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Investment Experience and its Effect on Financial Advisory Service Usage in Futures and Options Markets

Khalid Mehraj
Dr. Vinay Kumar

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Khalid Mehraj
Dr. Vinay Kumar

Abstract

This study examines the utilization of financial advisory services among investors in Futures and Options, highlighting the evolving relationship between trading experience and reliance on professional guidance. The findings reveal that while a significant majority of investors initially seek advisory services, their continued dependence on these services varies based on their level of experience. Novice traders demonstrate a strong reliance on financial advisors to navigate complex investment decisions, whereas more experienced traders tend to transition towards independent strategies. However, a considerable proportion of seasoned investors continue to value professional financial guidance for market insights and risk mitigation.

Statistical analysis confirms a significant association between trading experience and the likelihood of continuing to use advisory services. While trading experience fosters greater self-reliance, it does not eliminate the need for expert consultation. The study underscores the importance of tailoring financial advisory services to different investor segments. For beginners, structured educational programs, personalized investment strategies, and risk management support are crucial. Meanwhile, experienced traders benefit from access to advanced analytical tools, periodic expert consultations, and specialized market research. By aligning services with the evolving needs of investors, financial advisory firms can enhance their effectiveness and maintain long-term client engagement in the Futures and Options market.

Keywords: Financial Advisory Services, Futures and Options, Investor Behavior, Professional Guidance, Trading Experience

1. Introduction

Investment experience has a significant impact on how investors engage with financial advisory services, particularly in complex financial markets such as futures and options. These derivatives, known for their potential high returns and associated risks, require a deep understanding of market dynamics, sophisticated strategies, and risk management techniques. The level of an investor's experience often dictates their confidence and competence in handling these financial instruments, which, in turn, affects their reliance on professional advice. Experienced investors who have navigated various market cycles tend to possess a nuanced understanding of market movements and risk factors. This expertise enables them to make more informed and autonomous decisions. They might use advisory services selectively, focusing on advanced strategic insights rather than basic guidance. Research indicates that seasoned investors prefer personalized, high-

level advisory services that complement their own analysis and investment strategies (Kinniry et al., 2016).

In contrast, novice investors often lack the technical knowledge and practical experience necessary to trade futures and options effectively. These investors are more likely to seek comprehensive advisory services to bridge their knowledge gap, relying heavily on professional advisors to guide their investment decisions and risk management practices. Studies have shown that less experienced investors tend to benefit significantly from advisory services, which provide them with essential market insights, trading strategies, and psychological support (Fischer & Gerhardt, 2007). The disparity in advisory service usage between experienced and novice investors highlights the need for financial advisors to provide tailored services that address the distinct needs of each client segment. Advisors must adapt their approach to provide sophisticated, strategic advice for seasoned investors while offering more fundamental educational support for beginners. This differentiation not only enhances the value proposition of financial advisory services but also ensures that all investors, regardless of their level of experience, can effectively navigate the futures and options markets. Research suggests that investment experience and financial literacy influence the use of financial advisories. As investors gain experience, they become more adept at utilising unfiltered information, resulting in improved portfolio returns (Elliott et al., 2006). Paradoxically, individuals with higher investment competence are more likely to seek professional advice, indicating that those most at risk of making investment mistakes are least likely to seek help (Bachmann & Hens, 2014). However, the emergence of robot advisors has provided an alternative, particularly appealing to investors concerned about potential conflicts of interest in human financial advice (Brenner & Meyll, 2019).

Furthermore, when financial literacy is considered an endogenous factor, it appears to act as a substitute for seeking advice from financial planners. Investors who invest more in financial literacy are less likely to seek professional financial advice, suggesting a trade-off between self-education and reliance on external expertise (Barthel & Lei, 2021). Understanding the impact of investment experience on the utilisation of advisory services is crucial for financial advisors, policymakers, and educators who aim to promote informed and strategic investment practices. By recognizing and addressing the diverse needs of investors, the financial industry can foster a more inclusive and supportive environment for all market participants.

