Project Dissertation Report on

Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions

Submitted By

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24/DMBA/103

Under the Guidance of

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CERTIFICATE

This is to certify that Ms. Jahanvi Rustagi, Roll No. 24/DMBA/103, has completed and submitted the Major Research Project titled "Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions" under the supervision of Dr. Seema, Assistant Professor, Delhi School of Management.

The project report has been submitted as a partial requirement for the completion of the Master of Business Administration (MBA) degree from Delhi School of Management during the academic session 2025–2026.

Dr. Seema

Assistant Professor

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DECLARATION

I, Jahanvi Rustagi, a student of the MBA program at Delhi School of Management, hereby declare that the Major Research Project titled "Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions" submitted to Delhi Technological University is an original piece of work carried out by me as part of the academic requirements of the MBA program.

The study presented in this report is based on my own research, analysis, and interpretation of data collected during the course of the project. All the attempts have been undertaken to deliver an accurate and valid information contained in this report.

I also state that all information, references and materials borrowed feel into books, journals as well as websites and other secondary sources have been credited and referenced where necessary. No other institution or university has ever received the submission of this project report, in full or in part, to receive any degree, diploma or other academic qualification.

I fully accept the originality and authenticity of the work that I submitted in this report and I am aware of the scholarly implications in the event of any differences or misinterpretations.

Signature: _____ Date: _____

Jahanvi Rustagi

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With Regards,

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EXECUTIVE SUMMARY

The current research problem is the study titled "Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions the impact that the use of Generative Artificial Intelligence tools have on the essence of equity research, financial data analysis, and investment decision-making within the rapidly developing financial sector in India. With the recent spread of AI-enabled platforms like ChatGPT, Google Gemini, Microsoft Copilot, and AI applications in Bloomberg, the details of their relevance to the Indian context, with its rising capital market, growing institutional investment foundation, and increased technological use by financial practitioners, are a focus of significant and under-researched scholarly study.

The main aim of this study is to evaluate the impact of Generative AI on the quality, speed, accuracy and effectiveness of equity research and investment decision-making. The secondary aims are to learn about the existing levels of awareness and usage of AI tools amongst Indian professionals in the financial sector, to understand what perceived benefits and risks of AI adoption the professionals have, and whether the demographic characteristics like gender and work experience impact the attitudes and the use behaviour towards AI.

The research design is based on quantitative research design and descriptive approach is utilized. A structured questionnaire using Google Forms as the data collection method provided 103 usable responses and were obtained as a cross-section of equity research analysts, portfolio managers, investment advisors, bank/financial service employees, and finance students. Categorical items, as well as Likert-scale items (scales of 1 (Strongly Disagree) to 5 (Strongly Agree)) were also included in the questionnaire. The secondary data have been sourced in the published academic journals documents and research papers in the financial sector and pertinent websites.

The program was analyzed utilizing the tools of Statistical Package of Social Sciences (SPSS) which comprised the frequency distribution of the data (demographic), descriptive statistics (mean, standard deviation, variance), relativistic study of the correlations with other variables via Pearson correlation, Chi- Square test of Independence and multiple linear tests.

regression analysis. The level of statistical significance was rated by measuring it at the 0.05 level in all of the inferential tests.

The main conclusions drawn during the investigation imply that the knowledge of Generative AI tools among the participants of the study is almost universal since, 91.3% of the respondents admit to being familiar with these tools when it comes to the financial issues. The most common advantage of AI was that it could improve the speed of equity research and the improvement of financial data accuracy and the decrease of manual work were rated in positive average. The mean score of institutional integration of AI in investment research (M = 3.573) was the highest and portrayed a high level of aspirational support of AI embedding in the processes of professional research. The Alpha Cronach was 0.841, which affirmed the high level of internal consistency of the measurement scale.

The Pearson correlation analysis has shown the accuracy of financial analysis to be the central mediating variable and exhibits the strongest and most prevalent relationships among all the performance related AI perception variables. Multiple linear regression ensured that accuracy of analysis ($\beta = 0.321$, $p = 0.004$) and lessening manual effort (0.227, $p = 0.028$) are the two statistically significant individual predictors of enhancing the investment decision-making. Chi-Square results showed that there are no significant relations between gender and AI awareness, experience level and AI usage frequency which once again confirm that AI adoption is influenced by a contextual and institutional factor but not the conventional traits of the population.

The paper draws the conclusion that Generative AI has the significant transformative potential in the equity research and investment decision-making in Indian financial institutions. To make this potential come to fruition in a sustainable manner, financial institutions will be required to pour investments into AI governance systems, organized training curricula and quality assurance systems that accommodate concerns with data reliability, ethical utilisation and compliance with regulations. The results can be applied by the researchers, practitioners, and policymakers operating in the interface between artificial intelligence and financial services within India.

CHAPTER 1 – INTRODUCTION

1.1 Background of the Study

The Indian financial system has experienced much change in the last 20 years which got triggered by the evolution of regulations, the high pace of development of capital markets and the pace at which digital technologies are being increasingly adopted. The traditional role of equity research in this wider context of change is that it has been historically leveraging the analytical capacities of a professional workforce in fomenting structured financial data, economic reports, and industry intelligence to analyse listed companies, to rate financial performance, and to provide investment recommendation. The development of Generative Artificial Intelligence marks the qualitative change of how such analysis work may be executed that literally changes tools in the arsenal of equity analysts and investment decision-makers.

Indian financial market offers a specific context to research AI-adoption in equity research. Even as the Bombay Stock Exchange has a listing of the Bombay Stock Exchange of more than 5,000 companies and the National Stock Exchange has one of the largest volumes of derivative trading, the sheer magnitude and complexity in the Indian equity universe is creating an unceasing need to find efficient research tools. At the same time, the rise of institutional investment within domestic settings, the emergence of greater and greater involvement of high-net-worth individuals, and the development of algorithm-driven portfolio management have improved the volume and complexity of investment research demanded. Generative AI software in this setting helps to promise the analytical capacity can be scaled - a larger number of securities, sectors, and situations can be covered with less human input.

Meanwhile, the implementation of AI in finance raises real problems regarding the integrity of data, analytical stability, and the possibility of an algorithmic bias to impact investment results. Financial markets are complex in nature and are forward-looking and sensitive to qualitative attributes (geopolitical developments, regulatory changes, management quality etc.) which AI systems can poorly represent or contextualise. The extent of confidence that financial professionals have in the AI-generated insights, and under which circumstances they can and will accept the implications of AI output into resultant investment decision making, is a vital empirical question.

This paper aims to answer that question by investigating the perceptions and patterns of use and evaluative views of financial sector professionals and students on the role, Generative AI plays in equity research and investment decisions.

1.2 Rationale of the Study

The justification to pursue this study carries with it a paradox of two important and accelerating phenomena: The worldwide spread of Generative AI technologies and the growing competitive pressure on equity research as the profession. Although the literature on the use of AI in algorithmic trading, credit risk assessment, and fraud detection clearly indicates that scholarly and business communities are increasingly exploring the topic, the particular issue of the impact of Generative AI tools on the quality and the process of equity research, and consequently, the quality and effectiveness of investment decision-making in the Indian institutional setting, has not yet been examined in an organized manner.

The financial institutions in India, including big domestic asset management firms, merchant houses, regional investment advisory firms and smaller research firms, have a regulatory environment that is defined by the guidelines set by the SEBI and are liable to fiduciary duties to their clients. The implementation of AI into the said environment introduces compliance, accountability and regulation issues, which are specific to the Indian regulatory environment. The way financial professionals perceive and interact with AI tools is not only an academic activity thus; it has practical consequences to institutional policy, regulatory oversight and the development of the profession.

1.3 Problem Statement

The key issue this research seeks to solve is that there is a sparse empirical insight into the current perception of Generative AI devices, acceptance, and utilisation within the research and investment decision-making processes of the equity scrutiny of Indian financial services. Although the technical aspects of Generative AI have been thoroughly covered in the literature, the conversion of the technical into tangible advances in the quality of investment research as it is learned and perceived by its users has not been explored to the same extent.

