A Study of Fintech in Investment Management – Guided Mutual Fund Portfolios

Mr. Rishab Mahendra Kankariya & Prof. Pallavi R. Gedamkar

MIT School of Management, Pune, (Maharashtra) India

Abstract

Technology has transformed the introduction of the internet over twenty years ago to what's known today as broadband operating much faster and more accessible to the world. We can see this through the evolution of mobile phones to smart phones and smart devices which have access to instant broadband in the form of 4G or 5G. The financial service has witnessed dramatic change due to the advancements in technology from ATM's to online banking etc. FinTech is financial technology which is changing the financial services landscape across the globe. After analyzing the research papers, researcher has found that the Fintech industry has come a long way in short time. Digital Advisory has replaced the traditional consultancy practices as well as typical papered records and it will further continue to change the scenario of investment . The reason for choosing this topic is to study various aspects of Guided Mutual Fund Portfolio within the Indian boundaries like, the profitability of portfolio for both small and big investment, ways to encourage investments within the community and its application to achieve the balance between risk and return The research design included conducting unstructured interviews of respondents near MITSOM Kothrud, carrying out survey about investment behavior, and using the secondary sources to meet the objectives of the research. The research may provide the readers, insights on what more is needed to spread the awareness of digital advisory. The researcher through this research has made an attempt to identify the importance and increasing awareness about robo–advisory, the change in trend pattern of investment behavior of retail customers and thus have made an effort to study ways to improve the existing system for mutual fund investment. Acceptance of such digital services over the traditional consultancy remains bottleneck of most of the digital advisory. This study only deals with the necessary aspects of research required to help people invest systematically. Further there is a scope to carry out research on risks associated with accuracy of Guided Portfolio Service (GPS) and finding out ways to curb those risks.

Key Words: Fintech , Millennials , Investment , Advisory , Guided Mutual Fund Portfolios.

Introduction

The convergence of finance and technology, known as Fintech, is changing the landscape of investment management for good or worse. Advancements may include the application of Artificial intelligence (AI), Big Data, and machine learning to evaluate and analyze investment opportunities, optimize portfolios, and thus mitigate risks. These developments are having effects on asset managers who utilize these tools and technologies to engage in hybrid forms of investment decision making.

Investment consultancy services are transforming with the growth of automated wealth advisers commonly known as "Robotic advisers." Robo-advisers may assist investors without the intervention of a human adviser, or

they may be used in combination with a human adviser. The desired outcome is the ability to provide tailored, actionable advice to investors with greater ease of access and at lower cost.

The other areas of Investment Management includes financial record keeping, blockchain and distributed ledger technology (DLT) but we are not focusing on these area as of now. Digital Financial Advisory is one of the few outcomes of emerging FinTech. Edelweiss Group, which is one of the best financial service provider has implemented the concepts of FinTech and launched a new service 'Guided Mutual Fund Portfolio'.

The intention of this study is to assess the effect FinTech or financial technology is having within the financial services industry in comparison to the traditional financial service industry , mutual fund Advisory to be specific .Within this sector the research has a particular focus on the financial services today and where it's going in future due to the impact that financial technology is creating

2.1 Goals of Portfolio Management:

1. Value Maximization.
2. Balance
3. Business Strategy Alignment
4. Pipeline Balance
5. Sufficiency

2.2 Guided Mutual Fund Portfolio :

A Guided Portfolio is an advised portfolio by Edelweiss ,based on one's risk profile, financial goals and investment preference, thus provides a holistic investment approach for an individual investor. The guided mutual fund portfolio does optimized allocation of clients investment amount across asset classes (Equity and Debt) and it also selects suitable mutual funds with suitable proportions. Once schemes are selected, you can execute the transaction in one click. Next, you can monitor and modify your portfolio performance on a regular basis.

Why Guided Mutual Fund Portfolio ?

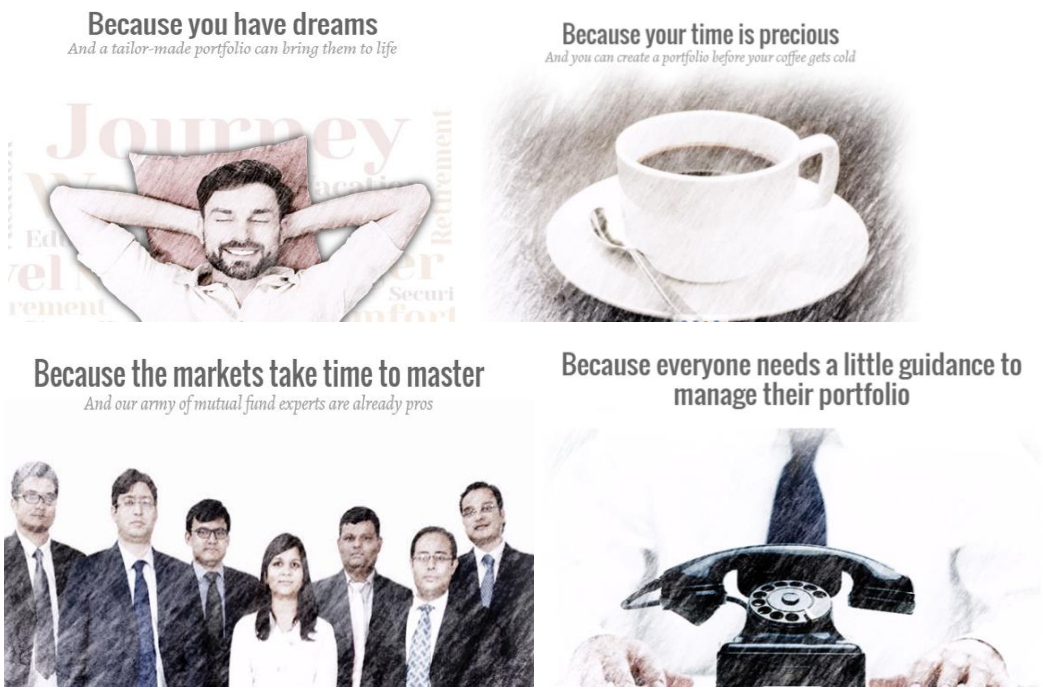


Figure 2.2 : Why Guided Mutual fund Portfolio?

