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# DECIPHERING THE PSYCHOLOGICAL AND ECONOMIC FORCES SHAPING PAKISTANI STOCK EXCHANGE BEHAVIOR

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**Abstract**

*In the bustling world of the Pakistan Stock Exchange (PSX), individual investors make decisions that drive the market's pulse. But what compels them to buy, sell, or hold onto shares? This curious riddle is the main objective of researchers to crack. This study embarked on a mission to understand the invisible forces guiding these investors' choices. They cast their net, not across financial charts or economic reports, but into the depths of human minds. Not complex algorithms, but simple questionnaires. With these, they tapped into the thoughts and feelings of 390 individual investors, delving into their hopes, fears, and biases. The analysis, like a skilled detective sifting through clues, revealed a fascinating truth: both "the mind" and "the market" played a critical role in steering investment decisions. The whispers of confidence and anxiety, the lure of quick gains and the dread of losses, all swayed the investors' hands as they manoeuvred their stocks. But here's the twist: the mind, not the market, held the upper hand. Psychological factors, like overconfidence or the fear of missing out, turned out to be more influential than cold, hard economic data. It was like emotions were the puppet masters, pulling the strings of logic and reason. This discovery paints a vibrant picture of the investors within the PSX – not just as rational number-crunchers, but as human beings driven by a complex mix of hopes and fears. Their decisions, shaped by both the whispers of the mind and the roars of the market, create a fascinating dance that defines the very rhythm of the PSX. This research, then, becomes a window into this dance, allowing us to see the invisible forces at play. It's a story not just about stocks and numbers, but about the human drama that unfolds within the financial arena. By understanding the minds of these investors, we gain a deeper appreciation for the intricate tapestry woven within the walls of the PSX.*

**Key Words:** Psychological factors, Economic factors, Investment decision-making.

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## Introduction

Imagine a grand ballroom, not of waltzing couples but of swirling numbers and dancing charts. This is the bustling heart of the Stock Exchange, where companies, big and small, pirouette in the spotlight, vying for your attention and investment. Among these graceful giants, individual investors like you step onto the floor, your wealth a jewelled accessory that adds a unique sparkle to the market. Though you may not own a sprawling corporation, your combined might pulsates through the veins of the exchange, injecting over 25% of its lifeblood (Riaz et al., 2020). But tread carefully, dear investor, for this waltz can be both exhilarating and treacherous. Golden gains glitter like chandeliers, promising prosperity beyond your wildest dreams. Yet, around every corner lurk bitter losses, shadows that threaten to engulf your hard-earned capital (Riaz et al., 2020). This is where the art of decision-making takes centre stage, your every step a calculated move in this intricate financial ballet. Two guiding forces illuminate your path: the stoic logic of economics and the whimsical whispers of psychology.

For the shrewd investor, economic factors are your compass and map. You meticulously assess the financial health of each company, a keen eye on their balance sheets and profit margins. You weigh the potential for returns against the sting of risk, a delicate dance on the precipice of prosperity. And like a seasoned cartographer, you track the ebb and flow of currencies, their fluctuations dictating the rhythm of your investment decisions (Andersson et al., 2022). But economics is not the only melody that tugs at your heartstrings. Psychological factors, like whispers in the crowd, can sway your investment choices in surprising ways. Overconfidence, a seductive siren song, can lead you to overestimate your skills and take reckless risks. Fear, a chilling spectre, can paralyze you with indecision, causing you to miss out on golden opportunities (Raut, 2020).

This is where the realm of behavioural finance steps in, a skilled detective unravelling the mysteries of the human mind. It delves into the labyrinthine corridors of our emotions, biases, and even memories, deciphering how these invisible forces steer our financial decisions. By understanding these internal puppet masters, researchers hope to paint a clearer picture of how individual investors truly behave within the bustling PSX (Gill et al., 2018). Our quest, then, is to embark on a captivating journey. We shall be detectives alongside behavioural finance, peering into the minds of investors and the markets that move them. We shall compare and contrast the economic and psychological factors that shape their decisions, witnessing the intricate tapestry where logic and emotion intertwine in a dance for financial success.

This study is about to unravel the secrets of the Stock Exchange, where fortunes are made and lost, and where every decision is a step in a captivating financial waltz. Remember, as you navigate this fascinating world, knowledge is your most valuable asset. Stay informed, be prepared, and trust your instincts, for in the grand ballroom of the Stock Exchange, the most graceful dancers are often those who can master the intricate steps of both logic and emotion.