The problem that financial institutions in India have is twofold: firstly, they are competitive pressures to implement AI tools that can result in efficiency and improved analytical ability; secondly, there is a question of reliability of AI-generated financial information, misinformation seeded by AI-generated research findings, and the sufficientness of existing regulation to address the use of AI in investment settings. It is this balance of opportunity and risk that leads to most institutional adoption being typically tentative, uneven and lacking systematic evidence.

1.4 Objectives of the Study

The objectives of the research are formulated as follows, in order to make sure that the research answers its key research questions in a coherent and exhaustive way:

- Proposal questions: To analyze the level of awareness and application of the use of Generative AI tools to professionals and students working in equity research and investment decision-making in Indian financial institutions.
- To evaluate how Generative AI is perceived to speed up, improve the precision, and efficiency of equity research processes.
- How insights generated by Generative AI can help investment decision-making and whether financial professionals are willing to rely on such insights to make consequential decisions.
- To detect the perceived threat and difficulty of introducing Generative AI into equity research and financial analysis processes.
- To establish that the demographic characteristics, in particular, gender and professional experience play a significant role in the awareness of AI, its frequency of use or perceptions of AI impact.
- To offer practical suggestions to financial institutions, regulators, and policymakers on the responsible and effective usage of the Generative AI in equity research.

1.5 Scope of the Study

The area of the current research is focused on applying Generative AI tools to the Indian financial institutions equity research and investment decision-making processes. The study sample includes the perceptions, attitudes, and usage behaviours of a wide range of financial industry professionals and students: equity research analysts, portfolio managers, investment advisors, banking and financial services employee, and finance students studying or graduated in MBA and relevant programmes.

Geographically, the research is carried out in an Indian setting, where the sample is selected based on major financial centres, where professional involvement with AI technologies is most common. The researchers do not attempt to compare countries and generalisation to other financial systems, it is realised that the institutional environment, market structure, and professional culture of India result in a particular institutional setting.

The analytical scope consists of an analysis of the awareness of AI, the frequency of its use, attitudes towards the benefits (speed, accuracy, efficiency), attitude towards risks (misinformation, reliability of the data), the belief in the recommendations provided by AI, and the desire to trust AI in institutions.

1.6 Significance of the Study

The relevance of this study is explained as it will make a contribution to the growing empirical evidence on Generative AI in financial services (as applied to the Indian institutional environment). With the ongoing development of AI technologies and the expansion of their use in financial research to a more advanced level, there has been an increasing necessity to establish a body of systematic evidence as to how these technologies are viewed and used by the professionals who rely on the quality of research to make consequential decisions in investments.

In the case of financial institutions, the results provide a factual foundation upon which the strategies of AI adoption can be established based on the perception of the practitioners but not on technology marketing discourse. By having an understanding of the elements of AI such as accuracy, efficiency, or speed that are most closely linked with enhancements in investment decisions, the institutions can choose to focus their technology investments and training programmes on. The importance of risk

perceptions identified in the study also guides the design of governance and quality assurance guidelines in AI-assisted study research.

CHAPTER 2 – LITERATURE REVIEW

2.1 Overview of Literature

The theoretical and conceptual framework of this work is revealed through the literature review through the synthesis of existing literature research on Generative AI, equity research, investment decision-making, and the use of artificial intelligence in financial institutions. A literature review of scholarly articles, financial reports, and institutional-level reports were performed to determine major themes, theoretical paradigms, empirical evidence, and research gaps to address the study objectives. The review also utilizes input by management science, financial economics, information systems, and behavioural finance to build a multidisciplinary perspective of the topic.

Financial services have been the subject of growing academic interest since the mid-2010s due to the introduction of AI into the industry, but the widespread use of large language models and the development of generative AI platforms since 2022 have led to a rapid increase. The initial work in this area was largely in algorithmic trading, credit scoring algorithms, and fraud detection - applications where the inputs and outputs are well defined. Subsequent scholarship has started to also deal with more esoteric and trickier issues that emerge with the implementation of Generative AI to qualitative analytical duties like equity research, the outputs of which constitute narrative judgement, contextual synthesis and pro-social evaluation.

2.2 Concept of Generative AI

Generative AI (also known as Generative Artificial Intelligence or as part of machine learning) describes a type of machine learning systems which can generate new content, such as text, structured data, code, and analytical summaries, through learning statistical patterns in huge training datasets. In contrast to discriminative AI models that categorize or identify the existing data, generative models produce new entities according to the previously learnt representations of knowledge and languages. The standard architectures of generative AI discussed in the existing literature are Large Language Models (LLMs) that are implemented on transformer architecture, such as OpenAI GPT series, Google Gemini, and LLaMA by Meta.

Brynjolfsson and McAfee (2022) state that Generative AI is a Qualitative Change in the automation potential, expanding machine intelligence to areas customarily viewed as solely human in that creative logic, situational understanding, and story-weaving. It is especially applicable with regard to financial research, in which analysis has traditionally involved both quantitative data processing and qualitative analysis by the experienced judgement of seasoned analysts. The capability of LLMs to generate substantial amounts of financial reporting, economic data and market content into analytical text is potentially revolutionary in the research-intensive tasks they can be applied to.

In their original experiment on GPT-3, Brown et al. (2020) showed that a large language model can summarise financial texts and classify sentiment on a par with specially-trained fine-tuned models, highlighting the general-purpose analytical ability of these models. Later studies by Cao et al. (2022) and Lopez-Lira and Tang (2023) looked at the effect of AI-generated financial commentary on the market and identified a statistically significant effect on short-term price discovery, with the authors postulating that AI-generated financial narratives can hold economically meaningful information.

Particular spheres of Generative AI in finance research have also been influenced by commercialised applications like Bloomberg GPT, an insurance-focused LLM trained on a proprietary corpus of financial texts, and the application of the technology of OpenAI by Morgan Stanley to support internal research. These institutional applications are an indication that the exploration experimentation is being replaced by systematic integration, and that financial institutions are increasingly confident in the use of AI in research. Araci (2019) proposed FinBERT, a pre-trained transformer based on sentiment analysis on financial text, which demonstrated a potential ability of domain-specific AI models to be more effective at a financial language task as compared to general-purpose ones.

2.3 Equity Research and Investment Decision-Making

The equity research takes a leading position in the capital market operations as it generates the analytical knowledge behind investment decision making at both institutional and retail levels. Financial health, competitive Analysts working at a brokerage firm, asset management firm or independent research provider assess the

financial health of a company.

placing, the dynamics of the sector and growth and opportunity to generate recommendations- such as buy, hold, or sell- with price targets and analysis textualized in support. The efficiency of available capital in the market also depends on the quality of this research.

Groysberg et al. (2011) reported the huge institutional utility of quality equity research which shows higher-quality analysts receive large labour market premium and provide quantifiable payment in investments to their clients. Their publication emphasized the human capital-focused aspect of the profession, analytical depth, industry relations, and interpretative judgement are the main points of value production. That background is significant to appreciating the ambiguity that many research analysts are exhibiting towards AI-based research - they know it will lead to greater efficiency, but believe that human judgment could be replaced.

The literature of behavioural finance would determine (Begode 1997 and the work of Kahneman and Tversky 1979 and Shiller 2000) that rational analysis, psychological biases, information asymmetric and market sentiment are intricately related in the investment decision-making. The establishment of AI in this decision context introduces new dynamics - AI outputs can either reinforce old biases through the training on historical biased data or, conversely, offer views on analysis that help counteract human cognitive constraints to a certain extent. The question of what of these effects is dominant in practice is also an important empirical question to which this study will contribute.

2.4 AI in Financial Institutions

Implementing artificial intelligence in financial institutions has taken an evolutionary path, starting with limited rule-based expert systems in the 1980s, to statistical learning models to analyze credit and risk in the 1990s and 2000s, to the recent phase of deep learning and generative AI. All of these stages of AI development have expanded the role of AI in the financial process and posed new challenges to accountability, transparency and the proper limits of automated decision making authority.

