



ARE INDIAN INDIVIDUAL INVESTORS ALL SET TO USE ALGORITHMIC TRADING PLATFORMS?

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Abstract

Indian stock market is going through a constant rise in the Algorithmic trading, however, it still lags behind the United States, where a significant 90% of all trades are driven by algorithms. In addition, there is a considerable need to discover the main factors shaping Indian Individual investors' Intent to use Algorithmic Trading. This research is focusing on addressing the gap by exploring the elements that impacts the Intent to use ATPs (Algorithmic trading platforms) among Indian Individual investors. Primary empirical data is gathered by using structured questionnaires and studied with the help of AMOS software version 21 by doing structural equation modeling (SEM). There are 392 observations for the final sample size. This study incorporates two additional variables, awareness and trust, that are integral to the extended version of the Technology Acceptance Model (TAM). This research extends the existing literature, which primarily focuses on strategy-building related research for Algorithmic Trading. This research is going to deliver a theoretical direction for upcoming studies and will provide insights to the Indian government as well as regulators for policymaking purposes, and will act as a helping hand for investors to assist them in making informed decisions.

Keywords: Algorithmic Trading; Technology Acceptance Model; Awareness; Trust; Intent to Use; Indian Individual investors.

1. INTRODUCTION

The "Secondary Market Advisory Committee (SMAC)" and the "Technical Advisory Committee (TAC)" submitted recommendations that led to the introduction of Direction on Indian Algorithmic trading on March 30 (SEBI, 2012). An algorithmic trade is defined as "Any order generated using automated execution logic." Through regulation, Securities and Exchange Board of India (SEBI) aims for safeguarding investors' interests as well as advancing the overall growth of the securities industry. It directed stock exchanges to establish arrangements, procedures, monitoring systems, and risk control mechanisms to manage system loads and instances of order flooding. Securities and Exchange Board of India (SEBI) appealed to incorporate a new report in the Monthly Development Reports of stock exchanges on Algorithmic trading within a one-month deadline and asked stock brokers to undertake a system audit to ensure effective implementation.

Stock exchanges should offer co-location/proximity hosting services impartially, ensuring similar latency for all stock brokers and data vendors (SEBI, 2013a) and (SEBI, 2013b). The proposed order-handling architecture could result in high latency for non-collocated traders, the discussion paper gathered public feedback on this matter.

Despite the fact that Algorithmic trading is widely employed worldwide, little scholarly research has been done to examine its effects in the majority of markets, according to (Dubey et al., 2017). There is a dearth of research on the interlink among investors' knowledge and understanding levels and their Intent to use ATPs (Algorithmic Trading Platforms) in India, even though there is a wealth of literature outlining trading techniques and using deep learning in making investment related decisions.

According to the author's understanding, no previous research has empirically investigated the elements that influence the Indian Individual investor's Intent to use ATPs. Final goal of the



current study is to form and validate a model as referred by (Shahzad et al., 2018) that academics and industry participants in the investment space may use in order to better comprehend how these factors affect the Indian ATPs use. Securities and Exchange Board of India (SEBI), the major stock exchanges, and the stock brokers will benefit from the study's findings as they will help develop and implement effective rules and initiatives to support the expansion of ATPs.

Considering how common Algorithmic trading is becoming in India, it is critical to look at how investors view these services. By investigating the immediate impact of Algorithmic trading awareness on users' Intent to use (IUAT) it as well as its indirect impact, which is mediated by trust (TAT), and the direct impact of Algorithmic trading Perceived Ease of Use (PEAT) on Individual investors' Intent to use (IUAT) it, with its indirect impact, where the mediating effect is occurred because of perceived usefulness (PUAT), the study seeks to address the dearth of empirical evidence on this topic.

The ultimate goal of this research is to provide institutions and Indian Individual investors with insights that will allow them to develop strategies to increase investor engagement in Algorithmic trading through the dissemination of relevant knowledge and the development of trust.

This research is in the direction to find out the dominant elements that might relieve the Individual investors regarding the use of Algorithmic Trading in India. According to the study of (Krause, 2016) emerging nations have a great potential for implementing cutting-edge technology that could upend their political and financial institutions.

