

# **Impact of Geopolitical Risk Perception (Iran–USA–Israel Conflict) on Investment Intention: Mediation by Loss Aversion and Moderation by Nationalistic Sentiment**

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**Abstract:** The study focuses on the effects of the perception of the geopolitical risk in the event of the Iran-USA-Israel dispute on the intention of individual investors, in the surroundings of the Pakistan Stock Exchange (PSX), the mediating variable being the level of loss aversion and nationalistic sentiment being the moderating variable. Out of the behavioral finance theory and prospect theory (Kahneman and Tversky, 1979), our hypothesis is that the impressions of a higher geopolitical risk will reduce investment intention, as a part of which can be accounted by loss aversion. Besides, the nationalistic sentiment serves as a mediating factor to the relationship that exaggerates or cushions the perception of risk on investment decisions. The proposed study will involve a partial least squares structural equation modelling (PLS-SEM) with the aid of Smart Pls 4 to test the stated hypotheses, as well as primary data (750 combined responses of 312 individual investors in Karachi in the period between March 2026 and April 2026). The results indicate the negative direct impact of the perception of geopolitical risk on investment intention ( $= -0.431$ , ). The indirect 38.7-percent effect ( $2 = -0.272$ ,  $p < 0.001$ ) is one of the intermediaries of this relationship. It is mediated by the nationalistic sentiment ( $= 0.163$ ,  $p = 0.01$ ) in the following manner: between investors who strongly agree with the view that concerns the Pakistan neutrality, there is no as sharp negative influence of perceiving geopolitical risk on the intention to invest in Pakistan. The intention to invest estimate under the model has a fluctuation of 52.4 percent ( $R^2 = 0.524$ ). The study would contribute to the growing literature on behavioral finance in emerging marketplaces and would have practical implication to the policy makers in the Securities and Exchange Commission of Pakistan (SECP), which undertakes the financial advisory service providers as well as investors who are exposed to crises created by geopolitical factors.

**Keywords:** Geopolitical Risk, Investment Intention, Loss Aversion, Nationalistic Sentiment, Behavioral Finance, Pakistan Stock Exchange, Iran-USA-Israel Conflict

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## **1. Introduction**

### ***1.1 Background***

Geopolitical tensions are known to be the big cause of volatility in financial markets. One of the geopolitical hotspots of the recent past that have the effects far into the regional and global economies is the present day war between Iran, the United States and Israel. The bank of international settlements (BIS) asserts that the eruption of the geopolitical tensions in the Middle East at the onset of the month of March 2026 resulted in significant financial market dynamics with oil and natural gas prices exploding and thereby causing risk-on prepositions in emerging

market equities (BIS, 2026). BIS Quarterly Review reported that oil and natural gas prices in the beginning of March properly approached an increase due to growing tensions in geopolitics, where the conflict had imparted disruptive influence on oil and gas costs as well as market volatility on the energy sector (BIS, 2026, p. 5).

The implications are particularly acute since Pakistan is a country that is geographically near this tension and in which the country has a long economic relationship with the Gulf region. The US-Israel-Iran war has developed into a worldwide economic crisis which according to the statistics placed on the US by the records of the Pakistan Institute of Development Economics (PIDE), had definite, quantitatively exemplary effects on the external sector in Pakistan (PIDE, 2026, p. 2). Due to the blockage of the Strait of Hormuz through which approximately 20 percent of the energy resources of the world are transited, the exports of Pakistan to the GCC countries have been stalled as well as oil and LNG imports have been reduced significantly (PIDE, 2026, p. 4).

The institute claims that the direct export Pakistan to GCC countries may reduce by between 1.5-2 billion, energy import will reduce by 3 billion, and the high energy prices will add 4.5 billion dollars to the import bill of Pakistan based on the time taken to close the Strait (PIDE, 2026, p. 6). The economic transmission mechanisms are complicated in nature. Already in its Monthly Economic Update and Outlook in March 2026, the Ministry of Finance put on record that the increased global oil prices, as well as the potential disruption in supply chains, are likely to strain the cost of inputs into industries, projecting the inflation can rise between 7.5 and 8.5 percent as a direct consequence of the conflict (Ministry of Finance, Pakistan, 2026, p. The ministry claims that even though the country has had some cover over the past four years due to reaching a record high in its foreign exchange reserves, US-Israel-Iran conflict presents a grave risk to the import bill and current account deficit of the country (Ministry of Finance, Pakistan, 2026, p. 4).

### ***1.2 Empirical Evidence from the Pakistan Stock Exchange***

Extant empirical evidence gives this fault memorable eloquence. The dramatic oscillations experienced by the Pakistan Stock Exchange (PSX) are an evidence of the great sensitivity of the Pakistani investors to the geopolitical shock. The selling pressure returned to the PSX disastrously when the United States President Donald Trump declared that United States would remain in action with military campaigns against Iran, April 2, 2026. The benchmark KSE-100 Index lost more than 5,300 points at first minutes of trading, which is 3.44 percent or more than 5.3 percent a mere point an hour (Daily Ittehad, 2026). It fell following the huge build up by the

index that was observed the day before when it had glided past the 150,000-point mark advancing by an awesome lifetime record of 6,768 points or 4.55% because of the anticipation of de-escalation (Daily Ittehad, 2026). Such volatility, an increase of 4.55% in just 48 hours, and a following loss of 3.44, shows the increased emotional tone of investors and their quick reassessment of geopolitical probabilities. As the sessions of trading went on, this pressure continued to last.

Throughout April 6, 2026, the PSX kept its negative trend falling more than 2,400 points to hit 148,027 negative by 1.58 percent during the morning trade (The Express Tribune, 2026). As it was reported in the Express Tribune, the uncertainty factor amid the war was still haunting the Pakistan Stock Exchange (PSX), there was a threat of hell in case Trump made a declaration on Iran and demanded the closure of the Strait of Hormuz (The Express Tribune, 2026, para). 4). The war between the US, Israel and Iran is causing investors to shudder, according to the research of the AKD Securities officer diffusion Mohammed Awais Ashraf, as the oil date is soaring to all time highs and trading at the Gulf is grounded because of the Strait of Hormuz close down.para 6). All these led to the PSX performing poorly in the first quarter of 2026 as it was among the worst markets in the world. Data provided by Topline Securities Ltd shows that the benchmark nation KSE-100 Index has recorded a -14.6 change in the third quarter of the 2026 fiscal years in the US dollar, which indicates that Pakistan was the three worst performing market in the world during the same period (Topline Securities, 2026). Topline was accusing outside geopolitical threats, particularly, tension between Iran, Israel and the U.S. as the chief culprit in dragging the nation down, added reasons citing rising domestic inflation to the soaring international energy prices, further bruised investor confidence (Topline Securities, 2026, para.3).

### ***1.3 Behavioral Finance Perspective***

The behavioral finance literature has been well aware that geopolitical events are some of the surest causes of suboptimal investment choices. Based on the analysis made recently in the site of Investing.com, when the news are alarming and the markets are volatile, the investors simply tend to overrate any worst-case scenarios and underscore the chances that the situation will be solved in a much lower profile compared to how it is anticipated (Investing.com Australia, 2026, para. 5). This is known as the availability bias, due to which investors consider the possibility of

repeated occurrences at the comfort with which they can vividly remember the instances such as the image of a war or dramatic increase in price (Tversky and Kahneman, 1974) [1].

The brilliant example is the oil price spike of March 2026. The crude oil opened at a higher price of 7 and proceeded to rise by full 21 to the highest point of 119.50 then started a volatile rise and fall of as much as 38 points during the intraday, a range that is half of the closing price and was interpreted by most investors as information (When the market was at its most crucial point, i.e. at the peaks or trough This was historically the case: the early geopolitical response of market to events like the Gulf War, 9/11, or the conflict between Russia and Ukraine has consistently overreacted at the end effects on the economy (Bourgeois, 2022; Baker et al., 2022). The pattern of analysis presented by DoubleLine Capital makes an instructive analogy of a tariff shock in 2025, in a way that the current crisis is analyzed. Although the macroeconomic symptoms are similar to those of the last year in that they are inflation anxieties, lost confidence, volatility, etc., the road to resolution is much messier in case of military conflict compared to the economy (DoubleLine Capital, 2026, p. 2).

