

The results obtained from this survey questions demonstrate a growing concern about climate change. Majority (70.6%) of respondents selected the option 'Occasionally' which reflects how individuals have brought climate change in everyday discussions amongst their peers. Also a significant amount of individuals i.e. 18.1% (32 nos.) have selected 'Very often', this shows that many individuals are highly concerned about climate change and found themselves discussing it very frequently. Another option i.e. 'Never', was selected by 11.3% i.e. 20 nos. of individuals that means that still not all are concerned about climate change and do not discuss it at all.

Inference:

The intent to place this question on survey was to evaluate the importance of climate change on individuals. Because, if climate change is important people may discuss it more. The results were in favor of climate change, as majority of people i.e. 88.7% of respondents were found to be discussing it and only a minority i.e. 11.3% are not found to be concerned about it. This also resonates with the results of Q1. where individuals who selected range from 6 to 10 were 87% of all respondents and who were concerned about climate change. It becomes clearer now that the participants of this international survey which were from different locations globally are in majority concerned about climate change. It clearly means that there is a growing concern about climate change and its effect everywhere across the globe.

Q11. Would you like to own any new cryptocurrency in near future that helps reduce the impact of climate change?

In this question we asked the respondents to choose from three available options about if they would like to own a Cryptocurrency that helps reduce the impact of climate change. The options placed were – 1 – 'Yes', 2 – 'No', 3 – 'Maybe'

Obtained inputs:

Out of all 177 responses 43.5% i.e. 77 respondents selected the option 'Yes' submitted their willingness to own a part of such an initiative, also 37.3% of the respondents i.e. 66 nos. selected the option 'Maybe' highlighting that they might be available to own a part in an initiative that helps reduce the impact of climate change, remaining 19.2% i.e.
34 nos. of respondents chose the option 'No', demonstrating their unwillingness to participate in initiative.

Discussion:

An initiative for climate change that is technology based is the theme of our research. This survey question helped us to find out if the participants will be able to own a part of this initiative in form of cryptocurrencies. 43.5% of respondents chose "Yes" could be due to a variety of factors such as:
Environmental Awareness: Respondents who selected "Yes" may be more environmentally conscious and see owning a cryptocurrency that helps reduce the impact of climate change as a way to align their values and actions with their beliefs.
Financial Benefits: Respondents may also see this as a potential financial opportunity and view it as a way to invest in something that not only has financial potential but also helps to mitigate the effects of climate change.

Trust in Technology: Respondents who chose "Yes" may have confidence in the use of technology, including blockchain and cryptocurrencies, to tackle climate change and believe that such initiatives can have a positive impact.

Peer Influence: Respondents may have been influenced by the opinions and actions of their peers or community, leading them to choose "Yes".

It's important to note that these reasons may not be mutually exclusive and respondents may have multiple reasons for their choice.

The reasons why 37.3% of respondents chose "Maybe" could be due to a variety of factors such as:

Lack of Knowledge: Respondents may be unfamiliar with cryptocurrencies and blockchain technology and are unsure about their potential for reducing the impact of climate change.

Risk Aversion: Respondents may be hesitant to invest in a new or unfamiliar technology, or they may be concerned about the potential risks associated with cryptocurrency investment.

Undecided: Respondents may not have made up their minds about the issue and need more information or education to make a decision.

Financial Constraints: Respondents may not have the financial resources to invest in a cryptocurrency or may not want to allocate a portion of their assets towards a single investment.

Waiting for more information: Respondents may be waiting for more information, research or further developments in the field to make a decision.

It's important to note that these reasons may not be mutually exclusive and respondents may have multiple reasons for their choice.

The reasons why 19.2% of respondents chose "No" could be due to a variety of factors such as:

Skepticism: Respondents may be skeptical about the potential for cryptocurrencies to effectively reduce the impact of climate change or may view such initiatives as being unlikely to achieve their intended goals.

Financial Concerns: Respondents may be concerned about the stability and security of cryptocurrencies and may not want to risk their assets.

Disinterest: Respondents may not have an interest in cryptocurrencies or the broader topic of climate change and therefore do not see the value in participating in such initiatives.

Lack of Trust: Respondents may not trust the technology, or they may not trust the organizations behind such initiatives.

No Financial Need: Respondents may already have sufficient financial resources and may not see the need to invest in a cryptocurrency.

It's important to note that these reasons may not be mutually exclusive and respondents may have multiple reasons for their choice.

Furthermore, without more information or data, these reasons are only speculative.

177 responses
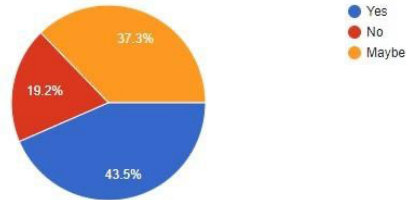
Inference:

This data suggests that there is a significant level of interest in cryptocurrencies that help reduce the impact of climate change, however, there is also some hesitation or uncertainty among a portion of the respondents. The survey data could be used to further explore the motivations and concerns of different groups of respondents and to develop strategies to address any barriers to adoption.

CONCLUSION

Through this survey we were able to identify how concerned the global audience is about climate change. Also, the responses were able to shed some light on the climate specific knowledge of the participating individuals. We were also able to identify how a certain mobile application that helps individual to reduce their carbon footprint will perform in market and also which segment of users to target was made apparent by this survey. The survey's inputs were from all possible segments of internet users, as it was an internet based survey. Also, this paper highlighted the possible success of an blockchain and cryptocurrency based initiative to reduce carbon footprint. The need to advance technological development, put it to use, and give the majority of young people a tool to get involved individually and effect change as soon as possible is growing on a global scale. We conducted this survey to learn more about the current situation and to determine whether there is a need for a technological initiative that can connect people globally and encourage them to reduce their carbon footprint on a daily basis. Given the advancements in Blockchain technology and the alluring cryptocurrencies, a unified framework that connects with nature and revolutionises the ongoing undercurrent where people are ready to contribute to the conservation of this planet's environment is achievable. It is imperative that we recognise that we cannot have a productive conversation or, even better, design a scenario that promotes the sustainability of our world as a vast living organism. We must transfer responsibility for environmental issues to individuals and provide them with a tool for engagement.

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