Regardless of its demand, still it is not clear, and the insufficiency about the clarity with respect to Algorithmic Trading usage amongst Individual investors has received scholarly interest. Directionally, we are stating that increased knowledge and confidence in the technology will eventually lead to the quick adoption of Algorithmic Trading among the investors. The main goal of this factual investigation is to ascertain various components that contribute towards investor's perspective of using Algorithmic Trading as an innovative phenomenon of trading in the investment structure of India. The outcome of this research indicates that the Intent to use Algorithm based trading is strongly and significantly correlated with trustworthiness, and that trust significantly and positively mediates the connection among awareness and Intent to use Algorithmic trading. Looking at the other side perceived usefulness is acting as a mediator in the linkage of perceived ease of use and investor's Intent to use Algorithmic Trading in a partial manner. This study is prepared as: initially, the researchers created a foundational understanding on the basis of priorly linked research and formulated study hypothesis. Subsequently go over the study's methodology, results, and discussions. Finally concluding the research as completed in light of the study's findings and suggestions for government, regulatory authorities, professionals, and researchers are presented.

2. REVIEW OF LITERATURE & MODEL DEVELOPMENT

Over 95% stock orders are executed through algorithmic systems, which could undermine the fundamental purpose of capital markets.

According to a consultation document released by (SEBI, 2012), worries about the possible risks of using automated techniques are growing when it comes to Individual investors' use of algorithms in trading, saying "All orders emanating from an API should be treated as an algo order and be subject to control by stock broker and the APIs to carry out Algo trading should



be tagged with the unique algo ID provided by the Stock Exchange granting approval for the algo”.

(Trivedi et al., 2018) Future technologies will reduce human effort but not replace human intelligence entirely. As stated by (Jurich et al., 2020), under typical market conditions, algorithmic traders tend to perform better than human traders, although the human traders are more prone to cancelling orders before a sudden market downturn.

Algorithmic Trading is getting popular increasing as the time passes and it can have an important impact on trading in coming year. This research investigates intentions of individuals to adopt Algorithmic Trading as a substitute to traditional way of manual trading.

Numerous information science theories attempt to forecast individual components by using a computer. (Davis, 1989) is the first person who digged deeper into the user perception towards the usage of innovative technology. Research conducted by (Davis, 1989) is essential in initiating the conversation on personal purposes as well as the need of employing technology.

Subsequently, (Venkatesh et al., 2003) carried out an extensive examination of the theories that were employed to predict human-computer interaction in previous years. To ascertain the apparent adoption rate by individuals, these concepts have been utilized in order to inform enterprises of their intent to utilize cutting-edge technologies. Because most of them lack a solid model that can be used to gauge a broad range of technology-related characteristics, they have been criticized for being insufficient. The Technology Acceptance Model (TAM) is a broadly utilized tool in educational exploration contexts to find out the spread of technology since it offers forecasted characteristics for comprehending the inclination to get comfortable with the novel technologies (Venkatesh & Davis, 2000). Technology Acceptance Model is a comprehensive model, mapped out for knowing about the users' intent to use cutting-edge technologies. Several studies have determined the adoption rate of cutting-edge technology employing various models or a mix of models, depending on their circumstances. Accordingly, to assess an Indian Individual investor's desire to use Algorithmic Trading, we employ TAM as our primary research methodology for this study, together with two crucial components of technology adoption: awareness and trust.

2.1. Awareness

Only until technological innovation is widely disseminated, its inclusivity in a nation's progress can be assessed. Diffusion is also dependent on a person's decision-making process in many ways. Awareness about a technology and its usage is an important component in technology diffusion (Hall & Khan, 2003). Gaining extensive knowledge about a system can help individuals to move forward to adopt it (Aloudat et al., 2014). Awareness is an important element to know about the various aspects of technology and its usage. Concept related knowledge about a system will direct individual decision towards its adoption (Krishnaraju et al., 2016) and the connection of awareness and the Intent to adopt cutting-edge technology is clearly positive (Shahzad et al., 2018).

Algorithmic Trading is an innovation that is likely to be utilized as trading platforms globally in the context of the global financial system. We are working to assess people's awareness of the uses and advantages of this new technology, known as algorithmic trading, and determine whether or not they consent to use it.

