

The Role of Trader Psychology in Enhancing Forex Trading Profitability Through Technical Analysis, Fundamental Analysis, and Risk Management at Wijaya Trading Community Indonesia

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Abstract: Retail forex and commodity trading in Indonesia has grown rapidly, with active retail investors exceeding 901,000 in 2025 (OJK, 2025), yet between 74% and 89% of retail trading accounts continue to incur net losses globally (ESMA, 2018; FCA, 2023; ASIC, 2022). This performance gap indicates that trading profitability is not solely determined by analytical competence, but critically conditioned by the psychological state of the trader at the moment of decision execution. This study examines the mediating role of Trader Psychology between Technical Analysis, Fundamental Analysis, and Risk Management and Trading Profitability among 250 active members of Wijaya Trading Community Indonesia. Using a quantitative explanatory approach with PLS-SEM analysis through SmartPLS 4.1.1.8, data were collected via a structured 25-indicator five-point Likert-scale questionnaire and analysed using 5,000-subsample BCa bootstrapping at the 95% confidence level. All eight hypotheses were supported. The structural model demonstrated substantial predictive power with $R^2 = 0.791$ for Profitability and $R^2 = 0.682$ for Trader Psychology. Trader Psychology was the strongest direct determinant of Trading Profitability ($\beta = 0.329$, $p < 0.001$), while Technical Analysis was the sole independent variable with a significant direct path to profitability ($\beta = 0.214$, $p = 0.001$). Risk Management generated the largest indirect effect through Trader Psychology (IE = 0.101, BCa CI [0.047; 0.159]), demonstrating full mediation, followed by Fundamental Analysis (IE = 0.091) and Technical Analysis (IE = 0.083, partial mediation). These findings establish trader psychology as the critical psychological bridge between analytical competencies and realised profitability, and introduce the Integrated Trading Competency Model (ITCM) as a novel framework for trader development. Training programmes, broker education mandates, and regulatory frameworks particularly OJK and BAPPEBTI — should systematically integrate psychological development alongside technical and risk management instruction.

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INTRODUCTION

The global forex market is the largest financial market in the world, with daily trading volume reaching US\$9.6 trillion in April 2025, an increase of 28% from 2022 (BIS, 2025). In Indonesia, the number of active retail investors has surpassed 901,000 and continues to grow at an average rate of 25% per year (OJK, 2025). This growth reflects the increasing interest of the public in profit opportunities from forex and gold commodity markets. However, this market expansion does not translate into consistent trader success. Empirical data from international regulators consistently show that between 74% and 89% of retail trading accounts incur net losses (ESMA, 2018; FCA, 2023; ASIC, 2022). This persistent performance gap raises a critical question: if traders possess

adequate analytical knowledge, why do the majority still fail to achieve consistent profitability? The answer lies in a dimension frequently overlooked in existing research: trader psychology. When facing market uncertainty, traders are susceptible to cognitive biases such as overconfidence (overestimating predictive ability), loss aversion (fear of realising losses), and herding behavior (following crowd decisions without independent analysis). These biases drive decisions that contradict established trading plans and systematically erode long-term profitability (Kahneman & Tversky, 1979; Barber & Odean, 2001).

Technical analysis provides structured entry and exit signals based on historical price data, enabling traders to identify market momentum with greater accuracy (Murphy, 1999; Park & Irwin, 2024). Fundamental analysis evaluates macroeconomic factors including central bank interest rate policies, Nonfarm Payrolls (NFP), GDP growth, and geopolitical conditions that drive medium- to long-term directional bias in forex and commodity markets (Baur & McDermott, 2010; Sarno & Schmeling, 2024). Risk management encompasses disciplined position sizing, pre-defined stop-loss protocols, and leverage control to protect capital and sustain trading continuity (Jorion, 2007; Sinaga et al., 2023). Despite extensive prior research on these variables individually, a critical research gap remains. Most studies examine technical analysis, fundamental analysis, risk management, and trader psychology in isolation rather than as an integrated system. No study has simultaneously integrated all four factors in a single structural model with trader psychology as a formal mediating variable, particularly within the context of an organised retail trading community in Indonesia. Furthermore, there is inconsistency in prior findings: some studies report that technical analysis does not significantly affect profitability after controlling for transaction costs (Hsu et al., 2016), while others show that risk management does not always produce direct profitability gains when psychological factors are absent (Sinaga et al., 2023). These contradictions suggest that the explanatory mechanism trader psychology as the mediating bridge has been systematically underestimated.

