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## Digital Gold vs Physical Gold: A Comparative Study of Investment Behaviour in India

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### Abstract

The study focuses on the comparative investment behaviour of investors in Digital Gold and Physical Gold in India. Investing in gold has been a cultural tradition among Indians, and it is also believed to be the most popular, secure, reliable, and safest means to invest in assets. With the introduction of financial technology platforms that allow for digital ownership of gold, investors now have an opportunity to invest in gold and have access to their investments instantaneously.

The study uses a hybrid behaviour framework of the Technology Acceptance Model, Behavioural Finance Theory and Cultural Finance Theory to assess the various determinants of investors' intentions to invest in digital gold versus physical gold. The study is based on the primary data collected from 300 respondents and the assessment of their investment intentions is made using a series of data analysis techniques such as, Descriptive statistics, Correlation analysis, Independent Sample T-tests, and Multiple Regression Analysis. The results of the research reveal that investors in Digital Gold experienced significantly different behaviours to that of investors in Physical Gold. Digital Gold investors' investment intention is positively impacted by their perceived usefulness of Digital Gold and their confidence/trust in Gold through technology; while Physical Gold investors' investment intention is significantly impacted by their cultural attachment to Physical Gold. In addition, the perceived risk associated with Digital Gold resulted in a negative impact on the intention of an investor to invest in Digital Gold.

The results indicate that an individual investor's investment behaviour in Gold is a product of the interaction between the acceptance of the technology used to purchase their investment and their cultural background influencing their motivation to invest. Accordingly, the study concludes that Digital Gold and Physical Gold are different forms of the same asset category and therefore are in a state of an evolutionary transition within India's financial framework.

**Keywords:** Digital Gold; Physical Gold; Investment Behaviour; Cultural Finance; Technology Acceptance; Perceived Risk; India.

**JEL Classification:** G11, G41, O33, D91, E44.

## Introduction

Gold is considered to be an exclusive asset and has always occupied an important place in the socio-cultural and economic life of Indians. Gold has a range of applications in Indian households, unlike other kinds of financial assets that have only been relevant during certain market cycles, it has served as a “store of value”, a “hedge against inflation”, a “safe haven asset” in times of uncertainty, a “social identity bearer” and a “means of transferring wealth” from one generation to the next (Baur & Lucey, 2010; Baur & McDermott, 2010). Apart from its role in the economy, gold has a very special place in festivals, rituals, marriage tradition and inheritance. Gold consumption in India is amongst the highest globally and India has large amounts of gold reserves in physical form held by the rural and urban household (World Gold Council, 2022).

Historically, investors have primarily purchased gold in tangible forms like jewellery, coins and bars. Purchasing jewellery combines both usage and having an investment so that people buy gold both from a financial standpoint and from an emotional standpoint. Traditional practices of owning physical gold are cultural practices; trust in physical ownership; and historical prudence about fluctuations in the financial system. According to Prospect Theory, investors are averse to loss and prefer to own perceived secure assets, which often leads them to purchase assets that create psychological security in an environment of uncertainty (Kahneman & Tversky, 1979). As a result of these factors, Indian gold investment behaviour has historically been based on precautionary behaviour, financial security and social obligations.

However, in the last ten years India has gone through hasty digital transformation in the financial sector. New ways to pay, new forms of cash, new currencies, and newly minted financial technology have revolutionized the way people save and invest. In this dynamic environment, digital gold has become a new way to own gold. Buying pure gold digitally through digital platforms like Paytm, PhonePe, Google Pay, and Groww is available with minimal investment amounts and easy transactions.

The liquidity, convenience, and security of digital gold create it a flexible investment option through micro-investments in the form of digital gold. According to the Technology Acceptance Model (TAM) (Davis, 1989), digital gold is thought to significantly impact the intent to adopt technology through perceived ease of use and perceived usefulness of the technology. Past research on technology acceptance has shown that trust is critical to electronic transactions, particularly for intangible goods and services, when technology is used to facilitate a transaction through a platform (Gefen et al., 2003; Venkatesh et al., 2003). However, digital gold is secured through private custodial arrangements rather than through sovereign instruments such as the Sovereign Gold Bonds by the Reserve Bank of India. Digital gold thus adds multiple layers of counterparty risk, governance problems, and uncertainty. Gold investments in India exist within both a cultural and technological context where the deep-rooted ancestral value of gold has evolved over time alongside modern-day financial technology.

