ESCP EUROPE

Monographie – Wealthfront Inc.

Strategy Course - 2015

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1 Introduction

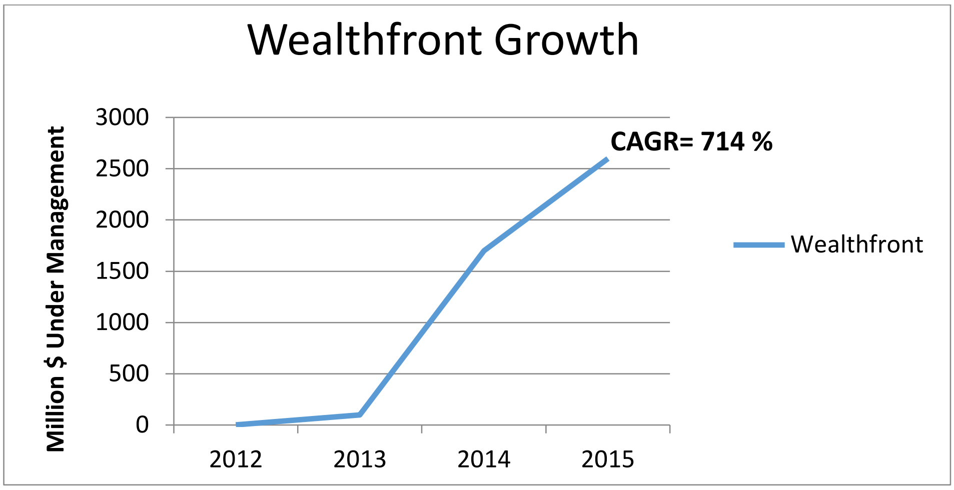
The aim of this monography is to analyse Wealthfront strategy and its competitive advantage in the Wealth Management industry.

1.1 Wealthfront History

Andy Rachleff and Dan Carroll founded Wealthfront in 2008 as kaChing, a mutual-fund analysis company, before pivoting into wealth management.

Its Chief Investment Officer is Burton Malkiel, the worldwide famous theoriser of the "Random Walk" theory for future asset prices. The management team is made by experienced professionals from both the technology and investment industry.

Since its debut in the industry, Wealthfront has enjoyed a sustained strong growth, synthesised by the chart below:



https://blog.wealthfront.com

1.2 Mission and Value Proposition

Wealthfront's mission is to propose a world-class investment service to anyone in the world.

The value proposition is to provide high-level investment strategies with the lowest minimum account and charging the lowest fees in the industry, by leveraging on process automation. In doing so, the firm is devoted to provide full transparency and accessibility, along with an outstanding degree of customisation to customers' needs.

The value proposition is extremely relevant with respect to passive portfolio management, the one Wealthfront provides. Passive management is a strategy who aims at replicating indexes' (ETFs) and markets' performances, based on the underlying assumption of market efficiency, i.e. it is not possible to outperform the market. Under this type of investment management, human intellect is much less relevant than in active management (which aims at outperforming the market by investing in high-growth potential asset) and is rather based on quantitative diversification strategies (See Annex A). This means automation would be able to provide a higher value at a lower cost: this monography will show how.

2 Relevant questions

As we have analysed so far, Wealthfront seems to be a highly innovative company. Despite that, innovation has not always induced the obtainment of a competitive advantage. Considering that not many analyses have been performed and not many information are available on this company, we will apply some theoretical frameworks to determine whether a competitive advantage exists. In particular, the questions we want to answer are:

- *What are the external factors that can favour or prevent the obtainment of a competitive advantage?*
- *Does artificial intelligence provide a competitive advantage in the asset management industry? What are Wealthfront's sources of competitive advantage?*
- *Is the competitive advantage based on innovation?*
    - *What are the sources of innovation?*
    - *What are the factors influencing the pace of innovation diffusion?*
    - *Is this a product or process innovation?*
- *What are Wealthfront's opportunities and threats?*
- *Can Wealthfront open a Blue Ocean?*

3 What Are The External Factors That Can Favour Or Prevent The Obtainment Of A Competitive Advantage?

3.1 Strategic Analysis Of The External Environment

The analysis was carried out at four levels:

- **Macro environment**: a PESTEL analysis was performed in order to analyse the macro environment and determine the pivotal variables**.** In addition, based on the conclusion of the PESTEL analysis, a scenario analysis was performed.
- **Industry**: three frameworks were used to analyse the industry, i.e. the lifecycle analysis, the Porter's 5+1 forces, and the analysis of the competitive system.
- **Competition**: a strategic groups analysis was performed.

In addition, a market level analysis was carried out at the end of this document (section 5, Blue Ocean Analysis)

3.1.1 Macro Environment

3.1.1.1 PESTEL

Six elements of the macro environment are considered using the PESTEL analysis.

3.1.1.1.1 TREND ANALYSIS

3.1.1.1.1.1 POLITICAL

From the political side, there is more pressure on large financial institutions to reduce systemic risks.

In addition, especially in Europe, there is strong political pressure on companies for issues related to privacy and management of sensitive data, as well as data security and transparency.

3.1.1.1.1.2 ECONOMICAL

Interest rates are at record low level and so investors are constantly looking for better risk/return opportunities. Regarding interest rates, they are expected to increase in the medium term in USA and remain low for the medium term in Europe.

Regarding the dimension of the asset management industry, Global Assets Under Management are increasing around the world, following the financial crisis; equity markets in particular have rebounded after 2008. In this regards, most of the major investment management players are experiencing net inflows in assets under management, especially in Europe.

It must be said that, after two financial crisis, many analysts expect the economy to recover in the medium term. In addition, following the quantitative easing program pursued by major central banks, many players have excess liquidity. This can be favourable to the asset management industry.

In addition, following the financial crisis and the difficult economic situation that many countries are experiencing, investors are more risk averse. This means that their demand for low risk profile investment has increased.

3.1.1.1.1.3 SOCIAL

There are a couple of trends that must be analysed. Firstly, pensions are lower, and more people are concerned with the management of their retirement funds. This is especially true in Europe and North America. In addition, people are becoming more autonomous when it comes to financial management decisions. In these regards, some people are more emotional than others regarding money: some need to know that someone (i.e. not a machine) is managing their investments. On the other hand, more and more people, especially young generations, are more confident in technology. People are looking for more transparent and easy to understand investment tools. In addition, people require 24/7 access to information and solutions.

Secondly, there is a growing lack of confidence in banks and existing providers of financial services. This is especially true for millennials, who have lived through two market crashes in the last years.

Thirdly, the new generations are more interconnected, informed, and very demanding.

Lastly, the number of high-net-worth individuals, those with more than US$1 million of investable assets, continues to grow, especially in USA, where the number of entrepreneurs is increasing exponentially. This is also true in Asia, especially in India and China.

3.1.1.1.1.4 TECHNOLOGICAL

There are several technological innovations that are shaping the international landscape, and in particular the asset management industry.

Firstly, computers are faster and more interconnected. Internet increases access and reduces costs to many solutions, especially in the financial sectors.

Secondly, the number and use of smartphones is increasing dramatically.

Lastly, a lot of research is going on regarding big data science and machine learning. In addition, research on finance is proving that portfolio allocation techniques work as expected in the long term. This doesn't seem to be true for investment activities performed in the short term (relevant for the hedge fund industry).