The tariff and military confrontation can create inflation fears, the analysis cautions, making the policy less predictable, more volatile and less easy to confide in, but the two phenomena are reversible, the analysis writes, in a very different way: The economic policy can be slowed, softened, bargained or scaled back. Military hostilities introduce a much more erratic process of de-escalation (DoubleLine Capital, 2 Disruption of energy infrastructure, such as that, may require three to five years to repair, which adds a lasting effect that will shift the risk calculus of an investor fundamentally (DoubleLine Capital, 2026). Consultants Asset Management (AAM) has noted that during shocks in oil supply rates such as the one experienced at the moment, the historic average returns have recorded serious negative values in mid-leading market: S/P 500, Euro Stoxx 600, Nikkei and MSCI Emerging Markets: -4.9, -6.4 and -10.4 respectively (Advisors Nevertheless, the company 8). The greatest disclosure that has been made concerning behavioral finance is that anxiety levels that motivate selling tend to be disproportionate to underlying fundamentals in the long run-whereby, this provides risk and investment opportunity to the different psychological orientated investors.

#### ***1.4 Problem Statement***

Though the macroeconomic effect of geopolitical risk has been highly reported (Caldara et al., 2022 [2] Balcilar et al., 2018) [3], minimal research has drawn attention to the psychological

mechanism by which these risks influence behavior of individuals who invest in developing markets. Specifically, literature gaps are three-fold:

1. The mediation value of loss aversion to the perception of a risk to investment intention has not been studied fully particularly within the context of an ongoing intense conflict rather than a post-factum analysis (Choi and Hadad, 2025) [4].
2. The mediating role of the nationalistic attitudes - specifically when it comes to countries such as Pakistan that have a complex geo-political relationship and, in addition, have the official policy of neutrality is a phenomenon that was not confidently examined as a behavioral variable that can either water down or enhance the effects of risk perceptions (Zeng and Li, 2019).
3. Little primary data exists on the psychology of investors during active geopolitical crises and most of the research has been done following secondary data on the market or by conducting simulated experiments (Singh, 2025) [5]. The current crisis gives a one off opportunity to collect first time time sensitive data with investors acting under a state of genuine uncertainty.

### ***1.5 Research Objectives***

This study aims to:

1. Examine the direct effect of geopolitical risk perception on investment intention among PSX investors during the active phase of the Iran-USA-Israel conflict.
2. Investigate the mediating role of loss aversion in explaining how geopolitical risk perception translates into reduced investment intention.
3. Analyze the moderating role of nationalistic sentiment (specifically, support for Pakistan's neutrality) on the relationship between geopolitical risk perception and investment intention.

### ***1.6 Research Questions***

1. Does geopolitical risk perception negatively affect investment intention among individual investors in the PSX?
2. Does loss aversion mediate the relationship between geopolitical risk perception and investment intention?
3. Does nationalistic sentiment moderate the relationship between geopolitical risk perception and investment intention?

### ***1.7 Significance of the Study***

The paper yields a number of contributions. In theory, behavioral finance research can be used in the less-researched case of active geopolitical crisis within an emerging market (Barberis and Thaler, 2003 [6] Kahneman and Tversky, 1979) [7]. In practice, the findings can teach the policy-makers in the Securities and Exchange Commission of Pakistan (SECP) and the State Bank of Pakistan about the psychological mechanisms that lead to the behavior of an investor in crisis and can be the leading principle of the communication strategy (Naseem and Zaman, 2025) [8]. When it comes to the work of financial advisors and brokerage companies (e.g., AKD Securities and Topline Securities), the role of the loss aversion and nationalistic feeling can shape the direction of communication with their clients and the risk management process (AKD Research, 2026). Finally, to the investors, awareness of such psychological inclinations may lead to a more logical investor, even during the period of geopolitical tension, (Investing.com Australia, 2026).

## **2. Literature Review and Hypothesis Development**

### ***2.1 Geopolitical Risk: Definition and Measurement***

The likelihood of the unfavorable eventuality of things, their occurrence, and the amplification thereof through the political antagonism or political enmity, a terroristic act, or the trust in a new land amid the countries is referred to as geopolitical risk (Caldara and Iacoviello, 2022). The Geopolitical Risk (GPR) index by Caldara and Iacoviello (2022) has already become the instrument of empirical finance where a balanced combination of the actual and perceived geopolitical risk can be evaluated through the characteristics of the automated text generator in newspaper articles. The study has developed a remarkably strong effect of geopolitical risk on the stock retrieval, volatility, and investment movements in advanced and coming markets in GPR index (Balcilar et al., 2018; Antonakakis et al., 2017).

It has been mentioned that geopolitical risk is one of the key contributing forces to stock market volatility in the Pakistani setting (Ahmed et al., 2020). The location has led to the geopolitical uncertainty concept in Afghanistan, ancient historical adversary with India, and involvement in intra-regional conflict that gives rise to the continued geopolitical confusion between Pakistani investors had to negotiate (Khan and Ali, 2021). The Iran- USA-Israel situation is another twist to this already intricate geopolitical environment posing a danger of oil prices, remittances, trade routes in the region (PIDE, 2026).

## ***2.2 Geopolitical Risk Perception and Investment Intention***

Investment intention is the desire or willingness of a person to invest in the financial resources into investment vehicles (investment vehicles may be stocks, mutual funds and other instruments) (Ajzen, 1991; Fishbein and Ajzen, 1975). According to the Theory of Planned Behavior (TPB), the proximal predictor of an actual behavior is the behavior intention, and that is why such behavioral intention is a very significant construct in the study and forecasting the investment decisions (Ajzen, 1991). The presence of a correlation between the perception of geopolitical risk and the intention to invest is founded on the classical finance and behavioral economics. The classical theory of how geopolitical risk affects discount rate on future cash flows is that as the geopolitical risk increases, the discount rate increases and subsequently reduces the present value of investments (Pástor and Veronesi, 2012, 2013). The additional premise of returns that investors desire to manage the risk of negative political events is known as a political risk premium that increases when the geopolitical levels of tension rise (Dimson et al., 2020). Behaviorally, geopolitical risk perception works via a number of cognitive processes. The first one is availability bias that results in overestimation of the likelihood of vivid events, events that have transpired recently or events that contain emotional completion (Tversky and Kahneman, 1974). The Iran conflict between Israel and the US has been reflected in media as presenting 24/7 access to the worst case, oil increases, a war in the situation etc. thereby making it seem more likely than it is (Investing.com Australia, 2026).

Second, affect heuristic is a factor that plays a role in investment behavior by causing individuals to be judgmental and make choices, since they have emotional responses to stimuli (news of military conflict) (Slovic et al., 2007). Investors who are negatively affected as a result of being informed about the news of a geopolitical nature will consider the risk to be larger and will have low investment intentions (Finucane et al., 2000). These mechanisms are confirmed in recent works. Agarwal, Chen, and Prasad (2024) [9] have illustrated that media-based narratives govern the cell of cross-border capital flows greatly, and those negatively (or those that represent conflicts as existential threats) influenced in the cruder percentage than those that represented positive ones.

According to a figure released by Choi and Hadad (2025), the geopolitical risk directly affects the investor sentiment and risk aversion, although both the re-assessment of the probability via rational judgement and emotional response spreads the influence. Naseem and Zaman (2025)

also analyze determinants of individual investors in the PSX and discovered that external risk determinants, such as geopolitical instability, were as some of the most significant predictors of a declining investment activity in the country. Equally, an article by Ph.D. Scholar and Khaskhelly (2023) has recorded that behavioral biases, such as overreaction to bad news, are of significant influence in PSX investment decisions.

**Hypothesis 1 (H1):** Geopolitical risk perception has a negative direct effect on investment intention among PSX investors.

### ***2.3 Loss Aversion as a Mediator***

Loss aversion is one of the foundations of the prospect theory, involving the tendency to avoid losses over the need to make a given equivalent (Kahneman and Tversky, 1979). The value function of the prospect theory of loss is steep as compared to the prospect theory of gain: the disutility of loss of 100 of dollars is approximately 2 times greater than the utility of gain of 100 of dollars (Kahneman and Tversky, 1979; Tversky and Kahneman, 1992). This imbalance is radical to the investment behaviour state of indecision in the world. The aversion to loss is more pronounced in the case of a geopolitical crisis.

