
Impact of Financial Literacy on the Investment Decision-making in the Commodity Market of Pakistan: Analyzing the Mediating Effect of Political and Economic Uncertainty

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Abstract

Under the current study, the researcher assesses the effectiveness of financial literacy on commodity-market financial decision making in Pakistan, focusing especially on the mediator role of political and economic uncertainty. With the use of a quantitative paradigm and Structural Equation Modeling (SmartPLS), 102 individual investors were sampled and interviewed of the Pakistan Mercantile Exchange (PMEX). It is shown empirically that informed and strategic investment behaviour is significantly improved through the availability of financial literacy. Political uncertainty is also a positive mediator meaning that a high levels of financial literacy make investors to see political events as strategic. The reverse also emerges: the economic uncertainty acts with the negative mediating effect and it reveals that macroeconomic volatility may cause a loss of investor trust even in financially literate people. Dual-mediation pathway was also established, meaning the political unrest will worsen economic uncertainty which further depresses the investment behaviour. Such results highlight the necessity to put financial education in the perspective of political and economical macro contexts. The study provides policies that can be implemented into actions regarding investor education, stability of regulation, and development of markets as per SDGs worldwide in line with Sustainable Development Goals (SDGs), specifically SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace, Justice, and Strong Institutions).

Key Words: Financial Literacy, Investment Decisions, PMEX, Economic Uncertainty, Political Uncertainty.

Introduction

The commodity markets are also highly volatile, and the commodity prices change frequently posing a unique environment of challenges and opportunities to the investors. Agricultural products, energy wealth, and metals are all commodities that pose to be a central element in global economic foundations and development (Tang & Xiong, 2018). However, sharp price fluctuation created by supply-demand imbalance, geopolitical event and macroeconomic shocks can have significant returns implications. Prudent decision-making in the commodity sector thus needs a subtle understanding of not only inherent market fundamentals but also the extraneous risk factors.

The concept of financial literacy, i.e., the ability to seek, understand, and utilize financial data in order to make optimal decisions, rises as an important parameter determining the investor behaviour (Lusardi & Mitchell, The Economic Importance of Financial Literacy: Theory and Evidence, 2014).

There is strong evidence to show that a high financial literacy level is also associated with increased portfolio diversification, risk evaluation, and financial security in the longer run (Rooij, Lusardi, & Alessie, 2011). In spite of the lack of research explicitly undertaken to study financial literacy in commodity investments, the characteristics of commodity markets, i.e. the costs associated with storage, and the seasonal fluctuation, and sudden geopolitical crises, mean that general financial knowledge models may fail to be comprehensive.

Economic uncertainty based on a changing growth rate, pressure inflation and changing monetary policy, has an important impact on the investor mood and according to Bloom, it influences the risk tolerance (Bloom, 2009). Political uncertainty, which is anchored on policy reforms, regulatory change and geopolitical pressures also alters market expectations and causes abrupt price volatility (Julio & Yook, 2012). The effects of these uncertainties are empirically established in terms of the outcomes of the equity and the bond market but their mediating effects in the correlation between financial literacy and the commodity investment decision are not clearly established.

Research Objectives

The aim of the study thus is to address the said gaps by determining how financial literacy affects the decisions of commodity investing and explicitly considering the moderating effects of economic and political uncertainty. The combination of mathematical measures of subjective financial literacy with empirical proxies of uncertainty, including measures of consumer confidence and macroeconomic volatility and political risk ratings, form a sophisticated basis for comprehending how investors make their way through difficult and uncertain worlds.

To achieve the above objectives, the current study would aim at: (1) determining the direct effects of financial literacy on the commodity investment choices; (2) determining whether economic uncertainty moderates or mediates the above relationship; and (3) examining the mediating effects of political uncertainty. The expected outcomes are supposed to be used in enriching the theoretical models of investor behaviour, shaping out regulatory and educational policies, and advising market players. In addition to the above objectives other main objective of the present study is to examine the degree of influence of financial literacy on investment decision making in commodity markets of Pakistan by explicitly controlling for mediating role of political and economic uncertainty. This objective not only makes sense for its relevance to understanding the behaviour of investors, but also because it supports a wider international framework for sustainable development and responsible investment. In line with the Sustainable Development Goals (SDGs), the research is being carried out to help aid in: SDG 4 (Quality Education): by analyzing how financial literacy provides the youth with the knowledge and ability to make wise, logical, sustainable and beneficial financial choices SDG8 (Decent Work and Economic Growth) - how can informed investment behaviour be connected to economic resilience, productivity, and sustainable opportunities? SDG 16 (Peace, Justice and Strong Institutions): by exploring the extent to which political and economic uncertainties, understood as governance-related causes, channel investment behaviour towards increased institutional faith and market stability. This paper also covers the dimensions of Environmental, Social & Governance (ESG): Governance approach: assessment of institutional conditions and level of political openness which support investors confidence. Social Aspect - how equality of access to financial education will contribute to a more inclusive, less vulnerable, market in times of volatility. -Environmental dimension: its indirect connections with the management of exploitation of natural resources (by means of sound decision making, which can moderate market anomalies that often increase volatility in energy, agriculture, and metal markets); As a result, the fine-tuned goals of the study are: 1. To decipher the direct impact of financial literacy on commodity investment choices implementing the scope of SDG 4 (education) and principles of ESG inclusivity 2. To analyse the mediating role of the economic uncertainty and its implications for the sustainable and responsible investment practice and SDG 8. 3. co-examining whether the mediating impact of political uncertainty on investment behaviour is particularly relevant to connecting the findings to SDG 16 -