3.1.1.1.1.5 ENVIRONMENTAL

A growing number of funds are starting to take into consideration sustainability indices when taking investment decisions. Apart from that, no trend seem to be so disruptive in the environmental landscape that can shape the financial services industry.

3.1.1.1.1.6 LEGAL

The legal aspect is very important in the investment management industry. Firstly, "in October 2013, the SEC opened private investments to the general public in response to the crowd funding provision (Title III) of the JOBS Act. This will enable start-ups to reach a much broader investment audience than securities laws used to allow"[1].

Secondly, "new rules on international compliance and transparency have radically changed the climate for tax havens. The two most significant changes, so far, are the U.S.

[1] PwC, "Robo advisory vs. human advisory", 2015

government 's new Foreign Account Tax Compliance Act, which places pressure on banks in every country to disclose the bank accounts of U.S. citizens, and the new withholding tax agreements between the U.K., Austria, and Switzerland. The general consensus is that the Organisation for Economic Co-operation and Development will ultimately push for full tax transparency among all its member states, with automated information exchange becoming a new reality for offshore banking. If this proves to be the case, players will need to re-evaluate their offshore strategies. They will feel pressure to withdraw from some offshore markets and to focus on those where they have a clear value proposition, growth prospects, and proper compliance capabilities. Many governments are taking a tough line with tax evasion. UBS's settlement with the U.S. Department of Justice for allegedly helping U.S. citizens evade taxes underscores the determination of regulators to close loopholes."[2]

All these means that the financial services industry is undergoing a period of intense scrutiny, and companies are investing in compliances in order to respect the law, which is changing at a fast pace.

3.1.1.1.2 HIERARCHY

1. Social – clients are changing and they require more sophisticated and easier products to understand.
2. Technological – technology is allowing to scale and provide more and more people with services once reserved for a niche.
3. Economical – economy is improving after the financial crisis.
4. Political & Legal – there is more pressure on financial institutions regarding sensitive topics such as: data security, privacy, and systemic risk.
5. Environmental: not a real driver.

3.1.1.1.3 PIVOTAL VARIABLES

Social and technological – people are changing and they demand transparency, simplicity and full access 24/7. Technology is allowing this. These two elements are likely to shape the financial services industry in the near future.

3.1.1.2 Scenario Analysis

We have decided to build a scenario analysis on two variables:

- **Social** – Acceptance of robo-advisors by the public: will the robo-advisors industry be able to convince investors that algorithms can successfully manage assets in the long term, especially through financial crisis?

[2] Strategy&, "Global wealth management outlook 2014–15", 2014

- **Economical** – Will the economy rebound? Are normal people going to have more wealth to invest?

We have decided not to analyse the technological factor, i.e. the second pivotal variable identified in the PESTEL analysis, as this appears to be highly correlated with the social variable identified above.

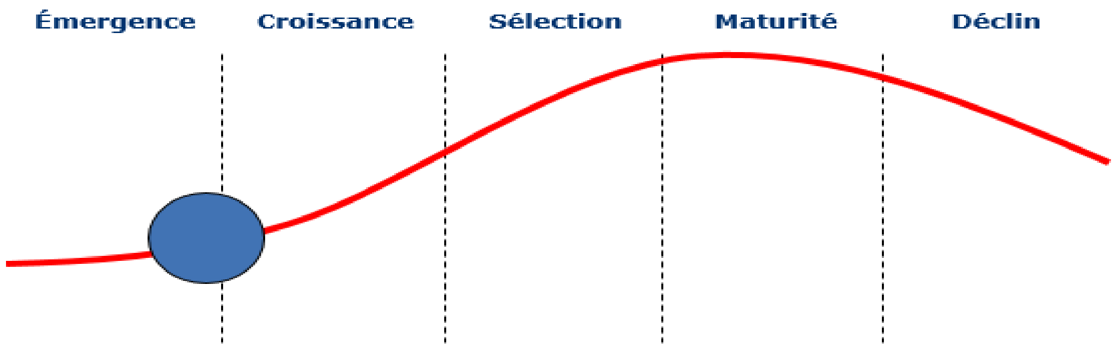
	Normal people with more wealth to invest	Normal people with less/same wealth to invest
Robo-advisors accepted and entrusted by investors	(A) Robo-advisors are likely to experience tremendous growth and capture a growing client base	(B) Robo-advisors will experience high growth rate, with assets under management growing at a lower growth rate than in scenario A
Robo-advisors not accepted by investors	(C) Established asset managers are likely to start offering products for normal investors (i.e. not only high net worth individuals), taking advantage of the technological progress achieved thanks to robo-advisors, by leveraging on their established brand	(D) The asset management industry won't experience drastic changes

3.1.2 Industry

3.1.2.1 Lifecycle of the industry

The robo-advising industry is relatively young and seems to be at the hedge between the emergence and growth stage. This is because:

- There is still a lot of resistance from users and academics on whether algorithms are actually better than human in managing money on the long run, especially during financial crisis.
- There are not a lot of players, but the services offered start to become less diversified.
- Profits start to increase.
- Barriers to entry are not too high.



3.1.2.2 Porter 5 Forces

3.1.2.2.1 DESCRIPTION

3.1.2.2.1.1 POTENTIAL ENTRANTS

At this point in the market cycle, the robo-advisors market does not appear mature. On the other hand, if the market proves to work, it is likely that many more entrants are going to step in. There are a number of elements that must be considered.

There are considerable barrier to entrance, mainly because:

- Companies need to invest a considerable amount of money in order to acquire the technology and the know-how to become a real competitor and get a solid track record that can appeal investors.
- Once a company has a proved track record, a considerable amount of money must be spent on marketing.
- Brand and track record plays a major role in the financial management industry.

At this point in time, many players that are not backed by major asset managers must get funds from Venture Capitals (i.e. higher barriers to entry).

It must be said that technology allows robo-advisors to scale quite quickly because the marginal cost per client is extremely low.

From a regulatory point of view, there does not seem to be a specific limitation to potential entrants. On the other hand, it is likely that, if the market becomes more populated, the scrutiny from regulators will increase.

One point that might facilitate the entrance of new players is the diversification effect: investors might prefer not to invest all their money on one only platform but they might prefer to diversify.

From 1 to 10, the threat from potential entrants ranks at 7 out of 10 and, if the market proves to work, this threat will become more serious.

3.1.2.2.1.2 SUBSTITUTE PRODUCTS

The main substitute are investment management funds that offer mainly passive funds; these can allow investors to track indices and optimize their investment opportunities[3]. These are large firms such as State Street, Blackrock, J.P. Morgan Asset Management…, very large companies with considerable investment capabilities. They are a serious threat to

[3] We are considering mainly passive investment strategies because they seem more comparable to the kind of products offered by robo-advisors.

robo-advisors because they can make large marketing investments. In addition, they might step in and become new entrants if robo-advisors proves to work in the long term. Moreover, the costs of moving back to established investment manager is quite low. These elements increase threat from substitutes. On the other sides, there is more attrition between investors and major financial services firms. This might help robo-advisors to gain market share and persuade investors to place money on automated platforms.

From 1 to 10, the threat from substitutes is very high and ranks at 9 out of 10 and it is likely to increase.

3.1.2.2.1.3 SUPPLIERS

There are two major kind of suppliers.

- Suppliers of IT infrastructure: they do not seem to have a major contractual power because suppliers are not concentrated and they sell commodity-like products.
- Suppliers of financial data: they might have more contractual power because there are not a lot of providers of financial data. Suppliers include Bloomberg and Reuter.