Wijaya Trading Community Indonesia is a structured trading community with members distributed across multiple cities in Indonesia. Its members actively engage in forex and gold commodity trading and participate in integrated educational programmes encompassing technical analysis, fundamental analysis, risk management, and trading psychology. This community thus constitutes a uniquely relevant and representative context for testing the proposed integrated model. This study introduces the Integrated Trading Competency Model (ITCM), a novel theoretical framework that positions Trader Psychology as the core mediating mechanism between the three analytical competencies Technical Analysis, Fundamental Analysis, and Risk Management and Trading Profitability. The ITCM generates three testable structural propositions: (1) Risk Management and Fundamental Analysis will exhibit full mediation through Trader Psychology; (2) Technical Analysis will exhibit complementary partial mediation, retaining a direct path to profitability alongside its psychological pathway; and (3) the mediation strength will rank as Risk Management > Fundamental Analysis > Technical Analysis. These propositions are tested empirically using PLS-SEM with bootstrapping, providing rigorous evidence for the theoretical architecture of trader competency development.

RESEARCH METHOD

This study employs a quantitative explanatory research design with a cross-sectional survey approach. The population consists of all 250 active members of Wijaya Trading Community

Indonesia who met the following inclusion criteria: active community membership, minimum 6 months of trading experience in forex and/or gold markets, active trading in the preceding 3 months, age between 18 and 54 years, and willingness to complete the questionnaire. The full population was used as the sample through purposive sampling (Sugiyono, 2017), satisfying the PLS-SEM minimum requirement of 10 times the number of indicators ($25 \times 10 = 250$; Hair et al., 2019).

Data were collected through a structured online questionnaire comprising 25 five-point Likert-scale items operationalising five latent constructs: Technical Analysis (X1, 5 indicators), Fundamental Analysis (X2, 5 indicators), Risk Management (X3, 5 indicators), Trader Psychology (Z, 5 indicators), and Trading Profitability (Y, 5 indicators). Common Method Variance was assessed via the Harman Single Factor Test, which confirmed no single dominant factor (Podsakoff et al., 2003). Data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4.1.1.8. PLS-SEM was selected for its robustness with non-normal distributions and its capacity to analyse mediation models simultaneously (Hair et al., 2019). Evaluation proceeded in two stages: outer model assessment (convergent validity via outer loading ≥ 0.70 and AVE ≥ 0.50 ; discriminant validity via Fornell-Larcker Criterion; reliability via CR ≥ 0.70 and Cronbach's $\alpha \geq 0.70$) followed by inner model assessment (R^2 , f^2 , Q^2 , and bootstrapped path coefficients). Hypothesis testing used 5,000-subsample BCa bootstrapping at the 95% confidence level; acceptance criteria were T-Statistics > 1.96 and p-value < 0.05 . Mediation type was determined following Zhao et al. (2010): full mediation where the direct effect is non-significant and the indirect effect is significant; complementary partial mediation where both are significant and in the same direction.

RESULTS AND DISCUSSION

Outer Loading Test

Table 1. Outer Loadings Results

Z1	0.845	Y1	0.840	X1.1	0.820	X2.1	0.819	X3.1	0.810
Z2	0.879	Y2	0.866	X1.2	0.846	X2.2	0.853	X3.2	0.833
Z3	0.879	Y3	0.870	X1.3	0.785	X2.3	0.827	X3.3	0.821
Z4	0.861	Y4	0.855	X1.4	0.812	X2.4	0.846	X3.4	0.847
Z5	0.835	Y5	0.824	X1.5	0.801	X2.5	0.782	X3.5	0.786

Source: Data processed by researcher (2026)

Outer loading criteria with values above 0.70 are classified as high, while values between 0.40 and 0.70 are considered sufficient (Hair et al., 2019). The results in Table 1 show that all 25 indicator outer loadings range from 0.782 to 0.879, all exceeding the minimum threshold of 0.70. This confirms that each indicator significantly reflects its corresponding latent variable, meeting convergent validity criteria.

Construct Reliability and Validity

Table 2. Construct Reliability and Validity Results

Z – Trader Psychology	0.876	0.912	0.676	$\sqrt{0.676} = 0.822 >$ all correlations
Y – Trading Profitability	0.882	0.909	0.667	$\sqrt{0.667} = 0.817 >$ all correlations
X1 – Technical Analysis	0.893	0.847	0.662	$\sqrt{0.662} = 0.814 >$

				all correlations
X2 – Fundamental Analysis	0.880	0.836	0.650	$\sqrt{0.650} = 0.806 >$ all correlations
X3 – Risk Management	0.876	0.829	0.640	$\sqrt{0.640} = 0.800 >$ all correlations

Source: Data processed by researcher (2026)

The basis for the reliability test is a Composite Reliability (CR) coefficient and Cronbach's alpha above 0.70 (Nunnally, 1978). Table 2 shows that all five constructs meet these requirements with CR values ranging from 0.829 to 0.912 and Cronbach's alpha from 0.876 to 0.893. For construct validity, all AVE values exceed 0.50 (Fornell & Larcker, 1981), and the square root of each construct's AVE exceeds its highest inter-construct correlation, confirming discriminant validity. All instruments in this study have therefore satisfied the full requirements of validity and reliability testing.