## The Changing Nature of Gold Investment Behaviour

Historically, three factors have been influencing the decisions about gold investments: precautionary motives (for wealth accumulation), speculative motives (for price appreciation), and socio-cultural motives. Empirical research has shown that gold is one of the only asset classes that consistently qualifies as a “safe haven” and can act as a “hedge against financial instability” (Baur & Lucey, 2010). However, the study of behavioural finance demonstrates that investment decisions are often made irrationally and that heuristics, familiarity bias, emotional attachment, and subjective risk perception will all influence how investors make their decision (Kahneman & Tversky, 1979). This is particularly true for culturally embedded assets such as gold.

As digital gold gains importance, more factors will be considered, including acceptance of technology, perceived usefulness, perceived ease of use, trust on the platform, in addition to cyber concerns, liquidity preference, and financial literacy. The Unified Theory of Acceptance and Use of Technology (UTAUT) postulates that demographic variables like age, experience, and facilitating conditions shape diverse behaviors toward technology (Venkatesh et al., 2003).

Therefore, younger investors who are more proficient in digital/online transactions, may perceive digital gold as an effective way to diversify their portfolios, whereas older investors may feel more comfortable retaining physical gold due to the tangible asset and their long-held beliefs. However, there is a steady trend of fragmentation amongst the various levels of investment within India, regarding gold, and this is increasing based upon demographic and technological characteristics. This evolution does not indicate that tradition will die, rather it reflects an engagement with tradition through the prism of digital innovation, where gold has become much more than just a cultural asset.

Despite the high rate of development of digital gold platforms in India, empirical study which compares the behavioral difference between digital and physical gold investors is limited. The existing literature primarily looks at gold as a macroeconomic hedge (Baur & McDermott, 2010), or studies its price volatility or the adoption of FinTech in overall financial services, but not culturally embedded assets like gold. The relationship among technological trust, risk perception, cultural attachment, and demographic factors on adopting digital/currency gold vs physical gold is limited. In India, unusual socio-cultural attachments of gold ownership, and at the same time, the rise of digital financial services, makes it timely and important to systematically study the impact of these behavioral determinants on digital vs physical gold.

## 2. Literature Review

### Gold as a Financial and Behavioural Asset

The financial gold trade and the behavioural side of its consumption are still the subject of academic interest. In recent years, studies have confirmed that gold has remained a reliable risk mitigation tool and a diversification option during volatile market conditions, like the COVID-19 pandemic and the current geopolitical uncertainty. Corbet et al. (2020) prove that gold remained a relative safe haven during crisis periods, whereas Ji, Zhang and Zhao (2020) emphasize consumer attitude shift in the world of traditional hedges in the times of uncertainty in the aftermath of the pandemic. Then Shahzad et al. (2021) take this idea further by studying gold's performance against equities and commodities over market stress events in the 21st century further adding to the attractiveness of gold in diversified portfolios.

Some recent studies focus on the wealth maximizing asset choice behaviour of investing in gold, as well as on macroeconomic analyses. Bouri et al. (2021) discusses investor risk perception and socio-psychological factors and its implications on the choice of holding gold as a "safe-haven asset". In the same manner, Kumar et al. (2022) report that behavioural biases like loss aversion have a considerable impact on gold demand in emerging markets (EMs). However, empirical focus tends to stay at an aggregate level, and little attention is paid to behavioural differentiation between ownership modes, e.g. physical gold versus digital gold.