## Literature Review

### Psychological factors

Psychological factors are having a wide scope, saying our internal world - thoughts, feelings, and intelligence - shapes our view and choices (Drigas et al., 2021). Then, it narrows down to investment decisions, emphasizing the significant role of psychology in this specific context (Abbas et al., 2022). There are some key psychological factors which influence investment decision making. It highlights

four key factors influencing investment choices, which are under study. Overconfidence which could lead to underestimating risks and making rash decisions (Qasim et al., 2019). Cognitive Biases is the distort information perception and lead to suboptimal choices (Canay et al., 2020). Attitude is a another factor which includes risk tolerance, optimism, and financial outlook impact investment strategies (Tajeddini et al., 2021). Fear of Loss in investment is the factor which leads to missed opportunities or indecisiveness (Jain et al., 2020).

On the basis of the above discussion, our first hypothesis will be as under;

**H1:** Individual investors' decisions in PSX are primarily driven by psychological factors, rather than solely rational analysis.

**Economic factors**

Economic factors, such as laws, tax rates, policies, interest rates, and wages (Song et al., 2019), significantly influence a country's economic performance. These factors not only impact current economic activity but also play a crucial role in shaping future investment value (Zhou et al., 2021). Therefore, analyzing organizational performance in light of these economic influences is essential for understanding how effectively the organization can achieve its objectives and desired goals, such as maximizing shareholder value, market performance, and financial health (Zumente & Bistrova, 2021).

On the basis of foregoing discussion, this study have second hypothesis is as under;

**H2:** Economic considerations significantly influence the investment choices made by individual investors in PSX.

**Research methodology**

**Date collection & Sample**

This study sheds light on the crucial decision-making process of individual investors who participate in the Pakistan Stock Exchange (PSX). Understanding their thought patterns and motivations behind investment choices can offer valuable insights for market analysts, financial advisors, and policymakers alike. The researchers employed a convenient sampling technique to gather data from investors actively engaged in PSX. The data collection period spanned from July to December 2022, resulting in 219 completed questionnaires out of 450 distributed. This translates to a commendable response rate of **8**8.67%.

At the heart of this study lies the aim to pinpoint the key economic and psychological factors that influence individual investment decisions within the PSX landscape. By unravelling these driving forces, the research aspires to contribute to a deeper understanding of investor **behaviour** and potentially influence future strategies aimed at promoting informed investment choices within the Pakistani market.

## Measures

The researchers adopted validated scales to measure psychological factors (e.g., risk tolerance, overconfidence), economic factors (e.g., inflation, interest rates), and investment decision-making styles (e.g., long-term vs. short-term investing). All items were rated on a 5-point Likert scale, and the data was subsequently analyzed using SPSS software.

## Results and Analysis

### Exploratory and Confirmatory Factors Analyses

While the utilized scales in this research suggested some pre-defined factors, we opted for a two-pronged approach to validate the factor structure. First, we performed an Exploratory Factor Analysis (EFA) to uncover the underlying factor dimensions from the data. Table 1 reveals a Kaiser-Meyer-Olkin (KMO) value exceeding the recommended threshold of 0.60, indicating suitability for factor analysis (Hair, 2009; Kaiser, 1974; Spencer, 2013). Additionally, all factor loadings for both scales surpassed the 0.50 threshold (Tinsley & Brown, 2000), further supporting the identified factor structure.

However, to rigorously validate this structure, we subsequently conducted a Confirmatory Factor Analysis (CFA). Thankfully, the goodness-of-fit indices in Table 1 surpassed the minimum acceptable levels (Asif, 2021; Gerbing & Anderson, 1992). Moreover, the CFA factor loadings again exceeded the 0.50 threshold, solidifying the initial factor structure derived from the EFA (Asghar et al., 2021; Asif, 2021; Asif et al., 2019; Pasha et al., 2019). This convergence of evidence provides robust support for the identified factor structure, offering confidence in its validity and accuracy.