From 1 to 10, the threat from suppliers ranks at 4 out of 10 because the real threat may come from provider of financial data, but this does not seem to be very serious. This is expected to remain flat.

3.1.2.2.1.4 CLIENTS

At this stage of the market, clients are not concentrated and invest relatively small amount of money, when compared to asset invested in major investment management companies.

Fares are usually standardized for small investors, and regulators forbid investment management companies from treating customers differently. Once the assets under management increases and investors will become more concentrated and powerful, it is possible that fares might change in order to accommodate large clients, but for the moment, clients don't seem to have a major contractual power. On the other hand, it is quite easy for customers to switch investment manager.

From 1 to 10, the threat from clients ranks at 6 out of 10 and, if the market proves to work and become bigger, this threat will be higher.

3.1.2.2.1.5 GOVERNMENTS

The regulation in regards to investment management is quite strict and it is possible that, if the robo-advisors market becomes bigger and more important, the focus of regulators will increase. There does not seem to be a specific law that can prevent players to enter the market. In addition, for the moment, governments are not clients, but they may become it in the future.

From 1 to 10, the threat from government ranks at 6 out of 10 and, if the market becomes more important, this threat will become more serious.

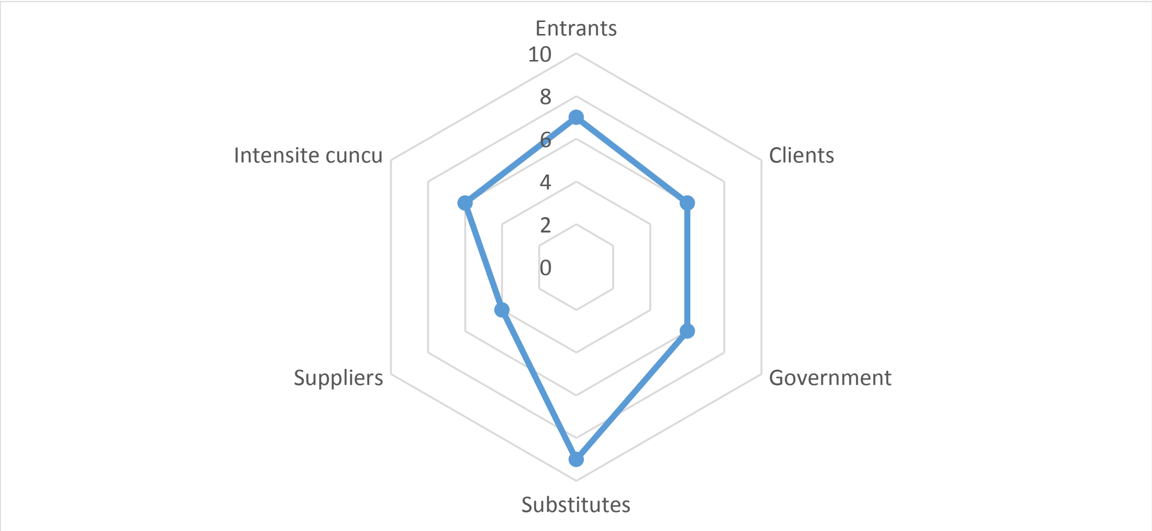
3.1.2.2.1.6 COMPETITIVE RIVALRY

The competitive rivalry is not very high because the market has exponential growth opportunities and there is a lot of room to differentiate. In addition, the barriers to entry and exit are still reasonably low.

At this point, the competitive rivarly is medium and ranks at 6 out of 10, but this will definitely become more important if the market become bigger and more populated.

3.1.2.2.2 RANKING

The threat from substitute is, at this point, the most important. In fact, substitutes are very large companies and they might become entrants if the market proves to work.



3.1.2.2.3 KEY SUCCESS FACTORS

The key success factor is to win the resistance from investors, who may not accept the fact that their money are invested by an algorithm (this is particularly true during financial periods of financial turmoil). If this can be achieved, than marketing investments will be key in attracting normal people that might be interested by the low entry account and low management fees.

3.1.2.3 Analysis Of Competitive System

At this point in the life cycle of the industry, it seems that there are several differentiating factors in the industry particularly in terms of technology offered and service. For example, some companies may decide to offer customers a human interface.

On the other hand, the algorithms used to invest are inspired from the general consensus and academic research, but then they are refined and represent the key competitive advantage, which is quite strong.

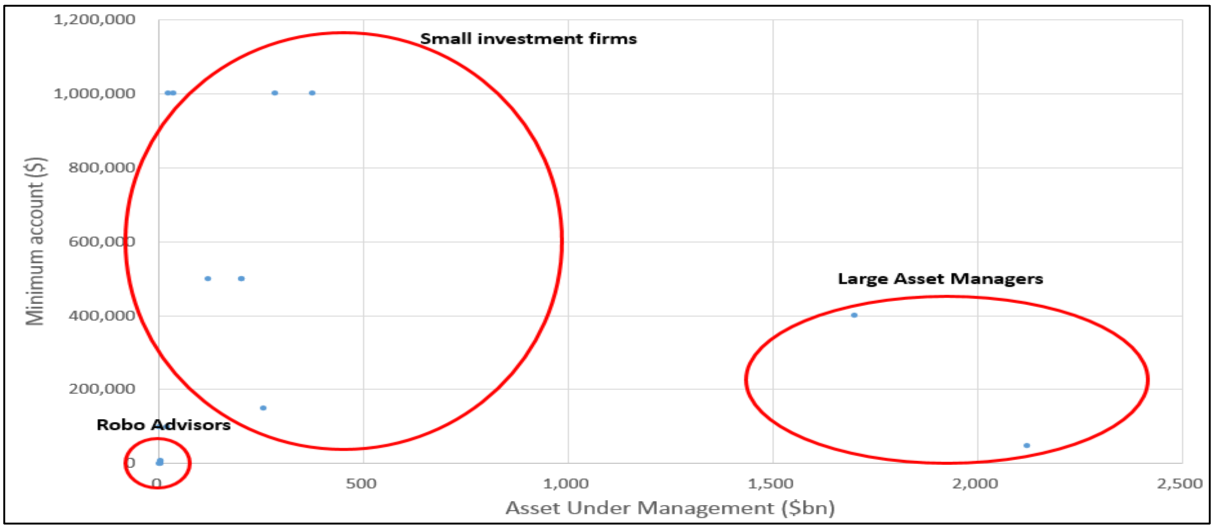
For these reason, the competitive system appears a **specialized system.**

3.1.3 Strategic Groups Analysis

We have analysed the different players in the market by plotting two variables:

- Activity perimeter: price. We used the minimum size of an account that can be opened at a specific asset manager
- Resources allocation: dimension of the organization. We used the total asset under management.

More specifically, without considering the medium investment firms for Ultra High New Worth Individuals:



By analysing the different companies, we determine four strategic groups:

- **Robo-advisors and small investment firms**: these are small companies, with less than \$500bn of assets under management. In this group, we define:
  - **Robo-advisors and very small investment firms**: these are the real peers of our company. These companies target people with a relative low income (around \$30k to \$50k per year). This is a group of very small companies with extremely small minimum account.
  - **Small investment firms:** these are relatively small investment management, with AUM between \$200bn and \$500bn, that accept relatively small accounts (less than \$3M accounts), such as Investec Wealth & Investment.
- **Medium investment firms for ultra-high net worth investment:** these are investment firms with around \$500bn of assets under management that requires extremely high minimum accounts, such as Goldman Sachs Asset Management.
- **Large asset management firms:** extremely large amount of assets under management with relatively small minimum account but with no customisation, such as Fidelity and Blackrock.

