Full Length Article

EXPLORING HOW IOT AND MOTIVATION AFFECT INVESTMENT CHOICES THROUGH DIGITAL LITERACY

Ronny Buha Sihotang; Lorina Siregar Sudjiman; Valentine Siagian, Rolyana Ferinia.

Abstract – *The study investigated how Internet of Things (IoT) applications, personal drive, and choices concerning financial commitments interrelate. Utilizing a qualitative approach, the research focused on small and medium enterprise (SME) proprietors to delve into the factors that inspire their investment decisions. It emerged that being digitally literate plays a key role in moderating these decisions. A notable connection was found between the adoption of IoT solutions and the impetus to invest. IoT's impact on shaping investment approaches was clear, highlighting digital literacy as a critical factor influencing monetary actions. The findings promote the idea that individuals should boost their digital know-how, that financial advisors should consider customized advice techniques, and that digital literacy components should be integrated into educational programs. This research offers new insights into the dynamics of financial decision-making in an increasingly digital economy, pinpointing the essential nature of embracing technology and developing digital skills*

Keywords: *IoT; Motivation; Personal Investment Decision; Digital Literacy*

INTRODUCTION

Personal Investment Decisions having a giant consideration to be manage carefully and accurately due to the revolutions of digital literacy. In this digital literacy, the skills of using technology facilities such as communication tools – computers, mobile phones, internet links, and others facility are mandatory. It means everybody is enhanced to compute and consider of what necessary steps to be made when someone want investing money or other funds' portfolios. Therefore, every personal investor must manage their capability before making decision for invest their funds in the world links. The world digital links are reliable and mobiles that enable all things manage at any place and any times. So, the digital literacy and digital personal invest is a blended for personal investment decision.

It is logically that digital literacy has motivated individual for taking the chance to invest the fund's portfolio. The attractiveness of digital literacy motivates all individual community having a chance to do and to manage their portfolio funds on flexible time and at a different place accordingly. Moreover, motivate individual needs a lot of some attractiveness but when the chance of using digital literacy is powerful and giants to be used individually. It enhances individual and ponder for motivating individual person to invest their funds accordingly.

Another factor that connecting to personal investment decision is IoT (Internet of Things) approaches. Absolutely that Internet of Things is one of adrenaline for doing and accelerating personal investment decisions. IoT also provides and attract the large portion of doing business without having limited time, limited funds, and limited region in the world. It enables all individual to do their best, to think carefully, to compute accurately, and to gain or loss for all portfolio investment transactions. So, if the internet facilities are existed, it will

mobiles an individual for accelerating all portfolios investment and count the result of all transactions accurately.

In the digital transformation era, investment decisions are increasingly influenced by the potential for cost savings, efficiency improvements, and new revenue streams enabled by technology. This includes investments in Internet of Things (IoT) devices, cloud computing, artificial intelligence, and other digital technologies that can drive transformation across various industries. Additionally, motivation plays a role in investment decisions as companies look to stay ahead of the competition and maintain their competitive advantage. Factors such as consumer behavior, regulatory environment, and market trends can also impact investment decisions in this era.

Investment Decision

Investment decisions for small and medium-sized enterprises (SMEs) can be challenging, as they often have limited resources and need to carefully consider the potential returns and risks of each investment. There are some key factors to consider when making investment decisions for SMEs. Business strategy: Investments should align with the overall business strategy and help the company achieve its goals. Market trends: Understanding market trends and consumer behavior can help SMEs identify opportunities for growth and investment. Financial feasibility: SMEs should carefully assess the financial feasibility of an investment, including the expected costs, revenue potential, and projected return on investment (ROI). Competitive advantage: Investments that provide a competitive advantage, such as technology or new products, can help SMEs differentiate themselves in the marketplace. Risk management: SMEs should also consider the risks associated with an investment, such as market volatility or technological obsolescence, and have contingency plans in place. Thus, SMEs need to weigh the potential benefits and risks of each investment, and make decisions based on their overall business strategy and financial situation.

