

# Robo Advisory Services: Emergence, Implementation and Future in India

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## ABSTRACT

Robo-Advisors refer to web and algorithm-based software platforms which offer fully automated financial investment advisory services without human intervention. These robo-advisors appeal to new-age investors as they provide simple user interface, online convenience, transparency, integrity and quality advice, free of bias. Robo-advisory is not a danger or a supplement for conventional off-line financial advisors who offer specialized investment guidance. Artificial intelligence is largely driven by human intelligence. Robo-advisory completely automatic method without human intervention is at a very early stage and already has a niche demand in India. In India, not only start-ups but also proven financial advisory firms such as Birla, Bajaj Securities, ICICI securities and Sanctum Wealth Management are optimistic and positive about the potential of robo-advisories in India and have begun to join this market either through in-house offerings or through collaborations with leading fund houses. The Indian stock sector is well governed and financial advisors seeking to offer robo-advisory services shall conform with the laws and regulations set out in the SEBI (Investment Advisors) Regulations for 2013.

## Keywords

investors, regulations, services, robo-advisors

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## Introduction

India is a developing economy growing at a fast rate compared to other Asian Economies. India's asset management and financial planning sector has started to utilize digital tools to offer completely integrated investment services without any human involvement. Such investment advisory firms are Robo-advisors. Robo-Advisors was the product of the "Fintech Movement" in India, a fusion between finance and technology. Robo-advisory is a financial advice framework by Artificial Intelligence that provides a range of automated financial strategies focused on pre-programmed, pre-designed and pre-structured formulas or mathematical laws (Meola, Andrew (2017)).

Origin of the word 'robotics' comes from electronics. It is a system where robots (machines) are used for industrial purposes. A robo-advisor is therefore a system or an environment, and not an individual or human being. Robots may work in dangerous conditions as needed by the military. Robots don't get upset at uninformed consumers, don't seek wage rises, don't join groups to protest, don't get lazy, don't get dozy at work, etc.

The 'robo-advisor' is a very recent common customer support app. Through robo-advisors, consumers can receive sensitive guidance by supplying account username information, e.g.

email, password and extra redundant verification details (such as immediate phone call or secret code text message, etc.). They will not need guidance from a human. Assistance will be provided by the key in the required knowledge parameters. In financial world, a Robo-Advisor is a device which has advanced financial applications, supported by a graphical user interface which is user friendly in order to calibrate investments in accordance with consumer expectations and risk perception (Gail McGiffin (2018)).

Robo Investment App helps the investors to constantly adjust and optimize their online investment to fulfil their short-term investing plan and long-term financial goals. Since the robot program is based on the experience of multiple similar clients, its recommendation is more unbiased than the human counsellor (Lieber, Ron (2014)).

In contrast to human consultants, the main robo-advisors are often responsible to ensure continuous rebalance of fund. Humans are prone to make errors and be subjective. In addition to this, it is often time-consuming when human consultants handle the work. Robo advisors have an advantage also because of their unbiasedness. Financial planners provide the same programs, but are often not able to do so with the same consistency as robo-advisors. The problem with

such tools is that robo-advisors are not nostalgic. This is because in addition to real results, the stock market fluctuates with timely emotions. Human counselors may offer emotional guidance not given by robo-advisors. Robo-advisors and conventional financial consultants will often co-exist.

Capacity is projected to develop into increasingly sophisticated services in the future, such as automated asset transfers and expanded coverage through different asset groups such as real estate. For example, in the American Wealth Management industry, the Robo-Advisor handled total assets under management (AUM) exceeding \$400 billion in 2018 and is expected to grow at an average rate of 31%, touching \$1.5 trillion by 2023. Some reports predict that the AUM of robo advisors will continue to expand in the years to come. It is expected to increase to 10 % of global investment assets by 2020. (Business Insider 2017)

Robo Advisory incorporates the principles of traditional decision-making models such as the conventional fund method and the capital asset pricing model (CAPM) that utilizes the risk profile and relevant feedback. Investors are believed to be generally risk-averse and to not accept excessive risk even if they determine that higher anticipated returns would reward them. Some of the main conclusions of conventional portfolio theory is that, under the principles of the CAPM (Sharpe 1964), all investors invest in a mix of assets with the least chance of a desired return on their money. The investor's assessment is required in order for the ability and willingness to take financial risk. The key defining characteristic of danger ability is that it is fairly resilient to social manipulation or to contextual experience (Barbara A. Friedberg (2018)).