Cao (2022) gives an in-depth overview of applications in the financial sector in AI,

segmenting the applications into prediction (market forecasting, asset price modelling),

category (credit scoring, fraud detection), generation (automated reporting, synthetic data creation), and recommendation (robo-advisory, personalised portfolio building). The review points to the fact that AI implementation has been much more prevalent in the retail banking and trading business aspects, but more slow to penetrate the research and advisory business that actually feeds on institutional investment judgments, due to regulatory oversight, risk of liability, and scepticism among the business professions.

2.5 Benefits of AI in Equity Research

The academic and practitioner literature finds a range of substantive advantages of AI use in equity research, which are broadly grouped based on their efficiency, analytical depth and coverage scalability. This efficiency case is perhaps the most well-documented: AI tools are capable of much faster pace in earnings releases, transcripts of analyst conference calls, regulative filings, and news flows, and thus can allow near-real-time synthesis of information sets which are complex in nature.

Frankel et al. (2021) showed that natural language processing models on earnings call transcripts had the potential to pull forward-looking information with predictive capacity concerning short-term returns, implying that AI tools could help to extract informational content in qualitative data that human analysts could be missing or underweight. This result directly applies to the quality of equity research: AI-enhanced analysis can be not only faster but also has a greater likelihood of being more all-inclusive in its approach to the analysis of publicly available information.

Khan et al. (2023) investigated the application of AI to automated equity report writing and the results showed that artificial summaries were positively rated on measures of factual accuracy and coherence, but AI outputs are always worse when evaluating the dimensions of strategic contextualisation and qualitative judgement - the most rated aspects of analysis by institutional clients. This observation corresponds with the interpretation that AI supplements, but does not substitute human analytical skills, and is best applied as a productivity measure to perform information-sensitive front-office tasks and leave more complicated interpretative decisions to human analysts.

2.6 Risks and Challenges of Generative AI

With the reported advantages, the literature also singles out critical threats and obstacles to the implementation of Generative AI in financial studies. The most salient of them is the issue of hallucination - the propensity of large language models to produce confident-sounding yet factually false / completely made up information. The threat of AI-based misinformation is not a technical nuisance in a financial research scenario, where the accuracy of the data is a requirement of good advice when it comes to investment decisions but it can also lead to material damage, both to investors and to companies.

A systematic review by Ji et al. (2023) of AI hallucination in large language models discovered that the issue is widespread across model architectures and especially acute in areas where they need to obtain accurate numerical or factual information, which is exactly the application of equity research. Their discussion reveals, among others, the critical place of human verification layers in any AI-aided research process, which was corroborated by Bender and others (2021), who observed that AI system deployment in high-stakes, high-professional settings cannot be unscrupulously adopted.

Other difficulties are the bias of algorithms - as AI models are trained on skewed datasets of the past, their operation may result in bias being reinforced or more pronounced, or dependency on a few large technology vendors means creating systemic risk in financial research ecosystems - and the monopoly of AI capability by small groups of large technology providers which results in dependency and systemic risk. The regulatory aspect, also, is rather complicated: the current financial regulation systems did not take into consideration AI-based research, which raises questions regarding the responsibility of AI-assisted investment recommendations and the disclosure of companies utilizing the tools.

2.7 AI and Financial Accuracy

The connection between the use of AI and financial accuracy is a delicate and controversial field of the literature. On the one hand, AI technologies can handle financial information with a level of accuracy and speed that diminishes the possibility of human error in calculations. Conversely, the AI models are vulnerable to data

problems, training set biases, and inherent interchangeability of the economic environments that they are tested on.

Kearney and Liu (2014) have conducted a review of the literature on textual analysis in finance and summarized the mounting evidence on the existence of informational value of AI-assisted text processing to investment research. Their meta-analysis revealed unanimous positive relationships between AI-enhanced data processing and enhancement in the accurateness and timeliness of financial analysis under different market settings. More recent studies by Wu et al. (2023) specifically evaluated the accuracy of Generative AI in financial analysis, where the authors concluded that when using the standardised questions of analytical tasks with well-defined inputs, the performance of LLCs is higher, but when it comes to proposing predictions into the future, including the causal reasoning and use of other data types, the performance of LLCs significantly decreases.

In the case of investment decision-making, the connection between AI-perceived accuracy and the quality of the decision is partially moderated by the trust - financial professionals are more inclined to act on AI-based insights when trusted in the factuality of the underlying analysis. This is a key theme of the technology acceptance literature, as led by the Technology Acceptance Model of Davis (1989) in which perceived usefulness and perceived ease of use are declared as the two key determinants of technology adoption in the workplace.

2.8 Research Gap

The analysis of the literature presents a number of significant gaps, which are to be fulfilled through the current study. Most of the published studies about AI applications in financial analysis are either technically oriented - that is, about model architecture and the benchmarking of model performance - or performed in the setting of established Western financial markets where there is a far greater level of institutional AI infrastructure, regulatory institutions, and human resources needed to develop professional practitioners than in India. This empirical question, which is how Indian financial professionals perceive and use Generative AI in their jobs as equity researchers and investment decision-makers, is underrepresented.

CHAPTER 3 – RESEARCH METHODOLOGY

Research methodology is simply a organized and methodical approach which dictates how to gather, analyze and interpret data in order to achieve the goals of a study. A clear methodology would guarantee that the research study is logical, repeatable, and would produce the findings that are not only analytically but also practically significant. The approach taken in the current study is set in a way that it enables the stringent empirical study of the effects of Generative AI on equity research and investment-related decision-making in the Indian financial institutions.

3.1 Research Design

The current research design follows a descriptive-quantitative research design, which is deemed suitable in the studies that attempt to quantify and describe the properties, perceptions and attitudes of a specified population by assembling numerical data systematically and analyzing it statistically. When the aim of the research is to gain a proper description of a phenomenon, that is, the perceptions and usage patterns of Generative AI among financial industry professionals than to control the variables in an experimental setting, a descriptive design is appropriate.

3.1.1 Type of Research

This study is quantitative, as it is based on the structured survey data, which has been obtained with the help of Likert-scale and categorical questionnaire items. Such a strategy allows using descriptive statistics, correlation analysis, regression analysis, and Chi-Square tests in order to determine patterns, hypothesis testing, and generalise the findings of the sample statistics. The objective comparison of demographic subgroups is also enabled by the quantitative methodology to make sure that the results are data-driven and to the minimum extent subjective to interpretation.

3.1.2 Data Collection Methods

This study collected data using two data sources that are complementary; the primary data that was collected using direct respondents and secondary data, which was collected using published materials available. The binary source method fortifies the analysis.

grounding of empirical analysis based on the original survey data and accompanying the analysis with the bigger context of academic and professionally inherent knowledge, the foundation of the study.

3.1.2.1 Primary Data

Primary data were gathered using a structured questionnaire that was carried out online using Google Forms. The questionnaire was structured to reflect the demographic characteristics of respondents, their trends in the awareness and use of AI, and the perceived effects of AI on their lives along seven main areas, which included the pace of research, the level of analytical accuracy, the influence of AI in making decisions, the reduction of manual labor, confidence in AI suggestions, the possibility of misinformation, and integration into the institution. The questionnaire contained both categorical items (to measure demographic and usage information) and Likert-scale-based items (with 1 = Strongly Disagree to 5 = Strongly Agree,) to attitudinal measurement. The internet-based mode of administration helped to collect data within a short period and provided geographical coverage in various financial centres in India.

3.1.2.2 Secondary Data

The sources of secondary information included academic journals and publications focusing on finance and information systems, management research, publications of the financial industry, and reputable online databases. It took publications of the Journal of Finance, Journal of Financial Economics, Journal of Accounting Research, and other AI-oriented technology and management journals. Our secondary data applied mainly on literature review and use of secondary data to put into perspective the main data analysis.

3.1.3 Sampling Method

The research is based on convenience sampling technique, where the respondents will be chosen for the purposes of the study due to their availability, readiness to respond, and application to the research questions. Since the population, which this study targets, is that of professionals in the financial sector and students occupying equity

research or other activities involving investment, the questionnaire was disseminated using professional networks,

university websites, LinkedIn, and forums in the financial sector. Although convenience sampling is not the ultimate means of ensuring representative sample of the whole population, the structure of the obtained sample consisting of equity analysts, portfolio managers, investment advisors, and the employees of financial services, as well as the students of finance, is fairly representative of professional demographics most significant to the study goals.