Internet of Things

The Internet of Things (IoT) refers to a network of physical devices, vehicles, home appliances, and other items embedded with electronics, software, sensors, and connectivity which enables these objects to connect and exchange data (Kumar et.al, 2019). IoT has the potential to play a significant role in investment decision making by providing valuable data and insights (Popkova et.al, 2019; Sun et.al, 2020). For example, IoT-powered sensors and devices can collect data on consumer behavior, market trends, and production processes, which can be analyzed to inform investment decisions. Additionally, IoT can also be used to improve operational efficiency, reduce costs, and increase profitability, making it an attractive investment opportunity in industries such as manufacturing, transportation (Zhang & Lu, 2020), education (Valks et al, 2021) and healthcare (Kelly et.al, 2020). In summary, IoT offers valuable data and insights that can inform investment decisions, and can also improve operational efficiency, making it a potentially attractive investment opportunity (Ceipek et al, 2021).

Motivation

Motivation can act as a moderating variable in the effect of IoT on investment decisions (Maharani & Saputra, 2021). This means that the extent to which IoT influences investment decisions may vary depending on the motivation of the individual or organization making the investment. For instance, an organization with a strong financial motivation may prioritize investment in IoT solutions that promise cost savings, increased efficiency, and improved profitability. On the other hand, an organization with a social or environmental motivation may prioritize investment in IoT solutions that promote sustainability or improve the quality of life for their customers (Hu et.al, 2022). Similarly, an individual investor with a high-risk tolerance may be more likely to invest in IoT start-ups that offer high growth potential, while an individual investor with a low risk tolerance may prioritize more established IoT companies with a proven track record. Motivation acts as a moderating variable by influencing the priorities and decision-making processes of individuals and organizations, and thus, it can play a role in determining the extent to which IoT affects investment decisions.

Digital Literacy

Digital literacy is becoming increasingly important for small and medium-sized enterprises (SMEs) as technology continues to play a larger role in the business world. The following are some of the key benefits of digital literacy for SMEs. The first one is improved efficiency and productivity. With digital tools and processes, SMEs can streamline operations, automate repetitive tasks, and manage their businesses more efficiently. The second one, increased competitiveness. By embracing digital technologies, SMEs can level the playing field with larger organizations and compete more effectively in their markets. The third one is as the new revenue streams. Digital tools and platforms can enable SMEs to reach new customers, sell products and services online, and create new business models. The fourth one is as a tool for better decision-making. With access to data and analytics, SMEs can make informed decisions and track their progress more effectively. The last one is to enhanced customer engagement. Digital technologies can help SMEs build stronger relationships with their customers, providing them with better customer service and a more personalized experience. Therefore, it is important for SMEs to invest in digital literacy and ensure their employees have the necessary skills to effectively use technology to drive their business forward.

Research Hypotheses

Relationship between IoT and Personal Investment Decision

In his work, Sun, (2020) endeavours to create an integrated and efficient data processing platform for the Internet of Things (IoT) by utilising DMFS technology. The platform under consideration facilitates the integration of databases and models, hence enabling the development of a data mining model that is tailored to the requirements of the big data market. By employing dynamic analysis, this model has the capability to generate investment suggestions. Sun, (2020) in his study aims to develop a cohesive and streamlined data processing platform for the Internet of Things (IoT) using DMFS technology. The proposed platform integrate databases and models, enabling the establishment of a data mining model specifically designed for market big data.

Through dynamic analysis, this model would generate investment recommendations.

In a more precise conduct, the study conducted by Ouimet & Tate, (2020) examines the influence of networks on investing choices through the use of proprietary data on employee stock purchase plans (ESPPs). Based on our analysis, it is apparent that participating in an Employee Stock Purchase Plan (ESPP) is a strategic approach that optimises value. Abu-Taleb & Nilsson, (2021) present findings that differ from those of Ouimet and Tate, as they demonstrate a noteworthy correlation between the utilisation of social media and the process of making investment decisions. Social media platforms have a noticeable impact on the process of making investment decisions. Ismail et al.,'s (2018) study substantiates the findings of Abu-Taleb & Nilsson's research. According to existing literature, there is a widely held belief that the independent variables associated with online social media exert a substantial influence on the dependent variable of investment decision-making. In contrast to prior studies that have explored the correlation between the utilisation of Internet of Things (IoT) and investment choices, the present research places emphasis on the important role of IoT implementation in shaping individual investment decisions. Thus, the formulated research hypothesis is:

H1: IoT has a significant influence on Personal Investment Decision

Relationship between IoT and Digital Literacy

Some studies has been conducted on children and students to investigate the correlation between the Internet of Things (IoT) and digital literacy. In the opinion of Rakasiwi et al., (2021), the implementation of Internet of Things (IoT) technology plays a significant role in fostering the development of students' digital literacy abilities. Muharam et al., (2021) investigated the utilisation of Internet of Things (IoT) media in relation to children's digital literacy. The utilisation of Internet of Things (IoT) media, including interactive films and evaluations, in tandem with educational resources, aims to investigate the relationship between IoT and digital literacy. Therefore, it can be observed that the utilisation of digital media has a beneficial effect on augmenting the digital literacy skills of children.

The correlation between the Internet of Things (IoT) and digital literacy can be observed by examining the function of IoT as a catalyst. The researcher elucidated that the Internet of Things (IoT) functions as a catalyst for the advancement of digital literacy through its augmentation of information accessibility. IoT devices enable the real-time gathering of a significant amount of data (Oginga, 2023). Based on the limited existing research on the correlation between the Internet of Things (IoT) and digital literacy, it is evident that previous studies have primarily focused on investigating this association among children and students. Consequently, this study aims to explore the significance of IoT in fostering digital literacy among employees. Thus, the formulated research hypothesis is:

H2: IoT has a significant influence on Digital Literacy

Relationship between Motivation and Personal Investment Decision

Numerous scholars have conducted study on the topic of motivation in relation to personal investing decisions, approaching it from diverse perspectives. Previous research conducted by Bebasari & Istikomah, (2020) examined the relationship between investment motivation and investment decisions with positive and significant results.

Another facet pertaining to generational dynamics. The research undertaken by Putri and Simanjuntak focuses on investigating the relationship between motivation and investment decisions among women from the baby boomer, Generation X, and Generation Y age groups. According to the research conducted by (Putri & Simanjuntak, 2020), it can be inferred that motivation plays a significant role in shaping investment decision-making among individuals belonging to different generational cohorts. This assertion is further supported by Nugroho's study findings, which indicate that the investing motive of Generation Z exerts a significant and favourable influence (Nugroho et al., 2023). What distinguishes this research apart from prior studies is the utilisation of McClelland's theory of wants as the underlying framework for making investment decisions. Thus, the theory is as follows.

H3: Motivation has a significant influence on Personal Investment Decision

Relationship between Motivation and Digital Literacy

Few studies have examined in detail the motivations toward digital literacy. Two researchers, Lilian, (2022) and An et al., (2023) discussed in detail the relationship between motivation and digital literacy. Lilian, (2022) argued that intrinsic motivation would enhance students' digital literacy in 583 college students when asked. The focus of the motivational perspective is on motivational belief strategies. An et al., (2023) Motivation from an autonomous learning perspective, An et al., (2023) concluded that student adoption of technology, especially digital literacy, can enhance learning engagement. autonomy, improving their intrinsic motivation to learn. Participate in the learning process. Both Lilian, (2022) and An et al., (2023), studies are in the area of student perception about motivation in subjects that will lead to digitization. Both Studies refer to academic motivation, not employee motivation. In today's technology-driven environment, motivating employees to learn digital literacy is essential. Digital literacy is the capacity to utilize digital tools and technology efficiently, and it plays an important role in increasing productivity, problem-solving, and whole workplace efficiency. therefore, this study will explore the impact of motivation on employees' ability to use digital tools while at work. As a result, the hypothesis in this study is:

H4: Motivation has a significant influence on Digital Literacy

Relationship between IoT and Personal Investment Decision through Digital Literacy

The explicit investigation of the interconnection between IoT, investment decisions, and digital literacy has not been conducted in existing research. However, it is evident that these three factors are interconnected. The significance of digital literacy is highly relevant in the activities of acquiring information, analysing data, and making informed decisions related to Internet of Things (IoT) technology (Bawden, 2001; Sharkey & Brandt, 2005). The hypotesis of this study is to specifically investigate if digital literacy and IoT have an impact on individual investing decisions.