### Behavioural and Technological Determinants of Investment Decisions

Recent studies on investment behaviour have started to integrate behavioural and technological factors into the analysis. Prospect Theory remains a fundamental building block in the understanding of asset preferences as individuals' attitude to gains and losses is asymmetric (Kahneman & Tversky, 1979; Shefrin & Statman, 1985). Khan et al. (2021) in recent research uses behavioural constructs to analyze the intentions and motivations of gold buyers: they show that the emotional attachment and perceived risk increase or decrease investor willingness to buy gold in South Asian settings.

Financial services have been undergoing digitalization at a breakneck pace, which has sparked a wave of research into financial services adoption in the world of FinTech. In recent research of digital financial products, constructs of technology acceptance, such as perceived usefulness and ease of use, have been validated. According to the research by Al-Marroof & Mirza (2021), the perceived usefulness of a digital financial solution is directly related to whether or not users will continue using it; however, perceived risk and trust remain significant barriers. In digital wealth platforms, platform governance trust and technological reliability has a significant impact on behavioural intentions (Alsabawy et al., 2022).

Trust is closely linked to financial illiteracy and digital financial involvement, and this relationship is echoed in various studies conducted in India recently. Digital trust as well as digital risk perception are significant factors in the adoption of both investment apps & mobile banking among India's users, concluded Singh and Sahu (2021). Extending this to the digital investment platform in particular, Agarwal and Pires (2023) found that increased investor confidence and ease of use correlate to increased investment in digital investment products.

But, the majority of research on adoption of FinTech revolves around mobile payment, digital banking and cryptocurrency solutions. Not much research has been conducted to understand the behaviour of digital gold adoption particularly as compared to the physical ownership of gold, suggesting that there is a gap in the literature.

### **Cultural Embeddedness and Investment Choice**

Financial behaviour is socially produced and connected to identity and tradition, as underlined by cultural finance research. The research of the past five years confirms that in emerging markets, socio-cultural values have a strong effect on asset preferences. For example, the findings of Malik and Masood (2021) indicate that cultural norms have a strong impact on the savings and investment behavior of South Asian households apart from just the pure financial incentives.

In the Indian context, gold remains relevant in the midst of diversification of financial assets. Ramanathan and Menon (2022) conclude that physical gold remains in strong demand as a result of its social ritual and marriage traditions and its security motive. In the interim, Das and Chatterjee (2024) present evidence that while digital investment platforms are becoming more common, individuals continue to value physical gold over time, especially their older investors.

There is a lack of research on whether the digitization process changes or alters tradition or simply adds to it. The existing research like Kumar and Gupta (2021) shows the increasing investment behaviour of the Indian people in the digital space, but they have not specifically come up with the study of culturally sensitive investments such as gold. Therefore, a comprehensive study to understand the combined effect of cultural attachment and technological acceptance on the investment decision in gold is essential.

### **Research Gap**

A review of the literature shows that there were several research gaps pertinent to this study:

While there has been a lot of research recently focused on the performance of gold in the financial markets, but there are very limited studies analyzing the behaviour of the investor in choosing between ownership of gold in a digital or physical form.

Despite the rise in popularity of digital gold, the research related to gold adoption in the world of FinTech has been scarce.

Recent research work on the adoption of digital financial assets lacked a strong focus on behavioural and cultural factors/determinants.

The amount of empirical comparative analysis of digital gold investors and physical gold

investors within one study is still very limited.

The current research aims to fill the aforementioned gaps, drawing on the theory of behavioural finance, models on technology acceptance, and cultural finance thoughts, to explore the investment behaviour between digital and physical gold investment methods in India.

### Theoretical Foundation of the Study

Comparative analysis of investment behaviour of gold in digital and physical form in India requires an integrated theory of **Technology Acceptance Model, Behavioural Finance and Cultural Finance**. In India, investing in gold is both a financial decision but also a decision to embrace technology and a cultural tradition.

### Technology Acceptance Perspective

The Technology Acceptance Model (TAM) explains how people will use digital gold and that the **perceived usefulness (PU)** and also, the **perceived ease of use (PEOU)** may greatly influence a person's behaviour to use a technology-based service. When investing in digital gold platforms, fractional ownership, lower transaction fees, greater liquidity, secure storage, and transparency in pricing are just several advantages that will contribute to perceived usefulness. In addition, the improved usability of mobile devices and the simplified transaction processes will contribute to increasing perceived ease of use.