Accordingly, hypotheses are:

H1: Awareness significantly impacts the Intent to use ATPs.



H2: Awareness significantly impacts Trust.

2.2. Trust

In the financial sector, how much people rely on the technology has an immense effect on the potential users' mindset to adopt the services (Hu et al., 2019). Trust play even critical role for the fintech industry because large and complex data is involved. To get knowledge regarding potential users' acceptance of a novel technology, it is important to explore the influence of trust and how it is impacted by other elements. It is highly known that trust in online trading platforms is more if users are assured by the assistance merchants that they are going to stand behind their provided services (Lee, 2009). Trust is an important element for innovative technology adoption, and it contributes in constructing a positive perception of society. As per the outcomes, an important factor influencing the propensity to use cutting-edge technologies is trust (Mendoza-Tello et al., 2018); (Billanes & Enevoldsen, 2021). Trust plays as an important element that determines investors' Intent to look forward to use online trading, and trust should be involved as an important factor alongside TAM factors as suggested by (Wicaksana & Rachman, 2003).

Accordingly, hypothesises are:

H3: Trust significantly impacts the Intent to use ATPs.

H4: The association between Awareness and Intent to use ATPs is mediated by Trust.

2.3. Perceived ease of Use

Analogous with (Davis, 1989) research; perceived ease of use means by what degree a person depends upon the seamless and uncomplicated operation of a particular technology or system. The "Action Identification Theory" leads to the conclusion that, given the advantages of technology, apparent ease of use may not matter all that much once it is applied to a given behavioral purpose. Nonetheless, it is crucial to the formation of person's past usage behavior (Venkatesh et al., 2003).

According to this study, individual's opinion with respect to the adoption of Algorithmic trading highly depends on how simple and quick it is to use. The degree to which someone perceives algorithmic trading to be simple to use is a critical signal for their intentions. Accordingly, hypothesises are:

H5: Perceived ease of Use significantly impacts the Intent to use ATPs.

H6: Perceived ease of Use significantly impacts Perceived Usefulness.

2.4. Perceived Usefulness

In the literature given by (Davis, 1989); perceived usefulness means the measure to which someone believes either a particular technology or a system is going to help them and could improve the overall execution of tasks. Similar to the previous studies of (Davis, 1989) and (Venkatesh et al., 2003), perceived usefulness relentlessly influences behavior intent to adopt cutting-edge future. The utilization of Algorithmic Trading in India society, will also be controlled by perceived usefulness which will eventually influences Algorithmic Trading's adoption.

So, in the present research, in addition to anticipating perceived usefulness's straight effect over the Intent to use Algorithmic Trading, also the influence of mediation of perceived usefulness in the interaction among perceived ease of use and Intent to use Algorithmic Trading is determined.

Accordingly, hypotheses are:

H7: Perceived Usefulness significantly impacts the Intent to use ATPs.

H8: The association between perceived ease of use and Intent to use ATPs is mediated by Perceived Usefulness.

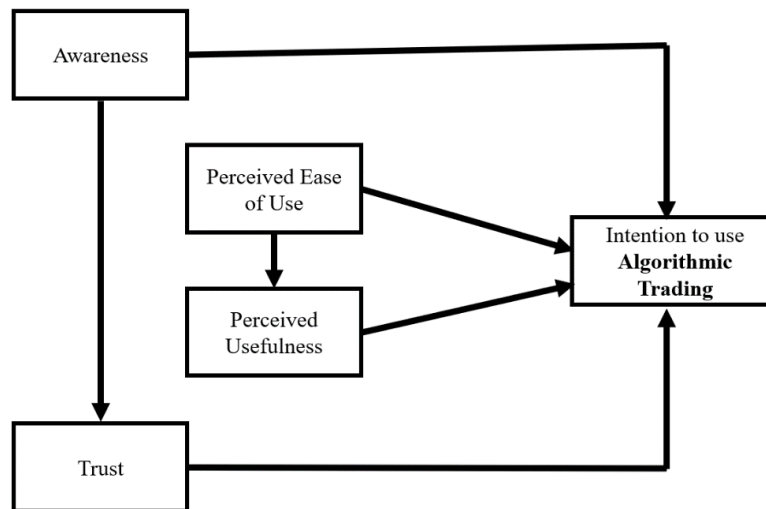


Figure 1: Proposed theoretical model (by authors).