At the other side, risk tolerance can be interpreted as a mixture of behavioural characteristics and cognitive and danger reactions, where the degree of psychological or emotional distress felt by participants in the face of financial failure can be calculated. Such subjective considerations are perhaps much more relevant for professionals to consider than the quantitative economic conditions of the investor; nevertheless, they are more challenging to quantify. The risk profiler evaluation should be performed by a test to ascertain the amount of danger that the client should bear and able to accept. While this strategy

is outdated and can be extremely inefficient, it is by far the most commonly employed form of active and passive wealth management.

To make it more effective, a range of approaches may be used to make it more efficient, such as continuity between answers. The less reliable the responses, the less risk-tolerant the consumer is likely to be. For example, if a person is able to take a lot of risk in one situation and too little in another, then he or she is unreliable and is thus given a lower risk tolerance score than the standard weighted average of his or her responses. Weighting can also be assigned to the social profile of investors, their assets and liabilities, their potential revenue projections and adjustments in their consumption habits and life events. The investment goal chosen can also be a significant element in determining the risk appetite. Of starters, the better the opportunity to retain the extra money for a target, the greater the risk the investor may face. Conversely, if the anticipated profit is less than the goal, the borrower cannot afford to take a lot of risk on the project (Davis, Andrea (2016)).

Robo-advisors are highly trained and professional systems that use predefined and standardized algorithm and analytics that take investor details as inputs and produce performance in the form of a formal financial strategy with an asset distribution based on various requirements and parameters. Such research algorithms use agile, customer-driven mechanical and iterative methods which provide a range of configurations which permutations planned and evaluated in various business environments and periods.

Customers may get the right advice on their condition by well-designed and optimized robo-advisory systems, while mitigating their chance of investing in the wrong tool. The investor will open an online account and fill out a questionnaire providing details about his identity, risk level, investment time and the sum to be invested. The algorithm performs all the research, asset selection, proposes a sequence of options, steps and approaches that are suitable for each investor and finally decides the best portfolio to match the investor's financial interests, the short-term and long-term goals. Suppose an investor decides to invest in mutual funds or launch a systematic investment plan (SIP) in mutual funds. Robo-advisors can advise him accordingly on the basis

of algorithms explicitly designed to meet investment requirements.

As a consequence, separate robo-advisors can suggest different investment tools for specific objectives based on their own algorithm. Again, the investor is not expected to obey the advice provided by these Robo-advisories. Robo-advisor, on the other side, offers investors the choice of selecting an active or conservative strategy that the client is confident with. The investor will access, log, control and adjust his or her investment and investments if and when appropriate. A user can get a free account as well as links to a financial adviser. Throughout the case, human beings run a technology-based network. At some point, the investor is starting to get the help of real people.

The Robo-Advisory provides investment and tax savings advice, manages and rebalances investment portfolios and generates best return plans for investors in terms of age, financial objectives, time horizon, investment surplus and risk appetite. Quite stringent checks and processes are in order to ensure that all guidance received by the app is in the best interest of the consumer. The portfolio may be rebalanced algorithmically continuously or remain untouched in order to obtain the desired return.

## LITERATURE REVIEW

Narayanan, Aparna (June 27, 2016) addresses the function and advantages of utilizing Robo Consultants. Artificial intelligence has taken root in every aspect of our lives. Significant advancement has been made in the area of pattern detection, computational data processing and the usage of self-learning algorithms. To order to handle the increasing growth in data sizes, we need to make similar advances in the area of technology. This ensures that we need qualified technology tools to handle financial details, to provide clients with smart advice strategies and to be equipped to cope with the data opportunities that will pose problems in the future.

In 2017, T. Rowe Price, an American Investment Management firm started selling a robot planner, ActivePlus Portfolios, reflecting its focus on active fund management. Extra charges for wealth advisory services were not applicable. This Robo-planner and advisor was available to investors with at least \$50,000 in funds operated through this software (Kits 2017c). The software just

handled IRA capital, and there were presumably no tax repercussions involved with trading.

The reality that it handled just the funds saved in an IRA with a cap of \$50,000 made the program impractical for younger investors. The plan included a call-in center where clients could speak to advisors, as well as internet links to project managers. The platform helped the customer to see whether the distribution of a fund between stocks and fixed incomes will differ on the basis of the personal details given (T. Rowe Price 2017). For instance, the program suggested that an individual aged 25 with medium risk tolerance invest in a portfolio consisting of 88.5% of stocks and 11.5% of bonds, whereas an individual with a similar risk tolerance at age 67 was informed to put funds into a portfolio of 58.5% stocks and 41.5% fixed income.