Adding to this explanation is a **theory of planned behaviour (TPB)** which includes concepts that are relevant to the Indian context. Willingness to change from a traditional physical gold to a digital alternative could be influenced by social influence (subjective norms) and perceived behavioural control (including digital literacy and confidence in the online platforms). Therefore, the act of buying and holding digital gold is an investment behaviour and a result of technology acceptance.

**Hypothesis 1 (H1):** There exists a positive impact of Perceived usefulness on the preference for digital gold.

**Hypothesis 2 (H2):** There exists a positive impact of Perceived ease of use on preference for digital gold.

**Hypothesis 3 (H3):** Technology trust has a positive impact on the preference for digital gold.

### Behavioural Finance Perspective

Based on behavioural finance, investors' choices are not always rational, but are shaped by psychological and behavioural factors. **Prospect Theory** suggests that people dislike losses, and are sensitive to uncertainty.

Tangible gold might induce greater psychological security because of familiarity bias and security of ownership. However, digital gold, which is supported by physical assets, might have a risk of being technologically driven and thus riskier for some investors.

There is hence a possibility that differences in **Risk Perception (RP)** would affect the investment mode.

**Hypothesis 4 (H4):** Risk perception has a negative effect on digital gold preference.

### Cultural Finance Perspective

In Indian society, gold is viewed as a very important social-cultural commodity/asset and has a significance for many important occasions such as festivals, marriages, inheritance and as a long-term source of security. **Cultural finance theory** proposes that all financial decisions stem from cultural norms and collective identity.

For many families, physical gold is a representation of both stability and safekeeping of their



wealth. People who have a strong cultural connection to physical gold are likely to resist switching to digital gold, even if the digital version is much cheaper.

**Hypothesis 5 (H5):** Cultural attachment towards physical gold has a negative impact on the preference for digital gold.

### Financial Literacy and Demographic Determinants

Another significant factor in influencing decisions on investments in innovative financial products is financial literacy. Individuals with greater financial literacy will have a greater understanding of digital gold and its associated features, such as platform regulation, price verification and pricing transparency.

Demographics can also impact people's adoption behaviour for digital gold. For example, age, income and education level can all affect the level of technology proficiency among potential digital gold investors. Youth, urban people, and highly educated populations are generally more receptive to using technology-based investment products.

**Hypothesis 6 (H6):** A positive relationship exists between financial literacy and preference for digital gold.

**Hypothesis 7 (H7):** Demographic characteristics have a noteworthy impact on preference for digital gold.

### Conceptual Framework of the Study

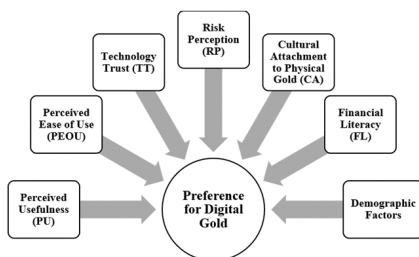
The mode of investment in gold (Preference for Digital Gold over Physical Gold) is conceptualized as dependent variable in this study based on the integrated theoretical foundation and empirical base of work.

#### Independent Variables:

- Perceived Usefulness (PU)
- Technology Trust (TT)
- Risk Perception (RP)
- Perceived Ease of Use (PEOU)
- Cultural Attachment to Physical Gold (CA)
- Financial Literacy (FL)
- Demographic Factors (Age, Income, Education)

#### Dependent Variable:

Preference for Digital Gold (measured as behavioural intention / adoption tendency)



### Conceptual Framework of the Study

As per this framework, the differences between digital and physical gold investors (in India) can be explained by technological perceptions, psychological risk assessment, cultural embed-

dedness, financial awareness, and demographic profile of investors.