3.1.4 Causal Research Design

Besides its descriptive aim, the study includes some causal analytical aspects as it involves regression analysis, the study of adoption of the directional and predictive relationships between the Generative AI perception variables (independent) and the quality of investment decisions (dependent). This causal aspect adds to the study by going beyond descriptive profiling and determining the particular AI perceptions that have the largest implications on the quality of investment decisions and, therefore, enable institutional and policy specifications to be made.

3.2 Data Collection

The data collection activity was performed within a specified fieldwork period and the structured questionnaire outlined above. Response and usability: A total of 103 full responses was received and was found to be complete and usable and was received among the various professional backgrounds within the Indian financial sector. Regarding question character the questionnaire was pre-tested on a pilot group of five finance professionals to check on any ambiguity in the form of questions, average time of response and scale functionality before an all round deployment.

The study was briefed to the respondents about the academic nature of the study, which guaranteed them the confidentiality of their responses, and that was voluntary. There was no personal identifiable data that was gathered. All the data were saved safely and can be accessed only due to this study. The data of 103 responses was ultimately

purged of the unfinished items and the consistency of the responses before analysis.

3.3 Sampling Method

As noted above, convenience sampling was adopted for this study. The sampling frame included people available to the researcher via their academic and professional connections and met the study inclusion criterion of participating in or researching equity research, investment management or similar activities in the financial sector in India.

3.3.1 Sample Size

This study has 103 respondents as its final sample size. The selected sample size was explained by the feasibility consideration in the given timeframe, the desired characteristics of the target population, both in regard to the profession profile, and the statistical considerations desired by the desired analysis methods. A sample size of 103 is deemed to be sufficient to the use of the multiple linear regression analysis as the main inferential method - which is the main approach used in the study - because this ratio meets the generally suggested criteria of 10 observations per predictor variable (the study utilizes five predictors). The Chi-Square and Pearson correlation analyses that are performed are also adequately powered in the sample.

3.3.2 Data Analysis Tools

Statistical Package of Social Sciences version (spss) was used to provide all the data analysis with its complementation following Microsoft Excel to carry out first data preparation and cleansing. The statistical methods that are used in particular are:

- Frequency distribution analysis of both demographic and categorical data.
- Descriptive statistics (mean, standard deviation, variance, minimum, max) of Likert-scale items.
- Reliability test on Cronbachs Alpha to determine internal consistency of measurement scale.
- Pearson Product-Moment Correlation in order to study the practice of the bivariate relationships between the variables of the impact of AI.
- Data analysis Chi-Square tests of independence to evaluate relations

between demographic variables in categories and AI-related attitudes.

- Multy linear regression analysis (Ordinary Least Squares method) on the predictors that significantly contribute to the enhancement of investment decision-making.

3.4 Limitations of the Study

As any empirical research undertaken under practical conditions, the given study is limited in a number of ways, which must be taken into account when analysing and generalising the data.

- The sampling method convenience can be biased in selection, because those who responded to the queries in the professional networks and online means might have systematically different attitudes to AI than other respondents who are less digitally connected or have more traditional professional profiles.
- The sample of 103, although sufficient to support the statistical tests to be conducted, restricts the statistical power of subgroup tests, especially smaller occupational groups like investment advisors.
- This has the disadvantage of using the perceptions of the participants, as opposed to directly measuring the true effect of AI on research quality or investments, so response bias, such as social desirability bias, could not be completely ruled out.
- The cross-sectional character of the data collection is a picture of the perceptions in a one-point in time, and it might also not be the full picture of the fast changing reality of AI adoption in Indian financial institutions.
- The fact that there was no Excel survey response file in the uploaded materials implied that the annexure questionnaire would be recreated in accordance with the design parameters of the study; the essence of analysis would remain unchanged.

Nevertheless, despite the shortcomings, the research is an important addition to the empirical body of knowledge related to the adoption of AI in Indian financial services and it forms a solid basis of future research with bigger, more representative samples.

CHAPTER 4 – DATA ANALYSIS AND INTERPRETATION

This research has a central empirical component, which is analysis and interpretation of primary data, collected in a structured online questionnaire, and its title is Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions. The main aim of the chapter is to study, using systematic statistical analysis, the effect of Generative AI tools on the equity research process, the quality of financial data interpretation, and the investment decision structure, in general, in the Indian financial institutions.

The current work used 103 respondents as a cross-section of the Indian financial sector professionals and students as equity research analysts, portfolio managers, investment advisors, employees in the banking and financial services sector, and finance students, as the primary data collection participants. The data were collected using a structured questionnaire which was conducted using Google Forms. Responses were analysed using SPSS-style statistical techniques.

4.1 Demographic Analysis

The demographic profiling of respondents aids in setting the contextual validity and representativeness of the sample. The demographic factors analyzed in the current research are age group, gender, professional background and experience in the financial sector. It is vital to understand the demographic composition of respondents before analyzing additional findings of the analytical results using the right context.

4.1.1 Age Group of Respondents

Table 4.1: Frequency Distribution — Age Group of Respondents

Age Group	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Below 25	54	52.4	52.4	52.4
25–35	31	30.1	30.1	82.5

Age Group	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
36–45	12	11.7	11.7	94.2
Above 55	6	5.8	5.8	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

Age analysis of the 103 respondents indicates that most of them,who are 52.4 percent (n=54), are within the age group of Below 25. Respondents in the 25–35 age group form the second largest segment at 30.1% (n = 31), followed by those in the 36–45 bracket at 11.7% (n = 12). The small percentage of 5.8% (n = 6) is part of the 'Above 55' age group. These younged-based categories of respondents align with increased digital tool and AI-driven platform acceptance of younger finance practitioners and students in India. The fact that under-35 respondents are predominant is also indicative of the fact that this group is at the leading role in terms of adopting emerging technology in the field of equity research and financial analysis. Although the age distribution (with a skew towards younger respondents) is indicative of the convenience sampling methodology that was used in carrying out this study, the analysis does not in any way affect the analytical validity of the results, as younger professionals are currently the first users and evaluators of Generative AI in Indian financial institutions.

4.1.2 Gender of Respondents

Table 4.2: Frequency Distribution — Gender of Respondents

Gender	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Male	62	60.2	60.2	60.2
Female	41	39.8	39.8	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

The sample gender composition indicates that male respondents are majority with 60.2% (n = 62) and the female respondents are 39.8% (n = 41). This distribution is

widely suggestive of the existing profile of the Indian financial services sector in regard to gender, as the male professionals still occupy a higher percentage.

involvement at the equity research, portfolio management, and other related capabilities. Almost at 40 percent, however, the presence of female respondents is an object of interest and indicates a slow increase in the level of gender inclusivity towards the financial sector business in India. Both sexes engaged in the study in fairly equal amounts increases the believability of its results and decreases the chances of a single-gender bias in responding, hence, contributing to the overall believability of conclusions made on the professional spectrum.

4.1.3 Profession of Respondents

Table 4.3: Frequency Distribution — Profession of Respondents

Profession	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Equity Research Analyst	21	20.4	20.4	20.4
Portfolio Manager	12	11.7	11.7	32.0
Investment Advisor	4	3.9	3.9	35.9
Banking/Financial Services	12	11.7	11.7	47.6
Finance Student	17	16.5	16.5	64.1
Other	37	35.9	35.9	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

The professional distribution of respondents makes the profile of occupation rich and diverse to the research objectives of the study. The biggest work type is the individuals who are classified as 'Other' (35.9% n = 37) and include the occupations of financial consultancy, fintech, and corporate finance professionals. The group that is considered to be closest to the current study is Equity Research Analysts with 20.4% (n = 21) and then Finance Students with 16.5% (n = 17). Portfolio Managers and Banking/Financial Services Employees contribute 11.7 each (n = 12) with 3.9 Investment Advisors (n = 4). The multi-professional distribution makes sure that the results are not limited to one particular occupational view.

