A Bitcoin Conscience: Dispositional Experiences of Nepalese Users

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ABSTRACT

The purpose of this study is to explore the behavioral intention (BI) of Nepalese cryptocurrency users. Perceived ease of use and perceived usefulness are the constructs from the technology acceptance model; similarly, the trust and the perceived risk are integrated constructs based on literature to predict BI. A close-ended questionnaire survey was a five-point Likert scale. Non-probabilistic purposive sampling, 272 valid responses were analyzed using the statistical package for the social science software, which included Pearson correlation and multiple regression. The result reveals that perceived usefulness, trust, and perceived risk are the significant predictors of BI, however insignificant in relation to perceived ease of use. While consumers have shown positive behavioral intentions toward cryptocurrency, the government has insisted that the restriction is in effect. So, there seems to be a conflict between the practicability of government and the psychology of users. To cope with this, policymakers need to conduct real practice-based studies.

INTRODUCTION

The world is undergoing an unbeatable digital revolution. Thus, it makes sense to examine people’s behavioral intentions toward technology related to finance as a crucial step toward creating a more open, transparent, and stable financial environment. In the field of financial services, blockchain technology has emerged as a crucial instrument. It provides advantages including enhanced traceability, decentralization, and accountability (Thommandru & Chakka, 2023). The use of blockchain in financial services can help to address challenges related to compliance, and trust mechanisms. Blockchain is considered an emerging technology that aims to strengthen secured financial services and helps to build up a trustworthy fintech mechanism (Renduchintala et al., 2022). Due to its comprehensive and safe functions, it finds use in many domains such as trade finance, e-commerce, Internet of Things (IoT), healthcare, and energy with a significant influence on all of its application sectors (Altaf et al., 2023). One of the major outcomes of blockchain is cryptocurrency, a technology based on cryptography as a decentralized system (Zhou et al., 2020). Cryptocurrency performs a unique and emerging financial practice over traditional practices with its decentralized ledger and blockchain-based assets. One of the major outcomes of cryptocurrency is bitcoin, which is designed as a virtual currency able to perform as money and can be transacted without any involvement of a third party. To build the network of Bitcoin, computing nodes are functioning and allow to transfer of data in a peer-to-peer network (Saxena et al., 2021). The research study employs behavioral outcomes of the Nepalese people in terms of intention towards cryptocurrency mainly bitcoin. The status of Bitcoin in developing countries is considered a socio-economic influencer. It is used as a means of payment and is utilized as a foreign exchange with cheap transaction costs (Hang et al., 2020). However, there is limited adoption and utilization of Bitcoin in developing countries. There is a need to complete the legal framework for virtual currencies and improve the information technology infrastructure (BenSaïda, 2023). Furthermore, there are measures to reduce risks associated with using Bitcoin in developing nations in addition to emerging market currencies. In the Nepalese context, the Nepal government declared a national ban on Bitcoin on August 13, 2017, claiming Clause 12 of the Foreign Exchange (Regulation) Act, 2019 BS as its legal basis (Ghimire, 2023). However, with the ban in Nepal, there is sufficient evidence of involvement in the trade of Bitcoin. A national newspaper published the news about arresting individuals involved in cryptocurrency trading (Adhikari, 2023). Due to open borders and easy access to exchange currency with India, it is difficult to completely ban it in real practice (Khadka, 2022). Thus, the issue of identifying the behavioral intention of the user becomes rational. The intention is considered a conscious plan and motivation to implement certain technologies with acceptance and adoption behavior (Hameed et al., 2022). In most of the literature, it is debatable to consider cryptocurrency as a technology. The literature cited by Song et al. (2023) advocates it as technology rather than currency (Maurer et al., 2013). Thus, it is more rational to test the behavioral intention of users towards cryptocurrency by TAM. There are numerous models and theories on behavioral intention. Among these, the technology acceptance models (TAM) by Davis (1987) have literal significance in the case of emerging technology acceptance and use of it. Thus, TAM is considered the major theoretical framework of the study. Many empirical studies are based on TAM to explore the behavioral

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intention of the users of cryptocurrencies, specifically Bitcoin (Dag et al., 2023). The TAM has the potential to understand and make sense of Bitcoin and also examine the adoption behavior. Thus, TAM is considered a widely accepted model that determines the intention of users based on perceived ease of use and perceived usefulness (Alfadda & Mahdi, 2021). Across the TAM, there is the integration of trust and perceived risk. The security issue is highly considered in fintech and emerging technology practically and academically. To fill the literature gap, the integration is made up of trust and perceived risk with the TAM framework to measure behavioral intention. Ooi et al. (2021) argued that perceived risk, trust, and technical protection are essential for increasing the use of Bitcoin and constructs are validated with importance-performance map analysis (IPMA).