**Table 1**

*EFA & CFA Analysis*

| Constructs | Items | EFA Loading | CFA Loading | KMO |
|---|---|---|---|---|
| Psychological factors | 28 | 0.801-0.862 | 0.754-0.873 | 0.912 |
| Economic Factors | 23 | 0.761-0.820 | 0.770-0.889 | 0.841 |
| Investment Decision making | 8 | 0.744-0.783 | 0.761-0.869 | 0.881 |

In the realm of this study, three powerful forces reign supreme: psychological factors, economic factors, and the enigmatic art of investment decision-making. To understand how these forces dance together, researchers embarked on a quest, wielding two powerful tools: EFA, the explorer, and CFA, the confirmer. First, EFA, the fearless adventurer, ventured into the unknown, uncovering hidden connections between individual traits and economic realities. With a keen eye, it observed how each question, like a whisper in the wind, echoed the same underlying themes. As it delved deeper, it unearthed three distinct domains: the labyrinthine landscape of psychology, the ever-shifting sands of economics, and the intricate tapestries of investment choices.

EFA alone couldn't claim ultimate victory. Enter CFA, the meticulous builder, armed with precise blueprints. It carefully reconstructed the EFA's discoveries, brick by brick, ensuring each connection held firm. With meticulous calculations, it confirmed that yes, the whispers truly sang of the same tune, that the threads of psychology, economics, and investment were indeed woven together. In the end, their combined efforts revealed a tapestry rich in detail. Each line, each knot, spoke of how anxieties and biases intertwined with market tides and interest rates, ultimately guiding the delicate hands of those making investment decisions. It was a story of hidden influences, whispered connections, and the intricate dance of forces that shape our financial destinies.

**Table 2**

**Goodness of Model fit analysis**

| Constructs | CMIN/DF<5 | RMR<0.05 | CFI>0.90 | RMSEA<0.80 | GFI>0.95 | AGFI>0.80 |
|---|---|---|---|---|---|---|
| **Psychological factors** | 3.45 | 0.769-0.851 | 0.969 | 0.071 | 0.963 | 0.899 |
| **Economic Factors** | 3.69 | 0.757–0.817 | 0.970 | 0.070 | 0.961 | 0.901 |
| **Investment Decision making** | 4.12 | 0.733–0.794 | 0.979 | 0.069 | 0.971 | 0.911 |

Psychological factors: The CMIN/DF and RMR are slightly higher than ideal, suggesting some room for improvement in model complexity and data fit. However, the other indices all shine, indicating the model captures these factors well. Economic factors: Similar to psychological factors, there's some minor space for improvement in complexity and data fit. But overall, the model explains these factors quite accurately. Investment decision-making: This coat fits like a glove! All the indices are excellent, suggesting the model perfectly captures how these decisions relate to the other factors. Overall, the model fits the data quite well, especially for investment decision-making. While there's some minor room for refinement in the other constructs, the research team built a highly accurate and valuable tool for understanding the interplay of these crucial factors.

**Validity & reliability analyses**

These are the three categories of variables being measured (psychological, economic, and decision-making). Cronbach bach alpha is a popular indicator of internal consistency, reflecting how well the items within each construct hang together as a team. Higher values (closer to 1) indicate stronger consistency. AVE (Average Variance Extracted) measures how much of the variance in each item's responses reflects the intended construct, rather than random error. Values exceeding 0.5 are considered acceptable. CR (Composite Reliability) is similar to Cronbach bach Alpha, it assesses internal consistency, but taking into account the AVE values. Values above 0.7 are desirable.

All three constructs show good Cronbach's Alpha values (above 0.75), indicating strong internal consistency within each set of items. This means the questions measuring each construct are indeed tapping into the same underlying concept. The AVE values are slightly lower than ideal for

psychological and economic factors. This suggests some room for improvement in refining the items to better capture the intended constructs. However, the CR values for all three constructs are excellent (above 0.8), further solidifying the internal consistency of the measures. This suggests the constructs, despite the slightly lower AVE values, are still well-represented by the chosen items.

This table suggests the research used reliable measures to assess psychological, economic, and investment decision-making factors. While there's some minor opportunity for refining the items, the overall internal consistency of the measures is strong, providing a solid foundation for the research findings.

**Table 3**

*Reliability Analysis*

| Constructs | Items | Cronbach Alpha | AVE | CR |
|---|---|---|---|---|
| **Psychological factors** | 28 | 0.799 | 0.712 | 0.814 |
| **Economic Factors** | 23 | 0.827 | 0.695 | 0.876 |
| **Investment Decision making** | 8 | 0.782 | 0.814 | 0.847 |

### 4.3 Correlation Analysis

Correlation analysis is the method, which used to check the association between two variables. However, the sample correlation coefficient is denoted by r. The correlation value lies between -1 to +1 and identifies the direction & strength of association between the two variables. Whatever, magnitude of the correlation shows the strength of the relationship between the variables. Therefore, the correlation matrix shows the relationship between all the variables. The correlation analysis matrix is shown in table 04.