3. RESEARCH METHODOLOGY

In current data and the literary work as the given goals, the desire of Individual investors to employ Algorithmic Trading has been ascertained through the application of an empirical research technique. The investigation environment of this research is positioned in India, where this technology is introduced to Individual investors a decade back but still the awareness and clarity about the usage is not adequate to direct the Individual investor to actually use it. We endeavoured to investigate people's perceptions of Intent to use Algorithmic Trading as a substitute to the traditional manual way of trading. Which is time and cost effective as compared to the early ways of doing it.

In this empirical study, the structured questionnaire is engaged for gathering the necessary data having a Likert scale of five-points. The questionnaire is regarded to be an essential part in gathering data, and by raising awareness of the significance of this research, we want to reduce response error.

Since this field has not received much attention before, we used a number of already developed scales to reflect the components with the necessary adjustments when developing the survey to ascertain the respondents' intent to employ Algorithmic Trading (Davis, 1989) and (Venkatesh & Davis, 2000). The survey is created in English, and an online survey form is used for both distribution and data gathering. The technique of cluster sampling proved suitable for gathering the necessary data from the active Indian Individual investors. We estimated around 1200 distributions for our survey, but only 400 were received. Of those, 8 displayed biased reactions by choosing the same response for each question. In order to reduce answer error, these eight responses were not taken into consideration in this study. Data cleaning is done by checking the missing values followed by unengaged response and, a final sample size of 392 is fixed for the purpose of doing empirical analysis using Structural Equation modeling. We looked for common method bias (CMB) with the help of Harman's single factor score, where the findings indicate that overall variation for one element is not greater than 50%. As a result, we draw the

conclusion that neither common method bias nor single factor bias affect our sample. This response is seen as acceptable when doing an internet-based survey consisting of a structured questionnaire, suggested by (Venkatesh et al., 2012) and (Shahzad et al., 2017).

To confirm authenticity of the data and the survey scale, the application of reliability testing, validity testing, and exploratory factor analysis (EFA) was done employing Statistical Package for the Social Sciences (SPSS) version 23 before applying the path analysis using Structural Equation Modeling (SEM) in the AMOS software version 21. We used structural equation modeling (SEM), for quantifying the influence of several constructs on people's intent to use Algorithmic Trading in India.

Table 1: Demographics of respondents.

Variable	Categories	%(sample size of 392)
Gender	Male	81%
	Female	19%
Age	Less than 30 years	61%
	30 - 40 years	23%
	40 - 50 years	10%
	More than 50 years	6%
Qualification	12th Standard	3%
	Undergraduate	29%
	Post-graduate	25%
	Professional Degree	37%
Occupation	Employed - Government sector	7%
	Employed - private sector	58%
	Self employed	9%
	Full time Investor	6%
	Professional Lawyers, Auditor, Doctor	3%
	Student, Research Scholar	17%
Monthly Income(Rs.)	Less than 25,000	14%
	25,001 – 40,000	15%
	40,001 – 60,000	18%
	60,001 – 1,00,000	22%
	1,00,001 – 2,00,000	16%
	More than 2,00,000	15%
Investing Experience	Less than 1 years	25%
	1 - 3 years	28%
	3 - 6 years	20%
	6 - 10 years	11%
	More than 10 years	16%
Aware about Algo	No	22%
	Yes	78%

Source: Computed by authors

4. FINDINGS AND DISCUSSIONS

Like previously stated, using AMOS version 21, the cause-and-effect relationship between the predictor and outcome variables has been ascertained by the application of SEM. We have discussed about a number of participant demographics in this study, including like gender category, age group; academic credentials, profession, earnings per month, prior investment related background, and know-how about Algorithmic trading. Out of total 392 sample, the output in Table 1 showcase that male are 81%, while 19% strength is female; 61% of participants comes under the age category of less than 30 years; 23% pertain to an age category

30–40 years; 10% associate to age category 40–50 years, with the remaining percentage falling within the over 50 years age group. Majority of the study's participants are young people who actively trade in the stock market of Indian economy and can respond towards the adoption of Algorithms as a mode of trading in a better way. Professional educational achievement is seen to be common among the overall sample, with 37% of investors possessing one. Highest number of investors, at 58%, are working in the private organisation. While talking about their earning per month, 22% of the respondents are earning from Rs. 60,001-Rs. 1,00,000 per month. Approximately 28% of respondents are making investments since 1-3 years, and 78% of respondents have a clue about the existence of Algorithmic trading in India.

