ROBO-ADVISOR ECONOMICS

Eugene L.X. Wong
Pratt School of Engineering
Duke University
Durham, NC 27708
eugene.wong@duke.edu

ABSTRACT

The debate of whether robo-advisors can be a sustainable business raises a need for an in-depth analysis of the survivability and the long-term profitability of this service. The objective of this paper is to provide the author’s position on the short to mid-term prospects of robo-advisors, an understanding of the turn of fortune created from the evolutionary business models, and the foreseeable challenges in the wealth management and financial advisory sector. The author’s position was formulated with reference to the following papers: "Hungry Robo-Advisors Are Eyeing Wealth Management Assets", published in 2015 and "Robo-Advisor Upgrade! Installing a Program for Profitability: Digital Advice Raises Profits for Investment Services Industry", published in 2018.

1 Introduction

With the increasing rise of robo-advisors in the market, the debate surrounding the competition between traditional advisors and robo-advisors forces a need for an in-depth analysis of the survivability and the long-term profit outlook of these companies. These two papers, "Hungry Robo-Advisors Are Eyeing Wealth Management Assets", published in 2015 and "Robo-Advisor Upgrade! Installing a Program for Profitability: Digital Advice Raises Profits for Investment Services Industry", published in 2018, provided an analysis of why robo-advisors are unlikely to strive in the current market (in year 2015) and why the evolution of the robo-advisor’s business model has created a solid path to profitability. Interestingly, both papers had conclusions that were paradoxical to each other. The papers devoted their attention to three main factors that are crucial to the survivability and profitability of robo-advisors, namely, client acquisition costs, ongoing costs of servicing clients, and the revenue yield on client assets. With reference to these papers, the author strongly believes that robo-advisors can strive in the market through the establishment of its position in different forms such as being an independent entity, a partnership with another financial institution or being co-opted within a financial institution. In addition, given the continued evolution in the technologies and business models behind robo-advisors, new strategies will continue to be devised to create new competitive advantages over existing traditional advisors.

2 Robo-advisors with a competitive position

2.1 Growth at a lower customer acquisition cost

Given the relatively inexpensive fees charged, without a substantial amount of assets under management, the robo-advisor’s net income will be negative. In other words, the business will be operating at a loss and is doomed to fail. The scaling of clients’ assets is therefore paramount to the profitability and more importantly, survivability of the robo-advisor. There are three approaches to address growth: grow slowly while sourcing for new capital, form partnerships with established institutions or grow quickly by increasing advertisements. For a robo-advisor to remain an independent equity, it is pressured on two ends of the spectrum. On one end, if the robo-advisor does not grow quickly, it may have to give up some ownership of the firm to the venture capitalist in exchange for capital. On the other end, in order to acquire new users, advertisement is necessary to increase its outreach. However, marketing is a capital-intensive process and the outlook to payback might take a decade or more for most robo-advisors based on current assumptions. For example, given that the gross cost to acquire a new user is approximately $300, Betterment
and Wealthfront would need an estimated range of $16 billion to $40 billion of client assets to reach the break-even profitability point. This will translate to an additional $40 million needed to spend on advertisements by each company. While this is within the reach of Betterment and Wealthfront since they leading players in the market, it is an enormous obstacle for most robo-advisors that are not able to raise capital for marketing expenses. Besides the route to growth via advertisements, there are four strategies that can achieve a lower cost of customer acquisition, namely, partnering with an established firm, cross-selling services to existing customers, developing a lead-generation tool, and specifically acquiring clients with higher account balances.

- Partnership with an established firm – Leveraging the partnership can provide access to potential clients at a low cost. However, there are also trade-offs such as constraints enforced by the third party, sharing of profits and recurring payments in the long-term.

- Cross-selling services – Established financial institutions may be able to retain existing clients thinking of transferring to a third party robo-advisor by providing a similar service. Also, robo-advisor is an ideal solution for clients who do not trade often, especially since the service provided by a human advisor is likely to be more expensive. The accompanied trade-off is the cannibalization of other higher revenue yielding products, which might lead to lower profits.

- Developing a lead-generation tool – Captures users to join platform, as well as their data with the allure of free tools. It also expands the business model through software licensing and subadvisor fees from business partnerships. The trade-offs are the building and maintenance cost of these tools, and the sales cost to convert users into paying customers.

