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Perception of investing in crypto in India using UTAUT model

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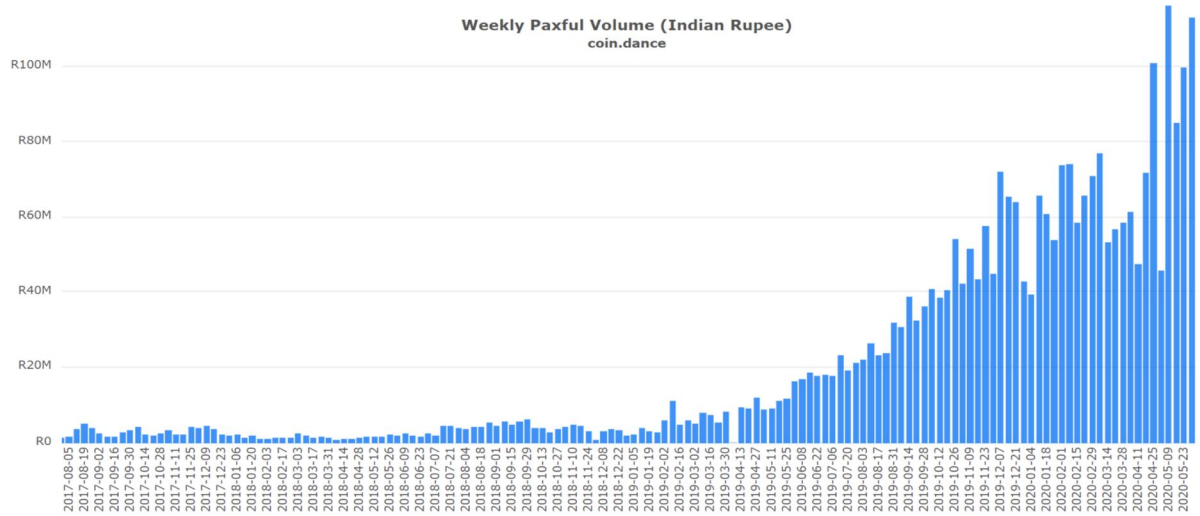
Abstract: ***This research was conducted to gather data and understand the perception what the Indian population holds when it comes to investing in cryptocurrency. To do so, a survey was designed using the UTAUT model and was circulated by the means of google forms. A wide range of parameters were considered to avail the maximum possible accuracy for the data collected. Parameters like, the ease of investing crypto, short term and long term benefits, monetary benefits, social benefits were considered. All of these parameters were supposed to be answered on a scale of 5. After collecting all the data, the results were analyzed and evaluated using which the hypothesis made were proved.***

Keywords: Cryptocurrency, UTAUT, performance expectancy, effort expectancy, perceived monetary benefits, perceived safety, social influence, adoption intension.

I. INTRODUCTION

"A cryptocurrency is a digital or virtual currency that is secured by cryptography which make it nearly impossible to counterfeit or double spent("Cryptocurrency," n.d.)." Cryptocurrency money is decentralized advanced cash, in light of block chain innovation. The most well-known forms are Bitcoin and Ethereum, however there are in excess of 5,000 distinct digital currencies available for use, as per CoinLore (Ashford, 2020). A block chain is a decentralized record of all exchanges across a distributed organization. Utilizing this innovation, members can affirm exchanges without a requirement for a central clearing authority (PricewaterhouseCoopers, n.d.). Well, the advantages of crypto currency can be seen growing on the Indian population in a period of time! Facts like the having heavy investment amounts which was $923million a year ago raised to $6.6 billion. This exponential increase in the sum amount shows how much attention it has grabbed with respect to the Indian population. The graph below shows how the trends have been made when it comes to people investing specifically in bitcoin.



("India's Crypto Trading Volume Soars Amid Economic Crisis," 2020)

Though India ranks 11th of 154 countries in the world for investing in crypto currency the actual percentage of the total population do not show the same excitement. According to the statistical data grabbed only 1.5 crore people from India invest in crypto currency which is close to just 1% of the population of India. On a positive note it is said that majority of the people investing in cryptocurrency fall between the age of 18 and 35, which means it is the young blood which is showing some interest and opting for this unconventional method of investing, where the average age happens to be just 24 (August 25 et al., n.d.).