the governance pillar of ESG; 4. how to offer policy insights at the intersection of financial education, regulatory stability and investor protection mechanisms with broader SDG and ESG agendas. The current research has the following flow. Section 2 reviews the literature, assesses the literature and develops hypotheses. In section 3, the research methodology is described. The empirical results are given in section 4. Section 5 is the summary of the implications and Section 6 the policy and research.

Literature Review and Gap Analysis

Financial literacy has been recognised as a crucial factor in determining the personal financial behaviour and decision-making. It has been shown empirically that financially literate people tend to take up retirement plans, invest in diversified portfolios, and portray informed financial decisions. In the sphere of investment, financial literacy provides people with skills to decode market info, evaluate risk and coordinate the investment choice, according to individual financial goals. It is also interesting to note that the research in this area has scarcely examined how this competence manifests in behaviour in commodity markets which are traditionally defined to be much more volatile and complex than most other (more established) financial markets.

The stated hypothesis is put forward by (Chen & Volpe, 1998), according to whom people who are more financially literate have a better opportunity of evaluating the investment opportunities and reducing risks, which guides the further research into commodity-specific investments. According to (Bhushan & Medury, 2013), financial literacy does not only perfect the process of financial decision-making, but also strengthens investor confidence and involvement, more so under emerging and alternative asset classes. (Al-Tamimi & Kalli, 2009) also argue that investors who possess more financial knowledge tend to pay attention to analyse and understand the contents of financial statements before committing to an investment decision.

(Bumcrot, Lin, & Lusardi, 2013) prove that demographics including age, education level, and income are crucial factors that affect the financial literacy which in effect influences the investment decisions. (Atkinson & Messy, 2012) elaborate on why financial education strategies are needed by countries in the contemporary financial climate that has seen nations on the edge of being financially over-stretched, and investors at risk of collapsing markets.

A pattern of financial literacy and investment choices is complicated further, in case of economic doubt acting as a mediator of the nexus. Economic uncertainty, which is in the form of a volatile inflation rates and interest rates, or the prospects of economic growth, has a significant effect on investment behaviour. (Bloom, 2009) asserts that under high levels of economic hurt, investors are likely to postpone or reduce investments as they are risk averse. Such investors might also be more resilient and versatile as financially literate people have ideas on how to take advantage of the inefficiencies in the market despite uncertain situations.

The Economic Policy Uncertainty (EPU) index was recently applied by (Scott, Bloom, & Davis, 2016) to measure economic uncertainty and how it affects investment behaviour. They conclude that high uncertainty has the adverse effect on the firm-level and the individual-level investment decision. On the same note, it was noted that political uncertainty has led to a high level of market volatility and a decline in investor confidence. As (Julio & Yook, 2012) note, when the situation of high political risk arises, such as during elections, runaway investment by firms is postponed. Such uncertainty can cause spasmodic investment behaviour to occur amongst individual investors who, especially, invest on a market with a high degree of political sensitivity. In this respect, financial literacy serves as a form of protection: it allows investors to choose between temporary political noise and long-lasting fundamental change, hence more strategic decision-making. (Lubos & Veronesi, 2012) take it further and argue that political uncertainty has a strong effect on equity prices and this fact might as well be the case with the pricing of commodities by the markets are so closely interconnected.

Extensive literature on the subject indicates that meditating variables ought to be considered when defining the role of financial literacy in profiling investment behavior. In light of this investigation,

the research considers economic and political uncertainty as mediator variables that can increase or dilute the effect of financial literacy on decision to invest in commodity-market. Moreover, (Lusardi & Tufano, Debt literacy, financial experiences and Overindebtedness, 2015) prove that with lower levels of financial literacy, more problems can be observed in the management of the debt and the risk of insolvency, which makes this knowledge quite relevant even during the economically and politically complicated situations.

Despite the usefulness of these ideas, empirical studies that directly relate financial literacy with the economic and the political uncertainty and the decisions on commodity investment are few. It is against this backdrop that the current research attempts to fill this gap by put forward an integrated theoretical framework, which will encapsulate that the decision-making undertaken within an environment of uncertainty is multidimensional. In the next section, hypotheses following this review are given.