4.1. Measurement of the Model

Table 2: Output of factor loadings, reliability, and validity.

No.	Constructs	Items	Loadings	Cronbach's Alpha	CR	AVE
1.	Awareness	AW1	.895	0.969	0.969	0.887
		AW2	.923			
		AW3	.922			
		AW4	.908			
2.	Perceived Ease of Use	PE1	.887	0.953	0.954	0.837
		PE2	.877			
		PE3	.901			
		PE4	.892			
3.	Perceived Usefulness	PU1	.824	0.958	0.958	0.885
		PU2	.861			
		PU3	.826			
4.	Trust	PT1	.861	0.879	0.889	0.733
		PT2	.829			
		PT3	.752			
5.	Intent to Use	ITU1	.841	0.958	0.956	0.811
		ITU2	.863			
		ITU3	.853			
		ITU4	.874			
		ITU5	.853			

Source: Computed by authors

Prior to doing path analysis, the model's validity and reliability have been assessed. Table 2 presents the five research constructs with their Cronbach's alpha values. It is seen that all five reliability values are above 0.8, indicating that the study data is reliable. Composite reliability (CR) analysis is also utilized, and it is determined that all of the results fall between 0.889 and 0.969. Average Variance extracted (AVE) is in a similar way greater than 0.5 ranging from 0.733 to 0.887. According to provided results in Table 2, there should be no doubts with the validity and trustworthiness of the study data used in this investigation as prescribed by (C Fornell, 1981). Table 2 also includes a description of the outcomes of the Exploratory Factor Analysis (EFA), which was considered to confirm the validity of the study questions while accounting for pertinent variables. Adopting the Varimax rotation method with Kaiser Normalization to principal component analysis (PCA), in the same direction yields adequate results for each variable, which range from 0.752 to 0.923 and are deemed valid.