As some governments, companies, and investors are accepting the use of cryptocurrencies, however, the government of Nepal made a nationwide ban on cryptocurrency citing clause 12 of the Foreign Exchange (Regulation) Act, 2019 BS as its legal foundation (Ghimire, 2023). The news reporting of The Rising Nepal (2022 Feb 08) acclaimed that around 42,4000 Nepalese are engaged in cryptocurrency transactions. However, the government has no data on cryptocurrency users because people secretly engage in such transactions. Therefore, understanding how cryptocurrency is perceived by the mass population is important to explore in the Nepalese context. The main objective of the research is to explore the behavioral intention of crypto-users with perceived ease of use, perceived usefulness, perceived risk, and trust.

LITERATURE REVIEW
Almeida and Gonçalves (2023) revealed investor behavior is one of the major clusters of the study of cryptocurrency with a systematic review of 482 papers. Furthermore, investor behavior has been on priority in many previous studies. Numerous factors impact the behavioral intention of consumers towards technology-based products and services. These elements consist of adoption triggers, doubts encountered during an assessment, and things that support getting past hesitations (Sharma & Gandhi, 2023). Likewise, behavioral intention can also be influenced by outside variables such as task technological fit, societal effect, and enabling conditions (Ishfaq & Mengxing, 2021). Behavioral intention toward technology is measured by the Technology Acceptance Model (TAM) with perceived usefulness and perceived ease of use to predict the intention to use a technology which is important when deciding to invest in a technology (Sprenger & Schwaninger, 2023). The creation of the TAM by Davis in 1989 marked the beginning of the study of technology adoption. To utilization of information system, this model executes basic concepts measuring the perception of the usefulness of the system and the perception of the amount of effort (Davis, 1989) cited by (Marikyan et al., 2023). Besides, trust and security-related issues are also emerging issues, which have been accepted academically and practically (Zhang et al., 2023). With this lateral connection, the study incorporates trust and perceived risk as the independent variables. The intention towards the ease of use of technology and considering usefulness, trust, and feeling and scare of risk are important factors that affect behavioral intention (Wei et al., 2022).

The concern of the study is the behavioral intention of Nepalese users towards cryptocurrency mainly Bitcoin. It is based on modern technology called blockchain, which functions with a chain of blocks that stores information with digital signatures (Krichen et al., 2022).

To examine the connection between independent and dependent variables, research hypotheses were developed based on literature support. Namahoot and Rattanawiboonsom (2022) discovered that behavioral intention toward Bitcoin adoption is highly influenced by perceived usefulness and perceived ease of use. The studies showed the inclination to use virtual currencies is adequately predicted by perceived usefulness.

$H_1$: There is a significant relationship between perceived usefulness and behavioral intention of cryptocurrency of Nepalese users.

Perceived ease of use and behavioral intention toward cryptocurrencies are significantly correlated according to research carried out in Malaysia (Ter Ji-Xi et al., 2021). According to these results, people are more likely to want to embrace and utilize cryptocurrencies for financial transactions if they believe they are simple to use. Similarly, when users perceive cryptocurrency as easy to use are more likely to reflect positive intention toward it (Greener, 2017).

$H_2$: There is a significant relationship between perceived ease of use and behavioral intention of cryptocurrency of Nepalese users.

Trust is taken as a determinant of behavioral intention for the study based on the literature. Cristofaro et al. (2022) suggested that trust is a significant predictor of users’ behavioral intention towards cryptocurrencies. Similarly, perceived trust is considered a crucial agent of causing a change in the behavioral intention of users of cryptocurrency (Abbasi et al., 2021). On this basis, it is assumed the following hypothesis is between the user’s trust and behavioral intention.

$H_3$: There is a significant relationship between trust and behavioral intention of cryptocurrency of Nepalese users.

Many research studies have examined the perceived risk as an antecedent of behavioral intention towards emerging technology and cryptocurrency. Huang et al. (2023) revealed the significant impact of risk on the user’s behavioral intention towards cryptocurrencies and considered it as an agent of change. Besides this, many studies have shown no significant relationship between perceived risk and behavioral intention. The point to be considered is that the effect of perceived risk on intention may vary (Ter Ji-Xi et al., 2021). Overall, in
shaping behavioral intention, perceived risk is considered an important factor.