Theoretical Framework and Hypotheses Development

The paper is based on the theory of behavioural finance and the theory of planned behavior (TPB) which together describe the way cognitive prowess of an individual (financial literacy) and environmental aspects (uncertainties) influence investment choices. Behavioral finance focuses on psychological factors that affect investor behavior and TPB believes that motivations of planning are anchored on attitudes, perceived control, and subjective norms.

In the proposed theoretical framework, financial literacy is used as the independent factor that affects the decision-making process in the commodity market in terms of investing processes. Mediating variables are economic uncertainty and political uncertainty which have the potential to mediate this relationship. The model is based on observation that when financial literacy increases, more rational and informed judgments are involved in the process of investment, although external moving uncertainties may moderate or mediate the effect of financial literacy.

The following are the proposed hypotheses of the study:

H1: Financial literacy has a significant impact on the investor decision-making in the commodity market.

H2: Political uncertainty significantly mediates the relationship between Financial Literacy and investor decisions in the commodity market.

H3: Economic uncertainty significantly mediates the relationship between the Financial literacy and investor decision in the commodity market

H4: Political uncertainty and Economic uncertainty simultaneously mediate the relationship between Financial Literacy and investor decision in the commodity market.

This empirical study finds its support in a theoretical model of the impacts of financial literacy on the investment behaviour of uncertainty. This model takes a structural equation model (SEM) approach that is carried out through the application of SmartPLS to test both direct and indirect routes through which financial literacy influences the process of making an investment.

Conceptual Model

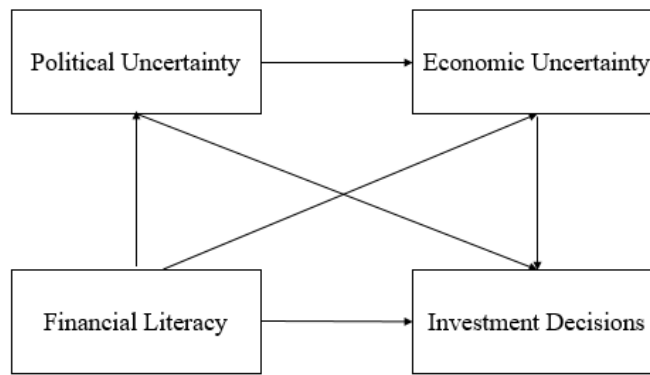


Figure 1 *Conceptual Model of the Study*
Source: Developed by the author

Research Methodology

This research paper will adopt a quantitative and explanatory design to examine the effect of financial literacy on investment option where economic uncertainty and political uncertainty will act as a mediator variable through a structured modified questionnaire adopted from previous studies. The aim is to specify causal association as well as mediating paths of these variables as part of a concise framework.

Target Population and Sample

The population of the study are individual investors who have invested in the commodity market of Pakistan i.e. Pakistan Mercantile Exchange. Whereas the study is based on 102 responses received online from investors who have invested in PMEX as individual investors that consist of male and female investors both.

Data Collection

Research Instrument:

A structured questionnaire containing closed ended questions have designed to collect the data from the individual investors who are investing in the commodity market of Pakistan. The questionnaire is based on a five-degree Likert scale comprising Strongly Disagree (1), Disagree (2) Neutral (3), Agree (4), Strongly Agree (5). All the research items are adopted from the previous studies. Seven Items FL1 to FL7 related to Financial literacy (independent variable) are adopted from (Abideen, Ahmed, Qiu, & Yiwe, 2023), ten items PU1 to PU10 for Political Uncertainty (mediating Variable) have adopted from Tarihi, Tarihi, & PİLATİN (2023), seven items from EU1 to EU7 related to Economic Uncertainty (mediating variable) are adopted from (Tarihi , Tarihi, & PİLATİN, 2023) seven items ID1 to ID7 for investment decision (dependent variable) are adopted from (Abideen, Ahmed, Qiu, & Yiwe, 2023) to conduct the study.

Data Analysis:

This paper discusses the influence of financial literacy in making investment decisions in the commodity market as affected by political and economic uncertainty. Structural Equation Modeling using SmartPLS, reported the analyses as demographic insights, assessment of the measurement model, and evaluation of the structural model.

Descriptive Statistics:

As displayed in Table 1, Respondent demographics were analysed in a systematic way. The median age of the average respondent to the survey was 37 years old, with an average experience in investment of about 9 years. Males formed a distinct majority (88 %), and females constituted 12 % of the sample. Educationally, the largest percentage (47 %) had a Master's degree, with Graduates (35 %) second. Regarding risk tolerance, most investors expressed medium risk tolerance (71 %), with 6 % expressing low risk tolerance.

Social class stratification showed that 71 % were in the middle class; the most popular commodities acquired were Metals (35 %), Financials (35 %), and Agricultural commodities (18 %).