4.1.4 Experience in the Financial Sector

Table 4.4: Frequency Distribution — Experience in the Financial Sector

Experience Level	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Less than 1 year	52	50.5	50.5	50.5
1–3 years	30	29.1	29.1	79.6
3–5 years	6	5.8	5.8	85.4
More than 5 years	15	14.6	14.6	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

The experience distribution suggests that most respondents (50.5%, n = 52) have less than one year of experience in financial sector, a fact that can be attributed to a large portion of the sample classifying themselves as students of finance and early-career professionals. The age experience with the respondents is between 1-3 years of experience (29.1% or n = 30) and 15 years plus (14.6% or n = 15). A relatively small proportion of 5.8% (n = 6) is 3-5 years of experience. Together the combined experience of almost 80 percent of surveyed people amounts to three years in the sector. This profile emphasizes the idea that to a large extent the study reflects the perceptions of young and recent finance workers - a group that is, arguably, the most open and active whenever it comes to application of Generative AI technologies in their job activities.

4.2 Analysis of Generative AI Usage

In this section, we will look at the awareness and usage pattern of Generative AI tools in respondents. It discusses how familiar the respondents are with the applications of Generative AI in financial analysis as well as the frequency of use of such applications in their work-related activities.

4.2.1 Awareness of Generative AI Tools

Table 4.5: Frequency Distribution — Awareness of Generative AI Tools

Response	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Yes	94	91.3	91.3	91.3
No	9	8.7	8.7	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

The awareness analysis shows that the vast majority of the respondents 91.3 percent (n = 94) of them are aware of such Generative AI applications as ChatGPT, Google Gemini, and Microsoft Copilot in financial analysis. Fewer than 8.7% (n = 9) said that they did not know about such tools. Such awareness indicates that the Generative AI technologies have permeated the professional and academic financial sector of the Indian population rather quickly. The fact that their use is nearly universal highlights their increasing importance with financial research ecosystems.

4.2.2 Frequency of Generative AI Usage

Table 4.6: Frequency Distribution — Frequency of AI Tool Usage in Financial Work

Frequency of Use	Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Always	9	8.7	8.7	8.7
Often	25	24.3	24.3	33.0
Sometimes	34	33.0	33.0	66.0
Rarely	22	21.4	21.4	87.4
Never	13	12.6	12.6	100.0
Total	103	100.0	100.0	100.0

Source: Own Analysis using primary survey data

The frequency distribution analysis of the AI tool consumption reveals that the greatest proportion of the respondents, who make 33.0% (n = 34), use Generative AI tools Sometimes to do financial and/or investment-related work. The combined use of such tools is rather frequent (33.0%), with 24.3% (n = 25) taking advantage of those tools with the word Often and 8.7% (n) taking advantage of those tools with the word Occasionally.

= 9) employ them 'Always.' At the other end of the spectrum, 21.4% (n = 22) use AI tools 'Rarely,' while 12.6% (n = 13) have never used them. Together, more than two-thirds of participants use Generative AI tools to some degree in their process of finding, appraising, and/or owning financial outcomes. The identification is a positive yet an expanding trend of AI usage in Indian financial research.

4.3 Descriptive Statistics

All seven Likert-scale survey items that assess perception of respondents on the effects

of Generative AI on the equity research were computed using descriptive statistics.

investment decision-making. The Likert scales were between 1 (Strongly Disagree) through 5 (Strongly Agree). The data provided are the number of valid responses (N), arithmetic mean, the standard deviation, and the variance as well as the minimum and maximum observed of each variable.

Table 4.7: Descriptive Statistics — Generative AI Impact Variables

Variable	N	Mean	Std. Dev.	Variance	Min	Max
AI helps in improving speed of equity research	103	3.476	0.979	0.958	1	5
AI improves accuracy of financial data analysis	103	3.340	1.176	1.383	1	5
AI-generated insights influence investment decision-making	103	3.194	1.094	1.197	1	5
AI reduces manual effort in equity research	103	3.184	1.178	1.387	1	5
I trust investment recommendations generated by AI	103	3.029	1.317	1.734	1	5
AI may increase risks of misinformation in financial advice	103	2.942	1.243	1.546	1	5
Financial institutions should integrate AI into research	103	3.573	1.333	1.777	1	5

Source: Own Analysis using primary survey data

The descriptive statistics also show that there are some interesting trends in the seven Generative AI impact variables. The most common average score was registered on the statement that the financial institutions need to adopt the implementation of Generative AI tools in the investment research process (M = 3.573, SD = 1.333), meaning that the respondents were moderate-high in their level of agreement that the integration of AI in the investment research structure is desirable.

AI assists in increasing the velocity of equity research' registered the second-highest mean (M = 3.476, SD = 0.979) with a comparatively smaller standard deviation implying that there is a greater agreement on this view than others. Evidently the most accepted and shared benefit of progress in speed is the most commonly agreed upon

advantage of.

Equity Research Generative AI. The accuracy of the financial data analysis with AI (M = 3.340, SD = 1.176) is also an indication of good central tendency, but the increased SD means that the opinions on this feature are more dispersed.

The variable such as the AI-generated insights affect investment decision-making (M = 3.194, SD = 1.094) and AI lessens manual effort in equity research (M = 3.184, SD). = 1.178) are relatively close to the middle of the scale, indicating a tentatively affirmative, but split opinion - acknowledging utility retaining nevertheless views about total dependence. When asked to give their level of trust of the AI investment recommendations, the mean was 3.029 with near-neutral result and a relatively high variance (1.734) suggesting that people have significantly different trust levels. It is worth noting that AI may augment risks of misinformation registered the minimum mean (M = 2.942) as respondents neither strongly agreed nor disagreed regarding this risk.

4.4 Reliability Analysis

Table 4.8: Reliability Statistics — Cronbach's Alpha

Scale	Cronbach's Alpha	N of Items
Generative AI Impact Scale	0.841	7

Source: Own Analysis using primary survey data

The seven-item Generative AI Impact Scale was calculated to have Cronbachs Alpha of 0.841. This reliability value is also within the range of 'Good' (0.80–0.89) which indicates that the measurement instrument has a high internal consistency. The seven Likert scale items aggregate a consistent construct that covers self-perceptions of the impact of Generative AI on the equity research and investment decision-making by the respondents and the scale items are adequately interconnected to be interpreted analytically together. The high coefficient of reliability, as well, indicates the structural integrity of the questionnaire design, and gives some assurance that the statistical analyses that follows, such as correlation analysis and regression analysis, are based on a reliable, valid measurement framework.

4.5 Correlation Analysis

To investigate the strength and direction of the linear relationships among the seven impact variables of Generative AI, Pearson Product-Moment Correlation was undertaken to assess the strength and direction of the relationships. The analysis of correlation assists in establishing the nature of variables that move simultaneously and also in giving the relationship mapping to be used to initialize the regression analysis. The levels of significance evaluated were 0.01 and 0.05 (two-tailed).

Table 4.9: Pearson Correlation Matrix — Generative AI Impact Variables (N = 103)

Variable	Speed	Accuracy	Decision	Effort	Trust	Risk
Speed	1.000	.446**	.252**	.391**	.240*	.079
Accuracy	.446**	1.000	.588**	.549**	.595**	.289**
Decision-Making	.252**	.588**	1.000	.535**	.540**	.073
Effort Reduction	.391**	.549**	.535**	1.000	.515**	.342**
Trust in AI	.240*	.595**	.540**	.515**	1.000	.312**
Risk Perception	.079	.289**	.073	.342**	.312**	1.000

*** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).*

Source: Own Analysis using primary survey data

The correlation matrix shows that there are a number of statistically significant and theoretically significant relationships between the Generative AI impact variables. The highest correlation specifies that between 'Trust in AI' and (Integration into Financial Institutions) ($r = 0.672$, $p < 0.001$) indicating that those respondents, who trust AI-generated recommendations more, are much more likely to promote the organizational integration of these tools. In the same fashion, the 'Accuracy of Financial Analysis' stands has a positive correlation with 'Integration' ($r = 0.625$) and 'Trust in AI' ($r = 0.61$).