3. Objectives

3.1 Objective

Through this research, the researcher aims to get an understanding of the impact FinTech will have on existing financial services. Also the researcher has come across a trending FinTech service viz. Guided Mutual Fund Portfolio, after studying its pros and cons researcher has structured following objectives focusing mainly on millennials[i] and it also focuses on improving the existing system.

1. To analyze the increasing affinity of millennials towards Guided Mutual Fund Portfolio investment
2. To develop more efficient[ii] guided mutual fund portfolio in comparison to existing system.

3.2 Scope

This study concerns the following point:

- The study is conducted in Indian context limiting to millennial generation of Kothrud in Pune city
- The focus of study is on impact[iii] of Fintech on Investment Patterns and understand the relationship between Risk and Return features of millennials and thus optimizing[iv] the Investment accordingly.
- This study has also undertaken interviews of young traders and investors at campus of MITSOM College Kothrud and few other areas of Pune city.

4. Industry Profile

- **Financial Service Industry :**

The financial services industry is made up of economic services provided by the finance industry which include, credit unions, banks, financial institutions, accounting firms, real estate, consumer finance companies etc. The financial services industry is basically a financial service provided to consumers or businesses which effectively manages money.

Although we can trace a version of the financial system back as far as the 1860's, it was the nineties when the industry really came to fruition. The financial services industry has witnessed significant changes and alterations over the last few decades. Financial Institutions and banks have seen dramatic reform. There has been a mass transform of current banks and new entrants to the industry.

However; the industry today is faced with significant challenges which include the following:

- Growing International Competition for Financial Service Investments
- Rapid Transformation of Financial Service business models
- Technology Innovation
- Demographic and Geopolitical trends
- Impacting of Emerging Markets
- Changing regulatory and Taxation Environment
- Rapid Evolution of Consumer Behaviour preferred

Fintech Industry:

Figure 4.1 : Fintech industry

"FinTech noun: an economic industry composed of companies that use technology to make financial systems more efficient. " (McAuley, D Wharton FinTech, Online 2014).

Roy S. Freedman discusses in his book Introduction to Financial Technology what he perceives financial technology to mean. The author describes financial technology with being concerned with building systems that model, value and process financial products such as bonds, stocks, contracts and money. (Freedman, Roy S, 2006 pg 1). The author illustrates how financial products include price, time and credit. Freedman analyses how financial systems which can be viewed as similar to commercial systems involve buying and selling of products in different markets at different times through trading systems and trading technology. Financial Technology involves secure communication to others in a market through common language with a quick delivery of information and news which can be public or privates and this is done through a communication network. Financial Technology includes trading technology similar to that of commercial systems. Trading includes several actions such auctioning, negotiating, buying, selling, borrowing, leasing, brokering, dealing etc

FinTech can be broke down into several different areas within the financial sector:

- Asset Management.
- Bank Technology
- Crowd Funding.
- Crypto currency.
- Information Portal.
- Investment Management.
- Machine Intelligence.
- Marketplace Lending.
- Money Management.
- Payments.
- Private Markets.
- Real Estate.
- Trading, etc

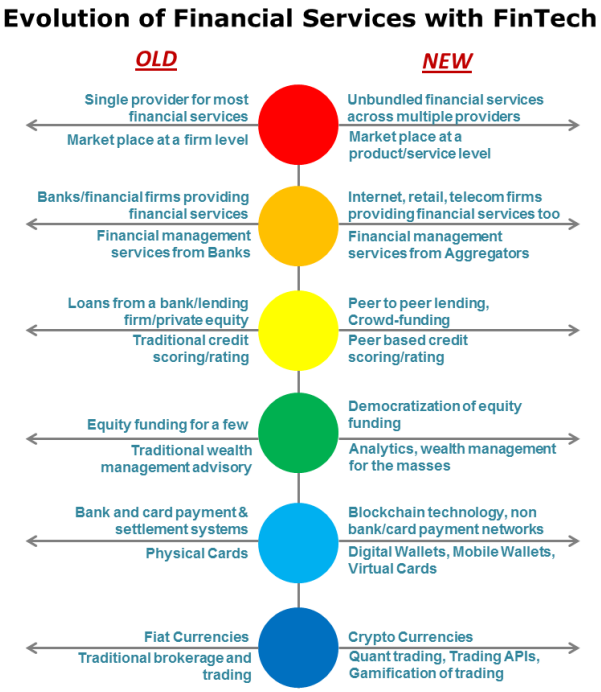


Figure 4.2 : Evolution of Financial services with Fintech

5. Company Profile

5.1 Company History :

EDELWEISS GROUP started its journey in Mumbai in the year 1995, by two IIM graduates, Mr. Rashesh Shah and Mr. Venkat Ramaswami. Edelweiss was incorporated on November 21, 1995 as a public limited company and received its certificate for commencement of business on January 16, 1996.

It commenced investment banking activities & registered with SEBI as a 'Category I Merchant Banker' [as defined under the Securities and Exchange Board of India and thereafter as a 'Portfolio Manager' & as an 'underwriter' under the Securities & Exchange Board of India [Underwritings] Regulations, 1993.

Entered the business of securities broking in the year 2002 by acquiring Rooshnil Securities Private Limited which was later changed to Edelweiss Securities Private Limited & is presently known as Edelweiss Securities Limited. The year 2004 witnessed the foray of Company into the businesses of insurance advisory as well as commodities broking and trading.

The business of insurance advisory is carried through the subsidiary, Edelweiss Insurance Brokers Limited. The subsidiary, ECAL Advisors Limited carries on the business of commodities broking & trading. The Company also has its presence in non-banking financial activities through its subsidiaries, Cross border Investments Private Limited [acquired in the year 2000s] and ECL Finance Limited [incorporated in the year 2005s] which is NBFC's.

Edelweiss Real Estate Advisors Private Limited, which was previously our subsidiary and our subsidiary Edelweiss Trustee Services Private Limited, were incorporated in the year 2006, for launching the company first real estate fund which was registered with the SEBI as a 'Venture Capital Fund'.