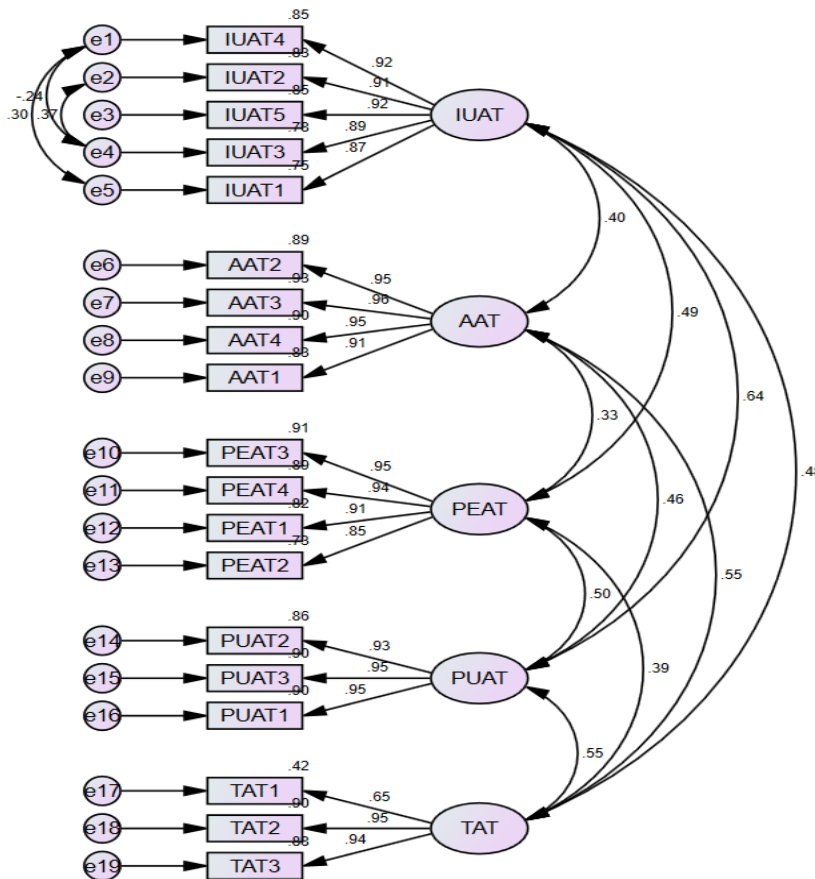


Fig. 2. CFA model showing 5 Factors (computed by authors).

The square root of average variance extracted (AVE) values of all the factors is demonstrated in Table 3, demonstrating discriminant validity. Since every average variance extracted (AVE) square roots have values higher than inter-construct correlations, the selected survey's discriminant validity remains unaffected (C Fornell, 1981).

Table 3: Descriptive statistics, correlations matrix, and AVE square root.

	Mean	Std. Dev.	IUAT	AAT	PEAT	PUAT	TAT
IUAT	3.24	1.069	0.901				
AAT	2.99	1.322	0.404***	0.942			
PEAT	3.90	1.100	0.493***	0.331***	0.915		
PUAT	3.34	1.068	0.642***	0.460***	0.497***	0.941	
TAT	2.84	1.106	0.477***	0.549***	0.387***	0.545***	0.856

Source: Computed by authors

4.2. Structural Model

The study model's construct validity and consistency are assessed using AMOS v21 by doing confirmatory factor analysis (CFA). The five-factor model presented in (Figure 2) with 19 items showed an acceptable fit, the numbers obtained from the confirmatory factor analysis (CFA) are as follows: the PCLOSE value of 0.072, the RMSEA value of 0.057, and the CMIN/df of 2.285 are all within the acceptable range. The model's predicted fitness levels, as indicated in Table 4, are exceeded by the estimations of CFI = 0.98, GFI = 0.921, and AGFI = 0.892 (Rajalahti & Kvalheim, 2011).

Table 4: Model fit estimates using CFA.

Model	Chi-Square	CMIN/df	GFI	AGFI	CFI	RMSEA	PClose
CFA Model	317.65	2.285	0.921	0.892	0.98	0.057	0.072
Recommended Value		Acceptable fit [1-4]	> 0.8	> 0.8	> 0.8	< 0.06	> 0.05

Source: Computed by authors

Fig. 3 shows there is a no significant direct link between awareness and Intent to use Algorithmic Trading, according to the path analysis's beta coefficient values. Awareness is positively associated with trust at the five percent significance level with (b=0.54). Perceived ease of use is significantly and positively associated with perceived usefulness as well as Intent to use Algorithmic trading with (b = 0.50) and (b = 0.22) respectively. The Intent to employ algorithmic trading is also directly and significantly positively correlated with perceived usefulness and trust; the beta coefficients for these variables are (b=0.47) and (b=0.13), respectively. Based on the results mentioned in Fig. 3 and the conclusions of the hypothesis displayed in Table 6, the conceptual model of this research proved to be significant.