H5: IoT has a significant influence toward Personal Investment Decision through Digital Literacy

Relationship between Motivation and Personal Investment Decision through Digital Litaracy
There exists one specific study that examines the correlation between motivation, personal investment decisions, and digital literacy. (Mentari et al., 2022) in his finding indicated that investment motive, as influenced by digital literacy, had a substantial impact on investment interest for students. The findings remain consistent in Mentari's study. The results indicate that there is a significant impact of financial incentive on the investing decisions of the millennial generation, namely via the lens of financial literacy (Mentari et al., 2022).

The acquisition of digital literacy skills is propelled by individuals' motivation, which in turn enables them to make more educated investment decisions. This, in effect, enhances their incentive to attain their financial objectives. The studies mentioned previously investigated the demographic of young individuals, specifically students and millennials, but no existing research has specifically addressed the group of employees. This study primarily examines the acquisition of digital literacy abilities, which is driven by individuals' motivation, ultimately empowering them to make informed investment decisions. This ultimately increases their motivation to achieve their financial goals.

H6: Motivation has a significant influence toward Personal Investment Decision through Digital Literacy
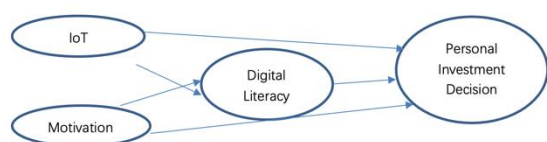

Figure 1 Conceptual Framework

METHODS

The research methodology for this study aims to examine the impact of Internet of Things (IoT), motivation, and digital literacy on investment decisions in the digital transformation era. To achieve this goal, we will employ a quantitative research design, using a survey questionnaire to gather data from a sample of small and medium-sized enterprises (SMEs). The study will investigate the relationship between IoT, motivation, and investment decisions, with digital literacy serving as a moderating variable. The survey questionnaire will include questions about the use of IoT in business operations, the motivations for investment in technology, and the level of digital literacy among employees. The data collected will be analysed using PLS to examine the impact of IoT, motivation, and digital literacy on investment decisions. The results of this analysis will provide insights into the factors that influence investment decisions in the digital transformation era and the role that digital literacy plays in this process.

Data for this study was collected using a questionnaire adapted from previous research, and it was administered to small and medium-sized enterprises (SMEs) owner. We shared google form to collect responses from SME's owner, within one month, we received 183 feedback. The research employed convenience sampling as its data collection technique. We make sure the outer loading is above 0,700 and as an indicator of reliability, Cronbach's alpha was employed and yielded a satisfactory result above 0.700, as shown in Table 2. Table 3 shows the factor loading.

The operational variables considered in this study encompass the measurement of Internet of Things (IoT) in relation to network devices, cloud computing, deep learning networks, and social networks (Tripathy & Anuradha, 2018). There are six statements pertaining to the dimensions mentioned above, which are evaluated using a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). One illustrative instance of the assertion "The rental of cloud services is crucial for the purpose of ensuring secure storage of data." Motivation can be measured through McClelland's theory, which encompasses three fundamental needs: the need for achievement, the need for affiliation, and the need for power (Robbins, S.P., 2018). This assessment often involves the use of six items, each rated on a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). An illustrative instance of a query is, "I experience a sense of pride when my work is

utilized as a point of reference by my colleagues." Based on (Chaffey, 2015),the assessment of digital literacy encompasses six distinct dimensions, which include digital accountability, digital productivity, digital collaboration, digital creativity, and digital learning. A set of six questions is administered to participants, utilizing a Likert scale ranging from 1 (never) to 5 (always). One such remark is "I aspire to acquire proficiency in utilizing technology as a means to enhance creative capabilities." An assessment of personal investment decisions is conducted based on the attributes of the investment itself (Redhead, 2008). A total of six statements were provided by the participants, utilizing a Likert scale for their responses. The Likert scale used in this study ranges from 5, indicating strong agreement, to 1, indicating disagreement. One illustrative statement is "The allocation of my savings is intended to be deposited within a financial institution."