5.2 Profile:

The Edelweiss Group is one of India's leading diversified financial services company providing a broad range of financial products and services to a substantial and diversified client base that includes corporations, institutions and individuals. Edelweiss's products and services span multiple asset classes and consumer segments across domestic and global geographies. Its businesses are broadly divided into:

- Credit Business (Retail Credit comprises of Retail Mortgage, SME and Business Loans, Loan against Securities, Agri and Rural Finance, Corporate Credit comprises of Structured Collateralised Credit to Corporates and Wholesale Mortgages).
- Franchise & Advisory Business (Wealth Management, Asset Management including Distressed Assets and Capital Markets).
- Insurance (life and general insurance).

The Balance Sheet Management Unit operations manage the liquidity and Balance Sheet. Edelweiss has an asset base of INR 55,100 crore with revenue of INR 8,623 crore and PAT of INR 890 crore for

FY18. Its consistent performance is evidenced by a consolidated PAT CAGR of 38% over last 28 quarters. The Group's research driven approach and proven history of innovation has enabled it to foster strong relationships across all client segments.

1) Services/ Products:

The Edelweiss Group is one of India's leading diversified financial services company providing a broad range of financial products and services to diversified client base that includes corporations, institutions and individuals.

The Group is involved in businesses such as:

- Wholesale Credit: It includes Structured Collateral Credit to Corporates, Real Estate finance and Distressed Assets Credit.
- Retail Credit: It includes housing finance, loan against property, LAS and SME; Agro Finance, and Rural Finance
- Life Insurance
- Global Asset and Wealth Management
- Retail Broking and Research
- Mutual Funds
- Commodities

2) Competitors of Edelweiss :

- ICICI Securities
- Motilal Oswal
- Sharekhan
- Kotak Securities
- HDFC Securities
- Karvy
- Indiabulls
- Angel Broking

6. Literature Review

1) 'FinTech – What's in a Name' by Liudmila Zavolokina, Mateusz Dolata & Gerhard Schwabe, Thirty Seventh International Conference on Information Systems, Dublin 2016.

FinTech, originates from meeting of "finance" and "technology", designates currently a novel and emerging field which attracts attention .The world of finance, in particular banking sector, has proven to be of outstanding importance in daily lives of people around the globe. Classical banking has been changing significantly through the last century, but today we're facing the birth of new epoch of financial services, bearing the name "FinTech", which is hardly explored and, therefore, may be seen as challenging environment.

The author has made effort to address 'How is FinTech perceived through the lens of the media and how has the perception of the phenomenon developed over time' which is in alignment my preliminary objective to understand: (1) How is FinTech perceived? (2) What are the primary factors that influence FinTech over time? (3) What topics are discussed in the press in the context of FinTech?

The results of this paper show that FinTech is emerging in the industry but as the term little mentioned in science. Exploding popularity of FinTech suggests that collection of knowledge is highly required and should not be limited only to technological aspects.

2) The Math of Financial Modeling and Investment Management by Sergio M. Focardi and Frank J. Fabozz, ISBN: 0-471-46599-2, John Wiley & Sons, Inc., Hoboken, New Jersey, Published simultaneously in Canada 2004.

In Order to understand the Designing of Computer based Advisory system, it's crucial to understand the statistical and mathematical approach of the Underlying Fintech System along with the scope of making real time correction of the

feedback system. Ways in which investor should allocate his investment has long been discussed. Classical wisdom suggested that investments should be allocated to those assets yielding the highest returns, without the consideration of correlations. Before the modern formulation of efficient markets, speculators widely acted on the belief that positions should be taken only if they had a competitive advantage in terms of information.

3) The Impact of the Fintech Phenomenon – Radical Change Occurs in the Financial Sector by Ádám Kerényi – Júlia Molnár, Journal of Economic Literature (JEL) codes: G21, G24, O31, O33 ; Hungry, 11 December 2016.

As a result of technological progress, the spread of the Internet and digitization, several sectors of the economy have undergone a major transformation. This study focuses on the changes in the financial sector. It presents the new players that emerge, i.e. the increasing prominence of the so-called fintech solutions, which is supported by the demand from consumers and the supply side as well

The author has discussed the radical nature of the innovations brought about by the fintech sector which has an inherent relation with the Research topic and its effects on Investment patterns i.e Behavioral Finance.

This study describes the financial services offered by large NBFC's. In parallel with the start-ups, several companies, mainly large technology enterprises, entered the market to provide financial services, utilizing their relationship to clients and their existing technology infrastructure. The study sought to establish the extent of the impact of the increasing prominence of the fintech sector which forecasts the complete disruption of conventional banking and investment sectors. However, this question points to several areas that require further examination.

4) The Math of Financial Modeling and Investment Management by Sergio M. Focardi and Frank J. Fabozz, ISBN: 0-471-46599-2, John Wiley & Sons, Inc., Hoboken, New Jersey, Published simultaneously in Canada 2004.

In Order to understand the Designing of Computer based Advisory system, it's crucial to understand the statistical and mathematical approach of the Underlying Fintech System along with the scope of making real time correction of the feedback system.

Ways in which investor should allocate his investment has long been discussed. Classical wisdom suggested that investments should be allocated to those assets yielding the highest returns, without the consideration of correlations. Before the modern formulation of efficient markets, speculators widely acted on the belief that positions should be taken only if they had a competitive advantage in terms of information.

5) 'The Future of FinTech - Integrating Finance and Technology in Financial Services' by Bernardo Nicoletti, Palgrave Studies in Financial Services Technology, ISBN 978-3-319-51414-7, Rome, Italy 2017.

On one hand, the research aims to provide the big picture of the fintech initiatives, not only by giving insights on their evolution, but also by presenting business cases of successful companies. On the other hand, it aims also to provide organizations with guiding principles, lumped together and centralized in a business model presented and applied throughout all the chapters.

From this research paper the future prospect of Fintech in India is studied.

This research helps reveal the two primary sources of digital transformation and disruption:

1)The making of new models, where supply and demand change less.

2) The dynamics of hyper scaling platforms.

These opportunities and threats are not mutually exclusive; new entrants, disruptive attackers, and aggressive incumbents typically exploit the situations, therefore providing additional insights on several game-changing technologies such as, mobile devices into full financial services platform, Robots and neural technologies, Advanced Big Data analytics, Superior Block Chain and Iot (Internet of Things).

6) Uncertain Futures: 7 Myths about Millennials and Investing, by Gary Mottola& Rebecca Fender , FINRA Foundation and CFA Institute , August 2018.