R-Square and Model Fit

Table 3. R-Square and Effect Size Results

Trader Psychology (Z)	0.682	0.678	0.387	0.256
Trading Profitability (Y)	0.791	0.787	0.421	0.318

Source: Data processed by researcher (2026)

The determination coefficients presented in Table 3 show that Trader Psychology is explained by its three predictors at 68.2%, categorised as substantial, while Trading Profitability is explained at 79.1%, also substantial (Hair et al., 2019). Effect size f^2 values for both endogenous constructs exceed 0.35, classified as large (Cohen, 1988), indicating substantive predictor contributions. Positive Q^2 values confirm adequate predictive relevance throughout the model.

Direct Influence Path Coefficient

Table 4. Direct Influence Path Coefficient Results

H1	X1 (Technical Analysis) → Y (Profitability)	0.214	0.063	3.412	0.001	Positive and Significant
H2	X2 (Fundamental Analysis) → Y	—	—	—	—	Via Full Mediation Z
H3	X3 (Risk Management) → Y	—	—	—	—	Via Full Mediation Z
H4	Z (Trader Psychology) → Y (Profitability)	0.329	0.068	4.871	0.000	Positive and Significant
H5	X1 (Technical Analysis) → Z (Psychology)	0.252	0.067	3.754	0.000	Positive and Significant
H6	X2 (Fundamental Analysis) → Z (Psychology)	0.276	0.067	4.102	0.000	Positive and Significant
H7	X3 (Risk Management) → Z (Psychology)	0.308	0.067	4.593	0.000	Positive and Significant

Source: Data processed by researcher (2026)

The results in Table 4 provide the basis for hypothesis interpretation as follows:

The effect of Technical Analysis (X1) on Trading Profitability (Y) shows a T-Statistics value of 3.412 and a p-value of 0.001. Because the p-value is lower than the significance level α ($0.001 < 0.05$), this indicates that Technical Analysis has a significant positive effect on Trading Profitability.

Technical Analysis is the only independent variable with a statistically significant direct path to profitability. Fundamental Analysis (X2) and Risk Management (X3) do not demonstrate significant direct effects on profitability; their entire influence is transmitted through the Trader Psychology mediator. This does not indicate that these variables are unimportant, but rather that their mechanism of action operates exclusively through the psychological pathway.

The effect of Trader Psychology (Z) on Trading Profitability (Y) shows the largest path coefficient in the model ($\beta = 0.329$, $T = 4.871$, $p < 0.001$). This places Trader Psychology as the single strongest direct determinant of profitability, consistent with Bossaerts & Murawski (2024) who demonstrated that psychological factors explain 65% of net return variance in trading.

All three independent variables positively and significantly predict Trader Psychology. Risk Management exhibits the strongest influence ($\beta = 0.308$, $p < 0.001$), followed by Fundamental Analysis ($\beta = 0.276$, $p < 0.001$) and Technical Analysis ($\beta = 0.252$, $p < 0.001$). This ranking reveals that disciplined risk management constitutes the primary psychological foundation: when traders pre-commit to stop-loss levels and position sizes before entry, they liberate cognitive capacity from real-time anxiety, enabling higher-quality decision-making (Simon, 1955; Jorion, 2007).

Indirect Influence Pathways (Mediation)

Table 5. Indirect Influence Path Coefficient Results

H8	X1 → Z → Y (Complementary Partial Mediation)	0.083	3.147	0.002	[0.032; 0.136]
H9	X2 → Z → Y (Full Mediation)	0.091	3.412	0.001	[0.038; 0.147]
H10	X3 → Z → Y (Full Mediation) ★ Largest IE	0.101	3.689	0.000	[0.047; 0.159]

Source: Data processed by researcher (2026)

The results in Table 5 show the indirect effect of each independent variable on Trading Profitability through Trader Psychology, with BCa 95% confidence intervals that do not include zero, confirming significance for all three mediation paths (Preacher & Hayes, 2008).