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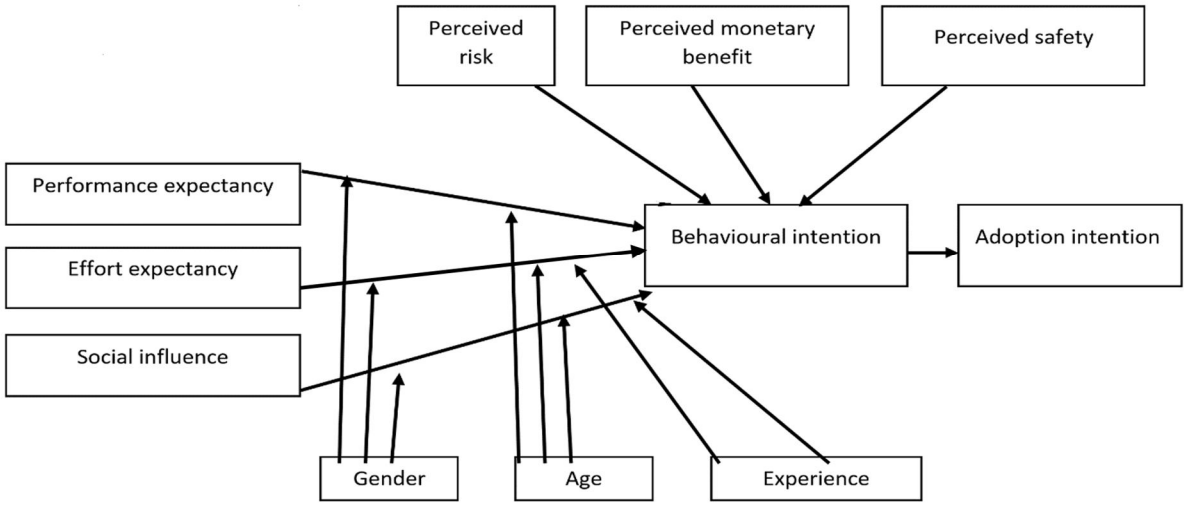
II. HYPOTHESIS

1) *Performance Expectancy*: Investing in crypto will strengthen my portfolio.
2) *Effort Expectancy*: Investors will find it easy to invest in crypto.
3) *Social Influence*: The society is very supportive when it comes to see someone invest in cryptocurrency.
4) *Behavioral Intension*: Individuals show a positive intend to invest in cryptocurrency.
5) *Monetary Benefit*: It is intended to see people have a positive prospective of them having to earn a reasonable amount.

In this paper the main goal is to understand what perception does the Indian population holds to invest in cryptocurrency. For doing so I have designed a questionnaire using the frame work, "UTAUT" which was first presented by (Venkatesh et al., 2003). By adding a few more constructs to his designed framework, the survey was ready to be published. By conducting the survey many parameters were analyzed resulting in the maximum possible accuracy for the results collected. Constructs like; performance expectancy, effort expectancy, social influence, perceiver safety, perceived risk, behavioral intention, perceived monetary benefits and adoption intention were taken into account while designing the questionnaire.

III. RESEARCH MODEL



IV. LITERATURE REVIEW

A. *Performance Expectancy*

Performance expectancy (PE) is the degree to which an individual believes that using a system or a product will help him/her increase his job performance (Venkatesh et al., 2003). Performance expectancy, itself being a construct, finds its roots from the theory of planned behaviour, extraneous inspiration from the motivational model, and results desired from Social Cognitive Theory. Performance expectancy is a trunk which holds 5 different branches; job-fit, Perceived usefulness, extrinsic motivation outcome expectations, and relative advantage. There are many studies done which have used this construct to prove their hypothesis using the construct performance expectancy. (Zhenhua Yu et al., 2019; Sandra M.C.Loureiro et al.; Jian-LiangChen ; Mansour Naser Alraja1 et al.)(Patel, 2021). From the prospective of people investing in crypto it can be said that, it is a person's recognition that the utility degree of them having crypto in their portfolio, will make it stronger when seen from the long term financial returns prospect.

B. *Effort Expectancy*

Effort expectancy (EE) is referred to as the degree of ease associated with the consumer's use of technology (Venkatesh et al., 2003). Numerous analysts found that effort expectancy has a noteworthy impact on intention to adopt new technology (Chang et al., 2007; Alraja, 2015; Schaper and Pervan, 2007; Al-Shafi, 2009 Gupta et al., 2008; Zhenhua Yu et al., 2019)(Patel, 2021). In the investigation of (Venkatesh et al., 2003) he found that the exertion hope is huge just in beginning phase of innovation appropriation. Talking about today's time, it has become quite an easy task to invest in crypto currency, all because of the boon of the online applications. With an add on to invest in a universal currency "dollar" it has become even more convenient for people to invest.

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C. Social Influence

Social influence (SI) refers to the degree to which an individual perceives that how important others [e.g., family and friends] believe that he or she should use the new system (Venkatesh et al., 2003). As social individuals, consumers are effortlessly affected by the companions, family, commercials and social patterns around them. It discovers its underlying foundations in ideas, for example, abstract standards from the Theory of Reasoned Action and the Theory of Planned Behaviour, social variables from the Theory of Human Behaviour, and picture in Innovation Diffusion Theory (Lucas and Spitler (1999)). Social impact alludes to the degree to which the earth around the consumer incorporates the help of family members and companions for driving electric vehicles out and about. This construct was also used to prove the hypothesis in (Zhenhua Yu et al. (2019), Spears, R., & Lea, M. (1992), Scott W. Campbell & Tracy C. Russo (2010), (Patel, 2021).