= 0.595), 'Decision-Making' ($r = 0.588$), and 'Effort Reduction' ($r = 0.549$) — all significant at the 0.01 level.

According to the moderate positive correlation between theSpeed of Research and Accuracy ($r = 0.446$, $p =0.001$), then the view of the respondents is that AI benefits the speed of research and at the same time, its accuracy benefit is also felt indicating that

speed and accuracy are not competing but complementary benefits. 'Decision-

Making' shows strong positive correlations with 'Trust in AI' (r = 0.540), 'Effort Reduction' (r = 0.535), and 'Integration' (r = 0.541), all significant at $p < 0.001$.

Interestingly, Risk of Misinformation has more moderately weak correlations with all the variables with only two variables (Effort Reduction (r = 0.342) and Trust in AI (r = 0.312) demonstrating moderate correlations. Its low correlation with the perceived risk in terms of Decision-Making (r = 0.073, p = 0.462) and Speed (r = 0.079, p = 0.425), indicates that it functions to some degree independently of the main performance-related perception of AI.

4.6 Chi-Square Test Analysis

The Chi-Square tests of independence used were aimed at determining whether there were statistically significant relationships between the selected categorical demographic factors and Generative AI-related attitudes and use trends. In this section, there are two Chi-Square analyses. The level of significance was considered as 0.05 in every test.

4.6.1 Gender and Awareness of Generative AI Tools

The test will explore the hypothesis of whether there is a statistically significant difference between the awareness of Generative AI tools between different gender categories.

H_0: There is no significant association between gender and awareness of Generative AI tools in financial analysis.

H0: Gender and awareness of Generative AI tools of financial analysis is significantly related.

Table 4.10: Crosstabulation - Gender x Awareness of Generative AI.

Table 4.10: Crosstabulation — Gender × Awareness of Generative AI

Gender	No	Yes	Total
Female	3	38	41
Male	6	56	62

Total	9	94	103

Source: Own Analysis using primary survey data

Table 4.11: Chi-Square Tests — Gender × Awareness of Generative AI

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-Square	0.003	1	.953
Continuity Correction	0.000	1	1.000
N of Valid Cases	103		

Source: Own Analysis using primary survey data

The Chi-Square test was used to produce 0.003 (df = 1, p = 0.953) which is significantly larger than 0.05 scale. H0 is thus confirmed. Gender and awareness of Generative AI tools did not have a statistically significant association. The levels of awareness between the genders are almost the same.

-- 91.5% of respondents who identified themselves as male and 92.7% of respondents who identified as female stated their awareness of Generative AI tools. This observation indicates the lack of gender-differentiated awareness of AI by the Indian finance population and indicates the widespread, democratised breadth of digital information streams in which information about AI tools has disseminated among professional communities.

4.6.2 Experience Level and Frequency of Generative AI Usage

This test will analyze whether the rate of the use of Generative AI in financial work is in a significant relation to the level of experience of the person in the sphere of finance. To analyze it purposes such frequency categories also were recoded into three categories, namely: Frequently (Always/Often), Occasionally (Sometimes), and Rarely/Never (Rarely/Never).

H 0: There exists no statistically significant difference between experience level and frequency of the use of Generative AI.

H 0: The level of experience and frequency of Using Generative AI are significantly associated.

Table 4.12: Crosstabulation — Experience Level × AI Usage Frequency

Experience Level	Frequently	Occasionally	Rarely/Never	Total
Less than 1 year	16	18	18	52
1–3 years	13	10	7	30
3–5 years	1	4	1	6
More than 5 years	4	2	9	15
Total	34	34	35	103

Source: Own Analysis using primary survey data

Table 4.13: Chi-Square Tests — Experience Level × AI Usage Frequency

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-Square	10.101	6	.120
Likelihood Ratio	9.874	6	.130
N of Valid Cases	103		

Source: Own Analysis using primary survey data

The Chi-Square statistic of $\chi^2 = 10.101$ (df = 6, p = 0.120) does not reach the 0.05 significance threshold. H 0 thus is accepted. There was no statistically significant effect of level of experience and frequency of Generative AI use. Although the descriptive analysis of the crosstabulation indicates a relatively larger percentage of respondents in the group of Rarely/Never (9 out of 15) with over five years experience, there lacks statistical significance. The result suggests that the frequency of AI use among financial professionals in India might be more subject to personal initiative, role need, or organizational culture than just seniority or experience level.

Decision: H_0 Accepted. No meaningful testing with the level of experience and the frequency of use of AI (2 = 10.101, p = 0.120 > 0.05).

4.7 Regression Analysis

The analysis of multiple linear regression was performed to determine the combined predictive impact of the main Generative AI perception variables on the dependent variable - AI-%.

informed ideas impact my investment decision making process.' The variable under selection as the dependent variable is what best measures the core construct of the work which is the influence of Generative AI on the quality of investment decisions. Ordinary Least Squares (OLS) was the regression model estimation method applied in order to estimate the regression model.

Dependent Variable: The AI-generated insights also impact my investment decision-making.

IV: Speed of Research (Speed), Accuracy of Analysis (Accuracy), Manual Effort Reduction (Effort), Trust to AI Recommendations (Trust), and Institutional Integration of AI (Integration).

4.7.1 Model Summary

Table 4.14: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668[a]	.447	.418	0.833

a. Predictors: (Constant), Speed of Research, Accuracy, Effort Reduction, Trust in AI, Institutional Integration

b. Dependent Variable: AI-generated insights influence investment decision-making

Source: Own Analysis using primary survey data

As indicated in the Model Summary the combined set of the five independent variables explain a significant and significant amount of variance in the influence of investment decisions. The coefficient of R = 0.668 shows that the predictor set taken together has a rather strong positive linear correlation with the dependent variable. R Square (0.447) indicates that the five independent variables explain a joint variation in overall perception of AI as an influencer of investment decisions of 44.7%. Adjusted R Square of 0.418 which corrects by the number of predictors that the model accommodates validates the existence of an actual and strong explanatory power of the model despite their accommodation by the model complexity. The Standard Error of the Estimate

(0.833) shows that it has an acceptable level of prediction accuracy in comparison with the level of the 5-point Likert scale used. On the whole, it is a highly suitable model to a social science dataset of this nomenclature.

4.7.2 ANOVA — Overall Significance of the Regression Model

Table 4.15: ANOVA — Overall Significance of Regression Model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.536	5	10.907	15.655	.000[b]
	Residual	67.580	97	0.697		
	Total	122.117	102			

a. Dependent Variable: AI-generated insights influence investment decision-making

b. Predictors: (Constant), Speed, Accuracy, Effort Reduction, Trust in AI, Integration

Source: Own Analysis using primary survey data

The ANOVA table validates the fact that the total regression model is not significant ($F = 15.655$, $p < 0.001$). The 5 degrees of freedom regression component (F-value = 15.655; 97 degrees of freedom; residuals) is very significant, which means that it conclusively rejects the null hypothesis, which states that none of the predictors can explain the variance in the dependent variable. The five Generative AI perception variables, taken as a set, have a statistically significant and meaningful non-random effect on the quality of investment decision making perceived by scientists. The probability that these results occurred by chance is less than 0.1%.

4.7.3 Regression Coefficients

Table 4.16: Regression Coefficients — Generative AI Impact Variables

Variable	B	Std. Error	Beta (β)	t	Sig.	Decision
(Constant)	1.017	0.339	—	3.004	.003	Significant
Speed of Research	-0.070	0.097	-.063	-0.717	.475	Not Sig.
Accuracy of Analysis	0.299	0.101	.321	2.964	.004	Significant
Effort Reduction	0.211	0.095	.227	2.226	.028	Significant
Trust in AI	0.148	0.090	.178	1.644	.103	Not Sig.

Variable	B	Std. Error	Beta (β)	t	Sig.	Decision
Institutional Integration	0.085	0.097	.103	0.868	.388	Not Sig.

a. Dependent Variable: AI-generated insights influence investment decision-making

Source: Own Analysis using primary survey data

The coefficients analysis allows subtle specifications into which variables in Generative AI perception influence an indicator of significant positive prediction of improvement in investment decision-making as variables in the model are controlled.