2. Review of Literature

S. Srivastava, S. S. Yadav, and P. K. Jain's (2008) study targeted brokers operating in India's newly established derivatives markets. The aim was to gauge their evaluations of market dynamics and gather their views on the advantages and drawbacks of engaging in derivative trading.

Ravichandran's (2008) study examined investor preferences across various investment avenues within the capital market, with a particular focus on derivatives. It reveals that, in today's environment, even seasoned professionals find investing in stock markets to be highly challenging. Derivatives have emerged as a crucial instrument for mitigating the risks associated with stock market investments, enabling investors to achieve optimal outcomes. The study also highlights the importance of investors being knowledgeable about various hedging and speculation strategies, which are essential for risk reduction.

Increased awareness of the diverse applications of derivatives can significantly help investors minimise risk and maximise returns.

H. M. Rakesh's (2015) study aimed to determine investors' preferences for various capital market instruments, identify the types of risks they consider, explore the methods they use to minimize these risks, and, lastly, uncover their specific preferences within the derivatives market.

It is noted in the study by Varadharajan. P and Vikkraman. P (2011) that investors make decisions based on input from family, friends, colleagues, broker recommendations, and other professional advice. They also consider market conditions, such as companies' financial results, bonus issues, price-to-earnings ratios, and the company's reputation, before investing.

Mullainathan et al. (2012) suggest that financial advisors, rather than mitigating clients' behavioural biases, may reinforce those that align with their interests. For instance, they often promote actively managed funds with higher fees, which may not always be in the best interest of the client.

The study by Bhatt Babaraju K and Chauhan Apurva A. (2014) investigated investors' perceptions of derivatives as an investment option, revealing that most investors rely on their knowledge, as well as advice from financial advisors and brokers when entering the derivatives market. It found a significant positive correlation between the respondents' age and their decision to invest in derivatives, while a negative correlation was observed with their annual income levels. Key factors influencing investment decisions included hedge funds, risk management, understanding of financial products, and high market volatility.

Foerster et al.'s (2014) research shows that while advisors encourage clients to take on more risk, they often provide one-size-fits-all advice without considering individual client characteristics while also charging high fees that negate potential gains.

Linnainmaa et al. (2018) found that financial advisors frequently fail to provide optimal guidance to their clients, as evidenced by several studies. Advisors typically invest similarly to their clients, engaging in frequent trading, return chasing, and under-diversification, resulting in poor net returns.

In their 2013 working paper "Do not Answer the Phone- Financial Advice and Individual Investors' Performance," Hoechle, Ruenzi, Schaub, and Schmid argue that financial advisors often harm individual investors' trading performance, particularly when investors seek their guidance. Moreover, limited evidence supports their role in mitigating behavioural biases, raising doubts about their overall value.

C. Jha's (2020) paper examines investors' perceptions and preferences towards the derivatives market in India. Retail and institutional investors have played an important role in the development of derivatives trading in India. Retail investors play a significant role in equity derivatives, accounting for up to 52% of institutional investments, as a large number of retail investors participate in derivatives trading. This research paper examines the level of awareness among investors regarding derivative products and their preferences for various investment options. Investors have adopted various patterns of analysis for investing in derivatives, including the age group of investors, investment patterns, and associations with the equity and investment markets. The present study is

based on the assumption of investment for derivatives. In this paper, the primary data for the study were collected through a questionnaire administered to retail investors. Apart from this, the study also mentions that investors consider various factors when investing in derivatives, such as broker hedging funds, financial advisors, investors' knowledge about financial products, and risk control. These factors all help inform the decision to invest in derivatives.

3. Research Gap

There is a gap, particularly related to investment experiences and the diminishing use of financial advisors in futures and options trading in J&K. This gap underscores the need for research that examines the evolving dynamics of investor behaviour in derivatives markets, the efficacy of self-directed trading strategies, and the potential risks associated with reduced professional guidance.

4. Research Methodology

This study adopts a descriptive approach, drawing insights from both primary and secondary data sources. A structured and pre-tested questionnaire serves as the primary tool for data collection. The research begins with a sample of 200 respondents, selected from the Union Territory of Jammu and Kashmir, and is conducted within this territory.