Table 1

Demographics of Commodity Investors

	Frequency	Percentage	Average
Age			37 years
Working Experience			9 years
Percentage of Male Investors			88%
Percentage of Female Investors			12%
Qualification			
Graduate	36	35%	
Masters	48	47%	
Others	18	18%	
Risk Tolerance			
High	24	24%	
Medium	72	71%	
Low	6	6%	
Social Class			
Upper	30	29%	
Middle	72	71%	
Lower Middle	0	0%	
Commodity			
Agricultural Commodities	18	18%	
Energy	6	6%	
Financials	36	35%	
Liquid Contracts	6	6%	
Metals	36	35%	

Source: Author's own calculation based on responses received

Table 2

Descriptive Statistics and Confirmatory Factor Analysis of the Investors' Responses

Variables/ Factors	Item/ Question Code	Question Description	Descriptive Stats		Confirmatory Factor Analysis		
			Mean	Standard deviation	Outer loadings	T stats	P values
Economic Uncertainty	EU3	Commodity Investors consider the change in exchange rates while making investment decisions	3.88 2	0.758	0.844	20.7 73	0.000
	EU6	Commodity Investors consider the level of competition in the economy while making investment decisions	3.64 7	0.836	0.856	13.3 34	0.000

Political Uncertain ty	EU7	Commodity Investors consider the stage in the economic cycle while making investment decisions	3.60 8	0.930	0.891	51.0 99	0.000
	PU1	Commodity Investors consider political statements or political crises while making investment decisions	4.05 9	0.725	0.808	15.7 64	0.000
	PU4	Commodity Investors consider political instability in the neighboring countries while making investment decisions	3.76 5	0.941	0.851	29.6 56	0.000
	PU6	Commodity Investors consider the probability of a coalition while making investment decisions	3.60 8	0.930	0.811	31.0 16	0.000
	PU7	Commodity Investors consider the election periods while making investment decisions	3.82 4	0.984	0.812	20.4 33	0.000
	PU8	Commodity Investors consider the opposition's economic and political statements while making investment decisions	3.70 6	0.892	0.798	16.4 89	0.000
	PU9	Commodity Investors consider the Prime Minister's political statements while making investment decisions	3.64 7	0.967	0.878	25.8 65	0.000
	FL1	Investors know how the commodity market works	3.13 7	0.929	0.992	121. 978	0.000
	FL4	Commodity Investors believe that personal financial literacy can help lead a financially secure investment	3.66 7	1.097	0.648	6.34 8	0.000
Investor Decision Making	ID1	The investors intend to invest in commodity market every year	3.47 1	1.091	0.829	32.4 87	0.000
	ID3	The commodity investors intend to perform own investment research instead of using outside advice	3.41 2	0.974	0.691	8.69 1	0.000
	ID4	The commodity investors intend to save at least 10% of their gross earnings for investing in the commodity market	3.31 4	0.980	0.851	24.6 92	0.000
	ID5	The commodity investors intend to have a portfolio that focuses on multiple commodity investments	3.82 4	0.785	0.885	28.1 39	0.000
	ID6	The commodity investors intend to invest some money in long-term assets where their money will be tied up and inaccessible	3.68 6	1.057	0.740	12.3 45	0.000

Source: Author's own calculation based on responses received

Analysis of the Measurement Model

As displayed in Table 2 are results that were determined by defining the validity and reliability of the proposed constructs using the Confirmatory Factor Analysis (CFA) process. The outer loading values were greater than the conventional remark of 0.5 (Hulland, 1999) thus moderating to the good reliability of the indicators. In addition, the value of Average Variance Extracted (AVE) of each construct was more than 0.5, which supported convergent validity (Fornell & Larcker, 1981). The composite reliability (CR) and Rho A coefficients were adequately high whereby all the coefficients were well above 0.7 which means that there was internal consistency and construct reliability.

The Fornell-Larcker criterion, cross-loadings, and HTMT ratios as displayed in the following tables all satisfied the set criteria on discriminant validity. Such results confirm that each construct represents a unique construct within the measure model.

Analysis of the Measurement Model

Table 3

Construct Reliability and Validity

Variables Factors	Items	Loadings ^a	AVE ^b	CR (Rho C) ^c	Rho A ^d
Economic Uncertainty	EU3	0.844	0.746	0.898	0.887
	EU6	0.856			
	EU7	0.891			
Political Uncertainty	PU1	0.808	0.684	0.928	0.914
	PU4	0.851			
	PU6	0.811			
	PU7	0.812			
	PU8	0.798			
	PU9	0.878			
Financial Literacy	FL1	0.992	0.702	0.818	2.83
	FL4	0.648			
Investor Decision Making	ID1	0.829	0.644	0.900	0.895
	ID3	0.691			
	ID4	0.851			
	ID5	0.885			
	ID6	0.740			

Source: Author's own calculation based on responses received

Items Removed: Indicator items having loading below 0.5 have been removed. These items include EU1, EU2, EU4, EU5, PU2, PU3, PU5, PU10, FL2, FL3, FL5, FL6, FL7, STD1, ID2, and ID7

^a All item loadings > 0.5 point toward indicator reliability (Hulland, 1999)

^b All Average Variance Extracted (AVE) > 0.5 indicate convergent validity (Bagozzi & Yi, 1988; Fornell Larker, 1981)

^c All Composite Reliability (CR) > 0.7 indicate internal consistency (Gefen et al., 2000)

^d Rho A > 0.7 indicate indicator reliability except (Henseler et al., 2015).