RESULTS AND DISCUSSION

Results are the main part of scientific articles, containing: final results without data analysis process, hypothesis testing results.
Internet of Things (IoT) in relation to network devices, cloud computing, deep learning networks, and social networks (Tripathy & Anuradha, 2018). There are six statements pertaining to the dimensions mentioned above, which are evaluated using a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). One illustrative instance of the assertion "The rental of cloud services is crucial for the purpose of ensuring secure storage of data." Motivation can be measured through McClelland's theory, which encompasses three fundamental needs: the need for achievement, the need for affiliation, and the need for power (Robbins, S.P., 2018). This assessment often involves the use of six items, each rated on a Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). An illustrative instance of a query is, "I experience a sense of pride when my work is utilized as a point of reference by my colleagues." Based on (Chaffey, 2015),the

Table 1 Respondent's Characteristics

Description	Criteria	Total Respondent	Percentage
Gender	Male	93	50,9%
	Female	90	41,9%
Age	18-25 years old	29	15,84%
	26-35 years old	41	22,40%
	36-45 years old	47	25,69%
	46-50 years old	19	10,38%
	>51 years old	47	25,69%
Job	Teacher/Lecturer	17	9,29%
	Employee	60	32,78%
	Manager	23	12,57%
	C-Level Manager	10	5,47%
	Junior Entrepreneur	12	6,55%
	Senior Entrepreneur	11	6,02%
	Others	50	27,32%
Education	Highschool	15	8,19%
	Diploma	13	7,10%
	Bachelor Degree	109	59,56%
	Master Degree	33	18,03%
	Doctoral Degree	13	7,10%

An assessment of personal investment decisions is conducted based on the attributes of the investment itself (Redhead, 2008). A total of six statements were provided by the participants, utilizing a Likert scale for their responses. The Likert scale used in this study ranges from 5, indicating strong agreement, to 1, indicating disagreement. One illustrative statement is "The allocation of my savings is intended to be deposited within a financial institution."
The demographic characteristics of the participants provide valuable information into the makeup of the surveyed sample. In relation to gender, the distribution exhibits a very even balance, with 50.9% of individuals identifying as male and 49.1% as female. In terms of age distribution, a significant proportion of participants belong to the 26-35 years old bracket, accounting for 22.4% of the whole sample. This is closely followed by the 36-45 years old cohort, which represents 25.69% of the total responses. In relation to employment, the majority of respondents, accounting for 32.78%, identified themselves as employees. Additionally, a notable proportion of participants identified as managers and entrepreneurs, highlighting their large presence within the sample. In relation to the field of

education, a significant majority, specifically 59.56%, has a Bachelor's degree, hence emphasizing the high level of education within the sample. The inclusion of this demographic breakdown offers significant contextual information that enhances comprehension of the viewpoints and experiences of the individuals surveyed, hence enabling more focused analysis and the acquisition of useful insights.

Convergent validity seeks to establish the truthfulness of each relationship between indicators and constructs or latent variables. In PLS SEM, there are two types of validity: convergent validity and discriminant validity.

Outer Model or model measurement, according to Abdillahdxd and Hartono (2015: 188), describes the relationship between the indicator blocks and latent variables. The outer model is a measurement model used to assess the validity and reliability of the model. The validity of the data in this study was assessed using convergent validity analysis. Convergent validity analysis is a method for determining the reliability of reflexive indicators (Budhiasa, 2016a). The convergent validity test in this study can be accepted based on these calculations because it meets the requirements. The correlation between score items/instruments and construct scores (loading factors) with value criteria loading factor of each instrument greater than 0.7 can indicate the measurement model's convergent validity.Creating a Measurement Model (outer model).

Table 2 Outer Loading Interest of Things, Motivation, Digital Literacy, Personal Investment Decision

According to the outer loadings table, which is summarized in table 1 above, the questionnaire used to measure Internet of Things (IOT), Motivation (M), Digital Literacy (DL), and Personal Investment Development (PID) is valid. This is demonstrated by looking at the loading factor value, which is greater than0.70.

The Average Variance Extracted (AVE) value can be used to evaluate the second test for Convergent Validity. According to Budhiasa (2016b), the AVE value should be greater than 0.50 in order to meet the requirements of

convergent validity and reliability. Table 2 shows the details of the Average Variance Extracted (AVE) analysis results. The AVE convergent validity test in this study can be accepted based on these statistical calculations because it meets the requirements.