Millennials (millennial generation, Generation Y) is the phrase used to generally describe a person who reached adulthood in the early 21st century and covers the generation of people born between 1980 and 2000. The Investment behavior of this generation shows significant difference, hence it's important as well as interesting to study this.

Generally the Millennials are categorized as:

- Millennials who do not hold investment accounts of any kind.
- Millennials with retirement accounts only.
- Millennials with taxable investment accounts.

These factors will definitely aid in designing the algorithm behind Guided mutual fund portfolio.

While debt and income are major barriers, a lack of knowledge is also a major hurdle to investing. Cost of living, unexpected expenses, and employment/income are the key challenges millennials face as they try to meet their financial goals.

7) The Impact FinTech is having on the Financial Services Industry in Ireland by John Gibson at Dublin Business School, 20th August 2015.

Every one of us has been affected or influenced with the latest technology in a variety of ways. FinTech is already revolutionizing the industry as hundreds of new start-ups design new innovative financial products and services for customers. On similar tracks of Ireland the research is to look into the financial services industry also in India and gain a much greater insight into where the industry is now and where it's going in the future. The thesis will aim get an understanding and develop further expert insight into FinTech and its affect that it's having on the financial services industry.

The ultimate aim of the research is to get an indepth understanding from industry experts and a political overview as to what impact FinTech will have on our financial services here in Ireland. Its technology is having an extensive impact on the world and financial technology is impacting the financial services industry. Which is on similar line of the Research Purpose for specific sector i.e mutual fund industry.

From the research it's very clear that the financial services have seen dramatic change over the last sixty year. Much of this change has come from the evolution of technology across every industry. Technology has grown at a rate that no one

could have predicted. Financial technology is no different and it's changing the way financial services interact with consumers This extensive reading illustrated how FinTech was impacting on the traditional financial services model globally and in Ireland or for most countries for that matter. The other side to the analysis is that FinTech will disrupt the traditional financial services model however; it's more likely to collaborate with the industry. The reasons behind this analogy is the banks are simply too big to disappear.

8) Automated strategies for investment management by James P. O'Shaughnessy Appl. No. 08/995,296, Greenwich, Conn. 06830, Dec. 20, 1997.

The innovation uses a computer to select corporate Stocks for investment. Fifty Stocks are selected from a database on the basis of certain criteria. The Stocks are allocated in same proportions, and the portfolio is rebalanced at the end of an annual term. A method of the present invention uses either a growth Strategy, a value Strategy, or both Strategies

Before computers, it was almost impossible to determine what Strategy guided the development of a portfolio.. The best one could do was look at portfolios in the most general ways. With computers, one can also test combinations of factors over long periods of time, showing what one can expect in the future from any given investment Strategy

This research contemplates a computer-readable medium having imprinted thereon a computer program containing instruction Step. Such that upon installation of Said computer program in a general purpose computer the methods of the present application could be performed. A Stock portfolio may be constructed which uses both Growth Model 3 and Value Model 3 in chosen proportion to one another. At the end of an annual term, the amount of money generated by the two Strategies is pooled and then re-invested in accordance with the chosen proportion (which may change over time).

9) Computer logic as a Confidant: Digital Investment Advice and the Fiduciary Standard by Nicole G. Iannarone, 93 Chi.-Kent L. Rev.141 (2018).

Proponents of digital investment advice, a platform also known as "robo-advisers," claim that they can provide fiduciary level investment advisory services at a fraction of the cost of traditional human investment advisers and more comfortably. The validity of the previous statement and to what extent it is true, is to be determined.

Robo-advisers operate through the information they receive from the end user, which is, in our case, the investor customer. In this way, robo-advisors differ very little from traditional investment advisers

Though "robo-adviser" is currently synonymous with innovation, the industry's swift growth may render the services it provides so ubiquitous that the term will fade away. Yet the means through which advice is provided is not fully understood and will continue to evolve.

10) Digital Computer System for a synthetic investment and risk management fund by Wayne F Perg, Anthony F. Herbst, New Market Solutions, LLC, US 2006/0116944 A1, Sierra Vista, AZ (US) Jun. 1, 2006.

The market for synthetic investment and risk management products (financial derivatives) has grown in less than three decades from Zero to notional values that

sometimes exceed the value of the underlying assets. The size of the worldwide swaps market alone is estimated to exceed $40 trillion today. Hence it's important to study this Topic.

In view of the foregoing, it is an objective of the present research to provide a computer system for operating and managing such an investment fund and to provide such a computer system for price determination in connection with such an investment fund.

Hence, this invention relates to a digital electrical data processing system for a process for operating and managing a synthetic investment and risk management fund, including the creation and servicing of one or more classes of interests in the Synthetic investment and risk management fund.

11) Reaching Goals by a Deadline: Digital Options and Continuous-Time Active Portfolio Management by Sad Browne, Columbia University 90A09/60H10, February 18, 1996.

Usually while managing portfolio one starts by finding the policy that maximizes the probability of reaching a given wealth level by a given fixed terminals like time and investment limit etc, Deadline or Target based portfolio is also an inherent part of Guided portfolios hence it's important to refer to the above research paper.

In this research, a basic model with multiple stocks and a risk-free asset with positive return is introduced and worked upon stepwise which involves providing optimal policy for the problem of maximizing the probability of reaching goal and then making digital representation and analyzing for its performances.

Ultimately by this system, one can evaluate whether a deadline oriented policy can beat the downside risk and optimum growth policy.

12) 'Mutual Fund Advisory Fees: The Cost of Conflicts of Interest' by John P. Freeman & Stewart L. Brown, The Journal of Corporation Law, New York, December 2016.

The Research is focusing on challenges to mutual fund industry, attention is on the industry's fee structure and the perceived inadequacy of mutual fund governance. This approach is of high concern for designing of guided mutual fund portfolio from sales point of view as the retail investors usually have high price sensitive

General Accounting Office, issued a detailed report finding that mutual funds generally do not attempt to compete on the basis of costs (i.e., price competition is muted).This Article examines whether the mutual funds &professional investment advice—is being systematically overpriced by fund managers. Research explains how the industry's unique management structure accounts for the alleged lack of price competition in the delivery of management advice. Example: there are various broking firm selling different financial product for fees varying extensively like 'Edelweiss' has considerable high brokerage but provides superior service whereas 'Zerodha' charges very less brokerage.