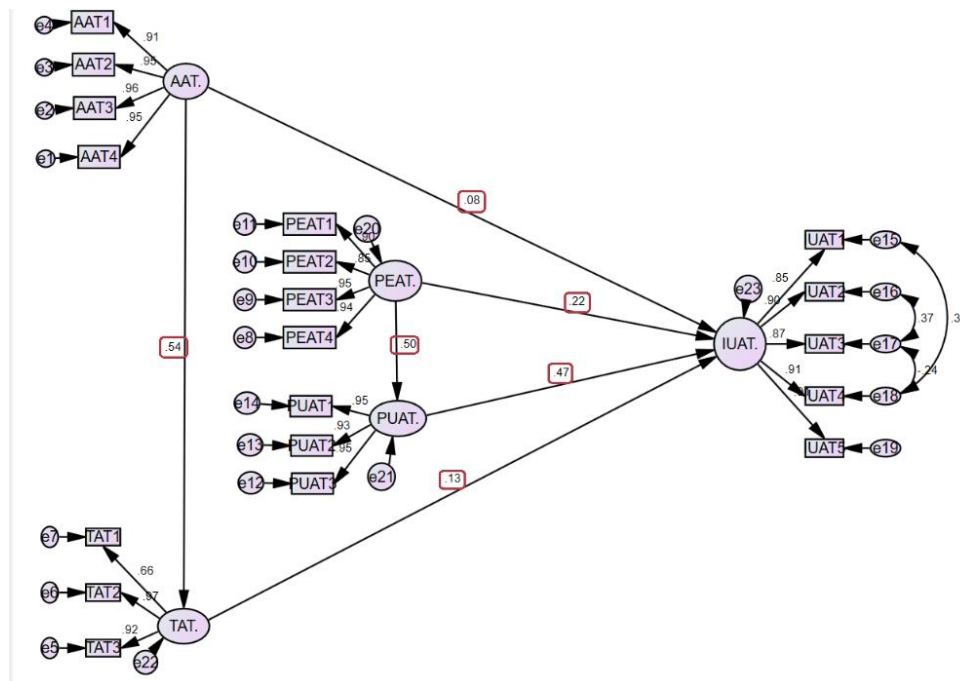


Figure 3. Results of the SEM analysis (computed by authors).

4.3. Estimates of mediation analysis

The current study is focusing on the linkage among perceived ease of use and Intent to use algorithmic trading, with a focus on the character of mediator, perceived usefulness as previously discussed in Technology Acceptance Model (TAM). The variance of 24.7% between the Intent to utilize algorithmic trading and the perceived ease of use is represented by the R-Square of the mediating variable, perceived usefulness, which is 0.247. Additionally, the relationship between awareness and Intent to employ algorithmic trading is examined, with a focus on the mediating effect of a factor named as, trust. Another mediating variable, trust, has an R-Square of 0.287, which indicates a 28.7% variance between awareness and Intent to employ algorithmic trading. We have employed the bootstrapping approach, as proposed by, (Preacher & Hayes, 2004) and (Hayes, 2013) to identify a mediating effect for evaluating

mediating relationship in order to look forward for the mediating effect of two factors, namely perceived usefulness and trust in this study environment.

Table 5 shows that, awareness and the dependent variable (Intent to use) have no significant association, but awareness and the mediating variable (trust) have a high link, indicating that trust completely mediates the association among awareness and Intent to use Algorithmic trading, with a mediating effect of 0.07. Additionally, perceived usefulness acting as a partial mediating factor connecting the relationship of Intent to utilize algorithmic trading and perceived ease of use, with a mediating impact of 0.23 at the 95 percent confidence level. The partial behavior of this mediation is demonstrated by the considerable positive association that perception of ease of use has with both the mediating and dependent variables (Intent to use).

5. CONCLUSION

The global virtual economy is not achieving its implementation aims using the traditional financial mechanism's restraining measures. The adoption of Algorithmic Trading by Individual investors in India, whether in the current or new financial system, is uncertain. However, because of the high cost and possibility of mistakes among individual investors, it is less widely accepted and presents legal and controlling challenges for governments and regulatory issue for the authorities. This will make it more difficult for individual investors to use and implement Algorithmic Trading in India. Investigating how Indian Individual investors are utilizing this innovation in the financial services industry is the main goal of this investigation. To do this, we employ TAM along with the crucial elements of trust and awareness, which characterize different facets of technology adoption among Indian Individual investors and have been employed in several research projects (Ndubisi, 2006) and (Venkatesh & Davis, 2000). Raising awareness will improve people's opinions about how they use technology and foster a culture of technology adoption (Krishnaraju et al., 2016). Compared to institutional investors, Individual investors are less familiar with Algorithmic Trading, and they don't know much about the fundamental operations of these digital trading platforms. In addition to measuring the basic TAM, the influence of awareness on the Intent to utilize Algorithmic Trading is also studied in this study's context. With the use of structured surveys to gauge individual's intent to use Algorithmic Trading, we presented this study in the Indian context, thereby promoting the uptake of this innovative idea of the digital financial system. Here is sufficient proof of a substantial association between the chosen constructs based on the results shown in Fig. 3. These findings demonstrate a significantly direct, positive correlation between the Intent to employ ATPs (Algorithmic Trading platforms) amongst Indian Individual investors and perceived ease of use, perceived utility, and trust. Overall or full mediating role effect of trust among the linkage of awareness and Intent to utilize Algorithmic Trading is demonstrated by the bootstrapping results from Table 5, highlighting the critical role that trust plays in the diffusion of technology. Also, the link between the Intent to utilize Algorithmic Trading and perceived ease of use has a partly mediating role of perceived usefulness. Based on our empirical findings and the study's background, we can say that Indian Individual investors are prepared to use Algorithmic Trading platforms if they have a high degree of trust and are well-informed about the features and applications of Algorithmic Trading.