### **Objectives of the Study**

The study aims the following objectives:

- To analyse the behavioural, technological and cultural factors which affect the preference of digital gold over physical gold in India.
- To examine perceived usefulness, trust on technology, risk perception, perceived ease of use, cultural attachment and financial literacy on the adoption of digital gold.
- To compare behavioral differences among the digital and physical gold investors.
- To explore how the socio-demographic factors (age, level of income and education) influence the preference for gold investment.
- To determine if the shift towards owning digital gold is a structural behavioural shift in the way gold is invested, or just a convenient form of traditional gold ownership.

The study adds to the academic literature because it combines three fields of study; behavioural finance, cultural finance, and technology acceptance, to study the investment behaviour of an asset that is traditionally important. It adapts the theory of technology adoption to commodity-based digital investment in an emerging market setting. On a policy level, the increasing prevalence of digital gold platforms introduces new questions and concerns about investor protection and transparency, and the regulation of this space. On a more practical level, the results help the regulators, FinTech companies, and financial advisors to create culturally competent and trustworthy digital investment products.

### **Hypothesis Development**

Based on the integrated theoretical framework of the Technology Acceptance Theory (TAT), the Behavioural Finance theory, and the Cultural Finance theory, the study suggests that the technological perceptions, psychological risk assessment, cultural attachment, financial literacy, and demographic features impact digital gold adoption.

The following are the proposed hypotheses:

- H1:** A positive relationship exists between perceived usefulness and adoption of the digital gold.
- H2:** The ease of use strongly affects the adoption of digital gold.
- H3:** The adoption of digital gold is positively influenced by technology trust.
- H4:** A negative relationship exists between risk perception and adoption of digital gold.
- H5:** The cultural attitude towards physical gold negatively affects the adoption of digital gold.
- H6:** Financial literacy will have a positive effect on adopting digital gold.
- H7:** A negative relationship is present between age and the adoption of D-Gold.
- H8:** The relationship between adoption of digital gold and income and education level is positive.

### **Expected Contribution of the Framework**

The proposed framework will provide greater value to the existing literature by offering a holistic and context-specific understanding of gold investment in India. It is a hybrid approach of technology acceptance theory, behavioural finance and cultural finance which differentiates it from mainstream asset pricing and macro-economic studies related to gold. It takes the technology adoption models to the realm of commodity backed digital assets, which is not as well studied in emerging economies. Concurrently, it also takes cultural attachment as an important explanatory factor, as here gold is not just a means of exchange, but a culturally embedded asset. The framework is empirically compared between tangible and digitally mediated forms of ownership to offer a structured way to comprehend how tradition and technology intertwine to form today's investment choices.

### **3. Research Methodology**

Using a quantitative and cross-sectional research design, the study evaluates differences in be-

haviours of digital gold and physical gold investors in India. The study adopts an explanatory research approach and seeks to examine the factors that affect a person's preference for digital gold vs physical gold. Primary data for the purposes of the study is collected using a well-structured questionnaire to provide an empirical test of the hypotheses generated from the theoretical framework. The sampling technique used in the study was purposive, ensuring that all respondents had previous experience with investing in gold. The sample size for the study is targeted at 300 respondents to ensure a sufficient level of robustness for the regression analysis and group comparisons to be performed. All measures of substantive variables have been measured on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The study uses the Adoption of Digital Gold (ADG) as the dependent variable, measured as a continuous variable, measuring how much an individual prefers digital gold over physical gold. Therefore, a multiple regression analysis has been performed. The various independent variables utilised in this study are: Perceived Usefulness (PU); Technology Trust (TT); Risk Perception (RP); Perceived Ease of Use (PEOU); Cultural Attachment to Physical Gold (CA); and Financial Literacy (FL), with age, income, and education as control demographics.

Data obtained has been analyzed with statistical procedures and software using SPSS. The **descriptive statistics** summarize the data such as mean and standard deviation (for continuous variables), frequency distribution (for categorical variables), and demographic profile of respondents. These statistical procedures are informative to the overall characteristics of the sample and investment patterns.