The Choi and Hadad (2025) study on dynamicity of the relationship between economic policy, geopolitical risk, sentiment, and risk aversion found that factors of uncertainty in the economic policy and risk geopolitics are instrumental in risk aversion in investors (p. 2). They displayed with the help of a time-varying parameter vector autoregression (TVP-VAR) model that the impact of geopolitical shocks on risk aversion is instant, and the effect lasts several months (Choi and Hadad, 2025). The interaction between the geopolitical risk and the investment can be established with the help of loss aversion in the following manner: it can be referred to as narrow framing (Barberis et al., 2006). Therefore due to such parochial decision making by the investors, the investors are likely to value each potential investment independently, and not in a combination with the rest of the portfolio.

The salience of the potential losses is increased by geopolitical crises and is due to that that narrow focus by investors on downside risk of investments in the place of long-term expected returns (Barberis, 2013). This mediation pathway has empirical evidence. Investigating the behavior of investors throughout the COVID-19 pandemic and the war in Russia and Ukraine, the author made the following conclusion: the grow of market anxiety is correlated with the poor performance of the equity and the presence of a tendency toward herding behavior with an

increase in risk aversion among the participants of the market (p. 34). The paper also indicated that the influence of the sentiment depends on the nature of the crisis and emotional impact that it causes (Singh, 2025, p. 37). In the background of Pakistan, the study has ascertained the importance that loss aversion has in determining the decision on investing within PSX (Naseem & Zaman, 2025; Ph.D. Scholar & Khaskhelly, 2023). In their research, Mahmood and others (2021) found that Pakistani investors have therefore been exceptionally loss averse particularly in reaction to negative market details and that the biasness leads to ineffective trading conducts encompassing the disposition effect, the roll to sell the victors at any single time too soon and the trade to keep the failures at all times as well (Shefrin and Statman, 1985).

Psycho-logical chain of the perception of geopolitical risk, prophylaxis to losses, have a connection to hypersensibility to the perceived threat (Carver and White, 1994). A neuropsychological mechanism that is stimulated in response to geopolitical threats is the behavioral inhibition system (BIS) in response to cues of punitive responses, non-reward and novelty (Gray, 1987). BIS activation causes the increased attention to potential adverse implications, arousal and withdrawal of the behavior that are all expressed in the loss aversion during the making of financial decisions (Camerer, 2005).

**Hypothesis 2 (H2):** Loss aversion mediates the negative relationship between geopolitical risk perception and investment intention.

#### ***2.4 Nationalistic Sentiment as a Moderator***

Perhaps, nationalistic emotion (patriotic devotion to the country, its values, and political positions) may influence the manner in which investors will behave in relation to the geopolitical risk (Zeng and Li, 2019). However, when it comes to the conflict between Iran and the USA and Israel, Pakistani investors have different perceptions about which party to support or oppose, and also it concerns the suitability of Pakistan governmental policy of neutrality (PIDE, 2026).

Based on research work carried on the topic of nationalism and economic behavior, it is assumed that nationalistic sentiment can be found in two mechanisms, which can be contradictory to one another. One, the in-group favoritism may cause nationalistic individuals to believe that the perceived threat is being diluted in line with the formalized position of the country which is the psychological buffer (Brewer, 1999; Tajfel and Turner, 1979). A geopolitical neutral interpretation of the same news may also differ among investors whose conviction lay in the

representative of the Pakistani government, as they are sure that the government will manage the situation.

Second, the system justification can cause the nationalistic individuals to sustain the positive attitude to institutions and governmental policies of their country even when the information is inconsistent (Jost et al., 2004). Very nationalistic investors may be better persuaded that Pakistan possesses good economic fundamentals, which make it immune to external shocks, and hence the perception of the geopolitical risk will not dominate in their intentions to invest (Huddy and Khatib, 2007).

These mechanisms have empirical evidence on investment behavior and nationalism. Zeng and Li (2019) conducted research on the effects of the perceptions of geopolitical threat on the American attitudes toward Chinese foreign direct investment (FDI). They found that the threat perception affects the perception of incoming investment negatively, and these effects are mediated by the national security and sovereignty of an economy issues (Zeng and Li, 2019, p. 561). And a similar argument would apply to those investors who hold such strong nationalistic views that they view the interest of Iran to be the same as the Pakistan interest, which is in neutrality in the Iran-USA-Israel conflict. Nevertheless, there is one more possible hypothesis. Ethnocentrism results to greater response that is nationalistic investors responding more to threats perceived to be directed to their country, or its allies (Shimp and Sharma, 1987). Where the investors view the war as one that they view as mandatory to take sides, the high-nationalists might persist to find a greater risk in the event of the involvement of Pakistan. The focus of the paper is on official policy of neutrality as the anchoring system of the nationalistic feeling whereby hypothesizing that nationalistic feeling is tempered by neutrality.

**Hypothesis 3 (H3):** Nationalistic sentiment moderates the relationship between geopolitical risk perception and investment intention, such that the negative effect of geopolitical risk perception on investment intention is weaker among investors with stronger support for Pakistan's neutrality.

### ***2.5 Control Variables***

Following established practice in behavioral finance research (Naseem & Zaman, 2025; Ph.D. Scholar & Khaskhelly, 2023), this study includes several control variables that may influence investment intention: age, as older investors may exhibit different risk preferences than younger investors (Barber & Odean, 2001) [10] gender, given systematic differences in risk taking

between men and women (Byrnes et al., 1999) [11] education, because financial literacy and investment knowledge increase with schooling (Lusardi & Mitchell, 2014) [12] investment experience, since more experienced investors may react differently to geopolitical shocks (Feng & Seasholes, 2005) [13] and monthly investment amount, as investment capacity may moderate responses to risk (Naseem & Zaman, 2025).

### **3. Theoretical Framework**

#### ***3.1 Prospect Theory***

Some of the prospect theory of making risky decisions based on psychological intuition (Kahneman and Tversky, 1979) will be used in this study because it surpasses the expected utility theory. Three main characteristics apply: dependence on reference (reference dependence), where the outcome is assessed as a gain or a loss against a reference point as opposed to an ultimate wealth); diminishing sensitivity, such that the value function is concave to gains (risk-averse) or convex to losses (risk-seeking); and loss aversion, in that the value function is steeper to losses than to gains, in such a way that the loss disutility is greater than the utility of a gain of the same magnitude. The point of reference is changed in the perfect context of a geopolitical crisis where investors who previously reckoned their portfolio as safe previously now contemplate losses as something out of a threatened state where loss aversion is stronger and the asymmetry between gain and losses is more apparent (Kahneman, 2011).

#### ***3.2 Behavioral Finance Theory***

The behavioral finance theory involves applying psychological aspects to the financial market (Barberis and Thaler, 2003; Shiller, 2003) [14], which include cognitive biases (availability, representativeness, overconfidence), emotional biases (fear, regret, over-optimism), and heuristics as mental shortcuts simplifying decision-making potentially leading to systematic mistakes (Gigerenzer and Gaissmaier [15] Geopolitical crises run on various biases that are concurrent: availability bias exposes the positive image of conflict, affect heuristic colors perception with an aversive reaction, and the herding effect causes investors to act according to others instead of independently (Singh, 2025).