Table 4
Fornell-Larcker Criterion

	EU	FL	ID	PU
EU	0.864			
FL	0.516	0.838		
ID	0.279	0.398	0.802	
PU	0.759	0.46	0.541	0.827

Source: Author's own calculation based on responses received

All diagonal values in the above appended Fornell-Larcker Criterion are the highest. Hence, all the constructs in study meet requirements for discriminant validity as per (Fonell & Larcker 1981).

Table 5
Cross Loadings

	EU	FL	ID	PU
EU3	0.844	0.371	0.056	0.559
EU6	0.856	0.270	0.122	0.643
EU7	0.891	0.620	0.443	0.732
FL1	0.569	0.992	0.406	0.490
FL4	-0.007	0.648	0.188	0.094
ID1	0.212	0.364	0.829	0.543
ID3	0.317	0.081	0.691	0.396
ID4	0.325	0.422	0.851	0.436
ID5	0.162	0.271	0.885	0.427
ID6	0.158	0.371	0.740	0.334
PU1	0.569	0.223	0.289	0.808
PU4	0.700	0.269	0.463	0.851
PU6	0.549	0.514	0.624	0.811
PU7	0.569	0.472	0.216	0.812
PU8	0.734	0.480	0.413	0.798
PU9	0.618	0.279	0.592	0.878

Source: Author's own calculation based on responses received

Every item in the above cross loadings is loaded highest to its latent variable across columns. Hence, all the constructs are meeting criteria of discriminant validity. (Chin 1998).

Table 6
HTMT Results

	EU	FL	ID	PU
EU				

FL	0.536		
ID	0.299	0.416	
PU	0.850	0.456	0.581

Source: Author's own calculation based on responses received

All values in the above HTMT results are below 0.85 that ensure discriminant validity

Analysis of the Structural Model:

In the proposed structural model, the evaluation was done through path coefficients, T-statistic, and P-values so as to understand whether the hypothesized relationships could be borne out or not.

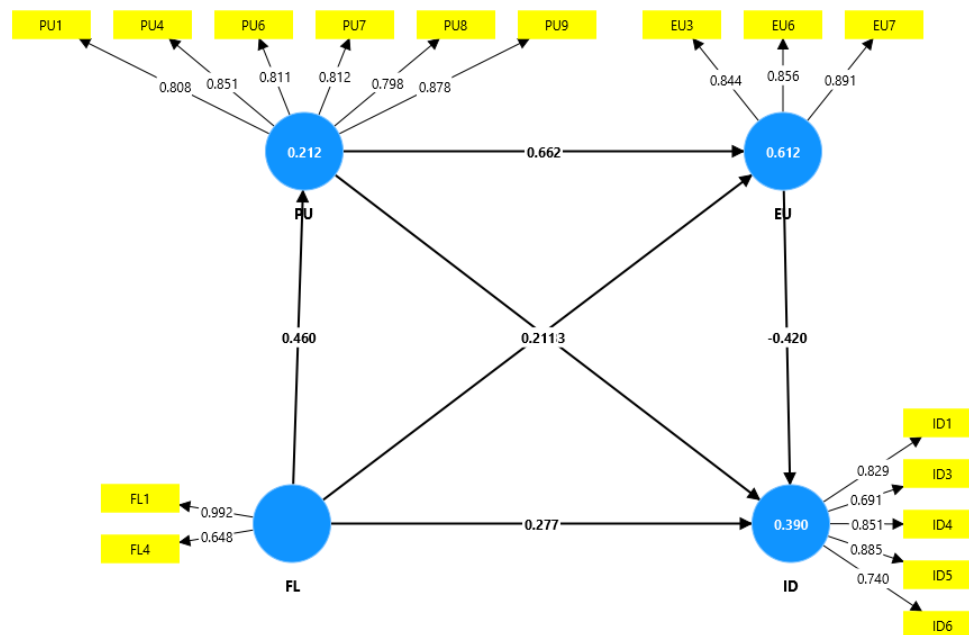


Figure 2 PLS Model for the Mediating Influence of Economic and Political Uncertainty between Financial Literacy and Investor Decisions in Commodity Market

Table 7
Path Coefficients

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Decision
EU -> ID	-0.42	-0.422	0.104	4.062	0.000	

FL -> EU	0.211	0.215	0.049	4.331	0.000	H ₁ Accepted
FL -> ID	0.277	0.276	0.08	3.455	0.001	
FL -> PU	0.46	0.466	0.066	6.94	0.000	
PU -> EU	0.662	0.662	0.068	9.794	0.000	
PU -> ID	0.733	0.739	0.085	8.575	0.000	

Source: Author's own calculation based on responses received

Table 8

Specific Indirect Effects

	Original sample (O)	Sample mean	Standard deviation	T statistics	P values	Decision
FL -> EU -> ID	-0.089	-0.092	0.033	2.696	0.007	H ₂ Accepted
FL -> PU -> ID	0.337	0.343	0.053	6.339	0.000	H ₃ Accepted
FL -> PU -> EU -> ID	-0.128	-0.129	0.034	3.744	0.000	H ₄ Accepted

Source: Author's own calculation based on responses received

In view of the above tables based on the path coefficients the following results can be reported:

Direct Effects

Financial Literacy (FL) and Investment Decision (ID): the relationship was found positive and significant ($B = 0.277$, $p = 0.001$) which proposes the support on H 1.