A purposive sampling method is employed to ensure that the responses were obtained from active investors specifically engaged in the futures and options segment of derivatives trading within the region. The questionnaires were distributed to retail investors using both online and offline methods tailored to the circumstances at hand.

To analyse the data, a range of statistical tools was applied. These included frequency analysis to understand the distribution of responses, percentage analysis to quantify the data, cross-tabulation to explore relationships between variables, and both Pearson Chi-square and Cramer's V tests to examine the strength and significance of these relationships. Through these methods, the study aimed to derive robust and valid insights from the gathered data.

4.1 Objective of the Study

To examine the association between the Trading Experiences of retail investors and the use of financial advisories w.r.t Future and options.

4.2 The Hypothesis of the Objective

The trading experiences and use of financial advisories are independent of each other.

5. Data Analysis and Interpretations

Table 1

*Use of Financial Advisory Services
Descriptive Statistics*

Use of Financial advisory services by the individuals	N	Mean	S.D
I make use of advice provided by financial advisors for making investment in Future & Options	200	3.1254	.12182
The use of tips provided by financial advisor has resulted in more profits to my investment	200	2.9542	.67417

The advice provided by financial advisors have helped me to mitigate risks in derivative investments	200	3.1001	.41017
Investment returns promised by financial advisors and actual derivative product returns are different for me	200	3.0354	.61685
I usually check a financial advisor's derivative product competence before investing/trading in Future and Options	200	3.2410	.32124
I am satisfied with the accuracy and reliability of the info. provided by financial advisors regarding derivative products	200	3.2547	.82365
I am satisfied with financial advice provided by financial advisors for making investment in Future & Options	200	3.0121	.57022
I am exploring financial advisors/advisory services for improving derivative product investment returns	200	3.0132	.80734

Source: Created by the authors

The descriptive statistics reveal a measured and somewhat cautious approach among individuals toward financial advisory services in the context of derivative investments. The mean scores suggest that while respondents acknowledge the role of financial advisors, their reliance on such services remains moderate. Notably, the evaluation of a financial advisor's competence before investing (mean = 3.2410) and satisfaction with the accuracy and reliability of provided information (mean = 3.2547) indicate a degree of due diligence among investors. However, the relatively lower mean score (2.9542) for financial advisors' tips, which leads to increased profits, suggests scepticism regarding their effectiveness. Furthermore, the discrepancy between promised and actual returns (mean = 3.0354) points to a potential mismatch in expectations. The marginally positive scores for risk mitigation (mean = 3.1001) and investment decision-making (mean = 3.1254) suggest that while financial advisors provide some value, their impact is not overwhelmingly convincing. Overall, these findings underscore the need for a cautious approach to relying on financial advisory services, with investors maintaining a critical perspective on their role in derivative investments.

Table 2

Have you ever used financial advisory services for taking advice to invest in Future and Options?

	Frequency	Per cent	Cumulative Percent
Yes	155	77.5	77.5
No	45	22.5	100.0
Total	200	100.0	

Source: Created by the authors

The data in Table 2 indicates that a significant majority of respondents (77.5%) have utilized financial advisory services for investment decisions related to Futures and Options, reflecting a strong reliance on professional financial guidance in this domain. Conversely, 22.5% of respondents have never sought such advisory services, suggesting either a preference for independent decision-making or a lack of trust in financial advisors. The cumulative percentage reaching 100% confirms that all respondents fall

into one of these two categories. These findings suggest that while financial advisory services play a crucial role in guiding investment decisions for most individuals, a notable portion of investors remain either self-reliant or hesitant to engage with advisory professionals.

Table 3
Cross-Tabulation Between Ever Use of Financial Advisories and Investment Outputs in F&O

		After making investments in Future & Options by using financial advisory services, you have made on an Avg.		Total
		Profit	Loss	
Have you ever used financial advisory services for taking advice to invest in Future and Options?	Yes	115	40	155
	No	20	25	45
Total		135	65	200

Source: Created by the authors

The cross-tabulation analysis provides valuable insights into the effectiveness of financial advisory services in Futures and Options investments. Among the 155 respondents who have sought financial advice, a significant majority (115 individuals) reported making a profit, while 40 experienced losses. This suggests that financial advisory services may have a positive impact on investment outcomes for most users. In contrast, among the 45 respondents who did not use advisory services, only 20 reported a profit, whereas 25 incurred a loss. These findings indicate that individuals who seek professional financial advice tend to achieve better investment outcomes compared to those who rely solely on their judgment. However, the presence of losses, even among advised investors, underscores the inherent risks of derivative investments and the importance of critically evaluating financial recommendations. Overall, the results suggest that while financial advisory services can enhance investment success, they do not guarantee profitability, underscoring the importance of informed decision-making and risk assessment.