H4: There is a significant relationship between perceived risk and behavioral intention of cryptocurrency of Nepalese users. With these theoretical connections of the above-mentioned variables, the research framework is constructed.

Figure 1:

Measurement Items
All the items were adopted from previous research
(Chawla & Joshi, 2019), (Davis, 1989, 1993), (Peng et al., 2012), (Fu et al., 2018), (Liu & Ye, 2021), (Nuryyev et al., 2020), (Pal et al., 2021), (Shin & Bianco, 2020), (Singh et al., 2020), and (Quan et al., 2023). The research model is constructed with five variables including perceived ease of use, perceived usefulness, perceived risk, trust, and behavioral intention. All the research studies having validated and reliable measurement items only were used in this study.

Research Design
A quantitative approach-based causal-comparative research design is used to examine the behavioral intention of cryptocurrency users. Close-ended structural questionnaire-based primary survey is conducted. Non-probabilistic purposive snowball sampling is adopted to collect data from 272 sample sizes.

Data Collection and Analysis
The structured Questionnaire is categorized into two sections the demographic section and the content section. The demographic section collects the details of respondents and the content section collects the information based on construct in five points Likert-scale (1-strongly disagree to 5-strongly agree). The questionnaires were designed in Google Forms and distributed only to the investors of cryptocurrencies for this purpose, users were identified based on referals. To analyze the data descriptive and inferential statistical tools named frequency, mean, standard deviation, correlation, and regression were used through SPSS software.

Respondents Profile
The respondent detail was collected in five different categories. The number of male respondents is three times more than female respondents, which reflects the scenario of gender-wise users of crypto. Most of the respondents were married marital status and with nuclear family which may be generalized that the respondents have adequate financial responsibility to their family. As per the occupation, a large portion was involved as an employee than in business consequently a large number of respondents had monthly income ranges from Rs.50000 to 75000.

RESULTS AND DISCUSSIONS
This section of the paper has presented the data presentation and analysis. Descriptive and inferential analysis be included here. Table no 1 represents the descriptive details of each variable. the mean value of all variables in aggregate ranges from 3 to 4, on the Likert scale it lies between neutral and agree. The mean value except for perceived risk and all other variables tilled towards the agreed response. The value of the standard deviation was below 1 for all variables, which represents less deviation in response.

<table>
<thead>
<tr>
<th>Table 1: Descriptive statistics of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>agg_PU</td>
</tr>
<tr>
<td>agg_PEU</td>
</tr>
<tr>
<td>agg_T</td>
</tr>
<tr>
<td>agg_PR</td>
</tr>
<tr>
<td>agg_BI</td>
</tr>
<tr>
<td>Valid N</td>
</tr>
</tbody>
</table>
The Cronbach alpha presented in Table no 2 represents the internal consistency of the questionnaire survey on a variable basis. The alpha value of perceived ease of use and trust variables fall on good criteria and the rest fall on acceptable criteria (Hayes & Coutts, 2020).

Table no 3 presents the correlation between dependent (Behavioral Intention) and independent variables (perceived usefulness, perceived ease of use, trust, and perceived risk) to examine the association between them. The correlation coefficient \( r \) between perceived usefulness, perceived ease of use, trust, and perceived risk with behavioral intention is .502, .503, .512, and .357 with \( p \)-value .000. Thus, the association between independent variables and the dependent variable is significant and moderate positive at alpha value .01.

### Table 2: Variable-wise Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>Chronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived usefulness</td>
<td>0.793</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>0.843</td>
</tr>
<tr>
<td>Perceived Risk</td>
<td>0.745</td>
</tr>
<tr>
<td>Trust</td>
<td>0.825</td>
</tr>
<tr>
<td>Behavioral Intention</td>
<td>0.746</td>
</tr>
<tr>
<td>Valid N</td>
<td>272</td>
</tr>
</tbody>
</table>

The Chronbach alpha presented in Table no 2 represents the internal consistency of the questionnaire survey on a variable basis. The alpha value of perceived ease of use and trust variables fall on good criteria and the rest fall on acceptable criteria (Hayes & Coutts, 2020).