FL -> Economic Uncertainty (EU): a strong positive correlation was found ($\beta = 0.211$, $p = 0.000$).

FL- Political Uncertainty (PU): the relationship was considerably positive ($b = 0.460$, $p = 0.000$).

PU - EU: the highest positive relationship was observed ($\beta = 0.662$, $p = 0.000$) and hence it has been found that the economic uncertainty perceptions are largely driven by political uncertainty.

EU -> ID: the unexpected negative pattern was identified ($\beta = -0.42$, $p = 0.000$), which demonstrates that the larger the economic uncertainty, the less willing people are to invest money.

PU → ID: a significant positive impact was realized ($\beta = 0.733$, $p = 0.000$), which indicates that decision-making is strongly affected by political cue.

Indirect (Mediating Paths)

FL -EU ID (H2):A negative indirect effect was found to exist ($b = -0.089$, $p = 0.007$), which indicates that the economic uncertainty negates the direct relationship between financial literacy and investment.

FL -> PU -> ID (H3): the path was positive and significant (0.337 , $p = 0.000$) and confirmed the mediating value of the political uncertainty.

FL --> PU --> EU --> ID (H4): the complex mediating association was negative ($B = -0.128$, $p = 0.000$), indicating that although political uncertainty escalates economic uncertainty, the latter decreases the investor confidence.

Discussion:

The current exploration confirms the essential role of financial literacy in investments in the commodity sector. Those participants with greater levels of financial literacy were more strategic, diversified and long-horizon supporters. These findings are consistent with the existing scholarly opinion about the role of financial literacy in improving the potential of decision makers to evaluate

the risk, analyze the financial instruments as well as develop at-the-high-end plans (Lusardi & Mitchell, The Economic Importance of Financial Literacy: Theory and Evidence, 2014) (Rooij, Lusardi, & Alessie, 2011). Again, in line with the previous results of (Grohmann, Klühs, & Menkhoff, 2018). The study also reveals that financial literacy has a significant effect on the patterns of asset allocation and practices of rational and long-term financial behavior.

One of the unique attributions of the research is combining an economic form of uncertainty and political form of uncertainty as mediator variables, thus adding the level of contextual constraint of effectiveness of financial literacy. Political uncertainty was found to be a strong positive mediator, meaning that, indeed, commodity investors place an extremely high premium on political events: elections, realignments, and geopolitical tensions, especially when making financial decisions. The finding is consistent with that reported by (Julio & Yook, 2012) which indicated that an increase in political volatility encourages delays or postponement of investments by firms and investors due to an unclear prospective payoff. Similarly, (Brogaard & Detzel, 2015) found that political turmoil increases volatility in the asset market and condition investors to be exposed to political cues.

Economic uncertainty, on the other hand, served as a mediator but a negative one: the greater the fluctuations of the macroeconomy (because of such phenomena as currency volatility, inflation pressure, or downturns in the business cycle), the more cautious or even averse the investors become. Such a trend is consistent with the results of (Baker, Bloom, & Davis, 2016) who also find contractionary correlation between their Economic Policy Uncertainty Index and levels of investment. Similarly, it was found by (Gulen & Ion, 2015) that the firms perform a recession when experiencing high levels of economic policy uncertainty, a trend that is comparable to that of individuals in similar conditions.

Remarkably, political and economic uncertainty were established to be lining in the same direction and, hence, extend the uncertainty spillover hypothesis formulated by (Bansal & Yaron, 2005) presuming that political turmoil engulfs economic angst, therefore enhancing fluctuations in the marketplace. Along with this statement, (Hlatswayo & Saxegaard, 2016) show that commodity capital markets, along with other emerging markets, seem to be most vulnerable to the bi-directional relationship between political instability and downturns in the economy.

The current results reinforce and further support main principles of the behavioral finance theory (Kahneman & Tversky, 1979). They suggest that even where there are strong analytical skills available, financial decision are not only conditioned by the overt rational analysis but are influenced also by the subjective psychological reactions to an attitude of risk and uncertainty. In such situations, even financially literate investors can develop bounded rationality and pursue conservative approaches to uncertainty responses. The data also proves that these phenomena are mostly relevant in case of commodity markets, which are tuned not only to international political agenda but also with macro forces globally.