The gap between prices charged funds for advisory services versus prices fetched elsewhere in the economy for those same services represents the bill paid by fund shareholders for the advisory conflict of interest.

13) The Costs and Benefits of Performance Fees in Mutual Funds by Henri Servaes & Kari Sigurdsso, ECGI

working paper N588/2018 ,London December 2018.

Performance fee (PF) funds are controversial. On the one hand, they are aimed at improving performance by aligning the incentives of the portfolio manager with those of the investor, much like stock options or share ownership do for company executives.

Performance based fees of funds, have risk-adjusted returns of 0.50% below other funds, a result mostly due to funds without a stochastic benchmark against which performance is measured and funds with a benchmark that is easy to beat. Performance fee funds charges is on total expenses, including the performance fee, that are substantially higher than those of other funds.

Our results indicate that investors should pay particular attention to the benchmarks employed to compute whether performance fees are paid.

14) Method and system for exchange of financial investment advice by Kerimcan Engin and Robert Charles Osborne, Fortune Archives Appl. No.: 09/589.253, Jun. 7, 2000.

Various agents including authors of financial newsletters, financial planners, mutual fund managers and automated systems can produce financial investment advice. Financial investment advice can be distributed via newsletters, mutual funds, and automated investment advice tools on a network or through personal interaction. All serve the purpose of assisting investors in achieving personal investment objectives.

One problem with direct advice is the lack of a transparent marketplace for individual investors. Most advisors self-report their performance and often do not have a clear methodology for accommodating diverse styles and risk characteristics.

In order to reduce operational risk and Human error it is highly crucial to rely on a system whose advices can be calculated and analyzed hence methods and systems of exchange of financial advices must be understood thoroughly

15) Principle guided investing: The use of negative screens and its implications for green investors by Urs von Arx, WIF - Institute of Economic Research, Working Paper 05/45 November 2005.

This research paper assists examination on how green investors can induce firms to invest in cleaner production technology by using investment screens. Socially Responsible Investment (SRI)will have high probability of success. In case abatement costs are less and if the principle guided investors are numerous and have homogenous investment principles. We can understand the impact of this on Guided portfolios.

This paper sheds light on the questions of performance, transparency and sustainability (implying less pollution) under the assumptions that firms aim to maximize firm value and that green (SRI) investors use exclusionary screens. It is shown how SRI funds through the use of negative screens can, indirectly induce polluting firms to switch to a clean technology.

Empirical results of SRI vs conventional portfolios are still questionable so far. In any case, the model unequivocally predicts that principle guided investors incur opportunity costs by having portfolios which consist only of shares of clean firms, which deliver less return.

16) Effect of mutual funds characteristics on their performance

and trading strategy: A dynamic panel approach by Indrajeet Kaur, Cogent Economics & Finance, 6: 1493019, 2018. The present study deals effect of selected fund characteristics on its performance of the. Thus, earlier documented non-persistence in the performance of mutual funds could be due to not considering the dynamic effect of lagged dependent variable.

We examined this for Indian mutual funds as the industry has interesting trajectory of growth. The Government of India, offered the first equity mutual fund scheme, "Unit 64", to Indian investors by setting up "Unit Trust of India" (UTI) mutual fund. UTI suffered erosion of assets due to market crash in 2002 leading to severe payment crisis. This eroded faith of investors in mutual funds. Various characteristic under study viz. past performance, flow to funds, expense ratio, size of fund, portfolio turnover ratio & age of fund; were analyzed statistically to evaluate its effect on their performance.

the major contribution of the study has been that new and better insights could be developed about the existing relationshipbetweenfundcharacteristicsand performancebyapplyingdevelopmentsinthe estimation methods.

7. Research Methodology

7.1 Statement of Problem

Determining the relation between Fintech and Financial services, while making an attempt to analyze the impact of Fintech on Investment pattern of millennial investor in Mutual Funds and how it is better than the Traditional Financial Advisory System.

7.2 Hypothesis

On the basis of related literature review and on the basis of preliminary discussion among colleagues, senior faculty members and research guides, researcher has collected several aspects and facts related to the topic. On the basis of these initial discussions and learned opinion, researcher has formulated following hypotheses

H0: Advancement in Fintech has changed the Investment Pattern of Millennialsin Guided Mutual fund portfolios.

H1: Advancement in Fintech has not changed the Investment Pattern of Millennials in Guided Mutual fund portfolios

7.3 Research Design

Research design is an overall integration of identified and relevant components and data resulting in an appropriate outcome. To come up with accurate results, researcher must use statistical comparison methodology which is in line with type of research chosen.

In this study, the experimental research design was chosen in order to explore how the Guided mutual fund portfolio works and scope of making it more efficient.

Experimental research is conducted to explore better system. It is conducted to get better understanding about the problem, but will not deliver any conclusive result. Such research is carried out when the problem is at preliminary stage.

7.4 Sampling

Since focus is on investment behavior of millennials, not all respondents can give necessary relevant data hence Simple Random Sampling[v] method is used. It is one of the simplest sampling techniques suitable for this research. In this study, out of all the known contact some of them are chosen to test the hypothesis and thus

simple random sampling technique has been used.

Table 7.1 : Sampling

Particulars	Millennials/Budding investors	General Public
Universe	500	500
Sample	64	26

Source: Data collected by researcher

7.5 Data Collection:

Qualitative Research method focuses on obtaining data through open ended and conversational communication. The results of qualitative data are more descriptive and the inferences can be drawn quite easily from the data that is obtained. This combined with quantitative data yields better Results.

In this study, the data gathered was subjective as well as quantitative in nature. Questions were built on information gathered through primary, secondary sources and existing knowledge about the domain. Data was recorded in written format and documented with the help of electronic media.

- Data Collection Source: 1) Questionnaire circulated through WhatsApp.

2) Unstructured Personal Interviews.

- Type of Data –Primary and Secondary data
- Primary Data - Unstructured Questionnaire and unstructured Personal Interview.
- Secondary Data – Research papers and information from Internet

7.5 Data Analysis Tool:

The researcher in while doing this research has used Statistical Comparative Analysis method to analyze the data gathered. This technique is the most suitable for this research to transform data into information. This technique deals with generating graphical analysis of statistical data and the data obtained by the researcher is qualitative data and as the researcher went on interviewing and collecting data, he came across different aspects. All this aspects were interlinked to one another and hence it is most suitable way of finding out the linkage between those aspects and interpreting the results

8. Data Analysis and Interpretation

8.1 Following information is construed for the objective, "To determine the impact of Digitization in Financial sector on Investment Pattern."