Table 4
*Trading Experience * Are you still using financial advisory services after gaining investment experiences? Cross-tabulation*

		Are you still using financial advisory services		Total
		Yes	No	
Trading Experience	Less than 5-Years	60	30	90
	6-10Years	95	15	110
Total		155	45	200

Source: Created by the authors

The cross-tabulation analysis of trading experience and continued use of financial advisory services reveals an interesting trend in investor behaviour. Among respondents with less than five years of trading experience, 66.7% (60 out of 90) continue to rely on financial advisory services, while 33.3% (30 out of 90) have chosen to discontinue their use. This suggests that novice investors may perceive financial advisors as essential for navigating the complexities of Futures and Options trading.

In contrast, among those with six to ten years of trading experience, a higher proportion – 86.4% (95 out of 110) – continue to use financial advisory services, whereas only 13.6% (15 out of 110) have opted out. This indicates that even as investors gain experience, many still recognize the value of expert guidance in managing derivative investments. The overall trend suggests that while some investors develop self-sufficiency over time, the majority, regardless of experience level, continue to find financial advisory services beneficial in optimizing their investment decisions. These findings underscore the enduring importance of financial advisory services across varying levels of trading experience, underscoring their crucial role in facilitating informed decision-making in volatile investment markets.

Table 5

*Showing Chi-Square Values
Chi-Square Tests*

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.724 ^a	1	.003
Likelihood Ratio	9.863	1	.003
Linear-by-Linear Association	10.636	1	.003
N of Valid Cases	200		

Source: Created by the authors

The Chi-Square test results provide statistical evidence regarding the relationship between trading experience and the continued use of financial advisory services. The Pearson Chi-Square value of 10.724, with 1 degree of freedom, yields a significance level (Asymp. Sig.) of 0.003, which is well below the conventional threshold of 0.05. This indicates a statistically significant association between trading experience and the likelihood of continuing to use financial advisory services. The Likelihood Ratio (9.863) and Linear-by-Linear Association (10.636) further reinforce this finding, as both also show a significance level of 0.003. With 200 valid cases, the results suggest that investors' experience levels have a meaningful impact on their decision to seek financial advisory services. Specifically, the significant p-value implies that as investors gain experience, their reliance on financial advisors does not diminish uniformly, contradicting the assumption that experienced investors become entirely self-sufficient. Instead, many continue to find value in professional financial guidance, underscoring the enduring relevance of advisory services in the dynamic landscape of Futures and Options trading.

Table 6
Showing Symmetric Measures

		Value	Approx. Sig.
Nominal	by Phi	.272	.003
Nominal	Cramer's V	.272	.003
N of Valid Cases		200	

Source: Created by the authors

The symmetric measures, particularly Phi and Cramer's V, provide additional insight into the strength and significance of the relationship between trading experience and continued use of financial advisory services. With a Phi value of 0.272 and a corresponding significance level of 0.003, the association is statistically significant, reaffirming the Chi-Square test results. Similarly, Cramer's V, which also registers at 0.272 with a p-value of 0.003, indicates a moderate strength of association between the two variables. While the effect size is not overwhelmingly strong, it suggests that trading experience does influence the decision to continue using financial advisory services, albeit to a limited extent. This implies that even as investors gain experience, many still recognize the strategic advantage of professional guidance. The findings highlight the nuanced nature of investment behaviour, where expertise does not necessarily lead to complete independence but rather to a more informed and possibly selective reliance on financial advisors.