The above observations indicate that, although financial literacy is a necessary precondition to sound investment behavior, its effectiveness is mediated by the overall macroeconomic-political environment. Financial expertise does not exist in some sort of vacuum; on the contrary, financial expertise is shaped-and often, even hampered-by outside volatility. Markedly, this finding has considerable policy implication in financial education, investor behaviour and design of financial systems meant to reduce the perceived risk in an uncertain territory.

The empirically validated literature produced in this study demonstrates the critical role of financial literacy on sound, strategic, and sustainable commodity investment. We also show that the relationship between financial literacy and investment and risk choices is richer than previously thought: higher levels of financial literacy increase diversification and length of horizon, but also increase investor resilience in the face of political uncertainty. These results confirm Sustainable Development Goal 4 (Quality Education) through evidence that demonstrates that financial knowledge helps reduce information asymmetry and provides rationality in investment decision-

making. The authors highlight that political uncertainty helps to compound the need for strong governance institutions in line with the governance aspect of ESG principles and Sustainable Development Goal 16 (Peace, Justice and Strong Institutions). In other words, when investors interpret governance systems as stable and transparent, they are more likely to view political signals as strategies than as risks. By contrast, weak governance and political instability exacerbates economic volatility, which in turn discourages investment even among those who are financially literate. Economic uncertainty proved to be a negative mediator and explains why high-quality institutions affect investor confidence - macro-economic uncertainty in the form of immediate and temporary macro-economic shocks such as inflation risks, currency appreciation, and recession anxiety. This is consistent with Sustainable Development Goal 8: Decent Work and Economic Growth as stable macro-economic conditions are necessary for productive investment and sustainable longer-term growth. The findings also in fact support the ESG principle of the risk management as the reduction of uncertainty is a key condition for the sustainability of social investment market ecosystems. "Moreover, from the sustainability perspective, commodity markets are strongly correlated with key sustainability challenges - energy, agriculture and metal and mining industries. As investors with financial literacy become more enabled and ESG-minded, they can better channel money towards sustainable commodities or processes that do not engage in speculative behavior and introduce pressure into the market that creates unrealistic prices for resources. All in all, the findings imply that financial literacy is an important catalyst, and that its effectiveness is driven by the quality of governance, macro-economic (note: macro-political) stability, and ESG-aligned investment frameworks. The interlink between these SDGs builds on synergies between education (SDG8) and financial market conduct (SDG4) and between income and jobs stability (SDG8) and governance dynamics (SDG16) to seed the development of social priorities in a sustainable, inclusive environment.

Conclusion:

In the current study, the effect of financial literacy to investment decision in commodity market, especially the role of moderating economic and political uncertainty, are studied. According to empirical findings, financial literacy elevated to a certain extent has a very significant positive impact to the performance making of informed strategic decisions by investors. When people have a strong background in the financial concepts and market functions, they show more proactivity, more portfolio diversification and more long-term perspectives in their investments.

Notably, the research also shows that the beneficial effects associated with financial literacy are not categorical; instead, they depend on more macro-economic and political conditions. Political uncertainty became a matter of positive mediating effect, implying that an investor will tend to interpret political events as a signal that can be used in the course of trading strategies. Conversely, an economic uncertainty had a negative mediating role and it highlights the vulnerability of surprisingly unstable economic situation to strip the investor confidence of even financially knowledgeable individuals.

The study conducted in the present paper shows that political and economic uncertainty is strongly associated, which proves the argument that political instability often leads to economic fear that limits rational investment behaviour. As a result, it is essential to generate the confidence among the investors; the art of doing this is by integrating financial literacy with a certain political and economic predictability within the system.

By adding to the literature base on behavioural finance as well as policy debates on investor protection and education, the results also add heft to current thinking that the additional improvement of financial literacy is necessary, but not sufficient by itself. To this effect, the stakeholders will be compelled to adopt policies that reduce systematic uncertainties that affect the market performance. Results of this study indicate a statistically significant and positive effect of financial literacy on investment decision-making in commodity market, allowing investors to follow strategic, diversified,

and long-run investment strategies. This effect, however, is controlled disproportionately by political and economic uncertainty, which is consistent with evidence suggesting that even well-informed investors may be susceptible to volatile macroeconomic and political conditions.

By anchoring the study within the Sustainable Development Goals (SDGs) and Environmental, Social and Governance (ESG) criteria, the study offers meaningful insights in several ways: SDG 4, 8, 16.

- **Sustainable development goal 4:** Quality Education Financial capability should be recognized as a life-long learning issue related to the empowerment of individuals facing financially complex environments responsibly. "Our research shows that quality financial education makes people more resilient and more confident in making decisions."
- **SDG 8 (Decent work and Economic Growth):** Inclusive economic growth is driven by a stable and informed investment behaviour. When an circumstances can lead to unchecked economic uncertainty, however, it hurts the confidence in investment and requires macro-economic policy stability as well as ESG-Aware Responsible Investing.
- **SDG 16 (Peace, Justice and Strong Institutions):** Stability in government and governance is a critical commandment in advancing confidence among investors. The results suggest that ESG governance-compliant institutions with transparency and predictability can help foster confidence in the marketplace and impact investing.