For relationships between independent variables, **Pearson's correlation analysis** has been conducted, which provides information on the strength of the relationships and whether potential multicollinearity exists prior to undertaking regression analysis.

To compare behavioural differences and perceptual differences between digital and physical gold investors, the **independent sample t-test** has been performed to determine if significant behavioural differences exist between the two groups.

**Multiple regression analysis** has been performed to explore the relationship of the independent variables to the dependent variable of acceptance of digital gold.

The regression model will be expressed as:

$$ADG = \beta_0 + \beta_1 PU + \beta_2 PEOU + \beta_3 TT + \beta_4 RP + \beta_5 CA + \beta_6 FL + \varepsilon$$

Where:

- ADG = Adoption of Digital Gold
- PU = Perceived Usefulness
- PEOU = Perceived Ease of Use
- TT = Technology Trust
- RP = Risk Perception
- CA = Cultural Attachment
- FL = Financial Literacy
- $\varepsilon$  = Error term

Statistical significance has been evaluated at the 5% level ( $p < 0.05$ ).

#### 4. Data Analysis and Interpretation

The following section details the empirical results of the research, which are derived from data collected from 300 gold investors in India.



#### 4.1 Demographic Profile of Respondents

Table 1: Demographic Characteristics (N = 300)

| Variable                | Category         | Frequency | Percentage (%) |
|-------------------------|------------------|-----------|----------------|
| Gender                  | Male             | 178       | 59.3           |
|                         | Female           | 122       | 40.7           |
| Age                     | 18-30 years      | 124       | 41.3           |
|                         | 31-45 years      | 109       | 36.3           |
|                         | 46 years & above | 67        | 22.4           |
| Education               | Graduate         | 136       | 45.3           |
|                         | Postgraduate     | 121       | 40.3           |
|                         | Others           | 43        | 14.4           |
| Primary Investment Type | Digital Gold     | 148       | 49.3           |
|                         | Physical Gold    | 152       | 50.7           |

Respondents are divided essentially evenly (49% digital, 51% physical) with an ample amount of both groups allowing for adequate comparison. A large majority (41%) of respondents are aged between 18 and 30, which indicates that younger demographics are heavily involved in making investment-based decisions regarding gold. The large percentage of graduate or post-graduate individuals (85%) implies that most of these individuals clearly understand finance, thus adding credibility to the behavioural analysis conducted on this sample.

#### 4.2 Reliability and Validity Testing

Before hypotheses were tested, the reliability and validity of the measurement instruments were assessed. The Cronbach's Alpha values of all constructs exceeded 0.70 confirming the internal consistency reliability of the constructs. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.82 and Bartlett's Test of Sphericity was statistically significant ( $p < 0.001$ ) indicating that the factors were suitable for analysis. The above results provided evidence for the use of a reliable and valid measurement instrument to measure the factors influencing gold investment behavior.

#### 4.3 Descriptive Statistics

Table 2: Descriptive Statistics of Study Variables

| Variable                       | Mean | Standard Deviation |
|--------------------------------|------|--------------------|
| Perceived Usefulness (PU)      | 4.02 | 0.74               |
| Perceived Ease of Use (PEOU)   | 3.95 | 0.79               |
| Technology Trust (TT)          | 3.78 | 0.82               |
| Risk Perception (RP)           | 3.21 | 0.91               |
| Cultural Attachment (CA)       | 4.36 | 0.69               |
| Financial Literacy (FL)        | 3.89 | 0.76               |
| Adoption of Digital Gold (ADG) | 3.88 | 0.77               |

(Measured on 5-point Likert scale)

Cultural attachment and perceived usefulness score the highest mean values, with a mean value of 4.02 for perceived usefulness and a mean value of 4.36 for cultural attachment, indicating that investors value both the efficiency of technology and the traditional value of gold equally. Risk perception is more moderate (average of 3.21), indicating a more cautious attitude towards

digital forms of gold; this combined with the high average of ADG (3.88) suggests an increasing openness to the adoption of digital gold.