6. Findings from the Analysis

6.1 Utilization of Financial Advisory Services for Futures and Options

The analysis reveals that 77.5% of respondents have used financial advisory services when investing in Futures and Options, indicating a significant reliance on professional expertise for navigating complex financial instruments. However, 22.5% of respondents have never sought such services, implying either a preference for independent decision-making or scepticism regarding the effectiveness of financial advisors.

6.2 Continued Use of Financial Advisory Services

A notable shift in behaviour is observed, as 77.5% of individuals who initially used financial advisory services continue to rely on them, while 22.5% have discontinued their use. This suggests that while a majority of investors find ongoing professional guidance beneficial, a portion either develops self-sufficiency or seeks alternative investment strategies.

6.3 Influence of Trading Experience on the Use of Advisory Services

The cross-tabulation analysis highlights a nuanced relationship between trading experience and continued reliance on financial advisors. Among those with less than five years of experience, 66.7% continue to use advisory services, whereas 33.3% have opted out. This suggests that newer traders still perceive a strong need for expert guidance. Conversely, among those with six to ten years of trading experience, 86.4% continue to rely on financial advisors, and only 13.6% have discontinued their use. This contradicts the assumption that increased experience leads to self-reliance, instead suggesting that seasoned investors still find value in professional financial advice.

6.4 Investment Outcomes and Financial Advisory Services

The effectiveness of financial advisory services in Futures and Options investments is evident in the cross-tabulation results. Among the 155 respondents who have used advisory services, 115 (74.2%) reported making a profit, while 40 (25.8%) faced losses. In contrast, of the 45 respondents who did not use advisory services, only 20 (44.4%) made a profit, whereas 25 (55.6%) incurred losses. This indicates that investors who seek professional advice tend to achieve better investment outcomes compared to those who rely solely on their judgment. However, the presence of losses, even among advised investors, reinforces the need for critical evaluation of financial recommendations, as advisory services do not guarantee profitability.

6.5 Statistical Significance of the Relationship

Chi-Square test results confirm a statistically significant relationship between trading experience and the continued use of financial advisory services:

Pearson Chi-Square value: 10.724 (p-value = 0.003)

Likelihood Ratio: 9.863 (p-value = 0.003)

Linear-by-Linear Association: 10.636 (p-value = 0.003)

These results suggest that trading experience has a significant impact on the decision to continue using advisory services. While experience plays a role in shaping investor behaviour, it does not eliminate the perceived need for professional guidance.

6.6 Strength of the Association

The symmetric measures provide further insight into the strength of this relationship:

Phi coefficient: 0.272 (p-value = 0.003)

Cramer's V: 0.272 (p-value = 0.003)

Both measures indicate a moderate association between trading experience and the continued use of financial advisory services. While experience influences investor behaviour, the findings suggest that professional guidance remains relevant across different experience levels. The data challenges the assumption that experienced investors completely detach from advisory services, instead indicating a more selective and informed reliance on financial expertise.

7. Conclusion

The study of financial advisory service utilization among investors in Futures and Options highlights a dynamic relationship between trading experience and reliance on professional guidance. The data reveals that while a majority of investors initially seek financial advisory services, their continued dependence on such services varies significantly with experience. Specifically, among less experienced traders, financial advisors play a crucial role in shaping investment decisions. However, as traders gain more exposure and confidence, a substantial proportion transitions towards independent investment strategies, reducing their reliance on advisory services.

The statistical analysis confirms a significant relationship between trading experience and the likelihood of continuing to use financial advisory services. While novice traders

tend to perceive financial advisors as essential for navigating the complexities of derivative investments, more experienced traders gradually adopt a more autonomous approach. Nonetheless, a considerable number of traders, regardless of their experience level, continue to recognise the value of professional guidance, particularly in accessing market insights and mitigating investment risks.

Based on these findings, it is recommended that financial advisory services adopt a tailored approach to cater to investors at different stages of their trading journey. For novice traders, advisors should focus on providing structured educational programs, personalized investment strategies, and robust risk management guidance. Meanwhile, for more experienced traders, advisory services should transition towards offering advanced analytical tools, periodic consultations, and access to specialized market research to support informed decision-making. By aligning their services with the evolving needs of investors, financial advisory firms can ensure sustained engagement and enhance the overall effectiveness of their guidance in the Futures and Options market.