4 Does artificial intelligence provide a competitive advantage in the asset management industry? What are Wealthfront's sources of competitive advantage?

4.1 Wealthfront's Strategic Capabilities from a Resource-Based View

The capabilities of an organization are the set of resources and competences that contribute to its long-term survival or competitive advantage. In particular, resources:

- Resources are the material or immaterial assets possessed or under control of an organization.
- They can be threshold (ones needed to meet necessary requirements to compete in a given market) or distinctive (able to provide a competitive advantage).

Competences:

- Competences are activities or processes from which an organization exploit its resources.
- They can be threshold (ones needed to meet necessary requirements to compete in a given market) or distinctive (able to provide a competitive advantage).

Accordingly, the nature of resources and competences determine if a capability is threshold or distinctive.

The following is the analysis of Wealthfront capabilities from a resource based point of view:

Capabilities	Resource		Competences	
	Threshold	Distinctive	Threshold	Distinctive
Asset Allocation & Portfolio Creation	• To have asset under management • To have qualified professionals	• Artificial Intelligence to support few employees	• To have asset allocation expertise	• Allocation process fully automatized
Profit Maximisation	• To have qualified professionals	• Artificial Intelligence to support few employees	• To have investment expertise	• Position optimisation fully automated
Information Creation and Accessibility	• To have qualified professionals	• Artificial Intelligence to support few employees	• Making the client able to access its information 24/7	• Real time information available at any time • Information generation fully automated
Front Office and Market Coverage	• To have a point of sale • To have qualified professionals	• Unique POS online accessible from any country • Artificial Intelligence	• Understanding client needs	• Front office process fully automated
Compliance	• To have qualified professionals	• Artificial Intelligence programmed to be compliant	• *Ensure* compliance of processes and employees	• *Be* compliant

4.1.1 Dynamic Capabilities

Wealthfront's strategic capabilities are characterized by a high dynamicity: Wealthfront can easily reconfigure its artificial intelligence to satisfy customer-changing need or to adapt to a new competitive landscape. Wealthfront flexibility must be analyzed differently with regard to the competitors' nature:

- Robo-advisors can reconfigure process as Wealthfront does. Compared to robo-advisor competitors, Wealthfront is able to react and change quicker thanks to its first mover's advantage, analyzed later in this monography. Indeed a much more comprehensive part of robo-advisors customers helps the firm to anticipate changes and adapt faster.
- Compared to traditional passive funds, Wealthfront has a tremendous advantage in terms of adaptation capacity: technology is more easily reconfigurable than people, both in terms of cost and time.

When addressing a firm capacity to change and adapt, it might be useful to take into account its *culture* and its eventual *path dependency:*

- Wealthfront proudly declares to be a technology company, an evident result of last years' wave of innovation. It is a company born and raised in a fast moving environment and well conscious of today customer's changing needs. Its management comes in majority from the technological space and it hasn't any preconception towards the industry in which it is currently operating.
- Traditional wealth management firms, and their managers, have on their shoulders a history made of centuries of traditions and industry practices. Management is likely to suffer a strong path dependency, as demonstrated by the fact that the wealth management industry has always been targeting a wealthy niche through the same strategy.

4.1.2 Strategic Capacities Diagnosis and Sources of Competitive Advantage

Now a more comprehensive analysis of Wealthfront capabilities will help us understand whether each of those contribute to the achievement of a competitive advantage and, if yes, what the nature of this advantage is.

4.1.2.1 Asset Allocation and Portfolio Creation:

Wealthfront leverages on a fully automated allocation and portfolio creation process. This process in based on inputs provided by the customer in order to create a tailored investment profile: age, personal income, family income, number of dependent without income (e.g. sons)…

Created the customer risk profile, Wealthfront proposes a draft portfolio, which can be manipulated changing risk tolerance, divided in few ETFs of different nature (American Stocks, Emerging Market Stocks, Bonds, Commodities …).

Compared to other assets, ETFs are financial indices characterized by a high degree of diversification. The risk linked to each ETF can be diversified as well as the investment shared amongst different ETFs; Wealthfront's software is programmed to provide the highest degree of diversification (and thus the minimum risk) for a certain risk level.

In addition, Wealthfront is able to create portfolios that a single investor but also many wealth management firms would struggle to replicate. In fact, via Wealthfront, even a 500 $ portfolio can comprehend 6-7 investments in different assets. This is due to the fact that Wealthfront, using only a restrict number of products on which it has huge aggregates positions, is able to provide diversification even to the smallest of its account. This happen by breaking the link between the customer's investment in an asset and the price (size) of the asset: the amount invested in an asset on behalf of a single customer is not anymore a multiple of the price of an asset. It must be considered that, in a traditional mutual fund, an investor would invest directly in the fund and not on a personalized portfolio, as opposed to what Wealthfront allows investors to achieve.

Thanks to automatization, Wealthfront is able to provide these strategies, before only available to the High and Ultra High Net Worth Investors, to any of its customer with a minimum investment of 500 $ and no fees up to 10 000 $ in invested capital.

Benefits for customer linked to Wealthfront Asset Allocation process are:

- High degree of diversification: the complex mathematical nature, the cost associated with the information and the computational power make diversification strategies based on quantitative models almost unachievable for private investor outside the wealth management space.
- A portfolio tailored on customer needs and preferences
- A process freed from human errors
- A level of service and performance non provided by traditional passive funds
- A lower price and in certain case a service free of charge

All these benefits create a consistent competitive advantage based on differentiation.

From Wealthfront point of view, the automatization leads to a massive decrease in operational cost, with two extremely important implications:

- Serving a customer cost less than ever, expanding the universe of potential clients to segments never reached by the industry offer.
- Wealthfront variable cost associated to a new customer is almost 0, allowing for free of charge accounts and boosting its expansion.

This creates a consistent competitive advantage based on cost leadership.

4.1.2.2 Profit Maximisation

Artificial intelligence allows Wealthfront to take care of its customers' account 24/7. Indeed, the best level of service would require a wealth manager to optimize client's position at any point of time in order to realize gains and avoid losses. But this is not case for the traditional asset management industry nor for private investors.

In traditional wealth management firms, only a fraction of time available is devoted to each customer in order to carry on these activities. This is due to the fact that any professional follows multiple accounts and has a limited amount of time. Similarly, a private investor has a limited time to follow their investments.

In Wealthfront, any activity involved in the monitoring and optimization customer portfolio is fully automated and carried on 24 hours a day, seven days a week.

The most recurrent instance when profit maximization is needed is when a tax loss harvesting is available[4]. This practice in Wealthfront has increased benefits because:

- Saves the customer transaction cost: since all of Wealthfront positions are in few ETFs, the sales and consequent acquisition of assets is likely to occur at an aggregate level rather than at the single customer's portfolio level.
- Increase in the probability of tax loss harvesting occurrence (which requires at the same time a position generating a profit and one generating a loss), due to the higher degree of diversification.