#### 4.4 Correlation Analysis

**Table 3: Pearson Correlation Matrix**

| Variables | ADG     | PU      | PEOU    | TT      | RP     | CA     | FL |
|-----------|---------|---------|---------|---------|--------|--------|----|
| ADG       | 1       |         |         |         |        |        |    |
| PU        | 0.66**  | 1       |         |         |        |        |    |
| PEOU      | 0.59**  | 0.62**  | 1       |         |        |        |    |
| TT        | 0.61**  | 0.58**  | 0.55**  | 1       |        |        |    |
| RP        | -0.48** | -0.36** | -0.33** | -0.42** | 1      |        |    |
| CA        | -0.52** | 0.25**  | 0.19**  | 0.29**  | 0.12   | 1      |    |
| FL        | 0.47**  | 0.44**  | 0.40**  | 0.38**  | -0.21* | -0.18* | 1  |

$$p < 0.01$$

There are strong positive correlations (r-values) for ADG to perceived usefulness ( $r = 0.66$ ), trust ( $r = 0.61$ ) and perceived ease of use ( $r = 0.59$ ), respectively; there is a negative correlation for risk perception ( $r = -0.48$ ), which supports the premises of behavioral finance. Additionally, there is a significant negative relationship between cultural attachment and ADG ( $r = -0.52$ ); meaning individuals who have stronger cultural attachment to traditional gold are less likely to adopt digital gold. No signs of multicollinearity were found.

#### 4.5 Independent Sample t-Test

**Table 4: Comparison Between Digital and Physical Gold Investors**

| Variable                 | Digital Gold (Mean) | Physical Gold (Mean) | t-value | p-value |
|--------------------------|---------------------|----------------------|---------|---------|
| Trust (TT)               | 4.05                | 3.51                 | 4.62    | 0       |
| Risk Perception (RP)     | 3.46                | 2.97                 | 3.88    | 0       |
| Cultural Attachment (CA) | 3.92                | 4.79                 | -6.11   | 0       |
| Financial Literacy (FL)  | 4.02                | 3.76                 | 2.84    | 0.005   |

Investors in digital gold have significantly higher levels of trust and financial literacy than the investors in physical gold, who, in contrast, have a greater cultural attachment to traditional gold. These results demonstrate that behavioral differences exist between the two groups; thus, fulfilling objective three.

#### 4.6 Multiple Regression Analysis

Dependent Variable: Adoption of Digital Gold (ADG)

**Table 5: Regression Results**

| Independent Variable         | Beta ( $\beta$ ) | t-value | p-value | Hypothesis     |
|------------------------------|------------------|---------|---------|----------------|
| Perceived Usefulness (PU)    | 0.31             | 4.96    | 0       | Supported (H1) |
| Perceived Ease of Use (PEOU) | 0.18             | 2.89    | 0.004   | Supported (H2) |
| Technology Trust (TT)        | 0.24             | 4.12    | 0       | Supported (H3) |
| Risk Perception (RP)         | -0.21            | -3.78   | 0       | Supported (H4) |
| Cultural Attachment (CA)     | -0.27            | -4.54   | 0       | Supported (H5) |
| Financial Literacy (FL)      | 0.16             | 2.67    | 0.008   | Supported (H6) |
| Age                          | -0.14            | -2.31   | 0.021   | Supported (H7) |
| Income & Education           | 0.12             | 2.08    | 0.038   | Supported (H8) |

**[ $R^2 = 0.64$ ; Adjusted  $R^2 = 0.62$ ; F-value = 98.45 ( $p < 0.001$ )]**

The variance in digital gold adoption is well-explained by the model, as it explains 64 percent of the variance. This indicates that it has strong explanatory power. The most significant predictor of digital gold adoption is perceived usefulness, followed by cultural attachment (which has a negative influence) and trust in technology. In addition, perceived risk has a major impact on how likely someone is to adopt digital gold; those who perceive more risk in adopting digital gold will have less likelihood of adoption than those who perceive less risk. Young investors tend to be more likely than older investors to have a higher likelihood of adopting digital gold, and their income and education level also have a positive effect on their likelihood of adopting it.