D. Perceived Risk

Perceived risk (PR) refers to the degree to which users are worried about situations that will occur while using the stated technology Venkatesh et al (2003). Numerous scientists found that perceived risk affects the client's reception expectation of another innovation (Zhenhua Yu et al. (2019), Mauricio S.Featherman Paul A.Pavlou, Andrew Lepp, Heather Gibson (2003), Madfis, E. Erratum(2016), (Patel, 2021). In this paper perceived risk refers to the challenges one could face while investing in crypto. Challenges like the volatility of crypto and its unpredictable price fluctuations could be experienced.

E. Behavioural Intentions

Behavioural intention (BI) is defined as a person's perceived likelihood or "subjective probability that he or she will engage in a given behaviour" Ajzen I. (1985). Many researchers found that behavioural intentions have a significant influence on the user adoption intention of a new technology (Seuwou P et al. (2020), Jin-Soo Lee et al. (2010), (Patel, 2021). In this paper behavioural intention refers to how a person feels to having a crypto in his portfolio.

F. Perceived Monetary Benefits

Perceived monetary benefits (PMB) refers to the consumer's perception of saving money from the given system. Buyers may contrast the cost of advancement and that of the options when choosing to receive such development, and they would shape view of the charge of the development dependent on this correlation. Earlier examinations showed that perceived fee is one of central point for purchasers' protection from advancements (Egbue et al. 2017: Luar and Lin, 2005: Adepetu and Keshav, 2017), (Patel, 2021).

G. Questionnaire Design

Sr.No.	Conditions for questions	Questions
1	Performance expectancy	1. Investing in crypto will strengthen my portfolio. 2. Investing in crypto will gain me more money compared to stocks in a given period of time. 3. I think return in crypto are quicker. 4. I think it is convenient for me to invest in crypto.
2	Effort expectancy	1. I think it is easy to invest in crypto. (as a lot of applications are now readily available to invest in it)
3	Social influence	1. My family is very supportive of me investing in crypto. 2. Advertising and media campaigns will make me want to invest in crypto. 3. I think investing in crypto is in line with the social trend and looks very fashionable.
4	Perceived safety	1. I think investing in crypto is safer. (most of the crypto currency lend in profit in long term)
5	Perceived risk	1. I am worried about investing in crypto. (Since their costs are not as predictable as stocks). 2. Crypto is highly volatile.
6	Behavioral intensions	1. I think it is good to invest in crypto. I would like to have one in my portfolio. 2. I would like to recommend to others to invest in crypto.
7	Perceived monetary benefit	1. Investing in crypto will help me gain monetary befits faster in a given period of time. 2. Investing in crypto via online applications will provide me extra income. (using applications provides additional tax benefits).
8	cryptocurrency adoption intention:	1. Next time I intend to invest my money; I will consider to invest in crypto. 2. I expect to have a crypto currency in my portfolio in the coming future.

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V. RESULTS & DISCUSSION

To understand people's perspective on Crypto currencies a survey was conducted using google forms. The survey focused on the participants' knowledge and interest on crypto currencies. In this article will be discussing the results of the survey and the challenges faced in the process of conducting the survey. The survey's results are based on a sample of 200 participants in India. The survey was conducted from September to October 20213. The research was carried out in 3 phases. The first phase was the collection of data, while the second phase was data analysis. The third phase consisted of the presentation of the results. The received 200 replies, with 65 % of people between the ages of 18 and 30, 24 percent between the ages of 30-45, and 6% between the ages of 60 and up, with 69 percent of men and 30 percent of women, of which 57% are graduates, responding to the initial questions. Also, a basic and vital question was asked about whether they have invested in cryptocurrency, with 60% saying "No" and 40% saying "Yes." A Unified theory of acceptance and use of technology (UTAUT) is used in this study to determine the user's purpose to use that particular information as well as their behavior in relation to that information.

From the survey questions falling under the construct performance expectancy came up to 57% as strongly agree. Questions related to ease of access in investing in crypto 55% believed it was easy to invest in crypto currencies having the advantage of investing it through application. A bit of a push from the society and other factors like advertising show a significant impact quantifying to 49% of people agreeing to get influenced by these factors. Data collected also shows a negative side of how people believe that it is risky to invest in crypto scoring a 55% to the agreement of the question. But on the other hand there are people who believe(42%) that it is safe to invest in crypto if considered for a longer time span. In addition, there are 58% of the people are very sure of them having monetary benefits.