A reliability test must be conducted. This study used Cronbach's Apha (> 0.7) and composite reliability (> 0.7)for the reliability test. Table 3 presents the outcomes. All variables and constructs have values above 0.70 after the reliability test results have been computed. Based on cross loading measurements with the construct, the discriminant validity of the measurement model with reflective indicators was evaluated. It can be said that the latent construct is able to predict thesize of a block that is larger than the size of the other blocks if correlation constructs with measurement items produce greater results than other construct sizes.

The value of the loading indicator of a variable is greater than the value of the cross loading, according to the table above (the value of the loading on other variables). Therefore, based on the results of the validity test discussed above, this study can be deemed valid because it complies with the criteria for discriminant validity testing.

Table 4 The findings of the analysis of cross loading.

	Digital Literacy	IOT	Motivasi	Personal Inv Decision
DL2	0,806	0,428	0,402	0,211
DL3	0,820	0,500	0,429	0,287
DL5	0,886	0,548	0,430	0,215
DL6	0,812	0,645	0,525	0,265
IOT1	0,497	0,750	0,415	0,249
IOT4	0,491	0,759	0,308	0,210
IOT5	0,425	0,720	0,393	0,275
IOT6	0,511	0,744	0,501	0,198
M1	0,513	0,524	0,830	0,217
M2	0,323	0,331	0,736	0,296
M3	0,363	0,365	0,740	0,241
M4	0,497	0,487	0,855	0,185
M5	0,394	0,389	0,762	0,097

PID2	0,200	0,249	0,270	0,739
PID3	0,270	0,235	0,258	0,721
PID4	0,187	0,203	0,105	0,837
PID5	0,241	0,243	0,140	0,721
PID6	0,201	0,237	0,176	0,776

Source: PLS 3

Measurement models: Inner Model Outcomes
Collinearity must be taken into account to make sure there is no bias since structural model coefficients explaining the relationship of pair constructs are derived from analyzing the regression equation. When the regression models are correlated, the predictor variable cannot independently predict the value of the dependent variable. Investigation was conducted using the variance inflation factor (VIF) of less than 3. The findings show that each VIF value (Table 4) satisfies the required standards.

Collinearity Assessment
In order to avoid bias, collinearity must be taken into account. The variance inflation factor was used to evaluate collinearity (VIF). The predetermined model has no multicollinearity if the VIF tolerance value is greater than 10.00. (Hair, et.al. 2010). The findings show that each VIF value in Table 5 satisfies the requirements.

Table 5. VIF value

	VIF
DL2	1,947
DL3	1,996
DL5	2,642
DL6	1,679
IOT1	1,396
IOT4	1,472
IOT5	1,424
IOT6	1,363
M1	1,896
M2	1,706
M3	1,687
M4	2,264
M5	1,785
PID2	1,624
PID3	1,374
PID4	2,557
PID5	1,412
PID6	2,132

Source: PLS

Path Coefficients for Structural Models

In this study, structural equations are calculated using PLS-SEM to test hypotheses about the relationship and impact of COT, M, ID, and TCT. Figure 1 displays the outcome of the structural model. The requirement is that the p-value must be greater than 0.05 and the resulting t-statistic greater than 1.96.

Coefficient of Determination (R2 Value)

This coefficient, which is calculated as the squared correlation between the actual and predicted values of a specific endogenous construct, is a measure of the model's prediction accuracy. R2 values range from 0 to 1, with higher values indicating better prediction accuracy. An R2 value of.0.7 is considered strong, 0.67 is considered substantial, 0.33 is considered moderate, and 0.19 is considered weak (Hair, et.al. 2010)

	R Square	R Square Adjusted
Digital Literacy	0,473	0,467
Personal Investment Decision	0,088	0,083

According to the table above, the R2 variable The Internet of Things and motivation have a moderate influence on digital literacy (47.3%), and they have a very weak influence (8%) on personal investment decisions (Internet of Things and motivation through digital literacy).

Results of Hypothesis Testing

The path coefficient is examined during hypothesis testing, and T-Table and T-Statistics are compared. Testing hypotheses is done to determine the outcomes of data analysis on the formulated hypothesis. In this study, the results of testing the hypothesis are detailed in Table 6.