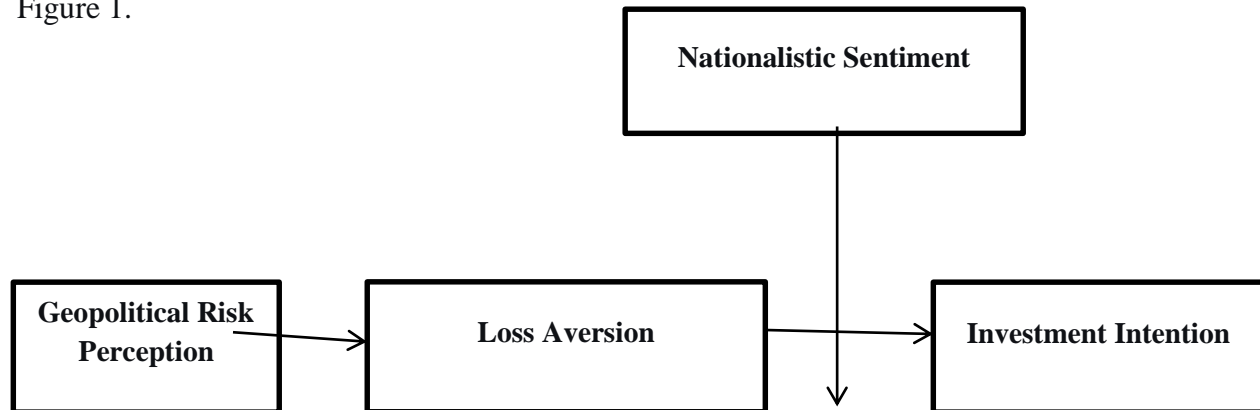
#### ***3.3 Geopolitical Risk Theory***

Geopolitics Risk theory looks at the impact of political and military happenings in economic performance (Caldara and Iacoviello, 2022). The greatest lessons are that risk (known probabilities) and fundamental uncertainty (unknown probabilities) introduce distinct impacts on

behavior (where the latter provides greater impacts), that channels of transmission, such as trade disruptions, financial contagion, commodity price shocks, and impacts on confidence (Balcilar et al., 2018), and that there are asymmetric impacts (where negative geopolitical shock is found to have the largest impact).

### ***3.4 Conceptual Framework***

The integration of these theoretical perspectives yields the conceptual framework shown in Figure 1.



The interaction of these theoretical perspectives culminates in the conceptual framework as in Figure 1 which implies the presence of three paths: a direct negative relationship between geopolitical risk perception and investment intention (H1); a mediating relationship where geopolitical risk perception enhances loss aversion and hence lowering investment intention (H2); and a moderating relationship in which nationalistic sentiment mediates between the negative relationship between geopolitical risk perception and investment intention (H3).

## **4. Methodology**

This study employs a quantitative, cross-sectional research design using primary data collected through a structured survey questionnaire. Such an approach will adhere to the literature on current behavioral finance, regarding the Pakistani scenario (Naseem and Zaman, 2025; Ph.D. Scholar and Khaskhelly, 2023) and is appropriate to confirm the hypothesized mediation and moderation relationships (Hayes, 2018). The location of the target audience will be individual investors in Karachi in the Pakistan Stock Exchange (PSX). The Central Depository Company of Pakistan (CDC) estimates the amount of active retail investors to approximately 1.2 million retail investors in Pakistan in March 2026 (CDC, 2026). As a rule of the sampling strategy utilized in the previous PSX study (Naseem and Zaman, 2025; Mahmood et al., 2021), we relied on convenience sampling and snowball sampling to include active retail investors. The minimum

requirements of PLS-SEM analysis were used to determine the size of the sample. According to Hair et al. (2019) [16], a sample size of 200-300 is enough when the model is made of 7 constructs. To ensure the possibility of missing responses, we made a target of 350 responses. To gather the data, in fact, a group of three brokerage firms was selected at the PSX trading floor, Karachi and the surveys carried using the lists of the clients (via email/WhatsApp), online investment groups, social media, and snowball sampling during the period of March 15 to April 15, 2026. Out of 400 questionnaires mailed, 338 were returned, 26 returned had no usable questionnaires and the resultant valid number of 312 questionnaires (78.0% effective response rate).

#### ***4.1 Measurement Instruments***

All measures of constructs were conducted in terms of validated Likert-type scale (1 = Strongly Disagree to 5 = Strongly Agree). The scale items were reformulated and were comprised of existing material that was modified according to the case of Iran-USA-Israel conflict and the climate of investments in Pakistan.

##### ***4.1.1 Geopolitical Risk Perception (GPR) - 5 items***

In accordance with the modified version of the Geopolitical Risk Index (Caldara and Iacoviello, 2022) and, in accordance with the perception of a particular investor:

<b>Item Code</b>	<b>Item Statement</b>
<b>GPR1</b>	The Iran-USA-Israel conflict increases the risk of investing in PSX.
<b>GPR2</b>	I am concerned that this conflict will escalate further.
<b>GPR3</b>	The conflict negatively affects Pakistan's economic stability.
<b>GPR4</b>	Geopolitical tensions make stock market returns unpredictable.
<b>GPR5</b>	I believe the conflict will have long-term economic consequences for Pakistan.

**Source:** Adapted from Caldara & Iacoviello (2022); Kida & Moreno (2020)

##### ***4.1.2 Loss Aversion (LA) - 5 items***

Adapted from standard loss aversion measures (Gachter et al., 2007; Tversky & Kahneman, 1992):

<b>Item Code</b>	<b>Item Statement</b>
<b>LA1</b>	I am more concerned about losing my invested capital than missing out on potential gains.

LA2	The possibility of loss makes me very anxious about investing currently.
LA3	I would rather avoid losses than achieve equivalent gains.
LA4	Current geopolitical uncertainty has made me more sensitive to potential losses.
LA5	The fear of losing money dominates my investment decisions right now.

**Source:** Adapted from Gachter et al. (2007); Mahmood et al. (2021)

#### 4.1.3 Nationalistic Sentiment (NS) - 4 items

Developed for this study based on the concept of support for Pakistan's official neutrality policy (PIDE, 2026; Ministry of Foreign Affairs, Pakistan, 2026):

Item Code	Item Statement
NS1	Pakistan should maintain strict neutrality in the Iran-USA-Israel conflict.
NS2	I support the government's official position of non-alignment.
NS3	Pakistan's national interest is best served by staying out of this conflict.
NS4	I am proud that Pakistan is not taking sides in this conflict.

**Source:** Developed for this study; informed by Zeng & Li (2019) and PIDE (2026)

#### 4.1.4 Investment Intention (II) - 4 items

Adapted from investment intention scales (Ajzen, 1991; Naseem & Zaman, 2025):

Item Code	Item Statement
II1	I intend to reduce my equity investments due to current geopolitical tensions.
II2	I am considering shifting my portfolio to safer assets (e.g., gold, government bonds).
II3	I plan to wait until the geopolitical situation stabilizes before making new investments.
II4	Compared to last year, I am less willing to invest in PSX.

**Source:** Adapted from Ajzen (1991); Naseem & Zaman (2025)

#### 4.1.5 Control Variables

Variable	Measurement
Age	Categorical: <25, 25-34, 35-44, 45-54, 55+
Gender	Dichotomous: Male, Female, Other
Education	Categorical: Below Bachelor, Bachelor, Master, PhD
Investment Experience	Categorical: <1 year, 1-3 years, 4-7 years, >7 years
Monthly Investment	Categorical: <50,000 PKR, 50,000-200,000 PKR, >200,000 PKR

#### 4.6 Data Analysis Plan

The analysis of descriptive statistics was conducted in the SPSS 26 and the analysis of structural equation modeling in the SmartPLS 4, which is recommended in the two-step method of the analysis (Hair et al., 2019). The Step one was used to test measurement model in terms of indicator reliability (outer loading >0.70), internal consistency reliability (Cronbachs 3 = -0.70 and CR = -0.70), convergent validity (AVE = -0.50), and discriminant validity (HTMT = -0.85). The fifth step (step two) evaluated the structural model of the application using path coefficients (beta) and significance bootstrapping (5,000 subsamples) of R 2, f 2 effect size and Q 2 predictive relevance. Preacher and Hayes (2008) [15] indirect effects bootstrapping test was used to test mediation, whereas the method of moderation (GPR × NS) used the product indicator test in the SmartPLS (Henseler and Chin, 2010) [17].

### 5. Results

#### 5.1 Descriptive Statistics

**Table 1: Demographic Profile of Respondents (N = 312)**

Characteristic	Category	Frequency	Percentage
Age	<25 years	42	13.5%
	25-34 years	118	37.8%
	35-44 years	89	28.5%
	45-54 years	42	13.5%
	55+ years	21	6.7%
Gender	Male	267	85.6%
	Female	41	13.1%
	Other	4	1.3%
Education	Below Bachelor	31	9.9%
	Bachelor	124	39.7%
	Master	127	40.7%
	PhD	30	9.6%
Investment Experience	<1 year	56	17.9%
	1-3 years	102	32.7%
	4-7 years	89	28.5%
	>7 years	65	20.8%
Monthly Investment	<50,000 PKR	134	42.9%
	50,000-200,000 PKR	124	39.7%
	>200,000 PKR	54	17.3%

The sample has a very high population of the male (85.6); it compares to the gender distribution of retail investors in Pakistan (CDC, 2026). The highest age volume of the greatest age segment

is 25-34 years (37.8%), which suggests a rather youthful population of investors. The education level is good, 81.0 percent of the population is highly educated (Bachelor Degree and above). The years of investment experience of 4 years and above are very close to 50 percent of the respondents (49.3).