Again, we can analyze the implication from both customer and organization point of view:

For customer:

- Private investors can access a service prior reserved to only to the wealthiest
- Both traditional WM clients can access a much higher level of services in terms of time dedicated to their portfolio
- A faster, non-stop, and free from human errors process

All these benefits create a consistent competitive advantage based on differentiation.

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[4] The compensation of taxable financial gains with realization of losses achieved by the sales of negative positions. The proceed of the sale is then reinvested in a similar asset.

For Wealthfront, this means a strong reduction in operational cost (especially the variable part) which c*oncurs to create a consistent competitive advantage based on cost leadership.*

4.1.2.3 Information Creation and Accessibility

The accessibility and the creation of the financial information are two requirements directly imposed by the regulator to the asset management firms. Indeed, information plays a key role for customer in this industry both in terms of frequency and accessibility.

Traditional firms spend time and resources at providing this information at regular intervals and making it available via multiple points of access.

Wealthfront, thanks to process automatization, is able to reduce costs associated with these activities and produce the necessary information almost in real time.

This concurs to create a competitive advantage based on cost leadership.

On the other hand, as a third millennium startup, it is well aware of the importance of making this information available at any time and from anywhere to its clients: Wealthfront clients are indeed able to access it from any device and at any point in time, having thus the key information of their portfolio always with them.

More customers are able to take important financial decision in the same way: position can be closed, augmented or changed easily and within few seconds.

This concurs to create a competitive advantage based on differentiation.

4.1.2.4 Front Office and Market Coverage

Many traditional asset management firms need a huge deployment of resources and competences to cover a new market while Wealthfront can easily expand into new market by simply launching a translation of its main website and, of course, being compliant and oversight by the national financial authority.

This is due to the fact that Wealthfront, in terms of resources and competences, can leverage almost entirely on its algorithms. The automation is in fact concerning also the comprehension customer needs in order to build a specific investment profile in few minutes.

This concurs to create a competitive advantage based on cost leadership.

From the customer point of view instead, this means having access to Wealthfront services from wherever in the world: even in countries in which Wealthfront is not legally present, customers can connect to website and invest[5].

This concurs to create a competitive advantage based on differentiation.

4.1.3 The VRIO Analysis

In order to understand whether these capabilities can lead to a competitive advantage, and to understand the durability of this advantage, we conduct now a VRIO analysis for each capability.

	Assets Allocation	Profit Maximisation	Information Creation and Accessibility	Front Office and Market Coverage	Compliance
Value	V	V	V	V	V
Rarity	V	V	V	V	V
Inimitability	X	X	X	X	X
Organisational support	V	V	V	V	V

As we have seen in previous sections, all the capabilities analyzed provide value to the customer by:

- Increasing the level of service
- Providing a higher degree of customisation
- Reducing costs and consequently reducing or even eliminating the price

At the same time, they are rare because they are based on complex software and algorithms, whose intellectual rights are not public.

In addition, the organization seems to be well organized to exploit at its best the competitive advantages linked to these capabilities: Wealthfront is a new generation enterprise defining itself as a technology company. More than an established player trying a new venture, Wealthfront is an organization that proposes technology as the core of its value offer.

On the other hand, these capabilities are certainly not inimitable: others robo-advisors are already present in the competitive scenario and more are likely to come. Still *the result of the analysis is that Wealthfront has a temporary competitive advantage based on differentiation and cost leadership.*

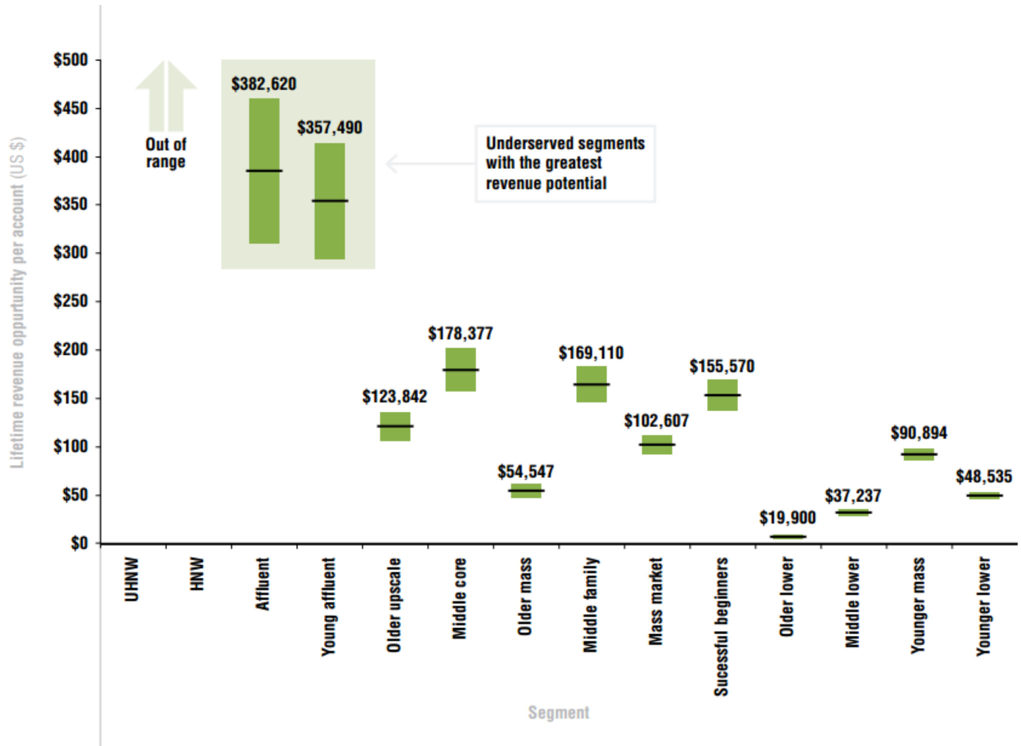
Even though the competitive advantage will disappear over time, Wealthfront will enjoy the Pioneer Advantage, which is the subject of another part of this monography.

[5] This investments are treated as investments in foreign country and the customer itself is responsible to report gains in his home country

4.2 Traditional Targets in Wealth Management and Wealthfront Target

The Wealth Management industry has historically focused on few wealthy clients, capable of paying relatively high fees in order to have their wealth managed by professional. There are, of course, various segments inside this universe, and different firms target different customers, depending on their income: these differences are captured by the minimum capital to access the service. This strategic choice has been based on the fact the time spent at managing lower income segment money were not considered profitable and partially by the fact, expressed above, that certain strategies do require high capital invested.

As we can see from the representation below, the average lifetime opportunity linked to a client for an asset management firms is relatively low (apart for High and Ultra High Net Worth Investors). One should also consider that, despite the income for a wealth management firm varies consistently, the time spent to manage the wealth is rather homogenous across segments.



IBM Matching customers with capabilities

This conception has left the majority of the population without any access to the benefits associated with a professional management of savings. The result is an entire industry focusing on niches leaving unserved the biggest part of the population.

Wealthfront, thanks to its technology, is now able to serve and make profitable this huge part of the market and, as seen above, is able to reach it easily across countries.

On the other hand, Wealthfront strategy is relevant also for a part of the population actually served by the wealth management industry: investors recurring to mutual and passive funds.[6]

Mutual funds and other passive funds require low fees compared to other funds, have low risk and require little effort from their managers in term of time and strategies (personal interaction with customer is low or absent). They still require a minimum investment and charge fees starting at 1% of savings.