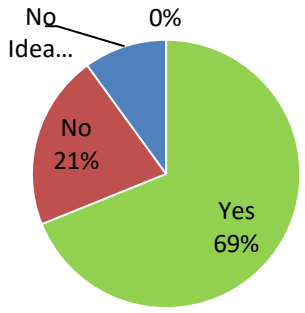
The researcher here has tried to analyze the behavioral impact of fintechi.e the changes in behavioral pattern of investment and psychological effects on the clients. Since majority are responses are coming from millennials from MITSOM college, it is bound to happen that there exist diversity in knowledge and experience based on rural or urban crowd ; some respondents may have considerable understanding of the research topic while some may be unfamiliar with it, which gives rise to following data :

Table 8.1: Perception of people towards impact of Digitization

Sr no.	Responses	Number of Responses
1	Yes	62
2	No	19
3	No idea	9

Source: Data collected by researcher

Graph 8.1: Perception of people about whether Digitization has impacted Financial sector



Source: Data collected by

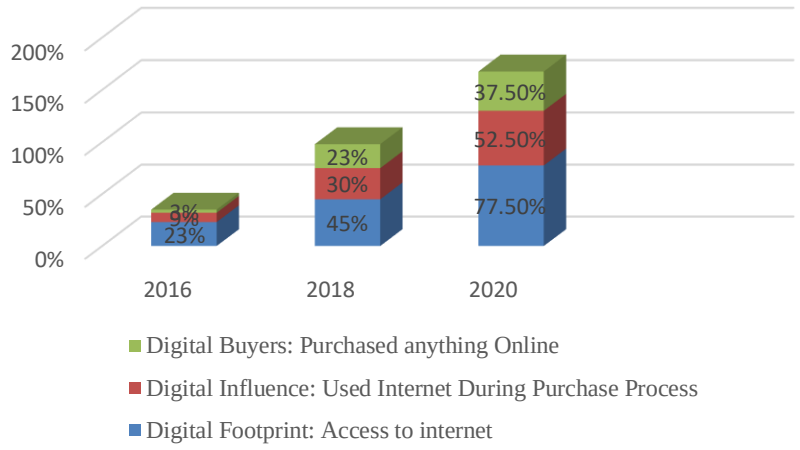
Analysis:

For the above question i.e 'Perception of people about whether Digitization has impacted Financial sector' , out of the total sample 62 respondents which computes to about 69 % agreed while 19 respondents which computes to 21% did not agree to it, this may be due to the understanding based on experience and knowledge . around 10 % respondents which corresponds to around 9 respondents had no opinion about it may be this section of respondents belong to rural crowd shifting to Pune for taking education and this section should be targeted with priority to run awareness campaign.

Table 8.2: Growth of Digital Transaction

Sr no	% Urban Consumers	2016	2018	2020
1	Digital Footprint: Access to internet	23%	45%	75-80%
2	Digital Influence: Used Internet During Purchase Process	9%	30%	50-55%
3	Digital Buyers: Purchased anything Online	3%	23%	35-40%

Graph 8.2 : Growth of Digital Transaction

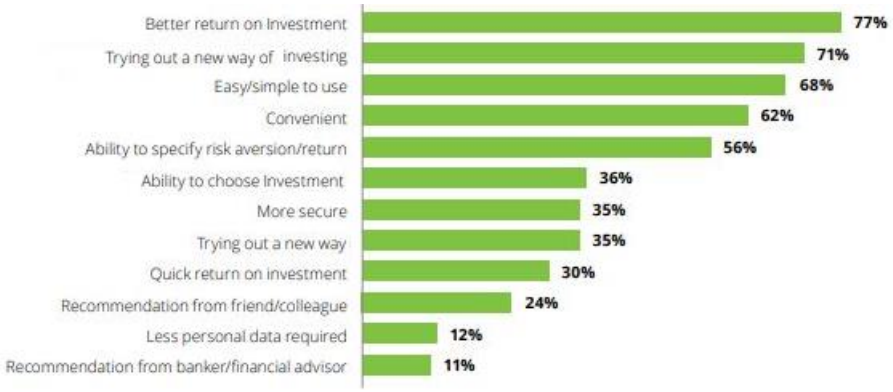


Analysis:

The above data reflects the percent growth under 3 headings viz. Digital Footprint: Access to internet, Digital Influence: Used Internet During Purchase Process and Digital Buyers: Purchased anything Online.

It shows the growth in Digital transactions i.e. availability, influence and actual utilization over the internet. Hence it is understood that acceptance of Fintech has been growing over the years due to advancement in digitization.

Graph8.3: 10 reasons to use digital advisory in investment



Source: Deloitte UK analysis

Analysis and Interpretation:

Above graph shows 10 reasons for using digital advisory or robo-advisory .according to researcher, following factors has impact on fintech compelling to above results:

1.Win-Win Scenarios for Fintech.
2.Technological Developments
3.Increasing User Adoption
4.Strong Governmental Support :

- Startup India Program
- India Stack
- Jan Dhan Yojana
- Aadhar Adoption
- National Payments Council of India Initiatives

5.Advantages due to Collaborations.
6.Revolutionized Sectors :

- Lending.
- Banking Tech.
- Insurance Technology.

8.2 Following information is construed for the objective, "To analyze the increasing affinity of Millennials towards Guided Mutual Fund Portfolio Investment".

The traditional advisory also termed as over the counter advisory is tedious and obsolete. Robo-advisors use Data Analytics to generate most suitable portfolio for the clients. Data analytics refers to an assortment of applications ranging from reporting and online analytical processing (OLAP), business intelligence (BI) to various types of advanced analytics. In a sense, it is similar to business analytics, another term for approaches to analyzing the data. No one single type of analytics is better than another and in fact they coexist with, and complement each other.