The study finds/observes at an ESG level that: bullet list: "Investor trust for a stable governance remains pivotal to support capital markets in uncertain political times" Access to comprehensive financial literacy programs facilitates fair and responsible participation in the markets by lifelong learners from all socioeconomic backgrounds.

"Commodities investment should be considered within a financial literacy context that includes environmental considerations to ensure responsible consumption and investment in line with sustainable utilization of resources. In other words, the two fold imperative of increasing financial health literacy and stable governance and economic conditions intersects both with SDG and ESG agendas. Some lessons seem clear, namely, that macroeconomic and political awareness must be included in financial education programs, and regulators and policymakers must help alleviate systemic uncertainty. Together, these measures both bolster investor decision-making and make financial markets more inclusive, resilient and sustainable. This study indicates that financial literacy has a statistically significant and positive impact on investment decision-making in commodity market and facilitates the investors to follow strategic, diversified, and long-term risk management practices in their investment strategies. However, such a relationship is also moderated by political and economic uncertainty, most likely because even alert investors remain vulnerable to uncertain macroeconomic and political conditions. By placing these results in the context of both the Sustainable Development Goals (SDGs) and the Environmental, Social and Governance (ESG) thresholds, the research makes a number of key contributions: "SDG 4 (Quality Education) - Financial literacy should be treated as a lifelong learning priority that not only enables individuals to thrive in complex financial environments but also to make responsible choices in complex financial environments." The current report shows that this financial education is of high quality and improves resilience and confidence around decision-making. SDG - 8 (Decent Work & Economic Growth): Well-informed Investment behaviours help to develop inclusive economic growth. However, uncertainty about the economy reduces investment confidence, which is why we feel strong determination to have macroeconomic policy stability, and for the Eco-Social and Social Sustainability of Investment approaches to be aligned. SDG 16: Peace, Justice and Strong Institutions: The policy stability required to instil greater investor confidence. The research shows signs that it is feasible to design and structure clear and transparent institutions filtering investments standards on ESG criteria and principles and generate market trust in sustainable investing. From an

ESG perspective, the study shows that Finally, governance stability remains critical to investor confidence in a background of uncertain political developments. Access to financial literacy programmes means that people at all socio-economic levels can participate in markets in a fair and responsible way. To foster a responsible consumption and a sustainable investment process, that embeds the environmental considerations into financial literacy frameworks for commodity investments in line with sustainable resource management. In short, the dual mandate of improving financial literacy and attaining secure governance and economic environments meets both SDG and ESG objectives. Some findings seem clear, namely, that macroeconomic and political awareness must be included in financial education programs, and regulators and policymakers must help alleviate systemic uncertainty. Together, these measures serve to both improve investor decision-making and to help build more inclusive, resilient and sustainable financial markets.

Overall, the paper lays out a twin normative imperative implementation of a system to expand the financial capacities of individuals and stabilization of institutional systems to promote effective, informed and fruitful investment conduct on commodity markets.

Practical Implications:

The findings of the current research have significant policy implications to financial regulators, schools, and market players. As a matter of urgency, there is need to instill business knowledge on macroeconomics and politics in the teaching curriculum of the financial study. Quality literacy programs ought to go beyond simple budgeting, savings, and investing practices to include a review of how political trends and policy changes are influencing the returns in investments, especially on the erratic commodity markets. This expanded pedagogical framework will be able to make investors capable of making more contextual and adaptive decisions.

The policy making that takes place via the activities of the public authorities forms a decisive tool towards stabilizing the policy environment. The success of such an undertaking depends on the stability and visibility of fiscal, regulatory and monetary actions. Constant changes in tax regime, trade or even monetary environments create the atmosphere of uncertainty which neither the resident nor foreign investors, even the highly financially savvy ones, like. Due to this, macroeconomic policy stability has become imperative to economic planners who consider the need to develop a healthy investment environment.

The Pakistan investor protection system needs to be strengthened because it is currently inadequate. SECP and PMEX have to work together to reduce systemic risks and expose investors to political or economic manipulations capable of distorting the commodity markets. The core of an integrated protection lies in the availability of legal redress and improvement in disclosure efforts.

The current study provides empirically established guidelines that align with Sustainable Development Goals (SDGs) of the United Nations, especially those anchored on development of inclusive financial systems and robust investment platforms. Financial literacy (more so in the precariousness of the commodity market) contributes to SDG 4 (Quality Education) in view of the importance of the financial literacy conducted in an inclusive, and equitable manner. Policymakers and educators are therefore encouraged to diversify the existing financial literacy programs with macroeconomic and political literacy. This would be such a rich curriculum that it would provide people not only with the classical personal finance skills but also the ability to read political messages and economic movements, which are essential to manoeuvre through the uncertainty of financial markets.

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