- Acquiring clients with higher account balance – Acquiring clients with higher asset balance accounts is more cost effective as compared to acquiring higher number of users with little asset balance. The strategy to acquire clients with higher asset balance includes increased benefits such as purchase of individual stocks, personalized financial consulting on a wider range of assets and etc.

The author believes that the multifaceted approach has allowed more robo-advisors to utilize a new business model or a potential combination of different models to seek growth. The common used approach of scaling only through advertisements may not be replicable for the other robo-advisors. For most robo-advisors, it is a zero-sum game since the funds required to increase marketing expenses will devour into the funds needed for the operations. It is a high likelihood that the capital would have been fully consumed before the company can even reach the break-even point. In comparison, these new strategies reduce the dependency on advertisements and increases the focus on the products and services. For example, building tools that can enrich and attract users to utilize their platforms, and the creation of products that is associated with exclusive perks for high account balance are some ways to attract users without blowing the capital. While it is safe to say that no strategy is free from trade-offs, the proposed strategies avoids the colossal cost incurred from the advertisement only strategy. In addition, some of these strategies place more emphasis on the products and services, which may build stronger trust and increase retention of users in the long-term.

2.2 Reduction in operation cost

The key difference in the operation cost between a traditional advisor and online brokerage lies in the compensation-client assets ratio. Consequently, this was reflected in the higher expense ratio of above 50 basis points as in the case of Morgan Stanley’s asset management service, and the lower expense ratio of between 10 to 20 basis points for online brokerages such as Charles Schwab, E*Trade and TD Ameritrade. Similar to online brokerages, robo-advisors must be able to achieve a total expense ratio of less than 25 basis points to be profitable as it scales. The main issue in scaling hybrid robo-advisors lies in the compensation expense needed to reward human advisors, which is relatively high since it’s computed based on the percentage of the revenue generated. As such, the compensation package has to be restructured so that expenses remain relatively low and more predictable as the robo-advisor scales. The shift from compensation as a percentage of revenue generated to a fixed salary with discretionary bonus can bring the total costs low enough to be profitable at lower fee rates charged.

The author supports the logic of matching robo-advisor’s fees to online brokerage fees because the technology infrastructure, cost structure and service is similar between them. Consequently, the tipping point in the decision-making process of the client to decide between the two platforms will likely be the price. As such, it is important for the robo-advisor’s fee rate to be low so as to remain competitive against online brokerages and traditional advisors, but yet able to achieve profitability in the long run.
2.3 Expanded service offering and higher revenue yields

The low basis-point expense ratio and the high asset under management is crucial to reach the break-even point. However, there are also other factors that should be considered to increase revenue such as the adjustment of the fee structure, upsell client to transit from a pure robo-advisor only approach to a hybrid robo-advisor, cross-sell of products and services, and the utilization of proprietary products in investment portfolios.

- Adjustment of fee structure – Some robo-advisors have implemented a flat fee regardless of the account balance. The logic lies in the fact that a higher fee rate with a low account balance will not return the same margin as a higher fee rate with a high account balance. With the higher fee rate for accounts with high balance, it can effectively generate more and offset the acquisition of accounts with low balance. In addition, there is also an added effect whereby premium plans (higher fee rate compared to the flat fee rate) targeting high account balance users will seem more reasonable given the reduced price disparity between the fees charged.

- Upsell clients to a hybrid robo-advisor solution – Hybrid robo-advisor solutions usually charge higher fee rates for exclusive access to certified financial planners and extended guidance on assets (e.g. insurance, real estate) offered beyond the robo-advisor’s portfolio. Although the premium fee rate is significantly higher (e.g. in case of Betterment, it is 1.6 times more than the flat fee rate), it is still relatively cheaper compared to the engagement cost of an external human advisor. Moreover, at a premium rate, some robo-advisors provide personalized portfolios that incorporates the recommendation of both the robo-advisor and the human advisor, tailoring to the clients’ needs.

- Cross-selling of products and services – Some robo-advisors may extend their offerings beyond the hybrid solutions. For example, the provision of fully managed portfolios at a premium fee rate, and the availability of credit loans where clients can borrow at attractive rates (depending on the robo-advisor) to fund their portfolio investments.