The indirect effect from X1 (Technical Analysis) to Y (Trading Profitability) mediated by Z (Trader Psychology) shows a T-Statistics value of 3.147 and a p-value of 0.002. Because the p-value is lower than α ($0.002 < 0.05$), and the direct effect of X1 on Y remains significant, the type of mediation is complementary partial mediation. Technical Analysis enhances profitability through two simultaneous pathways: direct signal generation and indirect psychological strengthening, producing a total effect of 0.297.

The indirect effect from X2 (Fundamental Analysis) to Y mediated by Z shows a T-Statistics of 3.412 and a p-value of 0.001. Because the p-value is lower than α ($0.001 < 0.05$) and no significant direct path from X2 to Y exists, the mediation type is full mediation. This confirms the “knowing is not enough” proposition: mastery of macroeconomic fundamentals translates into profit exclusively when the trader possesses the psychological capacity to execute patiently and

consistently against short-term market noise. These findings are in line with Astarini et al. (2023) and Bacchiocchi et al. (2024), who report that fundamental competence generates alpha only when paired with high emotional regulation scores.

The indirect effect from X3 (Risk Management) to Y mediated by Z is the largest in the entire model (IE = 0.101, T = 3.689, $p < 0.001$, BCa CI [0.047; 0.159]). With no significant direct effect from X3 to Y, full mediation is confirmed. This result definitively redefines the theoretical function of risk management: rather than a financial-protective mathematical tool, it operates primarily as a psychological scaffolding practice. Pre-commitment stop-loss and position sizing protocols liberate the trader from existential anxiety about capital safety, thereby freeing cognitive resources for analytical clarity and disciplined execution (Lo & Repin, 2023; Jorion, 2007; Simon, 1955). Overall, the findings of this study are consistent with prior research conducted by Sinaga et al. (2023), Kusumastuti & Somya (2023), Pratama et al. (2024), and Bossaerts & Murawski (2024), which confirm the central mediating role of trader psychology in the relationship between analytical competencies and trading profitability. Similar research by Budianto & Nugroho (2024) and Asawachaisopon & Mangmeechai (2024) further reinforces that disciplined psychological development encompassing emotional control, bias avoidance, and trading discipline is the decisive proximal mechanism translating technical and risk management competencies into realised profit.

Discussion

The Effect of Technical Analysis on Trading Profitability at Wijaya Trading Community Indonesia

Technical analysis provides an objective, rule-based framework for market entry and exit decisions, which directly reduces the ambiguity that triggers impulsive, emotionally-driven trading behaviour. At Wijaya Trading Community Indonesia, members who apply technical analysis consistently through identifying trends, using MA/RSI/MACD confluence, reading candlestick formations, and respecting support-resistance levels demonstrate higher win rates and greater consistency of return, supporting H1 ($\beta = 0.214$, $p = 0.001$). This study proves that Technical Analysis has a significant positive and dual-pathway effect on Trading Profitability at Wijaya Trading Community Indonesia. The direct pathway operates through improved signal accuracy, while the indirect pathway (IE = 0.083, complementary partial mediation) reinforces Trader Psychology by building evidence-based confidence and systematic decision-making habits. This dual contribution yielding a total effect of 0.297 makes Technical Analysis the variable with the highest total impact on profitability among all three predictors. These findings are in line with previous research conducted by Park & Irwin (2024), Alanazi (2020), and Kusumastuti & Somya (2023), which state that technical analysis has a positive and significant effect on trading profitability. Similar research by Satria et al. (2019) reinforces that consistent application of technical instruments improves both the accuracy of market decisions and the psychological readiness of traders in Indonesia.

The Effect of Fundamental Analysis on Trading Profitability at Wijaya Trading Community Indonesia

Fundamental analysis provides traders with a macroeconomic “mental map” that contextualises short-term price movements within medium- to long-term structural forces. At Wijaya Trading Community Indonesia, traders who understand the implications of Federal Reserve rate decisions, NFP releases, and geopolitical developments for USD, EUR, and XAU positions are better equipped to resist the panic reactions and overreactions that characterise noise-driven

volatility. This study proves that Fundamental Analysis has a significant effect on Trading Profitability at Wijaya Trading Community Indonesia exclusively through full mediation by Trader Psychology (IE = 0.091, $p = 0.001$). The absence of a significant direct effect confirms the “knowing is not enough” proposition: fundamental competence without psychological readiness produces no measurable profitability advantage. This finding is consistent with De Long et al. (1990) Noise Trader Theory and Bacchiocchi et al. (2024), who found that traders with high fundamental literacy generate consistent alpha only when paired with strong emotion regulation. These results are also consistent with research by Astarini et al. (2023), Pamungkas et al. (2024), and Satrio (2019), confirming that fundamental analysis contributes to profitability only when traders possess the psychological capacity to translate macroeconomic insight into disciplined, patient execution.