Compared to a mutual/passive funds, Wealthfront proposed the same passive management but with some key differences:

Wealthfront	Mutual/Passive funds
No fees for portfolio up to 10 000 $, minimum investment 500 $	Higher fees on smaller portfolio, much higher minimum investment
0,25% fees for any portfolios above 10 000 $	Fees always > 1% and discretionary to the size of the portfolio
Portfolio with a more granular diversification based on a single customer profile	Investment in a fund which reflects the fund asset allocation, equal for any customer

As we can see, Wealthfront provide great advantages in terms of costs and diversification, and thanks to its automation factor is supposed to deliver also greater performance.

To this segment, Wealthfront is able to provide a better service at a lower price.

To summarize, from an income point of view, Wealthfront target customer are:

- Individuals with modest savings that could not access any kind of professional management services
- Individuals actually served by passive funds, paying a higher prices for a lower level of services and fewer choices

From a sociodemographic point of view and with fewer concerns to the income level:

- Individuals from generation X (born between 1965 and 1980), likely to be confident in technology and rather suspicious towards financial institutions.
- Millennials (born between 1980 and 2004), "a generation grown-up with technology, aware of its benefits and, like generation X, waved and affected by multiple financial crises... This generation has a very different set of expectations about what they want from an investment service. Millennials want to be able to access services and view aggregated account data to manage their assets in a convenient and timely

[6] Mutual and passive funds largely invest in obligations replicating performance of a market or index and ETF, and proposing to any client the same, standard asset allocation. See Annex A

manner. They grew up with software and expect services to be delivered online. They don’t have the patience to have to talk to someone to complete their transactions. They lived through two market crashes and are highly cynical about the claim that you (or anyone) can outperform the market. They have been nickel-and-dimed through a wide variety of services, and they value simple, transparent, low-cost services. There are over 90 million Millennials in the US with an aggregate net worth of more than $2 trillion; by 2018 that is expected to grow to $7 trillion”[7]

4.3 Is the competitive advantage based on innovation? What are the sources of innovation? What are the factors influencing the pace of innovation diffusion? Is this a product or process innovation?

Wealthfront is a truly innovative company: it has revolutionized an industry where the business model has been the same over the last century, enlarged the market to new horizons, enjoyed an explosive growth and delivered more value at a cheaper price to its clients. As analyzed in previous sections of this monography, Wealthfront’s artificial intelligence has been able to provide a rare combination of benefits: an increase in value (differentiation) and a decrease in price (cost leadership). Indeed, technological innovation is one of the few drivers able to unlock these two advantages at the same time. The aim of this section is to understand, via the help of innovation theory, what were the sources of Wealthfront’s innovation, what has been innovative, how is likely to spread and which benefits Wealthfront will gain by being a pioneer.

4.3.1 Sources of Innovation

Wealthfront innovation is rather complex both for its financial and technological aspects. Nevertheless, it is aimed at serving the lower end of the market segment, and even parts of the population that was not considered a potential target before. Under these premises, Wealthfront has not been created to improve benefits of the so called *Lead users.* Its mission, in fact, is to deliver a premium service to anyone, asking nothing to who has less to give and charging equally everyone else. It is about providing a tool to increase the wealth of who most need it and never had the opportunity to do so.

For all these reasons, Wealthfront can be assimilated to a *frugal innovation* involving a romantic contradiction: providing an affordable and simple way to manage wealth to people who need it, deploying an incredibly complex technology.

[7] *https://blog.wealthfront.com/one-billion-assets-under-management/*

4.3.2 Process and Product innovation

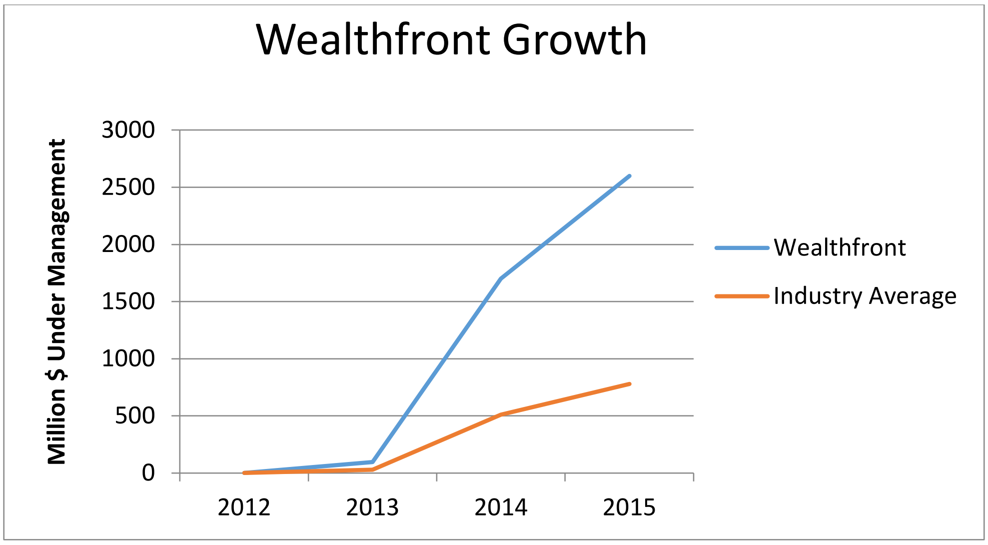
In Wealthfront strategy innovation has a 360° scope: not only involves the activities typical to the wealth management industry, being thus a *process innovation*¸ but revolutionize also the result of the process, the portfolio, being so a *product innovation*. This two sides of Wealthfront strategy perfectly reflect in its strengths: the process innovation consistently reduce costs, and thus prices, while the product innovation provide a high degree of differentiation compared to its closest competitors.

4.3.3 The Pace of Diffusion

Wealthfront has enjoyed a tremendous growth, which makes it today the leader in the robo-advisors space. Founded in 2008 as mutual fund analysis tool, the organization has started wealth management activities in 2012 and in just one year reached 97 million $ in asset under management. Across 2013 assets under management grew by 450% and today Wealthfront manages more than 2.6 billion $.

Different factors are at the base of this brilliant expansion:

- It incredibly reduces *complexity*: investors can create a portfolio and forget it. Wealthfront optimizes it constantly on their behalf implementing strategy out of the reach of most of financial actors.
- Allows for easy *experimentation*: asking only 500$ dollars to start investing and charging no fees, Wealthfront is an *affordable* experiment for a great numbers of pioneers and early adopters. The cost of trying is 0, and the portfolio is set up in less than 10 minutes.
- Wealthfront is a substitute not related to any financial institution, a factor that might has increased the *customer propensity to try it.* In addition, any Wealthfront account is guaranteed up to 500 000 $ by the Securities Investor Protection Corporation, a warranty that helps customers trust a new venture of this kind.
- *Critical mass and network effect:* the application of artificial intelligence to wealth management industry is subject to the so called network effect. This is due to the fact the people are generally fearful to let their saving managed by a firm with a little historical track record. When the number of first users and early adopters reaches a relevant number, the perception towards the firm will change and the growth increase at a faster pace. Indeed with its current 2.6 billion $ Wealthfront is now considered a trustworthy advisor, since its performance have been validate by the customer appreciation.



https://blog.wealthfront.com

4.3.4 First Move Advantage

As shown by the result of the VRIO analysis, Wealthfront's competitive advantage is difficult to imitate, but cannot be considered inimitable. This does not mean that its advantage towards competition is likely to disappear soon: Wealthfront will leverage on different benefits linked to being the pioneer in this newly born competitive space.