In 2017, Wells Fargo started providing a robo-advisor program, with a total commitment of \$10,000. This became a proprietary company providing retail investors the chance to talk to a specialist. It sold seven separate investments, with a cost of 50 basis points, together with the risk expenditure ratio and the consulting charge (Saacks 2017).

Many robo-advisors provide customized tools to target consumer or focus classes. For starters, since the financial advisory business is inherently masculine in its service offerings, some robo-advisors concentrated more on appealing to the female demographic. In 2015, SheCapital was established to address the unique needs of women investors (Malito 2015), but the company shut down after one year due to its inability to draw a large number of customers (Malito 2016).

In 2016, Ellevest started providing for ladies as a robo-advisor. The main thought behind the venture was that, since females face pay gaps, career breaks and in general have higher life expectancy than males, they tend to require plans tailored to their specific investment goals compared to individuals of the same generation (Weisser 2016). The Ellevest demographic is accomplished — over 40% hold a graduate degree or a doctorate (Ellevest 2017).

## Scope of the Report

Robo-advisory systems are computer tools, similar to automatic, financial planning systems, driven by algorithms and with next to zero human oversight. With the help of an anonymous survey, a Robo-advisor gathers financial information from

investors, including their current financial position and potential financial goals and targets. It then aggregates the data assembled and utilizes it to offer guidance and eventually spends client funds. Robo-advisory services include resources such as simple account configuration, comprehensive target setting, investment processing, fund monitoring and protection functionality, as well as on-going low-cost customer support.

### Implementing Robo Advisors

Either custom-built or off-the-shelf, the design of the Robo Advisory program entails a range of difficulties and challenges. Seamless alignment with current applications, a quick and easy user experience, efficient navigation, low error levels, safe access, constant uptime, higher efficiency are only some of the benefits that Robo Advisory has to deliver. In addition to that, becoming a hub to the digital web, the opportunity and carry out innovative functionality would shift the game and remain ahead of the market. The company will then be willing to transition to agile growth and training activities if they have not already done so. For so many challenges ahead, the last thing companies want is an old research method that doesn't fulfill the needs of scale and is accurate and successful.

At a research point of view, Robo Advisors are creating a number of obstacles. Being a portal accessible to customers through digital channels, usability, functionality, protection, reliability and accessibility are some of the main aspects of product quality that need a strong emphasis on top-of-the-line technical quality and smooth incorporation of services that need thorough testing at a minimum. The other major obstacle for Robo Advisors research, of course, is the various data types of client accounts that need to be checked. And not to forget, all of the experiments listed above would need to fit into the limited window allotted for research, so that is where a good test automation will come in handy. Telemarketing is another field that deliberately investigates and uses robo advisors to assist the customers in opening their accounts and for creating long-term deposits. It removes the need for contact centers. Unlike humans who can query the customer for contact details and return to the customer at a later date, the chatbot has instant responses. Historically, "chatboxes" were text-oriented where a live human being communicated

with the recipient. Since the introduction of high-speed processing technology, the current and future of banking looks exciting. Machine learning utilizes natural language processing (NLP) which utilizes examples to train chatbots. Early users of chatbots are expected to have an advantage over banks who utilize outdated manual question processing or searching through webpages to check for the correct details. Future voice-oriented chatbots are starting to emerge, as chatbots become in vogue.

Robo Advisor is an electronic consulting network or an online forum where robot guidance is focused on machine trading. You can get financial services online and handle your investments quickly without any human interference. Robo-advisory companies are subject to SEBI (Investment Advisors) Guidelines, 2013. SEBI released a briefing report on regulatory criteria for the same in October 2016. This acknowledged that the investor's risk assessment is mandatory and that any investment given with investment guidance is acceptable to the client's risk profile.

As indicated by Statista, the current assets under management (AUM) in the robo-advisory market in India add up to US\$ 42 million (as of 2019). In fact, the AUM is predicted to witness a compound annual growth rate (CAGR) of 36.2 %, closing in at an estimated US\$ 145 million by 2023. Compared to robo-advisors worldwide, where firms including Betterment, Wealthfront, Vanguard and Nutmeg have now reached over US\$ 30-40 billion in AUM, we are only at a nascent level.

The following are a few robo-financial advisors in India that provide their clients with personalized financial planning and investment services.