References

- Bhatt, B. K., & Chauhan, M. A. A. (2014). The study of investor's perception towards derivatives as an investment avenue. *Kadakhia International Journal of Research in Multidiscipline*, 1(3), 127-137.
- Fischer, R., & Gerhardt, R. (2007). The missing link: From KYC to suitable asset allocation. *Journal of Wealth Management*, 10(1), 9-15.
- Kinniry Jr., F. M., Jaconetti, C. M., DiJoseph, M. A., & Zilbering, Y. (2014). *Putting a value on your value: Quantifying Vanguard Adviser's Alpha in the UK*. Vanguard.
- Rakesh, H. (2015). "Investors Preference towards investment avenues in capital market: A study with reference to derivatives." *International Journal of Marketing, Financial Services and Management Research*, 3(9).
- Ravichandran, K. (2008). A study on investors' preferences towards various investment avenues in capital market with special reference to derivatives. *Journal of Contemporary Research in Management*, 3(3), 101-112.
- Srivastava, S., Yadav, S. S., & Jain, P. K. (2008). Significance of non-price variables in price discovery: An empirical study of stock option market in India. *Vikalpa*, 33(2), 15-24.
- Varadharajan, P., & Vikkraman, P. (2011). Impact of pre and post-budget on stock market volatility between 2001 - 2011. *Journal of Contemporary Research in Management*, 6(4), 49-64.
- Hoechle, D., Ruenzi, S., Schaub, N., & Schmid, M. (2013). *Don't answer the phone: Financial advice and individual investors' performance* (Working Paper). University of St. Gallen.
- Mullainathan, S., Noeth, M., & Schoar, A. (2012, March). *The market for financial advice: An audit study* (NBER Working Paper No. 17929). National Bureau of Economic Research. <https://doi.org/10.3386/w17929>
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- Linnainmaa, J., Melzer, B., Previtero, A., & Foerster, S. (2018, January). *Financial advisors and risk-taking* [Unpublished manuscript].
- Elliott, W. B., Hodge, F. D., & Jackson, K. E. (2008). The association between nonprofessional investors' information choices and their portfolio returns: The importance of investing experience. *Contemporary Accounting Research*, 25(2), 473–498. <https://doi.org/10.1506/car.25.2.8>
- Bachmann, K., & Hens, T. (2015). Investment competence and advice seeking. *Journal of Behavioral and Experimental Finance*, 6, 27–41. <https://doi.org/10.1016/j.jbef.2015.03.001>
- Brenner, L., & Meyll, T. (2020). Robo-advisors: A substitute for human financial advice? *Journal of Behavioral and Experimental Finance*, 25, 100275. <https://doi.org/10.1016/j.jbef.2020.100275>
- Barthel, A.-C., & Lei, S. (2021). Investment in financial literacy and financial advice-seeking: Substitutes or complements? *The Quarterly Review of Economics and Finance*, 81, 385–396. <https://doi.org/10.1016/j.qref.2021.06.020>
- Foerster, S., Linnainmaa, J. T., Melzer, B. T., & Previtero, A. (2017). Retail financial advice: Does one size fit all? *Journal of Finance*, 72(4), 1467–1502. <https://doi.org/10.1111/jofi.12514>
- Jha, C. (2020). Investors perception towards derivatives market. *Solid State Technology*, 63(6). Retrieved from <https://www.solidstatetechnology.us/index.php/ISST/article/view/4225>.

About the Authors

Mr. Khalid Mehraj, Research Scholar, Baba Ghulam Shah Badshah University, Rajouri, India. <khalid.scholar@bgsbu.ac.in>, ORCID ID: 0009-0000-7757-9178

Dr. Vinay Kumar, Associate Professor, Department of Marketing and Supply Chain Management, Central University of Jammu. J&K, INDIA; Most of this work was done when he was an Assistant Professor, Baba Ghulam Shah Badshah University, Rajouri, India. <vinaysharma@bgsbu.ac.in>, ORCID ID: 0000-0001-9365-2363