Figure8.1: Over the Counter Advisory

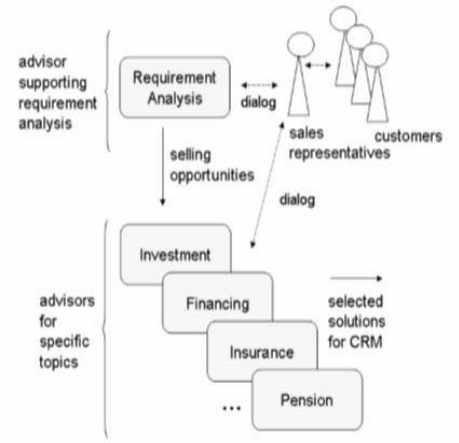


Table 8.3: Types of Analytics

	Passive	Active
Deductive	Descriptive	Diagnostic
Inductive	Predictive	Prescriptive

1. ***Descriptive:*** Insight into the past .Analytics, which uses data aggregation and data mining to provide insight into the past and answer: "What has happened?"
2. ***Diagnostic***: A set of techniques for determine what has happened and why?
3. ***Predictive***: It engages statistical models and forecast techniques to understand and predict the future to answer: "What could happen?" It provide estimates about the likelihood of a future outcome
4. ***Prescriptive***: It goes beyond descriptive and predictive models by recommending one or more action plan–along with showing the most likely outcome of each of the decision

As mentioned previously, Guided mutual portfolio belongs to prescriptive type of analytics. Based on the inputs given to the system, it analyses the past performance of multiple stocks and also diagnoses the reasons for such performances. Post predicting the future trends, it will suggest the most suitable basket of funds to invest in as per investor profile. Further there is scope for technology wherein the system will not just suggest but it will go ahead and take investment decision based on machine learning technology but since money is involved, its functionality is quite debatable.

Table 8.4: Proportion of Millennial respondents

Sr no	Category	Responses
1	Millennials	64
2	other	26

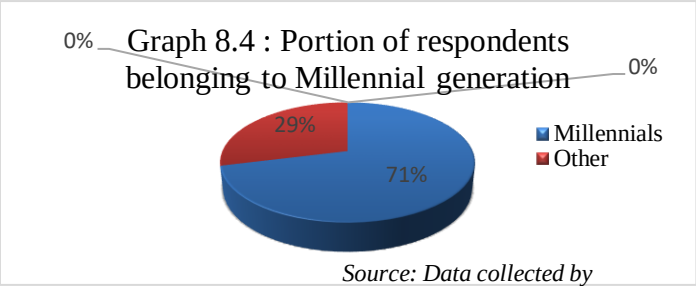


Table 8.5: Occupation of respondents

Sr. no	Category	Responses
1	Undertaking Education	43
2	Working	35
3	Home Maker	9
4	Retired	2
5	Not Earning	1

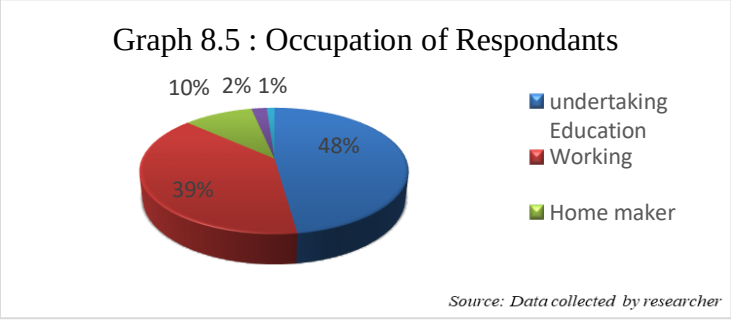


Table 8.6: Preference for computer logic based advisory

Sr no	Category	Responses
1	Yes	51
2	No	34
3	May be	5

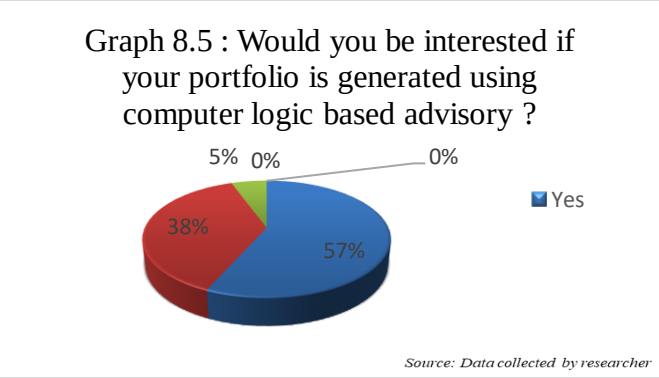
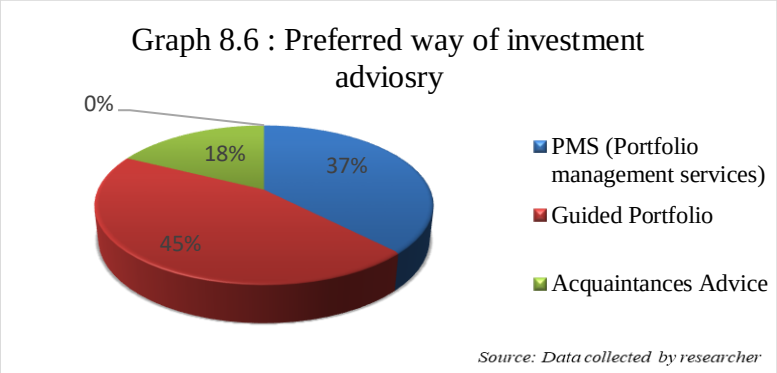


Table 8.7: Preferred way of investment advisory

Sr no	Category	Responses
1	PMS	32
2	Guided Portfolio	38
3	Acquaintances Advice	15



Analysis:

Initially the respondents were segregated based on whether or not they belong to the millennial generation since the research is more focused on the millennials, thus 64 respondent which occupies 71% of sample set, belong to millennial generation. Also the segregation of respondents was done based on their occupation, preferred way of investment advisory and inclination towards Digitally Guided Portfolios.