Table 5: Results of the study.

No.	Path	Standardised Effects	P value	Result
1	AAT → IUAT	0.08	0.164	Non-Significant
2	AAT → TAT	0.54	0.001	Significant



3	TAT → IUAT	0.13	0.035	Significant
4	AAT → TAT → IUAT	0.07	0.013	Significant (Full Mediation)
5	PEAT → IUAT	0.22	0.001	Significant
6	PEAT → PUAT	0.50	0.001	Significant
7	PUAT → IUAT	0.47	0.001	Significant
8	PEAT → PUAT → IUAT	0.23	0.000	Significant (Partial mediation)

Source: Computed by authors

Perhaps a decrease in trust will result in a decrease in individual Intent to adopt Algorithm driven platforms as a mode of modern trading with regard to the government, the regulatory body- Securities and Exchange Board of India (SEBI), the parties involved; such as stock exchanges and stockbrokers, who are all still unclear about the regulatory steps that need to be taken to create a trustworthy environment and to provide a fair trading platform for all, and which is also outside of governmental controls. This will also be detrimental to Algorithmic trading platform’s anticipated expansion and involvement in the global financial system.

Understanding the intentions of Individual investors in relation to the implementation of the current trading framework for the enhancement of interactions between humans and computers is made possible in large part by this study. In light of this study, it is also important to emphasize that algorithmic trading is a fresh field that requires regulation by financial institutions and the government in order to raise investor trust in the new global financial system and offer investors with ultimate understanding of it.

Table 6: Hypothesis results.

Hypotheses	Status
H1: AAT significantly impacts IUAT	Rejected
H2: AAT significantly impacts TAT	Accepted
H3: TAT significantly impacts IUAT	Accepted
H4: TAT mediates the relationship between AAT and IUAT	Accepted
H5: PEAT significantly impacts PUAT	Accepted
H6: PEAT significantly impacts IUAT	Accepted
H7: PUAT significantly impacts IUAT	Accepted
H8: PUAT mediates the relationship between PEAT and IUAT	Accepted

Source: Computed by authors

5.1. Research Implication

Algorithmic trading could result from the swift obsolescence of the current financial system due to rapid advancements in technology and innovation. Regarding the significance of Individual investors' plans to embrace Algorithmic Trading in India, this study offers a solid theoretical foundation. Additionally, the body of literature of Algorithmic trading is greatly expanded by this investigation by highlighting the parallels and discrepancies in terms of global acceptance. Moreover, this research holds significance for policymakers and government agencies, as it provides insight into the Individual investor's attitude towards the implementation of Algorithmic Trading. This aids in setting guidelines not just for trading but also for other financial domains. The future of trade in India might be determined by it.

5.2. Limitations and Future directions

Additionally, data collection for the study is subject to a number of limitations, which was primarily gathered from youngsters. Thus, this may be a reflection of the behavior of a particular age group. This allows future studies to compare the behavior of various age groups



to investigate potential differences in Individual investors' intent to adopt Algorithmic trading. This study also did not uncover the cross-cultural component of Individual investors' adoption behavior; however, by using the same research paradigm in the future, this aspect can be investigated. This study only looks at the preferences of Individual investors for using Algorithmic trading; there may be other options in the future that merit more investigation. Future studies could look at the connections between different elements that aren't covered in this analysis.

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