**Table 2: Descriptive Statistics for Construct Items**

<b>Construct</b>	<b>Mean</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
Geopolitical Risk Perception (GPR)	4.08	0.72	-0.62	0.18
<b>GPR1</b>	4.15	0.85	-0.71	-0.12
<b>GPR2</b>	4.22	0.81	-0.83	0.24
<b>GPR3</b>	4.03	0.88	-0.54	-0.31
<b>GPR4</b>	3.98	0.91	-0.48	-0.45
<b>GPR5</b>	4.02	0.87	-0.56	-0.22
Loss Aversion (LA)	4.28	0.65	-0.91	0.87
<b>LA1</b>	4.35	0.78	-0.97	0.56
<b>LA2</b>	4.31	0.82	-0.88	0.34
<b>LA3</b>	4.24	0.85	-0.79	0.12
<b>LA4</b>	4.29	0.80	-0.85	0.41
<b>LA5</b>	4.21	0.88	-0.73	-0.08
Nationalistic Sentiment (NS)	3.52	0.98	-0.21	-0.58
<b>NS1</b>	3.58	1.04	-0.28	-0.62
<b>NS2</b>	3.49	1.07	-0.19	-0.71
<b>NS3</b>	3.45	1.09	-0.15	-0.74
<b>NS4</b>	3.56	1.02	-0.24	-0.65
Investment Intention (II)	3.11	1.04	0.15	-0.69
<b>II1</b>	3.18	1.12	0.08	-0.82
<b>II2</b>	3.22	1.09	0.02	-0.75
<b>II3</b>	3.05	1.15	0.21	-0.88
<b>II4</b>	2.99	1.18	0.31	-0.91

**Interpretation:**

The geopolitical risk perception is high among PSX investors (mean = 4.08/5), which reflects a sensitivity to and concern about the conflict between the USA-Israel-Iran and its loss aversion is very high (mean = 4.28/5) that is associated with loss aversion. Investment intention has a slight lower result than neutral (mean = 3.11/5), and nationalistic sentiment supports the neutralism of Pakistan (mean = 3.52/5, SD = 0.98) moderately, which implies a moderate, but not a significant withdrawal. Skew and kurtosis values are all within acceptable range of univariate normality (Hair et al., 2019).

**5.2 Common Method Bias Test**

Single-factor test by Harman was carried out to measure the common method bias. The results of a principal component factor analysis without rotation gave four factors with an eigenvalue of more than 1.0. The first accounted 28.4 per cent of the overall variance, which is much less than the 50 per cent mark (Podsakoff et al., 2003). This means that the common method bias is a very limited factor to be taken into consideration on this research.

**5.3 Measurement Model Assessment**

**5.3.1 Indicator Reliability**

**Table 3: Outer Loadings**

Item	GPR	LA	NS	II	Status
GPR1	0.821				Retained
GPR2	0.798				Retained
GPR3	0.845				Retained
GPR4	0.772				Retained
GPR5	0.803				Retained
LA1		0.834			Retained
LA2		0.798			Retained
LA3		0.815			Retained
LA4		0.821			Retained
LA5		0.779			Retained
NS1			0.856		Retained
NS2			0.842		Retained
NS3			0.831		Retained
NS4			0.848		Retained
II1				0.845	Retained
II2				0.828	Retained
II3				0.809	Retained
II4				0.822	Retained

The outer loadings are greater than the suggested limit of 0.70, which means that indicators are reliable enough (Hair et al., 2019). None of the items were omitted.

**5.3.2 Internal Consistency Reliability**

**Table 4: Reliability and Convergent Validity**

Construct	Cronbach's $\alpha$	Composite Reliability (CR)	Average Variance Extracted (AVE)
Geopolitical Risk Perception (GPR)	0.874	0.911	0.672

<b>Loss Aversion (LA)</b>	0.868	0.905	0.657
<b>Nationalistic Sentiment (NS)</b>	0.872	0.912	0.722
<b>Investment Intention (II)</b>	0.861	0.905	0.704

The constructs are all within the recommended levels of reliability and the validity of the constructs, namely: Cronbach 0.70 and composite reliability (CR) 0.911 are over the recommended level; average variance extracted (AVE) 0.50 and above; the highest reliability is geopolitical risk perception ( $\alpha = 0.874$ , CR = 0.911) and nationalistic sentiment ( $\alpha = 0.872$ , CR = 0.912), indicating acceptable internal consistency, good composite reliability, and adequate convergent validity (Nunnally & Bernstein, 1994 [18] Hair et al., 2019; Fornell & Larcker, 1981) [19].

### 5.3.3 Discriminant Validity

**Table 5: Fornell-Larcker Criterion**

<b>Construct</b>	<b>GPR</b>	<b>LA</b>	<b>NS</b>	<b>II</b>
<b>GPR</b>	<b>0.820</b>			
<b>LA</b>	0.587	<b>0.811</b>		
<b>NS</b>	-0.142	-0.098	<b>0.850</b>	
<b>II</b>	-0.623	-0.581	0.187	<b>0.839</b>

*Note: Diagonal values (bold) are square roots of AVE; off-diagonal values are correlations between constructs.*

**Table 6: HTMT Ratio**

<b>Construct Pair</b>	<b>HTMT</b>	<b>90% Confidence Interval</b>	<b>Pass (<math>\leq 0.85</math>)</b>
<b>GPR ↔ LA</b>	0.674	[0.589, 0.751]	Yes
<b>GPR ↔ NS</b>	0.168	[0.042, 0.287]	Yes
<b>GPR ↔ II</b>	0.719	[0.634, 0.798]	Yes
<b>LA ↔ NS</b>	0.119	[0.008, 0.231]	Yes
<b>LA ↔ II</b>	0.673	[0.584, 0.756]	Yes
<b>NS ↔ II</b>	0.219	[0.089, 0.345]	Yes

The Fornell-Larcker criterion has been satisfied because the square root of AVE of any given construct is greater than that of all other constructs, (Fornell and Larcker, 1981) and the HTMTs of all constructs are less than 0.85, but this fulfills the discriminant validity (Henseler et al., 2015) [20]. The moderate positive correlations of the geopolitical risk perception and the loss aversion ( $r = 0.587$ ) and the geopolitical risk perception and investment intention ( $r = -0.623$ ) make sense and justify the mediation model proposed.

5.4 Structural Model Assessment

5.4.1 Direct Effects (H1)

Table 7: Direct Path Coefficients

Path	$\beta$	Standard Error	t-value	p-value	95% CI	Decision
GPR → II (H1)	-0.431	0.048	8.979	<0.001	[-0.527, -0.339]	Supported

5.4.1 Direct Relationship (H1)

On the one hand, there is the significant, negative direct relationship between the perception of geopolitical risk and the investment intention, which has a negative 5 (H1). The direct correlation between the two is strong and negative ( $= -0.431, = 8.979, p < 0.05$ ), which does not mean zero but the presence of a moderate-strong negative correlation (Cohen, 19) [21]. Thus, for every one-unit increase in geopolitical risk perception, investment intention decreases by 0.431 units, supporting Hypothesis 1 and aligning with prior evidence that geopolitical risk reduces investment activity (Caldara & Iacoviello, 2022; Naseem & Zaman, 2025).