VI. CONCLUSION

After presenting all the statistical data collected in the survey, it is now time to analyze and evaluate the results to come to a conclusion. To reach to a conclusion, only the scores which reached 4 and 5 on a scale of 5 have been considered which mean the respondent either agrees or strongly agrees. Talking about performance expectancy it is seen that about 57% of the respondents believe that investing in cryptocurrency will have appositive impact on their daily living, whether it being showing their status on portfolio or their financial status. Addition data from the construct effort expectancy states that people actually agree to the statement that it is not difficult to invest in crypto being boomed by the presence of the interactive applications. Accepting the fact of crypto currency being highly volatile and unpredictable monetarily, the Indian population is very keen to investing in the same as they cannot deny the fact of having satisfactory monetary benefits. The same can be seen and supported by the statistical data obtained from the survey questionnaire. Having such positive intend towards all other construct it can be derived that all of these positively intended responses directly affect to the behavioral intentions and the adoption intensions which again is proved using the survey conducted.

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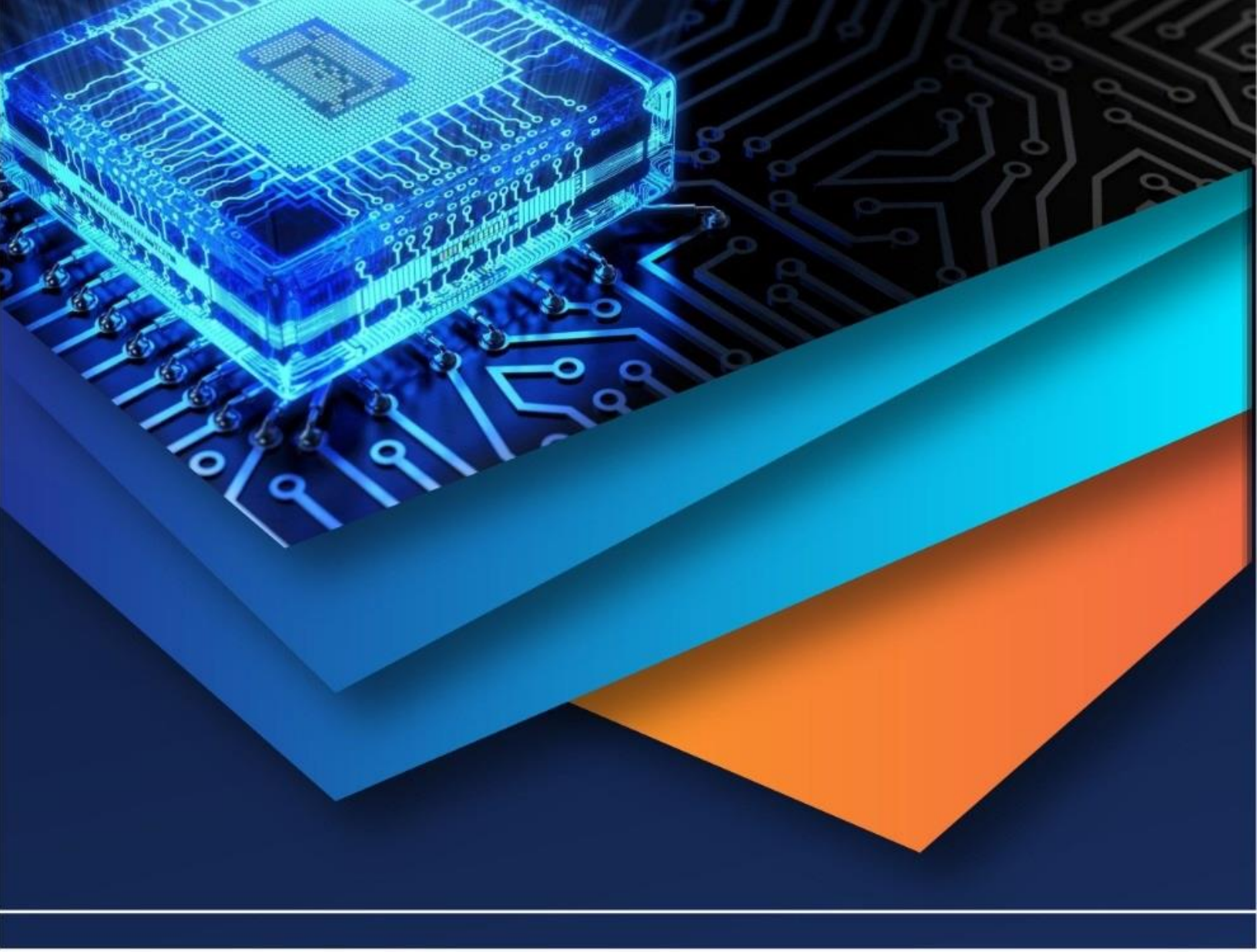

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