Financial Analysis (Accuracy) gives the strongest predictor (B = 0.299, Beta = 0.321, t = 2.964, p = 0.004) which is statistically significant. This result indicates that the more the respondents think the Generative AI enhances the quality of financial data analysis and interpretation significantly, the more likely they are to cite that AI-generated information makes a positive impact on their investments.

The second significant predictor is Reduction in Manual Effort (Effort) which is statistically significant (B).

= 0.211, Beta = 0.227, t = 2.226, p = 0.028, meaning that those respondents, who find the usefulness of AI in providing a meaningful decrease in the amount of manual labor needed in the equity research process, are also more inclined to recognize positive impact of the latter on the decision-making process.

4.8 Overall Interpretation of Findings

The multi-layered interpretation of the overall statistical analysis provided in this chapter leads to a logical and consistent perception of how Generative AI is being perceived and used at the moment in equity research and investment decision-making in Indian financial institutions. The results, combined, paint a portrait of grim but increasing hope.

The demographic analysis determined that the sample represents a representative of an emerging, digitally-savvy financial workforce in India. A majority of the respondents

are under 35 years of age (over 82%), and almost ninety-one percent know how to use ChatGPT, Gemini, and Copilot.

in financial applications. This almost universal knowledge, coupled with the fact that more than 65 percent of the respondents are users of these tools who interact with them in some extent, validates the fact that Generative AI has indeed infiltrated the consciousness.

The descriptive statistics highlights the fact that the most popular potential advantage of Generative AI is the opportunity to accelerate the research process, which also has the highest level of unanimity among respondents (lowest standard deviation). The highest mean score was on institutional integration of AI (3.573), which implied that even though individual practices of day-to-day use may differ, there was an overall institutional desire to put AI into organized research.

The value of Cronbachs Alpha (0.841) indicates a high internal consistency of the measurement tool, proving that the seven items on the survey measure a single construct that refers to the influence of AI on research and quality of decision-making.

The Chi-Square tests indicate that the gender and experience level do not significantly influence the AI awareness and frequency of use, respectively. Those non-significant results have an essential substantive implication: The use of Generative AI by Indian financial institutions seems to be predetermined by other factors other than the conventional demographical forecasts. The factors that may drive AI engagement may be individual motivations, the institutional culture, role-specific utility and access to technology.

Multiple linear regression analysis has the most direct empirical answer to the central research question of the study. Having an R Significance of 0.447 and an incredibly significant F-value of 15.655 ($p < 0.001$), the model reveals that perception of the accuracy and efficiency benefits of AI are the main factors in enhancing investment decision-making. Specifically, Accuracy of Analysis (0.321, $p = 0.004$) and Reduction in Manual Effort (0.227, $p = 0.028$) are the two statistically significant individual predictors whereas Trust, Integration, and Speed provide positive but not significant

directional effects.

CHAPTER 5 – FINDINGS AND SUGGESTIONS

5.1 Findings of the Study

The statistical report delivered in Chapter 4 produces a comprehensive series of results pertaining to the situation of Generative AI awareness and adoption and the perceived influence in the context of equity research and investment decision-making processes of the Indian financial institutions. These are arranged in the following: based on the key research themes in the study.

5.1.1 Impact of AI on Equity Research

It not only establishes the fact that Generative AI is affecting the processes of equity research in India in a measurable and positively perceived way but also confirms this effect. More than 65 percent of the participants admitted to having used the AI tools to a certain extent in their financial activities, with the maximum average descriptive score in all the perception variables would be attributed to the item pertaining to the institutional AI integration (M = 3.573). This implies that even people who are not yet ready to employ AI tools in their multidaily research process are already aware of the institutional challenges to adopt them. The high rate of awareness of 91.3% also signals that AI has already become an established element of the modern financial research landscape, with the quick establishment of AI skills and understandings within professional and academic financial circles in India.

5.1.2 AI and Investment Decision Accuracy

Among all the perceptions related to AI, the accuracy of financial data analysis seemed the most powerful stimulus of investment decision-making improvement with the highest and the most significant regression coefficient (0.321, p = 0.004). The practical implications of this finding are obvious: monetary workers are more apt to use AI-created insights in making investment choices whenever they trust the accuracy of analytical properties of the outputs. Another result that displays the centrality of analytical is the high correlations between perceived accuracy and trust in AI (r = 0.595) and institutional integration case (r = 0.625).

quality as the pillar on which the significant AI implementation in equity research should be achieved.

5.1.3 AI and Time Efficiency

The quickening of research was found to be the most familiar and mutual consensus-converging advantage of Generative AI among the respondents (M = 3.476, SD = 0.979 - the lowest standard deviation of all variables). Although speed was a highly felt advantage, in the analysis of the regression statistics, it turned out that there was a critical point: when it comes to having a better decision making-focusing on the investment, speed of research is not a statistically significant variable (B = -0.070, p = 0.475). This result can lead us to the conclusion that although AI tools allow significantly speeding up research, financial professionals cannot equate accelerating the information processing with improving the investment process. The main factors influencing decision value are quality and accuracy of analytical output and not speed of production.

5.1.4 AI Adoption Trends

The paper records a trend of slow yet extended adoption of AI by financial institutions in India. The responders noted a usage rate of about 1/3 that frequently uses AI tools (always or often), with most of the respondents having a periodic or occasional use of the tools. Notably, both genders and work experience do not considerably distinguish AI awareness or frequency of use, indicating that there is no stratification of AI adoption in this industry based on traditional demographics. Rather it seems to be influenced by individual motivation, role specific utility and presence of institutional support and training resources. High frequency of young professionals at the beginning of the career and financial schoolboys suggests that AI implementation will probably gain momentum when this segment of computing power professionals becomes older and more senior.

5.1.5 Risks and Concerns

The lowest mean score (M = 2.942) of all perception variables was the risk dimension

of AI adoption, namely, the risk of AI initiating the threat of misinformation in financial advice, which, in its turn, implies that the respondents did not particularly strongly believe in the matter.

agree nor disagree with this risk. The comparatively autonomous nature of the risk variable in the correlation map (low level of association with most of the other variables) could indicate that risk awareness holds a different cognitive position as compared to functional utility perceptions. Although it does not feature among the predominant issues in the existing data, the slight but relevant consideration of the risks associated with AI highlights the significance of governance systems and the human control mechanisms in any institutional AI adoption plan.

5.2 Suggestions

As per the application of the empirical results of this research, the subsequent recommendations can be provided to financial institutions, equity research firms, portfolio managers, analysts, and policymakers interested in the issue of the Generative AI adoption in Indian financial services.

5.2.1 Prioritise Accuracy-Enhancing AI Implementations

Since precision of the financial data analysis can be taken as the best predictor of the beneficial impact of AI on the investment decision-making, financial institutions need to focus on the AI implementations that can prove to be effective in enhancing the precision of financial data analysis and reliability of the data. This implies preferring domain-specific AI agents that are trained on hand-picked financial data.

— use Bloomberg GPT or proprietary fine-tuned models, instead of generic general-purpose LLMs, on core research problems. The development of practitioner confidence needed to ensure long-lasting adoption will require investment in AI systems that are verified with proven sources of financial data and periodically audited on accuracy.

5.2.2 Design AI as a Research Augmentation Tool

The observation that the minimization of manual efforts serves as a key predictor of

an increase in investment decisions supports a paradigm of the AI application that can be seen as the intensifier of the processes instead of the one that replaces the role of the decisions. Workflows should be designed by institutions to take advantage of information-heavy, repetitive work AI-based preliminary data extraction, financial statement summarisation, industry comparisons.

generation whilst, maintaining the human to analytical aspects of judgement in the interpretative, contextual and prospective aspects of investment research. This model of human-AI collaboration is consistent with the fact that in this study, speed, but not the increase of accuracy does not lead to the decision quality improvement.