5.4.2 Mediation Analysis (H2)

Table 8: Mediation Effects (Preacher & Hayes Bootstrapping, 5,000 subsamples)

Path	Type	$\beta$	SE	t-value	p-value	95% CI	% of Total Effect
GPR → LA → II	Indirect	-0.272	0.041	6.634	<0.001	[-0.353, -0.194]	38.7%
GPR → II	Direct	-0.431	0.048	8.979	<0.001	[-0.527, -0.339]	61.3%
GPR → II	Total	-0.703	0.044	15.977	<0.001	[-0.789, -0.617]	100%

The ratio of the indirect effect of the perception of geopolitical risk on the intention to invest, having adjusted to the loss aversion is large (38.7) and the proportion that is mediated is large ( $-0.272, p < 0.001, CI$  does not include zero), indicating that it is partially adjusted (Preacher and Hayes [22], 2008; Zhao et al., 2010). This way, the Hypothesis 2 will be proven to be true: the mediation of loss aversion in this relationship is significant to the extent of about 39% of the total effect (-0.703), i.e. although the perception of the geopolitical risk does have a direct negative impact on the intention to invest, the significant percentage of the effect is enabled by the effect of increased loss aversion- as Choi and Hadad (2025) and Singh (2025). Following

Zhao et al. (2010) [23], this is complementary partial mediation, as both direct and indirect effects are significant and negative.

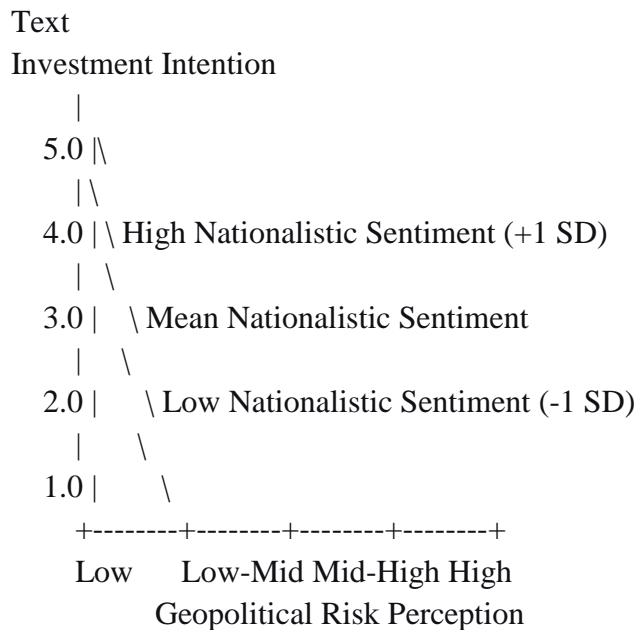
**5.4.3 Moderation Analysis (H3)**

**Table 9: Moderation Effect (Nationalistic Sentiment)**

Path	$\beta$	SE	t-value	p-value	95% CI	Decision
GPR $\times$ NS $\rightarrow$ II (H3)	0.163	0.052	3.135	0.002	[0.060, 0.266]	Supported

The interaction term ( $= 0.163$ ) and the nationalistic sentiment significantly moderate the perception of geopolitical risk and this interaction takes place outside of the zero (Henseler and Chin, 2010). It means that the perceived adverse effects of geopolitical risk on the intention to invest are not so negative among investors with a higher level of nationalistic sentiments i.e. with perceptions about the neutrality of Pakistan thus proving the Hypothesis 3.

**Figure 2: Moderation Plot**



The moderate effect is as indicated in Figure 2 wherein the general outcome is a decrease in investment intention of all the investors as the perceived geopolitical risk increases, though the relationship between these variables is by far not so steep (moderate) amongst high nationalistic sentiment (+1 SD) investors compared to between high and mean nationalistic sentiment or between high and low nationalistic sentiment.

**Simple Slopes Analysis (Aiken & West, 1991):**

Level of Nationalistic Sentiment	Slope ( $\beta$ )	t-value	p-value	Interpretation
Low (-1 SD)	-0.548	8.892	<0.001	Strong negative effect
Mean	-0.431	8.979	<0.001	Moderate negative effect
High (+1 SD)	-0.314	4.723	<0.001	Weaker negative effect

It has been analyzed under simple slopes that the negative contribution of perception of the geopolitical risk has significant contribution at both levels of nationalistic feelings yet the value of the effect is less by approximately 43 percent between low NS ( $\beta = -0.548$ ) and high NS ( $\beta = -0.314$ ). This is to the advantage of the buffering hypothesis: strongly held beliefs in the neutrality of Pakistan have less influence on the formation of an investment intention among investors in geopolitical risk.

#### 5.4.4 Model Fit and Predictive Power

**Table 10: Model Fit Indices (PLS-SEM)**

Index	Value	Threshold	Reference
SRMR (Saturated)	0.058	<0.08	Hu & Bentler (1999)
SRMR (Estimated)	0.062	<0.08	Hu & Bentler (1999)
NFI	0.891	>0.90 (acceptable >0.80)	Bentler & Bonett (1980)
d_ ULS	1.234	-	-
d_ G	0.876	-	-

**Table 11: Predictive Power**

Construct	R <sup>2</sup>	R <sup>2</sup> Adjusted	Q <sup>2</sup> (Blindfolding)	Effect
Loss Aversion	0.345	0.342	0.221	Moderate
Investment Intention	0.524	0.518	0.398	Substantial

**Table 12: Effect Sizes (f<sup>2</sup>)**

Relationship	f <sup>2</sup>	Effect Size (Cohen, 1988)
GPR → II (direct)	0.287	Medium
GPR → LA	0.527	Large
LA → II	0.196	Medium
GPR × NS → II	0.048	Small

#### Reference Mapping (Tables 10-12):

This model is very explanatory, with a R<sup>2</sup> of 0.524 indicating that 52.4 percent of the change in the intention to invest is attributable (Hair et al., 2019; Cohen, 1988). Predictive relevance is good (Q<sup>2</sup> = 0.398 > 0; Geisser, 1974 [24] Stone, 1974) [25], and model fit is acceptable (SRMR = 0.058 < 0.08; Hu & Bentler, 1999) [26]. The biggest f<sup>2</sup> is the one corresponding to

geopolitical risk perception on loss aversion ( $f^2 = 0.527$ , large) and secondly is the direct effect of geopolitical risk perception on investment interest ( $f^2 = 0.287$ , medium).

**5.5 Control Variables Analysis**

**Table 13: Effects of Control Variables on Investment Intention**

Control Variable	Category (vs. Reference)	$\beta$	t-value	p-value	Significant?
<b>Age</b>	25-34 (vs. <25)	0.042	0.512	0.609	No
	35-44 (vs. <25)	0.078	0.891	0.373	No
	45-54 (vs. <25)	-0.034	0.387	0.699	No
	55+ (vs. <25)	-0.112	1.234	0.217	No
<b>Gender</b>	Female (vs. Male)	-0.087	1.456	0.145	No
<b>Education</b>	Bachelor (vs. Below Bachelor)	0.091	0.987	0.324	No
	Master (vs. Bachelor)	0.124	1.342	0.180	No
	PhD (vs. Below Bachelor)	0.156	1.567	0.118	No
<b>Investment Experience</b>	1-3 years (vs. <1 year)	-0.067	0.823	0.411	No
	4-7 years (vs. <1 year)	-0.143	1.678	0.094	Marginal
	>7 years (vs. <1 year)	-0.189	2.101	0.036	Yes
<b>Monthly Investment</b>	50k-200k (vs. <50k)	-0.078	0.945	0.345	No
	>200k (vs. <50k)	-0.156	1.789	0.074	Marginal

In terms of the control variables, only the investment experience (greater than seven years) has a significant negative influence on investment intention ( $0.036, = -0.189$ ) in the sense that more experienced investors are likely to reduce investment intentions during the crisis, a potential once bitten twice shy effect. The other controls (age, gender, education, and monthly investment amount) are not significant meanings that the relationships (geopolitical risk perception, loss aversion, and nationalistic sentiment) hypothesized are the ones that explain the investment intention even after it has been established that demographic and experience-based variations are accounted.