### Table 3: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>PU</th>
<th>PEU</th>
<th>Trust</th>
<th>PR</th>
<th>BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEU</td>
<td>.725**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>.700**</td>
<td>.685**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR</td>
<td>0.051</td>
<td>.228**</td>
<td>.087</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>.502**</td>
<td>.503**</td>
<td>.512**</td>
<td>.357**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

### Regression Analysis

Multiple regression analysis was used to test whether independent variables (perceived ease of use, perceived usefulness, trust, and perceived risk) significantly predicted the behavioral intention of cryptocurrency users.

The research model is statistically significant with \( F(4,267) = 45.42, p = .000 \), with an adjusted \( R^2 \) of 0.405. This suggests that selected independent variables (perceived usefulness, perceived ease of use, perceived risk, and trust) account for approximately 40% of the variance in behavioral intention among the sampled individuals.

The fitted regression model is: 

\[
BI = .724 + .230 PU + .068 PEU + .257 Trust + .298 PR
\]

The regression coefficient for perceived usefulness, perceived ease of use, trust, and perceived risk was found to be 0.230, 0.068, 0.257, and 0.298 with a standard error of 0.069, 0.071, 0.071, and 0.048. This indicates that for each portion change in perceived usefulness, perceived ease of use, perceived trust, and perceived risk

### Table 4: Coefficient of regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandard Coeff</th>
<th>Standard Coeff</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.724</td>
<td>.230</td>
<td>.252</td>
<td>3.148</td>
</tr>
<tr>
<td>agg_PU</td>
<td>.230</td>
<td>.069</td>
<td>.252</td>
<td>3.328</td>
</tr>
<tr>
<td>agg_PEU</td>
<td>.068</td>
<td>.071</td>
<td>.073</td>
<td>.955</td>
</tr>
<tr>
<td>agg_T</td>
<td>.257</td>
<td>.071</td>
<td>.259</td>
<td>3.649</td>
</tr>
<tr>
<td>agg_PR</td>
<td>.298</td>
<td>.048</td>
<td>.305</td>
<td>6.203</td>
</tr>
</tbody>
</table>

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there are 0.230, 0.068, 0.257, and 0.298 portion changes in behavioral intention respectively. The relationship between perceived usefulness, trust, and perceived risk with behavioral intention was found to be statistically significant ($t(267) = 3.328, 3.649$, and 6.203, $p < .01$), which affirms the predictive power of each independent variable on behavioral intention. With this statistical connection research hypotheses between perceived usefulness, trust, and perceived risk with behavioral intention are accepted. However, the relationship between perceived ease of use with behavioral intention was not statistically significant ($t(267) = 0.955$, $p = .341$) and the research hypothesis between perceived ease of use and behavioral intention is unable to be accepted.

**DISCUSSION**

This study found that perceived usefulness, perceived ease of use, trust, and perceived risk have significant associations with the behavioral intention of Nepalese cryptocurrency users. But, in terms of cause and effect perceived ease of use has no significant effect on behavioral intention. These all findings have a strong literature connection and are disseminated here separately. The study found that perceived usefulness has a significant predicting effect on behavioral intention is similar to the findings of Namaboot and Rattanawiboonsom (2022). Incase of perceived ease of use, there is no significant effect on behavioral intention but have a positive and significant association as per correlation which is similar to the study of Ter Ji-Xi et al. (2021) based in Malaysia. Trust is taken as a determinant of behavioral intention for the study based on the literature. Cristofaro et al. (2022) suggested that trust is a significant predictor of users’ behavioral intention toward cryptocurrencies similar to this study; perceived risk has been observed as an antecedent of the behavioral intention of Nepalese crypto users toward cryptocurrency and also the study of Huang et al. (2023) revealed the same.

**CONCLUSION AND IMPLICATION**

This research paper explored that, the behavioral intention of Nepalese cryptocurrency users is affected by the antecedent’s perceived usefulness, trust, and perceived risk and not significantly affected by perceived ease of use. However, there is a good association between perceived ease of use. With this exploration, it can be claimed that determining the adoption intention toward emerging technology is influenced by acceptance, trust, and feeling of risk-free. Since the study is exploratory in the Nepalese setting, more researchers may extend other factors to continue studying the psychology of users. Legislators must practically review it to assess the reality of cryptocurrencies’ legal application in Nepal. Saying and doing have diverged greatly; although the government maintained that the prohibition is in place, consumers have demonstrated favorable behavioral intentions about cryptocurrencies.

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