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The Relationship IoT toward Personal Investment Decision

Based on the data presented in Table 6, the findings indicate a positive beta score (ß = 0.149) for the impact of the Internet of Things (IoT) on personal investment decision. The associated p-value is 0.001, which is statistically significant (p <0.05). Additionally, the t-count value of 3.394 exceeds the critical value of 1.96, suggesting a significant relationship between IoT and personal investment decision. Thus, the acceptance of H1 implies that the integration of Internet of Things (IoT) technology has been determined to exert a significant on consumers' decision-making about personal investments (Ahmetoglu et al., 2022). The integration of Internet of Things (IoT) technology into investment decisions is in accordance with the contemporary practice of making decisions based on data (Sestino et al., 2020). Through the utilization of real-time data, advanced analytics, and automation, investors are provided with enhanced capabilities to effectively navigate the intricate dynamics of financial markets and successfully attain their investment goals (Alahi et al., 2023).The crucial role of the Internet of Things (IoT) lies in its ability to provide real-time access to data. Internet of Things (IoT) devices facilitate the acquisition of real-time data from many sources, especially in financial markets (Kumar et al., 2019). The provision of real-time information enables investors to make informed decisions, promptly respond to fluctuations in the market, and take advantage of developing prospects (Wu et al., 2023).

Table 6. Path Coefficients

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis
Digital Literacy -> Personal Investment Decision	0,297	0,066	4,509	0,000	Accepted
IOT -> Digital Literacy	0,502	0,079	6,315	0,000	Accepted
Motivation -> Digital Literacy	0,270	0,087	3,109	0,002	Accepted
IOT -> Personal Investment Decision	0,149	0,044	3,396	0,001	Accepted
Motivation -> Personal Investment Decision	0,080	0,033	2,409	0,016	Rejected
IOT -> Digital Literacy -> Personal Investment Decision	0.149	0.043	3.481	0.001	Accepted
Motivation -> Digital Literacy -> Personal Investment Decision	0.080	0.032	2.499	0.013	Rejected

The Relationship IoT toward Digital Literacy

Based on the data presented in Table 6, the findings indicate a positive beta score (ß = 0.502) for the impact of the Internet of Things (IoT) on digital literacy. The associated p-value is 0.000, which is statistically significant (p <0.05). Additionally, the t-count value of 6.315 exceeds the critical value of 1.96, suggesting a significant relationship between IoT and digital literacy. Thus, the acceptance of H2 implies that IoT d can contribute significantly to digital literacy.

The potential for IoT technology to enhance digital literacy is rooted in the inherent capabilities and features of IoT devices (Kumar et al., 2019). One example refers to the utilization of digital interfaces, applications, and configurations. Frequently, employees are required to engage with digital apps and configurations. Engaging in experiential learning opportunities can enhance individuals' digital literacy by fostering their proficiency with digital tools (Nikou et al., 2022).

The Relationship Motivation toward Personal Investment Decision

Based on the data presented in Table 6, the findings indicate a positive beta score (ß = 0.080) for the impact of the Internet of Things (IoT) on digital literacy. The associated p-value is 0.01, which is statistically significant (p < 0.05). Additionally, the t-count value of 2.409 exceeds the critical value of 1.96, suggesting there is no significant relationship between

motivation and digital literacy. Thus, of H4 rejected, implies that motivation cannot contribute significantly to personal investment decision.

Such outcomes can be attributed to the heightened susceptibility to impulsivity and the tendency to make inconsistent decisions. This phenomenon is explained by the aforementioned investigations. The achievement of financial goals often acts as a motivating factor for individuals to make intentional and strategic investing decisions. In the absence of this motive, individuals may exhibit increased vulnerability to impulsive decision-making influenced by transient market trends or emotional factors (Rodrigues et al., 2021).

The lack of significant relationship between motivation and personal investment decisions may also arise through the presence of inconsistent decision-making patterns. The lack of motivation can potentially result in unpredictable decision-making patterns, hence posing difficulties in constructing a cohesive and efficient investment strategy (Jacobson & Petrie, 2009).