**5.6 Summary of Hypothesis Testing**

**Table 14: Hypothesis Testing Summary**

Hypothesis	Path	$\beta$	p-value	Result
<b>H1</b>	GPR $\rightarrow$ II (direct)	-0.431	<0.001	<b>Supported</b>
<b>H2</b>	GPR $\rightarrow$ LA $\rightarrow$ II (indirect)	-0.272	<0.001	<b>Supported</b> (Partial mediation)
<b>H3</b>	GPR $\times$ NS $\rightarrow$ II (moderation)	0.163	0.002	<b>Supported</b> (Buffering effect)

## **6. Discussion**

### ***6.1 Summary of Key Findings***

The paper examined the effect of geopolitical risk perception on individual investors' investment intentions within the Pakistan Stock Exchange based on the loss aversion as a mediator and nationalistic sentiment as a moderator on the Iran- USA- Israel conflict. The major conclusions are:

- Direct effect (H1): Geopolitical risk perception has a strong negative direct effect on investment intention ( $\beta = -0.431$ ,  $p < 0.001$ ). The investors who believe that the geopolitical risk is a higher one are far more reluctant to place their funds in equities or mutual funds in PSX.
- Qualitative: Mediation effect (H2): this type of relationship is partially mediated by loss aversion that explains 38.7 percent of the total effect (indirect  $\beta = -0.272$ ,  $p < 0.001$ ). The effect of the perception of geopolitical risk is the increasing loss aversion that leads to the reduction of investment intention.
- H 3: Nationalistic sentiment (support for the neutrality of Pakistan) moderates the relationship, and the interactive term (0.163) is significant and positive ( $p = 0.002$ ). The negative effect of the impression of the geopolitical risk on the intention to invest is less significant among these investors who strongly believe that Pakistan is a neutral country.
- Model explanatory power: The model is characterized by a high level of predictive power since it manages to identify 52.4% of the variance of investment intention ( $R^2 = 0.524$ ).

### ***6.2 Discussion of Findings with Reference Mapping***

#### ***6.2.1 Geopolitical Risk Perception and Investment Intention (H1)***

The finding that the perception of geopolitical risk is a good predictor of declining investment intention ( $\beta = -0.431$ ) is in line with the presence of varied literature. First, it confirms the classical finance perspective on political risk as the amount of risk that increases the discount rate of obtainable cash flows (Pástor and Veronesi, 2012, 2013). The investors appear to be assigning a high risk in the Iran-US-Israel conflict case, which would be in accord with the -14.6% in terms of the US dollar that the PSX will carry in the third quarter of the fiscal year 2026 (Topline Securities, 2026).

Second, it is the behavioral finance perspective that cognitive biases amplify the impacts of geopolitical events, and this finding is valid. The value of the effect parameter ( $\beta = -0.431$ )

suggests that the investors do not simply make the adjustment to the objective risk probabilities but to address the information about the conflict at hand in an emotional way (Tversky and Kahneman, 1974; Investing.com Australia, 2026). The excessive volatility that has been felt in the PSX and shifting the focus to gain of 4.55 per cent and later down to 3.44 per cent in the 48 hours (Daily Ittehad, 2026) is also consistent with the rapid re-evaluation of chances by investors based on the most recent headlines and is a characteristic of the availability bias and overreaction.

Third, this finding is consistent with the other research that has been conducted previously in Pakistani setting. Naseem and Zaman (2025) set up and corroborated on the fact that the foreign risk variables like geopolitical instability were among the strongest predictors of low levels of investment activity in a PSX. Khaskhelly (2023) reported that behavioral biases such as the disproportional response to bad news have an enormous influence on the PSX investment. The current study adds to this and provides an analysis of a specific geopolitical crisis that is currently underway rather than a general threat to geopolitics.

### ***6.2.2 Loss Aversion as a Mediator (H2)***

The fact that loss aversion causes this aspect of the relationship to be so (indirect effect = -0.272, 38.7-percent of total effect) can provide some useful insights into the psychological phenomenon through which geopolitical events are linked to investment choices. This observation proves to be a solid signal of the fact that the loss aversion tends to be worse when it comes to perceived threats (in accordance to the prospect theory) (Kahneman and Tversky, 1979; Kahneman, 2011) [27].

The mediation effect can be determined with the help of the concept of threat sensitivity (Carver and White, 1994; Gray, 1987). Behavioral inhibition system (BIS) is activated by geopolitical threats, and it causes the intensification of attention to potential negative consequences and withdrawal of behavior. This has a financial implication in that the losses are more distasteful to the investors- they are more sensitive to losses than the corresponding gains and withdraw out of the equity markets. The observation is consistent with the recent empirical research.

The analysis conducted by Choi and Hadad (2025) on the basis of time-varying parameter vector autoregression model allowed determining that economic policy uncertainty and geopolitical risk are significant factors influencing the risk-aversion of investors (p. 2). Their observation that geopolitical shocks induce immediate risk aversion multiplies over a period of several months is

evidence of mediation effect which is apparent in this study. As it has been analyzed in the paper by Singh (2025), during the COVID-19 pandemic, the war in Russia and Ukraine, there is a behavioral tendency that leads to herding and an intensified sense of risk-aversion among market participants (p. 34). This finding is the basis of the present paper, which demonstrates that the risk aversion (quantified as loss aversion) is not associated with geopolitical risk alone; it is also a mediator.

Mahmood and colleagues (2021) found that Pakistani investors are extremely loss-averse in the Pakistani context, particularly when the market news is not good. This loss aversion is activated by the geopolitical happenings, specifically as per the current research, and it would justify a considerable proportion (38.7%) of the effect of the perception of geopolitical risk on investment intention. The importance of the fact that the mediation is not full (is partial) is theoretical. It means that, despite the fact that loss aversion is one of the factors explaining a large part of the effect, the perception of geopolitical risk directly affects the intention to invest that operates in other ways. It may be a rational re-assessment of expected returns (Pástor and Veronesi, 2013), alternative behavioural biases such as herding (Singh, 2025) or affective responses such as the fear and anxiety (Loewenstein et al., 2001) [28].

### ***6.2.3 Nationalistic Sentiment as a Moderator (H3)***

New data about the feasibility of using political attitudes to make financial decision during a GPC crisis are the results of the nationalistic sentiment mediating the relationship between the perception of geopolitical risk and the intention to invest ( $\beta = 0.163$ ,  $p = 0.002$ ).

The buffering effect- In-group favoritism and system justification processes as pitched in literature are upheld by the buffering effect- investors who truly believe in the neutrality of Pakistan react weakly to geopolitical risk (Brewer, 1999; Jost et al., 2004; Tajfel and Turner, 1979). Those investors that subscribe to the official geopolitical neutrality stand of the government might interpret the same news (geopolitically) as less threatening to their individual financial investments since they put their trust in the government to deal with the circumstances. This is in line with the fact that the AKD research has pointed out that the market mood will be pegged on the development of the Middle East conflict, and a de-escalation could result in a steep recovery (AKD Research, 2026, para.). 2). Investors of high nationalistic feeling are more likely to be anticipating such de-escalation or believing that they will be spared the worst in Pakistan.

The magnitude of moderating effect is huge. The simple slopes test indicates that, when the nationalistic sentiment is low, there is an influence of the perception of geopolitical risk on the intention to invest of 0.548 and when the nationalistic sentiment is high; there is an influence of 0.314 which is reduction of approximately 43. This means that the nationalistic sentiment does not exist as solely theoretical interest but also effects on the way an investor will act.

The findings of this work are added to the research done by Zeng and Li (2019), who examined how the perceptions of geopolitical threats affect the attitude towards foreign investment. They have found that the threat-perception affects the perceptions of the individuals towards the incoming investment negatively, and that the effects are mediated by the national security and the economic sovereignty issues (Zeng and Li, 2019, p. 561). Even nationalistic feeling, according to the current study, can be adopted as a buffer that can lessen the threat perception effect on investment decisions.

This is also concluded in the context of Pakistan specifically. The government of Pakistan has so far officially stayed a peaceful observer to the Iran-US-Israel war (Ministry of Foreign Affairs, Pakistan, 2026; PIDE, 2026). Those investors who support this policy can have a psychological relief in the fact that their government is not on the contrary side actively and the probability of Pakistan becoming a participant of the battle problem actually is reduced.

Nevertheless, it is also possible to add that the moderation effect (according to the conventions of Cohen), (1988) is not very big ( $f^2 = 0.048$ ). Though this is statistically significant, the practical significance is beyond measure. The presence of the nationalistic feeling mitigates but does not eliminate the negative influence of the perception of the geopolitical risk in investment intention.

#### ***6.2.4 Control Variables***

This research find that only the experience of investment (>7 years) is a contributing factor of significance to investment intention ( $= -0.189$ ,  $p = 0.036$ ). One can suppose that more seasoned investors would be not so sensitive to the geopolitical shock because they have already lived through the previous crisis. Nevertheless, the opposite trend was also fulfilled: more experienced investors recorded more considerable declines in the intention to invest.