- Proprietary products in investment portfolios – Robo-advisors may allocate propriety products into the portfolio, generating full profits from trading it’s propriety product rather than just commissions it receives from processing trades. In addition, robo-advisors such as Charles Schwab has a bank subsidiary that enables cash allocation to be deposited there. The deposits can then be re-invested to generate further income.

The author believes that these strategies are key to increase revenue significantly, especially since the barrier to implement them is not high, and they can be implemented simultaneously to generate the maximum revenue at any point in time. For example, the restructuring of the fee structure requires only the reallocation of the profit source with little or no impact to the present infrastructure. The key question is, should the robo-advisor earn more from the masses where these accounts have a low balance, or from the limited quantity but high balance accounts? The hybrid robo-advisor solution is a conflicted one because it is more likely to incur higher operation cost. However, the author believes that if matched with the appropriate fee rates, it can be attractive to the clients and also be profitable to the company. This allows the hybrid robo-advisor to expand into more markets that were once unreachable by a standalone robo-advisor. The author supports a holistic strategy in combining personalized portfolios with proprietary products. Essentially, this strategy kills two birds with one stone as users will be charged a higher fee rate while drawing maximum returns from trades of proprietary products. In conclusion, no strategy needs to be exclusive to one another, and should be implemented simultaneously if resources are sufficient. Ultimately, all robo-advisors have the same universal goal which is to reach the break-even point, and after, to achieve profitability as soon as possible.

3 Challenges to robo-advisors

3.1 Customers switching from traditional advisors to robo-advisors

Established financial institutions have a competitive advantage through its intangible assets and switching costs. Intangible assets such brand, capabilities, products, and perceived status may require an extended history to be built up before a robo-advisor can achieve the same feat. In addition, the financial advisors have a personal connection to the client which may not be replicable in a standalone robo-advisor. Most robo-advisors have a limited scope of the kind of assets that they can manage. For example, real estate and insurance are some assets beyond the coverage of the robo-advisors. Consequently, the robo-advisor may not be able to decide the optimal investment strategy without the full picture. Due to the several considerations, customers will take precautionary steps in assessing the benefits and trade-offs before deciding the switch. As discussed, the management fee rates or price may not be the deciding factor in the decision-making process. After all, these users are already utilizing the existing services and can be assumed to have sufficient wealth to overlook the price disparity between traditional advisors and robo-advisors.
3.2 Co-opt of robo-advisors in traditional financial institutions

Established firms such as Charles Schwab and Vanguard jumped into the fray of robo-advisors in the mid-2020s. These firms were able to leverage on its brand and existing customer base to accumulate more assets. For example, the client acquisition cost is estimated to be lower than the minimum baseline of $300 that is prevalent in standalone robo-advisors. In addition, despite only being deployed in 2015, approximately seven years after Wealthfront’s deployment, Charles Schwab has acquired over $30 billion in assets under management in just three years. In comparison, it took Wealthfront almost a decade to achieve $10 billion in assets under management. With some degree of certainty, it is possible for other established firms such as Morgan Stanley and Goldman Sachs to co-opt robo-advisors into their existing services and achieve the same feat as Charles Schwab. The true competition for robo-advisors may not be the start-ups, but the existing incumbents in the financial advisory services.

4 Conclusion

The wealth management and financial advisory service sector remains a hotspot for strong competition between the robo-advisors and traditional advisors. As observed in the last decade, the industry is often undergoing some form of evolution, whether it is related to the technology or the business model. In fact, in the span of 3 years, the conclusion from the two papers written by the same author\(^2\) contradicts each other. This is not surprising because of the continued expansion in the business models and strategies, particularly in client acquisition costs, ongoing costs of servicing clients, and the revenue yield on client assets, have created new paths for robo-advisors to be sustainable in the long run. While the position of robo-advisors in the market is not definitive, the author\(^4\) strongly believes that robo-advisors will continue to exist all three forms, such as an being an independent entity, in a partnership with or being co-opted into an established firm in the short and mid-term. These forms or positions are not unique to robo-advisors and in fact, it is similar to the competitive environment among search engines during the late 1990s to early 2000s, where each company was in search for a viable business model.

\(^2\) Author here refers to Michael M. Wong

\(^4\) Author here refers to [Author Name]