- *Experience curve:* Wealthfront is acquiring and will acquire, thanks to its leadership position, a greater knowledge of the customers, their needs and the best practices of the industry.
- *Scale benefits:* Wealthfront is the only robo-advisor able to provide a free of charge account, and this is likely to further accelerate the experience curve and its reputation, while increasing its ris*k*-diversification potential.
- *Reputation:* a key factor in the wealth management industry. This point has already been addressed in the network effects and will consistently increase over time thanks to variable costs close to zero.
- *Dynamicity:* as addressed in the strategic capabilities analysis, Wealthfront as high capacity of reaction to change in the competitive landscape. All the capacities needed to win in this market are already established and due to their nature, they are also easily reconfigurable.

4.3.5 Incumbent's Response

All these benefits are reinforced by the fact that, as emerged in the VRIO analysis, the incumbent's response related to technological innovation will not be as easy and as fast as it might be in other industries: artificial intelligence is complex, highly technical, and required a long time proofing before reach the market. Indeed a product fail will reflect in big loss in reputation that players in this industry cannot face.

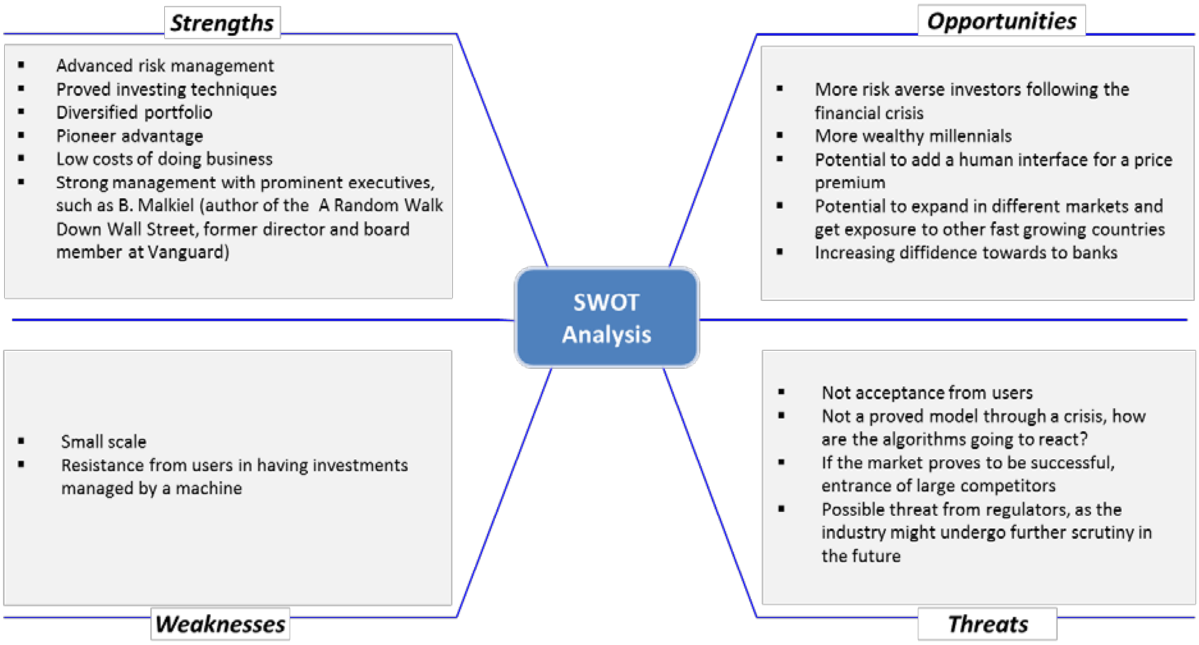
Major institutions are *developing their portfolio of real options* (Charles Schawb, UBS, Credit Suisse…) but they will take time to reach the market in an effective way and they will still suffer the bad customer perception towards traditional player.

5 What Are The Opportunities And Threats For Wealthfront? Can Wealthfront Open A Blue Ocean?

Now that both the internal and the external analysis has been carried out, we can draw some conclusions, which can be summarized via a SWOT and a Blue Ocean analysis.

5.1 SWOT Analysis

The chosen strategy, the positioning and the context in which the strategy it is deployed offer to Wealthfront opportunities and threats. These, combined with a summary of its strengths and weaknesses, will be the content of the last part of this work.



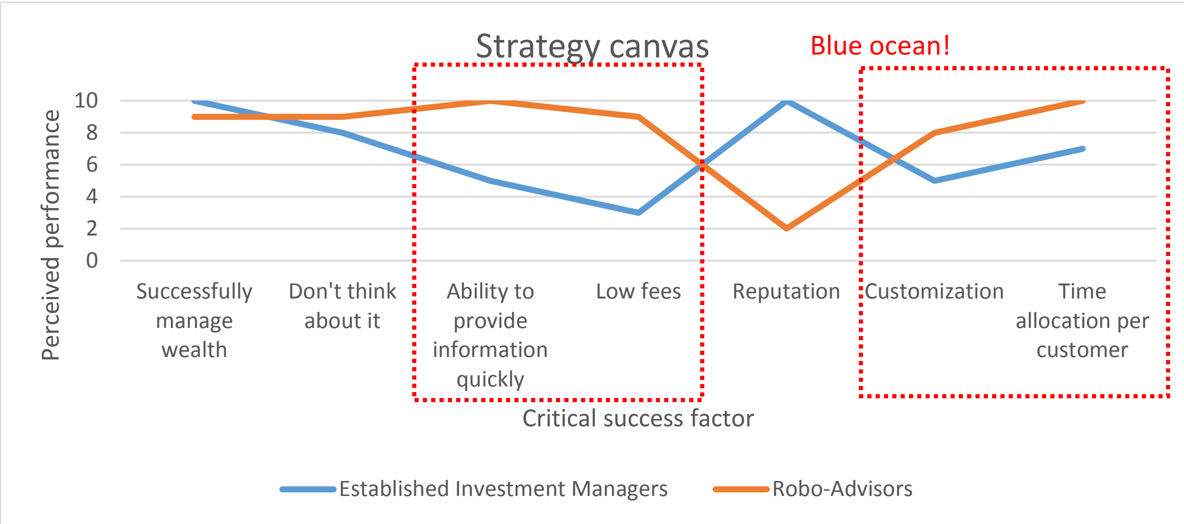
5.2 Blue Ocean Analysis

By comparing the service provided by robo advisors as opposed to established investment management firms such as Blackrock, Fidelity, J.P. Morgan, etc. we can see that all the players are able to provide customers with a proven track record of successfully managed wealth. In addition, once investors have given their assets to asset managers, they don't have to worry about them as decisions are taken for them by professionals. This is true for both established asset managers and robo-advisors.

On the other, robo advisors differentiate their offer as they provide investors with the ability to have access to information about their investments every time they want. In addition, they charge investors very low fees. This is achievable thanks to the high technological content of the robo advisors industry, and can allow robo-advisors to pursue a blue ocean strategy.

Two important elements of the robo advisors offering differentiates these players from established asset managers in the eyes of customers. Firstly, the level of customization of the portfolios offered (something not achievable for common investors in established asset managers, except for high and ultra-high net worth investors). Secondly, the time allocated for each customers, i.e. robo advisors can provide customers with services 24/7, thanks to artificial intelligence, whereas traditional investors only have a limited amount of time to dedicate to each portfolio.