**All hypotheses (H1-H8) are supported.**

The results of this research further support the conclusion that there is a dual mechanism that influences gold investment behaviour in India. Digital gold adoption is driven by technological rationality, whereas preference for physical rather than digital gold is sustained through cultural embeddedness.

#### Summary of Findings

The data shows very distinct behaviours between digital and physical gold investors in India. The data suggest that gold investment behaviours in India are affected by both technological, behavioural, demographic, and cultural factors. Perceived usefulness was found to be the most significant predictor of adoption of digital gold. This is due to the fact that investors will choose one form over another based on how easy it is to use (perceived ease of use) or whether they can trust the technology. This confirms the relevance of technology acceptance theory (TAM) in making decisions about whether to invest digitally.

Digital gold adoption is affected negatively by risk perception, as is assumed by behavioral finance theories: uncertainty and perceived vulnerability reduce an investor's likelihood to own a non-physical version of an asset. There seems to be a strong negative correlation between cultural attachment to physical gold and adoption of digital gold. This supports the idea that gold in India is still very much tied to history, cultural identity, and emotional safety.

Demographically, younger, more educated, and higher-income individuals tend to invest digitally; whereas, investors who are investing in physical gold tend to have a much stronger cultural component associated with their investment. Overall, while the growing adoption of digital

gold may represent a behavioral shift due to increasing levels of technological confidence, it will not replace traditional methods of owning gold in India, but rather complement them.

### **Conclusion, Implications & Limitations of Study**

According to the findings of this study, there appears to be no fundamental economic substitution between physical gold and digital; instead, they serve as complementary ways of fulfilling the same underlying wish for a reliable store of value in gold. The empirical results support that perceived usefulness of digital gold in addition to level of technology trust significantly increase a person's intention to invest in it while perceived risk has an opposite effect. Further, cultural connection has a strong effect upon one's level of preference for physical gold and thus limits full digital substitution. Therefore, the findings of this study also demonstrate validation of the proposed hybrid behavioural model, wherein the dual nature of the determinants on gold investment choices made in India are a result of the simultaneous influence of technology acceptance variables and the deeply rooted socio-cultural values associated with them. The revealed explanatory power of the hybrid behavioural model indicates that, while digital gold represents a move toward digitization (i.e., growth of investment options), it also reflects a traditional perspective regarding the security of assets and ownership. Accordingly, the evolution of Indian financial behaviours toward digital gold is happening as a result of adaptation rather than disruption.

These results point to regulatory, operational, and academic implications. Missing government support for digital gold platforms and lack of standardized regulations for them warrants more uniformity in terms of investor protection and clear supervisory guidelines to reduce investors' perception of risk and enhance trust. For companies like Groww, Paytm and Phone Pe that provide FinTech services, findings reinforce the importance of being transparent about their operations, providing safe custody for customers, and offering educational workshops to generate interest within existing consumer groups where cultural values may help drive demand. Finally, from an academic perspective, the work further develops an integrated framework model by using Technology Acceptance Theory, Behavioural Finance concepts, and constructs of consumers' attachment to culture and incorporate them into one comprehensive research study showing an expanded view of literature relative to digital finance in terms of culturally-enriched traditional assets in developing nations.

Research limitations exist due to the method of collecting data. The data collected in this study were cross-sectional; as such, there is a restriction on making causative inferences and no opportunity for investigating how an individual's behaviour might change or shift over time. Restrictions also arise in the sample used in this research, which is predominantly urban and digitally literate. Generalisation of the results may, therefore, be limited when applied to rural or less digitally exposed areas, as cultural attachment to assets may be greater in these populations. Opportunities for future research would be to conduct longitudinal studies, increase the number of diverse regions represented in the sample and conduct cross-country comparisons between developing countries to further explore the extent to which cultural values and technological trust affect an individual's behaviour with respect to digitising assets.

In summary, this research provides evidence that the future of gold investment in India lies not in displacement of custom or tradition by technology, rather in their structured coexistence within a digitally evolving financial ecosystem.

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