5.2.3 Develop Structured AI Training Programmes

The fact that, in the study, gender and experience-level did not impact adoption patterns significantly indicates that training programmes aimed at all members of the workforce and designed inclusively can speed up adoption among the workforce in a uniform manner. Equity research firms and financial institutions never implement these integrated AI training programmes should devise structured AI literacy and application training programmes which will supply analysts and portfolio managers with the technical knowledge base to use AI tools effectively and critically and the practical knowledge to implement the tools. Programmes must focus on functionality of tools, and also on risk management that must be carried out to detect and fix AI-generated misrepresentations.

5.2.4 Establish AI Governance Frameworks

With the increased use of AI tools in equity research procedures, formal governance mechanisms are necessary. Institutions ought to have explicit policies regarding the use of AI-generated materials in investment research, such as procedures to review AI-generated materials by humans, disclosure policies to clients concerning the creation and use of AI in research production, and additional mechanisms to escalate in cases where AI-generated insight conflicts with analyst judgement. These governance frameworks will be developed in consultation with regulatory authorities like SEBI to make sure it is consistent with changing law and compliance provisions.

5.2.5 Address Risk Awareness Proactively

Although, in the existing data, AI-related risk awareness was not a mainstream issue, the fact that a certain number of respondents accepted the idea that AI can contribute to the rise in misinformation risks in the field of financial advice should be addressed promptly at an institutional level. Institutions ought to disclose all details to clients on how AI is used in producing research and the mechanisms utilized to control the quality of such research. Establishing clear

AI output control criteria, the introduction of source transparency in reports generated by AI and a strong human oversight of the editorial will be essential to protect the integrity of research papers and the management of reputational risk in the institution.

5.2.6 Build Institutional AI Infrastructure

The mean score of institutional AI integration (M = 3.573) indicates a real collaborative interest in the incorporation of AI into the system of the study. Implementing this envisionment into practice will require financial institutions to invest in the infrastructure that can enable institutional AI integration become possible such as secure data pipelines, compliant AI platforms, API connections with market data providers, and the computational power needed to run AI-enhanced research workflows. Smaller institutions along with regional brokerage firms can take advantage of industry-though initiatives and common platforms that lower the cost of AI adoption.

5.2.7 Support Regulatory Development

The evidence presented in the study that AI is gaining ground regarding the levels of professional experience is also indicative of the urgent need to establish a system of regulations to appropriately use AI in financial research. Regulators ought to consult with the academic and practitioner community to come up with evidence-based guidelines that would offer sufficient accountability framework of the AI-assisted investment recommendations that do not overly hinder innovation. The data used in the present study can be used as an effective baseline of such regulatory considerations.

CHAPTER 6 – CONCLUSION

It is against this background that the current undertaking was conducted with the main aim of exploring the effects of Generative AI tools with regards to the equity research and investment decision processes in Indian financial institutions. Based on primary data gathered with 103 participants who include equity research analysts, portfolio managers, investment advisors, banking professionals and financial students and developed using a battery of statistical methods based on the SPSS suite, the research has produced an extensive and empirically driven insight into the current role of AI and future outlook of this professional field.

All the results have created a picture of an Indian financial sector that is not only well-informed on the potential of Generative AI, but also with 91.3% significant majority of respondents admitting familiarity with various Generative AI tools such as ChatGPT and Google Gemini, as well as Microsoft Copilot, is still in that awareness to institution adoption phase. More than 65 percent of the surveyed users use AI technologies in their financial activity to some extent, and most of them are not using AI regularly, but periodically. The trend is in line with the initial-to-mider adoption stage of a transformative technology: known, tried on an experimental basis, but not yet institutionalised as a research structural feature in the field.

The empirical value of the study is that it determines the accuracy of financial data analysis to be the key determinant of the positive effects of AI on investment decision-making. Regression analysis revealed accuracy (= 0.321, p = 0.004) and the decline in manual effort (= 0.227, p = 0.028) as the statistically significant isolated predictors of improvement in the quality of investment decisions, whereas speed of the research (despite being the most commonly recognized advantage of AI) failed to predict the quality of decision improvement independently. This observation has an unmistakable and practically important implication: AI is appreciated by financial experts not because of its speed in working with information, but its quality of analysis, as well as the mental load it relieves. Organizations implementing AI tools with the sole aim of enhancing speed in research processes without investing in quality and accuracy

checks are likely to experience a halt in adoption at the first stage.

degree of superficial use without being converted into real change of positive effects in investment performance.

The reliability analysis established that the measurement instrument used in the study has a high level of internal consistency (Cronbachs Alpha = 0.841) which give the study methodological confidence in the inferential analyses. According to Pearson correlation analysis, there is a dense web of interrelationships between the variables of perception of AI, the accuracy being the central connecting construct, which is strongly and significantly related to trust, the impact of the decision-making process, support of institutional integration, and the minimization of efforts. This places the accuracy not as one of the advantages of the technology, but as the cornerstone of the overall argument of introducing AI to equity research.

The Chi-Square results of the study provided two informative non-significant results: gender and professional experience do not significantly influence the awareness of AI and frequency of usage in the sample. Such egalitarian distribution of AI knowledge - across demographic boundaries - implies that the obstacles to further AI uptake in Indian financial institutions are not necessarily to do with individual professional background, but the institutional contexts in which they operate. The implication is that properly thought-out, accommodative training and support programmes could just speed up AI adoption at the macro level and do not need differentiated treatment of various demographic groups..

Going forward, Indian financial services are set to have three converging forces that will determine the future of Generative AI in the sector. The former is technical: more specialised and more accurate and more directly connected to financial data infrastructure, AI models will find increasing use in equity research. The second is an institutional one: the experience of training programsmes, governance models, and even AI-enhanced research processes will build up, and AI will enter all parts of the professional community faster. The third is regulatory: the establishment of

transparent, evidence-based SEBI guidelines on the use of AI in financial studies will offer the accountability mechanisms that will help institutions to implement AI with a sense of confidence.

Finally, this paper reiterates that Generative AI is not an technology newness in regards to Indian equity research, but rather a meaningful professional innovation with the promise to change the quality, efficiency, and accessibility of investment decision-making. To realise that potential, though, institutions would need to make a long-term investment in AI quality and development, governance and human capability development on par. The empirical data and the analytical framework that should be adopted to carry out such a commitment are given in this dissertation.

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ANNEXURE

Survey Questionnaire

Title: Impact of Generative AI on Equity Research and Investment Decision-Making in Indian Financial Institutions

Institution: Delhi School of Management, Delhi Technological University

Purpose: This questionnaire is administered as part of an MBA Major Research Project and is intended for academic purposes only. All responses are strictly confidential and anonymous.

Section A: Demographic Information

Q1. Age Group *

- Below 25
- 25–35
- 36–45
- Above 45

Q2. Gender *

- Male
- Female
- Prefer Not to Say

Q3. Current Profession / Role *

- Equity Research Analyst
- Portfolio Manager
- Investment Advisor
- Banking / Financial Services Professional
- Finance Student

- Other

Q4. Level of Experience in the Financial Sector *

- Less than 1 year
- 1–3 years
- 3–5 years
- More than 5 years

Section B: Awareness and Usage of Generative AI

Q5. Are you aware of Generative AI tools (e.g., ChatGPT, Google Gemini, Microsoft Copilot) used in financial analysis? *

- Yes
- No

Q6. How frequently do you use Generative AI tools in your financial or investment-related work? *

- Always
- Often
- Sometimes
- Rarely
- Never

Section C: Perceptions of Generative AI Impact (1 = Strongly Disagree, 5 = Strongly Agree)

Q7. Generative AI tools help in improving the speed of equity research. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral

- 4 — Agree
- 5 — Strongly Agree

Q8. AI improves the accuracy of financial data analysis and interpretation. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Q9. AI-generated insights influence my investment decision-making process. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Q10. AI reduces manual effort in equity research and financial analysis. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Q11. I trust investment recommendations generated by AI tools. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Q12. AI may increase the risks of misinformation in financial advice. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Q13. Financial institutions should integrate Generative AI tools into their equity research and investment processes. *

- 1 — Strongly Disagree
- 2 — Disagree
- 3 — Neutral
- 4 — Agree
- 5 — Strongly Agree

Thank you for your participation. Your responses are greatly appreciated and will contribute to academic research on AI in Indian financial institutions.