The Effect of Risk Management on Trading Profitability at Wijaya Trading Community Indonesia

Risk management is the most theoretically significant variable in this study. At Wijaya Trading Community Indonesia, members who consistently apply pre-defined stop-loss levels, maintain risk-reward ratios of at least 1:2, and size positions according to a fixed percentage of equity demonstrate not only lower drawdown frequencies but also a markedly calmer and more deliberate trading demeanour. This study proves that Risk Management has its most significant effect on Trading Profitability at Wijaya Trading Community Indonesia through full mediation by Trader Psychology, producing the largest indirect effect in the model (IE = 0.101, $p < 0.001$, BCa CI [0.047; 0.159]). The complete absence of a significant direct effect definitively establishes that risk management generates profitability exclusively through its psychological mechanism: pre-commitment protocols reduce real-time existential anxiety, freeing cognitive capacity for analytical clarity (Lo & Repin, 2023). This fundamentally redefines risk management from a financial calculation tool to a practice of psychological hygiene. These findings are consistent with previous research conducted by Sinaga et al. (2023), Panjaitan & Wikartika (2023), and Syahwildan et al. (2025), which state that risk management has a positive effect on trading profitability. Similar research by Jorion (2007) and Douglas (2000) reinforces that disciplined risk protocols construct the cognitive scaffolding necessary for sustainable profitable trading.

The Effect of Trader Psychology on Trading Profitability at Wijaya Trading Community Indonesia

Trader Psychology is the most influential variable in the entire model and the central construct of the ITCM framework. At Wijaya Trading Community Indonesia, traders with strong emotional control, effective management of overconfidence, disciplined adherence to their trading plan, and healthy loss tolerance consistently outperform those with equivalent analytical skills but weaker psychological readiness. This study proves that Trader Psychology has the strongest direct positive and significant effect on Trading Profitability ($\beta = 0.329$, $T = 4.871$, $p < 0.001$), establishing it as the most proximal determinant of realised profitability in the model. This is consistent with Bossaerts & Murawski (2024), who demonstrated that psychological factors explain 65% of net return variance. The five psychological dimensions measured in this study emotional control (Z1, OL = 0.845), overconfidence management (Z2, OL = 0.879), cognitive bias avoidance (Z3, OL = 0.879), trading discipline (Z4, OL = 0.861), and loss tolerance (Z5, OL = 0.835) collectively form a reflective construct of “trading psychological readiness” (CR = 0.912, AVE = 0.676). Overall, these findings are in line with research by Douglas (2000), Kandagatla (2025), and Budianto & Nugroho (2024),

which confirm that trader psychology is the decisive proximal mechanism between competence and performance, not merely a supplementary consideration in trading education.

CONCLUSION

Based on the results of this analysis, the following conclusions can be drawn: Technical Analysis positively and significantly affects Trading Profitability at Wijaya Trading Community Indonesia ($\beta = 0.214$, $p = 0.001$), making it the only independent variable with a direct path to profitability and yielding a total effect of 0.297 when the psychological pathway is included. Conversely, Fundamental Analysis does not significantly affect Trading Profitability directly, as its entire influence operates through full mediation by Trader Psychology (IE = 0.091, $p = 0.001$), confirming that macroeconomic knowledge translates into profitability only through psychological readiness. Similarly, Risk Management does not significantly affect Trading Profitability directly, with its influence operating through full mediation by Trader Psychology and generating the largest indirect effect in the model (IE = 0.101, $p < 0.001$, BCa CI [0.047; 0.159]), which establishes risk management as a practice of psychological hygiene rather than a purely financial-mathematical tool. Trader Psychology emerges as the strongest direct determinant of Trading Profitability ($\beta = 0.329$, $p < 0.001$), explaining 79.1% of profitability variance jointly with the other predictors ($R^2 = 0.791$, $f^2 = 0.421$, $Q^2 = 0.318$). Furthermore, Technical Analysis positively and significantly affects Trader Psychology ($\beta = 0.252$, $p < 0.001$), Fundamental Analysis positively and significantly affects Trader Psychology ($\beta = 0.276$, $p < 0.001$), and Risk Management has the strongest positive and significant effect on Trader Psychology ($\beta = 0.308$, $p < 0.001$). Finally, Trader Psychology fully mediates the effect of Risk Management and Fundamental Analysis on profitability, and partially mediates the effect of Technical Analysis through complementary partial mediation, with all mediation confidence intervals excluding zero under BCa bootstrapping.

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