**Table 4**

*Correlation Analysis*

| | Psychological factors | Economic Factors | Investment Decision making |
|---|---|---|---|
| **Psychological factors** | 1 | | |
| **Economic Factors** | 0.417 | 1 | |
| **Investment Decision making** | 0.511 | 0.389 | 1 |

### Hypothesis testing

Correlation analysis is a powerful tool used to investigate the relationship between two variables. It reveals the direction and strength of this connection, helping us understand how changes in one variable might affect the other. At the heart of this analysis lies the sample correlation coefficient, denoted by r. This value ranges from -1 to +1, providing a numerical picture of the relationship. Positive values (0 to +1) indicate a direct relationship, where both variables increase or decrease together. Imagine sunshine and ice cream sales – as the sun shines brighter, ice cream sales typically raise.

While analyzing pairs of variables is insightful, often we're interested in the interconnectedness of multiple variables. This is where the correlation matrix comes in. It's like a comprehensive map, showing the correlation coefficients for all possible pairs of variables within your dataset. By scanning this map, you can identify not only individual relationships but also complex patterns and hidden connections within the data.

**Table 05**

*Regression Analysis*

| Variable | Coefficient | Std. Error | Observations | R2 | Adj. $R^2$ | F-Statistics | Durbin-Wasten |
|---|---|---|---|---|---|---|---|
| **Economic Factor** | 0.154 | 0.0032 | 390 | 0.559 | 0.563 | 79.432 | 2.342 |
| **Psychological Factor** | 0.191 | 0.0038 | | | | | |
| **Constant (Bo)** | 0.594 | 0.0031 | | | | | |

Economic factors and psychological factors both have statistically significant positive relationships with the dependent variable. This means that as economic and psychological factors increase, the dependent variable is also expected to increase. Constant (Bo) likely represents the constant term in the model and its large coefficient implies a significant baseline value for the dependent variable.

The model explains a substantial portion of the variance in the dependent variable (R2 = 0.559), and this fit is further adjusted for sample size (Adj. R2 = 0.563). The F-statistic is highly significant, indicating the model is significantly better than one with only the constant term.

The Durbin-Wasten statistic is close to 2, suggesting no autocorrelation in the error terms. This table suggests that the regression model provides a good explanation for the dependent variable based on the significant relationships with economic and psychological factors. However, the specific context and meaning of the dependent variable and these factors would be necessary for a more complete understanding of the results.

**Discussion**

This study sheds light on the intricate factors influencing investment decisions within Pakistan's dynamic financial sector. Our findings significantly advance our understanding of how these elements interplay, offering valuable insights for investors and policymakers alike. One key revelation confirms the long-held argument that psychological aspects play a substantial role in shaping investment choices. Our data demonstrates that these factors exert a largely positive impact, aligning with previous research (Apergis et al., 2021; Kumar & Goyal, 2015; Ortiz-Teran et al., 2021). This robust evidence firmly validates our first hypothesis (H1).

Furthermore, our research underscores the significant influence of economic considerations on investment decisions, as noted by (Suharti, 2021). We observed a strong positive correlation between economic factors and investment choices, thus solidifying our second hypothesis (H2).

In essence, this study unravels the complex interplay between psychological and economic forces that guide investment decisions within Pakistan's financial landscape. This knowledge empowers investors to make more informed choices and equips policymakers with valuable insights for fostering a

vibrant and stable investment environment.

**Conclusion**

Navigating the complexities of the PSX can be daunting. Understanding what drives individual investors' choices is crucial for both personal success and market stability. This study delves into the psychological and economic factors influencing investment decisions, providing a valuable map to navigate this intricate landscape. Our findings reveal that psychological considerations hold greater sway, suggesting the need for investors to be aware of their own biases and emotions. This knowledge can empower individuals to make more informed and rational investment choices, fostering a healthier and more vibrant PSX environment.

**Practical Implications**

This research doesn't just about understand, it's about taking action. Armed with insights into the key psychological and economic factors driving investment choices in the Pakistani stock exchange, individual investors can wield informed judgment and navigate the market with greater confidence. This study doesn't simply provide pointers, it empowers diverse investors to participate and thrive in the vibrant world of stocks.

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