- Fundsindia
- Scripbox
- Arthayantra
- Invezta
- Goalwise
- Advisesure
- Wixifi
- Bharosaclub
- RoboAdviso

The Robo-advisory industry is projected to encounter a CAGR of around 50 percent from the period (2020-2025). The quick digitization occurring in the BFSI business has optimized the



development of digital investments in which Robo-counsels assume a key part. These services offer incredible incentive to latent passive investors who needn't bother with individual control of their portfolio development.

- Enterprises and business operations in the end-user programs are on the path to rapid and continuous transformation and are the catalyst for the use of Robo advisory services. These programs substitute human effort with online networks, providing the same resources at a fraction of the cost. As long as the internet connection of the user is active, the services are available 24/7.

- Local players in many developing countries are being pushed to carefully study and test the Robo advisory services. These initiatives are expected to act as drivers of overall market growth in these economies. For example, in Saudi Arabia, the Wahed Capital and Haseed Investing Company have been approved by the Saudi Arabian Capital Markets Authority (CMA) to evaluate its' Robo advisory services. This is in line with the country's policy to encourage financial technology in its economy.

- However, as a consequence of global coronavirus outbreaks, lock-downs and industry volatility, B2B Robo-advisors, automated finance, financial advisory and fund management are growing internationally. Several organizations announced a rise in investors' digital investment activities in the first quarter of 2020 relative to 2019. For starters, Betterment LLC announced a 25 per cent rise in the amount of account opens, while Wealthfront Inc. recorded an estimated 68 per cent growth in digital trading activities after the market decline.

It is important that companies adopting the Robo Advisory Program recognize all of the considerations listed above when designing a test plan. Although integrated test automation is essential as the foundation of the test strategy, enterprises should always take into account the scalability and usability of the tools themselves in order to create a stable and long-lasting automation solution. Such an all-encompassing strategy can only be a great complement to the product's quality lightning speed turnaround time. Robo-advisor is not a threat, but a resource to make people function more effectively. Machine learning techniques are used to derive information from massive data sets and support clients

effectively. The mixture of person and robo-advisors is an environment. Robo-advisors may also be used to prepare staff and supervisors to get on board faster and operate more effectively.

For the future, banking protection is of extreme importance. User ID, password, double authentication can no longer be needed. Smart phones now possess the capacities of voice-recognition microphones, thumb-press buttons, face-recognition sensors, iris eye expression (to differentiate between two identical faces in the case of twins or not), and other biometric details. India became the first nation to have a single Aadhaar ID card – which is way more comprehensive than the US Social Security Passport.

There is little research or details about whether opinion analysis is to be utilized in banking. This is worth investigating as part of the biometric knowledge for the prevention of fraud. Current forecasts (supervised learning) rely on previous results, forecast potential developments in social media, news patterns, etc. For fact, this is achieved in an ad hoc way in practice. Machine learning could be utilized for its formulation. While machine learning is currently being used by thousands of businesses around the world, it's entire potential has not yet been tapped.

### **Investment Advisory Expected to Gain Maximum Traction**

- Robo-advisers primarily provide services relevant to the personal financial situation and wealth of the individual investor. They are swiftly covering holes generated by human investment consultants, and expense, primarily due to the rise in digitization in the investment sector, combined with the introduction of robotics AI.

- Everywhere in the world, FinTech depends on technology and personal counsel. The industry players are rapidly creating robo-advisory services through innovations like artificial intelligence and Machine Learning, to furnish institutional investors with solid and direct guidance, which will stop them from making wrong investment choices.

- In July 2019, Voya Financials, a USA based financial services company went robo and unveiled a platform, a hybrid robot-advisor, intended to help its advisors become more effective and have a better interaction with their broker-dealers. The hybrid platform of the

business would have an edge as it is not a direct-to-consumer product.