The Relationship Motivation toward Digital Literacy

Based on the table 6, the results obtained on the influence of motivation on digital literacy have a positive beta score ß = 0.270 with a p value of 0.002 (p > 0.05), with t- count is 4.509 (test for t > 1.96). Therefore, H2 is accepted, namely the motivation to influence digital literacy has significant effect. These results are supported by a study conducted by Schmid & Dowling, (2022). They identify the relationship between motivation and digital literacy through three important types of technology in the workplace. First, music technology used in the work process (background music). Second, technology is used in "hygiene factors such as technology when paying wages, working conditions, when interpreting company regulations and guidelines, as well as for job security (Recker, 2013). Third, technology as the driving force. For example, the flexibility of remote work Chatterjee et al., (2022). Research shows that the flexibility of remote work significantly improves organizational performance, and that organizational policy and senior management support play an important role in implementing these activities. policy in the workplace. organization's remote control. Yu et al., (2023) confirmed the above results by examining the impact of technology on both positive and negative effects at the individual and organizational levels. And as a result, there is a need to create an IT-integrated framework for workplace learning.

The Relationship IoT toward Personal Invesment Decision through Digital Literacy

Based on the table 6, the results obtained on the influence of IoT on Personal Investment Decision through Digital Literacy have a positive beta score ß = 0.149 with a p value of 0.001 (p > 0.05), with t- count is 3.481 (test for t > 1.96). Therefore, H5 is accepted, namely the IoT to influence Personal Investment Decision toward Digital Literacy has significant effect. The Internet of Things (IoT) facilitates the acquisition of real-time data (Sharkey & Brandt, 2005) , which plays a pivotal role in making well-informed decisions (Ambasht, 2023). In parallel, possessing digital literacy empowers individuals to successfully comprehend and apply this data for the purpose of managing investments, The level of digital literacy has a significant effect on the degree of interest in investment (Ambasht, 2023), and accessing financial services (Nurul et al., 2023) that are enabled by IoT technology. Within the realm of personal investments, Internet of Things (IoT) enabled devices has the capability to collect data (Radouan Ait Mouha, 2021) pertaining stock prices (Kumar et al., 2019), economic indicators (Nistor & Zadobrischi, 2022), and supply chain integration (Ferinia et al., 2023) and company performances (Argyropoulou et al., 2023).

The Relationship Motivation toward Personal Invesment Decision through Digital Literacy

Based on the table 6, the results obtained on the influence of IoT on Personal Investment Decision through Digital Literacy have a positive beta score ß = 0.080 with a p value of 0.013 (p < 0.05), with t- count is 2.499 (test for t > 1.96). Therefore, H5 is rejected, namely the motivation to influence Personal Investment Decision toward Digital Literacy has no significant effect. The possession of digital literacy skills is crucial for individuals to

effectively access and evaluate investment information on the internet (Mentari et al., 2022). However, it is essential to note that mere digital literacy does not inherently ensure the presence of motivation to actively engage in making investment decisions (Bebasari & Istikomah, 2020). Motivation is subject to a multifaceted interplay of individual values (Mahmud et al., 2020), setting goals (Ghazzawi, 2007) , propensity for risk (Tang & Tang, 2007), and various other influences.

CONCLUSION

The findings point to a positive connection between Internet of Things and individual choices about financial investments. It has been demonstrated that the incorporation of IoT technology has a substantial impact on the decisions that customers make about their own personal investments. This lends credence to the idea that the data and information delivered in real time by IoT devices play an essential part in playing a role in assisting investors in making educated decisions. The research also demonstrates a positive association between digital literacy and the internet of things. The capabilities of Internet of Things (IoT) technology, such as digital interfaces and applications, contribute to the improvement of individuals' digital literacy skills. This research demonstrates the significance of the Internet of Things (IoT) in advancing digital literacy. According to the findings of the study, however, motivation does not play a substantial role in the decisions that individuals make regarding their personal investments. It's possible that this is owing to the complicated and multi-faceted nature of motivation, which can be influenced by a wide variety of elements, including financial aspirations and emotional concerns. In a similar vein, the findings of the study imply that motivation does not play a substantial role in digital literacy. Although having abilities in digital literacy is necessary for obtaining investment information, the motivation to actively engage in decision-making regarding investments is dependent on a wide variety of personal characteristics in addition to digital literacy. The Internet of Things (IoT), personal investment decisions, and digital literacy are all factors that are investigated in this study. The study reaches the conclusion that digital literacy

can help individuals better understand and utilize the data generated by Internet of Things devices for investing reasons. This finding highlights the importance of digital literacy in the investment decision-making process.

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