It must be said that established investment managers have a really strong reputation, developed through decades of success and investments in marketing. On this field, robo advisors still have a long way to go.



6 Final considerations

This analysis shows how the asset management industry has historically focused on a niche. Indeed, up until now, just a tiny part of the population had the opportunity to access professional asset management services. Wealthfront's technologically-enabled competitive advantage has allowed to open a Blue Ocean: by reducing costs and, at the same time, increasing value, Wealthfront has been able to provide a high level service to a much more wider market.

7 Bibliography

- www.wealthfront.doc

- https://blog.wealthfront.com
- PwC, “Robo advisory vs. human advisory”, 2015
- Strategy&, “Global wealth management outlook 2014–15”, 2014
- IBM Matching customers with capabilities, IBM Institute for Business Value 2015
- www.Bloomberg.com
- www.Reuters.com

ESCP EUROPE

Monographie – Wealthfront Inc.

Annexes

Alberto Cresto – Skand Narang
11-1-2015

1 Annexes

1.1 Annex A – Passive (Indexed) Management and Active Management

The aim of this annex is to provide a brief background of major differences between passive and active management of a portfolio.

To begin with, we need to make a distinction between mutual funds that are managed and those that are indexed. The former are actively managed by an individual manager, co-managers, or a team of managers. The index funds are passively managed, which means that their portfolios mirror the components of a market index. For example, the well-known Vanguard 500 Index fund is invested in the 500 stocks of Standard & Poor's 500 Index on a market capitalization basis.

1.1.1 Passive Funds

Index or passive mutual funds are an easily understood, relatively safe approach to investing in broad segments of the market. They are used by less experienced investors as well as sophisticated institutional investors with large portfolios. Indexing has been called investing on autopilot. The metaphor is an appropriate one as managed funds can be viewed as having a pilot at the controls. When it comes to flying an airplane, both approaches are widely used.

Here is how an index fund works. The money going into an index fund is automatically invested proportionately into individual stocks or bonds according to the percentage their market capitalizations represent in the index. For example, if IBM represents 1.7% of the S&P 500 Index, for every $100 invested in the Vanguard 500 Fund, $1.70 goes into IBM stock.

David Swensen, an investment expert, author and former chief investment officer of Yale University's highly successful endowment fund, makes a strong case for indexing. In his 2005 book, "Unconventional Success", he concludes that because "most individual investors lack the specialized knowledge necessary to succeed in today's highly competitive investment markets … passive index funds are most likely to satisfy investor aspirations."

Swensen, and a high percentage of investment professionals, find index investing compelling for the following reasons:

- Simplicity. Broad-based market index funds make asset allocation and diversification easy.

- Management quality. The passive nature of indexing eliminates any concerns about human error or management tenure.
- Low portfolio turnover. Less buying and selling of securities means lower costs and fewer tax consequences.
- Low operational expenses. Indexing is considerably less expensive than active fund management.
- Asset bloat. Portfolio size is not a concern with index funds.
- Performance. It is a matter of record that index funds have outperformed the majority of managed funds over a variety of time periods.

1.1.2 Managed Mutual Funds

Well-run managed funds that have long-term performance records that are above their peer and category benchmarks are also excellent investing opportunities. There are a number of top-rated fund managers that consistently deliver exceptional results. Such well-run funds will register very high on the Fund Investment-Quality Scorecard you are learning about in these pages.

It is worth remembering that despite their impressive long-term records, even top-rated fund managers can have bad years. Such an occurrence is little cause to abandon a fund run by a highly respected manager. Typically, managers will stick to their fundamental strategies and not be swayed to experiment with tactics geared to improving results over the short term. This type of posture best serves the long-term interests of fund investors.

In recent years, a number of fund management-related issues have received more public attention in the financial press than in the past. These fall under the general heading of fund stewardship and include such issues as a manager's financial stake in a fund, performance fees and the composition of a fund's board of directors.

While the discussion on these issues is important, there is no universal agreement as to what constitutes appropriate standards of conduct.

By connecting shareholder and managerial interests, having managers investing significantly in the funds they manage seems like a good idea. Likewise, compensating managers on the basis of performance rather than as a percentage of a fund's assets also seems like a good thing. However, there are reasonable arguments that take an opposite point of view on both of these issues. Less controversial is the practice of having a majority of independent directors serve on a fund's board of directors. But here too, there continues to be differences of opinion. The good news for fund investors is that the debates surrounding these issues heighten public and regulatory awareness of what constitutes proper mutual fund stewardship.

http://www.investopedia.com/university/quality-mutual-fund/chp6-fund-mgmt/#ixzz3s7RJoAUP

1.2 Annex B - Portfolio Diversification

Diversification is a technique that reduces risk by allocating investments among various financial instruments, industries and other categories. It aims to maximize return by investing in different areas that would each react differently to the same event. Most investment professionals agree that, although it does not guarantee against loss,diversification is the most important component of reaching long-range financial goals while minimizing risk. Here, we look at why this is true, and how to accomplish diversification in your portfolio.

1.2.1 Different Types of Risk

Investors confront two main types of risk when investing:

- Undiversifiable - Also known as "systematic" or "market risk," undiversifiable risk is associated with every company. Causes are things like inflation rates, exchange rates, political instability, war and interest rates. This type of risk is not specific to a particular company or industry, and it cannot be eliminated, or reduced, through diversification; it is just a risk that investors must accept.
- Diversifiable - This risk is also known as "unsystematic risk," and it is specific to a company, industry, market, economy or country; it can be reduced through diversification. The most common sources of unsystematic risk are business risk and financial risk. Thus, the aim is to invest in various assets so that they will not all be affected the same way by market events.

1.2.2 Why one should diversify

Let's say you have a portfolio of only airline stocks. If it is publicly announced that airline pilots are going on an indefinite strike, and that all flights are canceled, share prices of airline stocks will drop. Your portfolio will experience a noticeable drop in value. If, however, you counterbalanced the airline industry stocks with a couple of railway stocks, only part of your portfolio would be affected. In fact, there is a good chance that the railway stock prices would climb, as passengers turn to trains as an alternative form of transportation.

But, you could diversify even further because there are many risks that affect both rail and air, because each is involved in transportation. An event that reduces any form of travel hurts both types of companies - statisticians would say that rail and air stocks have a strong correlation. Therefore, to achieve superior diversification, you would want to diversify across the board, not only different types of companies but also different types of industries. The more uncorrelated your stocks are, the better.

It's also important that you diversify among different asset classes. Different assets - such as bonds and stocks - will not react in the same way to adverse events. A combination of asset classes will reduce your portfolio's sensitivity to market swings. Generally, the bond and equity marketsmove in opposite directions, so, if your portfolio is diversified across both areas, unpleasant movements in one will be offset by positive results in another.

There are additional types of diversification, and many synthetic investment products have been created to accommodate investors' risk tolerance levels; however, these products can be very complicated and are not meant to be created by beginner or small investors. For those who have less investment experience, and do not have the financial backing to enter into hedging activities, bonds are the most popular way to diversify against the stock market.

Unfortunately, even the best analysis of a company and its financial statements cannot guarantee that it won't be a losing investment. Diversification won't prevent a loss, but it can reduce the impact of fraud and bad information on your portfolio.

http://www.investopedia.com/articles/02/111502.asp#ixzz3s7Td86GU