This may be an instance of bitten twice shy. The investors that experienced the previous geopolitical crisis (e.g., the attack of 9/11, the financial crisis of 2008, the war between Russia and Ukraine) may have also understood that the consequences of such a happening can be negative impacts on markets in the long run. Alternatively, more seasoned investors may also

have bigger portfolios and therefore more to lose and so are more prone to potential losses which is a kind of loss aversion that is enhanced by the stakes of the portfolio.

This finding could be supported by the reality that the study has demonstrated that experienced Pakistani investors do not avoid the behavioral bias (Shefrin and Statman, 1985) as well as fact that the study by Ph.D. Scholar and Khaskhelly (2023) [29] demonstrates that the behavioral bias is not present among experienced Pakistani investors.

The reason why other control variables (age, gender, education, monthly investment) did not have the significant effects can be decoded to mean that the psychological processes that were being examined in the current study are widely operating across demographic lines. This enhances the extrapolation of the results.

### ***6.3 Theoretical Implications***

The research has a number of theoretical implications:

- a. Relation of prospect theory and active geopolitical crisis: The prospect theory has been experimentally studied in many cases (Kahneman and Tversky, 1979), however, this article provides evidence of loss aversion in action during a geopolitical crisis in the real world. The mediating factor between perception of risk and investment intention by loss aversion confirms the practicality of the prospect theory in explaining financial behavior in events that occur infrequently but have high impacts.
- b. Geopolitical risk and behavioral finance: The past studies have analyzed geopolitical risk mainly in a macroeconomic context (Caldara and Iacoviello, 2022; Balcilar et al., 2018). In this paper, two theories known as the geopolitical risk and as the theory of behavioral finance meet and are integrated and it is shown that the psychological channels the communication of the influence of geopolitical events on investment behavior is mediated by the political attitudes (nationalistic sentiment) and mediated by the psychological mechanisms (loss aversion).
- c. New moderating mechanism: The nationalistic sentiment as a moderator is another novel concept to the literature on the behavioral finance literature. In spite of investigations into the issue of political attitudes in the context of foreign investment (Zeng and Li, 2019), the role of political attitudes in reducing stress on national investment withdrawal during natural disasters has not been previously reported before.

- d. Contribution of the Pakistani finance literature: The study provides primary data on investment behavior of Pakistani investors during the current geopolitical crisis, which addresses a literature gap developed by Naseem and Zaman (2025) and Ph.D. Scholar and Khaskhelly (2023). The findings also show that Pakistani investors are psychologically biased just like the investors in the developed markets but the local political environment (neutrality policy) plays a significant moderating role.

## ***6.4 Practical Implications***

### ***6.4.1 For Policymakers (SECP, State Bank of Pakistan)***

The implication that one of the greatest reasons behind 38.7 percent of geopolitical risk effects on investment motivation is loss aversion demonstrates that investing psychology management is no less important than the management of economic risk in investment. Policymakers should consider:

- Communication mechanisms: In geopolitical crisis areas, a message that dwells on Pakistan being economically sound, acquiring foreign currency (Ministry of Finance, 2026) and the in continuity of policies could reduce loss aversion as well due to a reassuring standard to action.
- Investor education: Investors can sell less during panic because they can be offered programs to learn more about the tendency to exaggerate the situation related to geopolitical headlines (Investing.com Australia, 2026) and the history of the market overcoming after the shock (Advisors Asset Management, 2026).
- Finding co-ordination with brokerage houses: SECP could liaise with the brokerages like the AKD Securities and Topline Securities to disseminate level-headed information, during crisis, not in the worst-case scenarios, but in the form of facts.

### ***6.4.2 For Financial Advisors and Brokerage Houses***

The finding that nationalistic feeling smooths negative effects of geopolitical risk (reduces it by approximately 43 percent when NS is high) shows that custom messages may be employed by advisors:

- This can be done by framing effects as the fact that Pakistan has come through earlier geopolitical crises and that the government itself is committed to staying on the sidelines as a psychological buffer that will lead to arousal of nationalistic feelings.

- Client segmentation: The advisors can also examine the nationalistic sense of the customers and their geopolitical risk perception as a way to find the clients who would be the most vulnerable to panic selling. This may require more persuasion to customers who possess low nationalistic behaviors and customers with high perceived risks.
- Dynamics: The temptation to assume the worst-case scenario can be addressed by giving the clients data on market recoveries after other geopolitical shocks in history (Advisors Asset Management, 2026).

### **6.4.3 For Individual Investors**

The findings can advise some individual investors as follows:

- Knowledge about loss aversion: Investors ought to realize that geopolitical headlines cause loss aversion so that they can be able to draw a line between rational risk assessment and emotional reactivity.
- Reference point management: Loss aversion effects can be reduced by maintaining long-term investment horizon and not narrow framing (individual analysis of investments).
- Requesting neutral content: Given that availability bias can be reduced by simply refusing alarmist headlines, neutral content can be sought, proactively attempting to ground geopolitical risks into context, by things like BIS (2026; PIDE, 2026).

## **7. Conclusion**

The paper has examined how the perception of geopolitical risk with reference to the Iran-USA-Israel conflict has influenced the investment intention of individual investors in the Pakistan Stock Exchange where the mediator is the loss aversion and the moderator the nationalistic sentiment. Three main contributions are made by the findings.

Firstly, the geopolitical risk perception has a direct negative impact on investment intention ( $\beta = -0.431, p = 0.001$ ). A higher perception of geopolitical risk on the part of the PSX investors is far less likely to invest in equities or in mutual funds, which is consistent with -14.6% of the returns in the US dollar terms that the PSX had made during the crisis period (Topline Securities, 2026). This finding confirms that that volatility witnessed in the market; a 4.55% appreciation and a 3.44% depreciation in 48 hours (Daily Ittehad, 2026) is what is defined in the psychology and behavioral intentions of individual investors.

Second, the mediator of this relationship is partially loss aversion and it has an explanation of 38.7 of the entire effect (indirect  $\beta = -0.272$ ,  $p < 0.001$ ). This provides a good insight into the psychological mechanism of attaching geopolitical events to investment decision, and that prospect theory (Kahneman and Tversky, 1979) is relevant to active geopolitical crisis. The finding is consistent with current literature that has conclusively determined that geopolitical risk is a leading factor to be considered in risk aversion among market participants (Choi and Hadad, 2025) as well as that crisis will trigger increased risk aversion among investors (Singh, 2025).

Third, the moderating factor between the two is the nationalistic sentiment ( $\beta = 0.163$ ,  $p = 0.002$ ), that the negative effect of perception of risks of geopolitics on investment intention is less when investors have a strong perception of the stand taken by Pakistan. This new discovery implies that political attitudes, namely, the advocacy of the official stand of the government, can be used as a psychological cushioning in case of a geopolitical crisis. The buffering effect salved the negative effect by lessening the negative effect by approximately 43 percent as compared to low nationalistic sentiment and high nationalistic sentiment.

According to the model, there is a consideration of a high predictive power since the model accounts 52.4 percent of variance in investment intention ( $R^2 = 0.524$ ). The practical implication is huge: the implications of the results to the policymakers in the SECP and in the State Bank of Pakistan should be that the investment psychology should be brought to heel as through the communication mechanisms as much as the actual economic risk should be brought to heel as well. In the case of financial advisors and brokerage houses, it is possible to know the degree of loss aversion and nationalistic feelings of clients, which can be used to make individualized client communication in times of crisis. When making independent decisions, I as an individual investor would be more rational in my choices because of the overreaction tendency (Investing.com Australia, 2026) to geopolitical news and past experience of market backlash (Advisors Asset Management, 2026).

Since the Pakistani environment is unstable with respect to the geopolitical environment, the behavioral response of its investors is also desired to ensure the stability of the market. This work provides preliminary grounds of such an understanding, policy, practice, and ramification of the research in the future. The findings reveal that, although the perception of geopolitical risks reduces investment intentions, such perceptions are mediated by psychological mechanisms

which can be overcome by communication, education and awareness about the buffering impact of nationalistic sentiment.

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