The people in India are becoming increasingly aware about new technology due to extensive use of mobile phones and social media along with advertisements of various schemes. While Most Millennials showed high affinity towards this Technological Marvel, Seniors and Retired individual preferred in traditional approach of PMS. At the same time, Home makers are hesitant towards investment due to cultural barriers, i.e they prefer to invest in gold, FD or Chit Funds. Millennials have limited or less liability so they can take more risk. along with this , the effective advisory fees is also very less and performance of the system is considerably good , owing to these reasons, there is high and increasing affinity towards Guided Portfolio

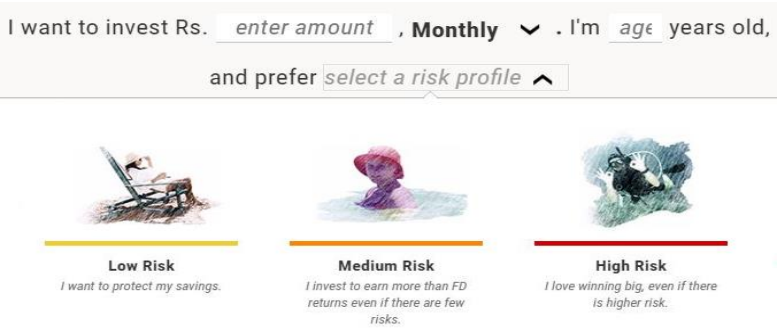
8.3 Following information is construed for the objective, "To develop more efficient guided mutual fund portfolio in comparison to existing system."

As mentioned above the traditional approach of advisory was totally dependent on knowledge and wisdom of the advisor managing the customers' portfolio. Hence the performance of investment involved high risk and also the advisory fee was considerably high due to scarcity of learned advisors. This system might sound unrealistic in current trend but this was actual scenario once upon a time.

Due to advancement in Financial technology, Guided mutual portfolio which is a digital advisory has gained recognition. other companies have also enabled similar services. Here, The customer needs to provide following few basic credentials to the system according to which the business intelligence system will suggest the best suitable portfolio:

- Amount to be invested.
- Frequency of the investment (monthly, quarterly, semi annually or annually).
- Age.
- Risk Profile (Low , Medium or High)

Figure 8.2: Guided Mutual Fund Portfolio Credentials



Source: www.edelweiss.in

Following can be the additional fields of information to be collected from Client.

- Town / City in which the client resides.
- Married or Unmarried.
- If married, then the occupation of the Spouse.
- Dependent Lineal ascendant and descendant.
- Ambition of the children.
- Physical Fitness status of investor.
- Desired brands for Car, Watch, Mobile, Clothing, Financial Services, etc.
- Owned Car
- Resides in Rented or Owned House property
- Existing Portfolio Profile.
- Existing Loans and liabilities
- **Example1 :**

Mr. Rahul Jain (age 26) , who is bachelor works in MNC in Pune with basic salary of 30000 rs per month out of which monthly savings is 18000 rs, resides with his parents who are independent on him ; in a 2BHK house owned by Father which is located in Koregaon Park area. He is a fitness freak wishes to pursue MS from foreign university in Future .what should be suitable portfolio of Mr. Rahul?

Solution: Characteristics of Rahul based on the given inputs:

- Age 26 years, Savings per month = 18000 rs.
- Growing Income with limited liabilities hence High Risk Appetite
- Good physical Fitness so less expenses on Health and High life expectancy.

- Moderately High Lifestyle and Expensive Future Plans Shows High expectations of returns.

Example 2:

Mr. Karan (age 34) is a businessmen residing with his wife and 1 daughter age 5 years in a rented flat, his monthly savings computes to rs 13000 per month on an average, he wants his daughter to become an engineer when she grows up. they are covered under family insurance policy and also has term plan, he wishes to buy Suzuki Swift in next 2 year, generate ideal portfolio for Mr. Karan.

Solution: Characteristics of Rahul based on the given inputs:

- Age 34 years, Savings per month = 13000 rs.
- High Income with Heavy Expenses along with considerable liabilities hence low to moderate Risk Appetite
- Family insurance policy and Term Plan so less expenses on Health.
- Average Lifestyle and Average Future Plans Shows Moderate expectations of returns.

Based on the database of the system or information fed to the processor, the guided portfolio will suggest the best mutual funds in equity as well as debt funds with best possible proportions to get efficient yields from investment.

Analysis:

According to the researcher, this information in insufficient for identifying the Risk profile or underlying factors of the investor to suggest any portfolio. Hence more information should be collected from the investor such as number of children, their aspirations, any long or short term liability, etc. (Refer annexure 1: Questionnaire). This will give us better understanding of the clients actual risk profile and other underlying factors, thus helping the system to generate better portfolio.

9. Findings :

After conducting the study and analyzing the gathered data, the researcher has found the following results:

- The people in Kothrud, Pune are becoming increasingly aware about new technology due to extensive use of mobile phones and social media along with advertisements of various schemes.
- With more input from clients (Information about risk, amount &duration) a better investment strategy is made using guided MF software. Clients are willing to provide this information for better portfolio and return.
- While Most Millennials showed high affinity towards this Technological Marvel, Seniors and Retired individual preferred in traditional approach of PMS. At the same time, Home makers are hesitant towards investment due to cultural barriers, i.e. they prefer to invest in gold, FD or Chit Funds.

10. Suggestions

The researcher has thoroughly conducted the study and after finding out the results, the researcher has made an attempt to suggest the following points to increase

the impact of digitization on Fintech industry.

- Improving the user interface will attract less tech-savvy people to invest in mutual fund. Special process for homemaker will attract more investment from female homemaker into SIPs.
- The existing system can collect more information from clients to generate better portfolio by analyzing the inherent characteristics
- Educating masses and promoting the Benefits of Guided Portfolio will definitely enlarge the market which is already available for the company.

11. Conclusion

The fundamental conclusion of this study is that, Since the global financial crisis of 2008 there has seen dramatic reform in the financial services industry around innovation and regulation Guided mutual fund portfolio is gaining acceptance in all sections of society while Millennials tend to show high affinity towards it. Fintech industry is expected to grow enormously in coming time and so government and financial institution should have increased awareness about its benefits. The obvious reality is the traditional financial services model has significantly changed over the past years due to the latest technological innovation thus reducing the entry barriers for Retail customers

[ii]Anyone born between 1981 and 1996 (ages 23 to 38 in 2019) is considered a Millennial,
[ii]Achieving maximum productivity with minimum wasted effort or expense
[iii]A marked effect or influence
[iv]Make the best or most effective use of
[v]Sampling technique where every item in the population has an even chance and likelihood of being selected in the sample