### **Benefits of Robo-Advisory services:**

- This platform is suitable for new-age investors who are comfortable with technology-based financial solutions for all their financial needs.
- They are online and transparent portals with 24/7 accessibility. The client is not required to make or wait for the financial planner to be appointed beforehand. At the same time, due to the transparent nature of the website and the digital interface, it is simple for the investor to measure the return on investment against the target and to assess the success of the project towards the achievement of the financial objective.
- These online platforms are easy to operate and user-friendly.
- Suitable for investors who want a simple user interface, online convenience, transparency and platform integrity.
- Suitable for retail investors who have a simple portfolio and have no experience in financial investment.
- Fees are smaller compared to traditional financial advisors and managers. Experienced investment planners bill exorbitantly in the form of annual payments for tailored guidance, as a percentage dependent on the amount of assets or as a recurring remuneration for the upkeep of the fund. Most of the robo-advisories and Fin-tech start-ups offer free services to clients and charge commissions from mutual fund houses and distributors.
- This has menu-based numerous investment choices with limited human interaction and interference and is purely rule-based resulting in more rational decision-making.
- Helps to eradicate individual uncertainty and personal prejudice, rendering the process more unbiased. Everything is managed by an algorithm. The algorithm is based entirely on scientific concepts, is distinguished by impartiality and is free of any emotional dimension.
- This technology can have access to a much wider market, especially for middle-class or working-class buyers who have not yet been able to afford an expensive wealth advisor.
- Most investment advisors do not take financial decisions in the interest of investors due to incompetence or lack of ethics. The risk of such

financial loss is reduced in the Robo-Advisory System.

- No or small minimum investment is needed. For the first time, however, it could be useful to developers and small investors or young middle class who choose to spend small sums initially against the advice of a skilled financial advisor that may only support high net worth individuals.

### **Limitations of using Robo Advisors**

Robo consultants are new, simple to use and provide streamlined investment strategies. Yet they're no fool's evidence. They've had a range of drawbacks like –

- There are periods that investors need guidance outside capital. These can also include the inclusion of economy, tax and estate policies. Such requests should only be complied with by a professional human lawyer and not by a robo lawyer.
- Many clients need a face-to-face interaction with the counselor, which is not feasible in the case of a robo counselor.
- Robo advisors ought to be reprogrammed for any adjustment of investing laws or strategies that require time, resources and energy. Human counselors, on the other side, continue to make use of the changes with immediate effect.

### **CONCLUSION**

Standard securities companies provide unique perspectives, provide a range of investing resources and provide personalized guidance.

Digitalisation does not serve as a replacement for an intimate partnership, but complements it by leveraging consumer data to create a financial strategy specifically to satisfy the expectations and goals of the buyer. Established financial consultants give their clients a hybrid model that blends the expertise, knowledge and customized support of conventional financial planners with the flexibility, user-friendliness, miniscule-fee, pure-logic trading framework, completely integrated and innovative technology of robo-advisors. A client can opt for a passive asset allocation system or aggressive asset management models.

According to a 2017 study published by Kotak Wealth Management titled 'Top of the Pyramid', it was discovered that the ultra-high net worth individuals (UHNIs) in India prefer to communicate with their wealth managers and go

for conventional financial advisory services that allow them to have a close relationship with the professionals who manage their investments. It was also found that 34% of the UHNI's claimed to know about Robo advisory services, but did not make use of them. 25% of the UHNI's making use of the Robo advisors, valued them for their 'time-saving' abilities

This is a group of financial planners who claim that they would lose business with the emergence and development of robo-advisors, which is nothing more than a machine algorithm. It is even a segment of investors who agree that financial guidance should not be expensive and that the investing sector should be more available to either middle-income or working-class investors. Many HNIs assume that because customers have more money and resources, they are more inclined to seek the services of a financial planner than to trust a robot with their fortunes. Robo-advisors will certainly take part in the business of traditional investment and consulting firms, but at the same time there will be investors who will always prefer to talk to a real person, not a computer program.

Robo's consulting programs have the ability to provide private investors with personalized investing strategies at a reasonably low cost and at the same time dramatically reduce behavioural financial prejudice.

Although it might be better for end-users, this method requires the development of all potential portfolio composition configurations and the collection of portfolios with the least risk at a specified amount of anticipated return, taking into consideration the distribution of all variables.

The predicted return is calculated using CAPM where the planner will apply a risk premium depending on the various variables weighed when the risk is denominated in the type of covariance. It will also recognize the particular investment goals of investors to produce return projections and the sum of risk must be taken along with numerous other relevant inputs, such as the investor's risk profile and investment priorities, with the sole purpose of determining a reasonable investment allocation without any human interference.

### Recommendations

Automation or no automation, there are growing parts of society who often favor a human advisory

model and operate in a conventional way. Adapting to this kind of technologies will require some time to develop. In addition to robo-planning services, investment management and financial planning firms will still offer clients a human contact as asset managers.

Gradually, based on customer faith, trust and familiarity in this emerging technology, businesses will start providing automatic advice coupled with human advisory service capabilities. Compared to other developing countries, India's robo-advisory industry is also in its infancy. This has development opportunities, though, and the robo-advisory industry in India will flourish in the future.

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